The professionals' perceptions about the MOVE[®] curriculum approach

As percepções dos profissionais sobre a abordagem do Protocolo MOVE® Las percepciones de los profesionales sobre el abordaje del programa MOVE® Carolina Trombeta Reis¹, Maria Inês Rubo de Souza Nobre²

ABSTRACT | Classically, in Brazil, children with severe neurological impairment have been submitted to intervention methods focused on the improvement of the overall development in controlled clinical environments. However, it has been questioned if the isolated clinical treatment results in important gains in the child's performance in various environments (home, school, community). The Mobility Opportunities Via Education (MOVE®) program is a functional approach designed to assess and treat children with severe disabilities. The objective of this study was to understand the perception of the teachers and assistants regarding the MOVE® approach in a special education school in the city of Paulínia (SP). This research is a result of a qualitative case study conducted by using semi-structured interviews and categorical data analysis. With the application of the MOVE® program in the school, the professionals started having a more human view while taking care of the patients. The importance of motor learning in natural environments, more motivation in the children and improvement in their motor development were emphasized. MOVE® was efficient in the perception of the professionals, favoring more motivation in the children and a more human approach with children with motor disabilities.

Keywords | Evaluation of Results of Therapeutic Interventions; Motor Skills Disorders; Activities of Daily Living.

RESUMO I Classicamente, no Brasil, crianças com disfunções neurológicas severas vêm se submetendo a métodos de intervenção focados na melhora do desenvolvimento global em ambientes clínicos controlados. Questiona-se, entretanto, se o tratamento clínico de maneira isolada traz ganhos significativos às habilidades da criança em seus diversos ambientes (casa, escola e comunidade). O Programa Mobility Opportunities Via Education (MOVE®) é uma abordagem de avaliação e tratamento funcional para crianças com disfunções severas. O objetivo deste estudo foi compreender a percepção dos professores e monitores referente à utilização da abordagem do MOVE® em uma escola de educação especial na cidade de Paulínia (SP). Esta pesquisa é resultado de um estudo de caso qualitativo realizado por meio de entrevistas semiestruturadas e análise categorial dos dados. Com a aplicação do MOVE® na escola, os profissionais comecaram a ter uma visão mais humanitária ao lidar com os pacientes. Enfatizou-se a importância da promoção do aprendizado motor em ambientes naturais, maior motivação nas crianças e melhora do desenvolvimento motor destas. O MOVE® mostrou-se eficaz na percepção dos profissionais, favorecendo maior motivação das crianças e uma abordagem mais humanitária com crianças portadoras de disfunções motoras.

Descritores | Avaliação de Resultado de Intervenções Terapêuticas; Transtornos das Habilidades Motoras; Atividades Cotidianas.

RESUMEN I Clásicamente, en Brasil, niños con disfunciones neurológicas graves vienen someténdose a métodos de intervención orientados a mejorar el desarrollo general en entornos clínicos controlados. Se cuestiona, sin embargo, si el tratamiento clínico de forma aislada aporta beneficios significativos a las habilidades del niño en sus diferentes ambientes (hogar, escuela y comunidad). El Programa *Mobility Opportunities Via Education*

Correspondence to: Carolina Trombeta Reis - Rua Culto à Ciència, 407, Apto 42 - Botafogo - CEP: 13020-060 - Campinas (SP), Brazil - E-mail: caroltreis@hotmail.com Pesentation: Sep. 2013 - Accepted for publication: Feb. 2014 - Financing source: none - Conflict of interests: nothing to declare - Approval at the Ethics Committee No. 441/2009.

Study conducted at the *Centro de Estudos e Pesquisas em Reabilitação Professor Doutor Gabriel Porto* (CEPRE) from the *Universidade Estadual de Campinas* (UNICAMP) – Campinas (SP), Brazil.

¹Physical Therapist; Master in Health, Interdisciplinary and Rehabilitation by the UNICAMP - Campinas (SP), Brazil.

²Occupational Therapist; PhD in Biomedical Sciences; Professor at the CEPRE of the UNICAMP – Campinas (SP), Brazil.

(MOVE®) es un abordaje de evaluación y tratamiento funcional para niños con trastornos severos. El objetivo de este estudio fue comprender la percepción de los profesores y monitores en cuanto al uso del abordaje del MOVE® en una escuela de educación especial en la ciudad de Paulinia (SP). Esta investigación es el resultado de un estudio de caso cualitativo realizado por medio de entrevistas semi-estructuradas y análisis de datos categóricos. Con la implementación del MOVE® en la escuela, los profesionales comenzaron a tener una visión más humanitaria en el trato de los pacientes. Se hizo hincapié en la importancia de promover el aprendizaje motor en ambientes naturales, mayor motivación en los niños y mejora del desarrollo motor de estos. El MOVE® fue eficaz desde la percepción de los profesionales, lo que favoreció mayor motivación de los niños y un enfoque más humanitario con niños con disfunciones motoras.

Palabras clave | Evaluación de Resultados de Intervenciones Terapéuticas; Trastornos de la Destreza Motora; Actividades Cotidianas.

INTRODUCTION

Due to new concepts concerning the role of the nervous system (NS), the current rehabilitation aims at global motor control, disciplinary actions focusing at the functionality and the use of therapeutic targets focused on the patient and their family¹⁻³.

Based on the concepts of rehabilitation related to functionality, there was the development of methods and techniques of treatment for patients with neurological impairment; consequently, there was an enrichment of the programs related to the practice of physical therapy.

Currently, it is known that functional rehabilitation, as long as it is focused on goals and daily activities, causes the motor learning to occur in a more permanent way⁴. The therapeutic context should, therefore, emphasize functions and activities necessary in everyday life (such as eating, climbing onto the bus, going to the bathroom, getting from one place to another, among others), using them as opportunities for motor learning⁵.

The Mobility Opportunities Via Education (MOVE[®]) program is one of the tools for learning functional motor, consisting of a program of motor skills which emphasizes the learning in everyday life, especially at school, to getting really significant results for the child^{5,6}.

This program is focused on the evaluation and treatment of children with severe neurological impairment, defined as those which present severe physical changes, as they may also display intellectual, social or emotional disorders, among which are those with neurological impairment. The focus of the program are children who cannot sit down without support, who do not remain standing up without support and who do not walk without support^{5,6}.

The MOVE[®] began in 1986 through a pilot study with 15 students from a special education room at Blair Learning Center, California (USA), gaining recognition since then and having held its first publication by Linda Bidabe, in 1990^{5,6}. The MOVE[®] is still little known in Brazil, however, it is an innovative and internationally well-respected proposal, having its efficiency increasingly proven, and it is commonly used in both special education and regular schools^{7,8}.

For the MOVE[®] to be implemented in schools, it is necessary for the team to be coached by a professional organization recognized by the MOVE INTERNATIONAL[®] (with headquarters located in Bakersfield, California), which is responsible for certifying and empowering people in the program, both nationally and internationally.

The main objective of the study was to understand the perceptions of professionals regarding the use of the MOVE approach within the school context.

METHODOLOGY

This research is a qualitative case study approach. The qualitative research in Medicine and Public Health aims at a deep and not generalized analysis⁹. Qualitative case studies aimed at discovering, causing the researcher not to stick only to assumptions, but also to new elements during the study¹⁰.

In order to collect data, the semi-structured interview was used, which is headed by a script with some issues of concern which the researcher explores in his questions¹¹. In this type of interview, the interviewer presents topics that the interviewee should develop, with the possibility of, spontaneously, explaining an idea or an experience and its meaning^{10,12}.

Furthermore, the use of this type of interview is emphasized in studies focused on the perceptions, attitudes and motivations of individuals in relation to some specific matter, since they contribute to the development of affective and evaluative aspects of the interviewees¹³. In a phase prior to the interviews, a pilot study was conducted. The pilot study consists of previous interviews which allow the monitoring of the structure and the clarity of the script before applying the interviews to the subjects of the research¹⁴.

Research location site

The research was conducted in a special education school in the city of Paulinia (SP) attended by children with severe neurological impairment, with academic and therapeutic care. The institution also has monitors who perform the function of changing diapers, clothes, feeding, positioning and looking after the well-being of the children during the period they are in school. The vast majority of children attend school from 8 a.m. to 4 p.m., and usually students stay part-time in the classroom and in the other period in therapy or under the care of the monitors.

Selection of the participants

The researcher was the first Brazilian to receive training on the MOVE® program in the U.S.A, in 2006 and 2008, with the professionals Stacie Whinnery and Keith Whinnery, through MOVE INTERNATIONAL®, and received the certificates of MOVE Basic Provider, in 2006, and MOVE International Trainer, in 2008. Currently, she is enabled by the MOVE INTERNATIONAL® to internationally certify and train people in the program.

In 2008, the researcher trained the school professionals based on the ideology of MOVE and worked weekly with the pedagogues and monitors in the classroom, in order to apply the philosophy used in the method, in a project which was called School Physical Therapy.

Inclusion criteria

Pedagogues and monitors who attended the training and were involved with the School Physical Therapy Project which uses the MOVE® approach in the school of special education between the years 2008 and 2009.

Exclusion criteria

Professionals who, for whatever reason, were not linked to the chosen school during the period of the study, were excluded from the study.

Instruments and procedures for data collection and analysis

The study was conducted after the approval by the Ethics Committee of the School of Medical Sciences of the *Universidade Estadual de Campinas* (No. 441/2009). The Informed Consent was signed by the responsible in charge of the institution and by the professionals involved and the data collection was carried out in the last semester of 2009. Authorizations for the disclosure of image were requested to the responsibles for the school's students and to the subjects involved.

The training on the MOVE® conducted by the researcher in the school counted on the participation of 6 pedagogues and 12 monitors, forming the initial research universe of 18 subjects. One teacher did not participate on the research for no longer being connected to the school during the period of the study. The study sample consists of 17 subjects, with 2 pilot interviews (one monitor and one pedagogue) and 15 semi-structured interviews (11 monitors and 4 pedagogues) performed. After conducting the pilot interviews the necessary adjustments to the script were made and the 15 interviews were later transcribed and subjected to a process of categorical content analysis.

The categorical content analysis consists on the dismemberment of the speech into categories, in which the selection and boundaries criteria are guided by the size of the research issues related to the research object, identified in the speech of the studied subjects¹⁵.

After a thorough reading of the interviews, the selected categories were:

- Professionals' perception of the humanitarian aspects of health;
- Professionals' perception of daily life and social interaction;
- Contributions perceived through the application of the MOVE[®].

RESULTS AND DISCUSSION

Category 1: professionals' perception of the humanitarian aspects of health

At the start of the use of MOVE[®] in the U.S.A., the first positive results emerged from a different perspective of the professionals involved with children with neurological impairments, when therapists and teachers began to better meet the children, working with them in a more active way and began to associate the learning and teaching of motor skills¹⁶.

The MOVE[®] presents a philosophy based on the humanitarian aspects, focusing on the needs of each child, and it believes that children with severe disorders have complex needs, making it essential that they start being fully seen as people with unique characteristics and personalities⁶.

It is extremely important that humanization in health is re-signified, as the concern about the integrality, the needs of each individual, the quality of care and quality of life of patients promotes qualified service and the user's satisfaction. It is, therefore, critical that professionals recognize not only the disease, but that they are able to take care of a person as a whole¹⁷.

The MOVE aims to get everyone involved with children with severe impairment to have greater insight into their needs and to know how to deal with them best in everyday^{5,6,8,16}.

Some reports have shown that with the application of MOVE[®] in the school in Paulínia, the professionals realized the importance of understanding the children they work with, considering positive the fact of being more enlightened and of knowing how to deal best with them (Table 1).

Category 2: professionals' perception of daily life and social interaction

The limitations of children with neurological impairment may be observed in everyday life, as they cause significant problems in functionality, overall limitation in activities and in their opportunities to act in both physical and social environment, due to restrictions in participation¹⁸.

Since such limitations may include everyday tasks such as walking, running and climbing up stairs, a focused therapeutic approach in the adaptation of both the task and the environment becomes feasible, for emphasizing functionality in the environmental context of the child^{19,20}.

It is also believed that children learn best in environments and natural contexts, because these provide that they use their motor skills throughout the day in a functional way^{1,21}. Being a significant part of everyday life of the child, the school context is then considered to be one of the most important sites for the therapeutic action²².

Taking these factors into consideration, the MOVE[®] aims at formulating goals associated with the individual's participation in school and promoting meaningful activities to the child, which can easily be adapted according to the characteristics of each individual, causing them to train their motor skills at school and at home in most of the activities, with people who live with them on a daily basis^{5,23,24}.

In the reports of the interviews it was noticeable that, after going through the MOVE[®] training, professionals began to give importance to the stimulation of the learning of motor skills in daily life and during routine activities (Table 2).

Category 3: perceived contributions by applying the move

The MOVE® believes that motivation and repetition are key factors for motor learning. The inability of practicing

Table 1. Humanitarian aspects of health

Subcategories	Registry entries	Context entries
To undesrtand the children being worked with	Dealing	"Oh, it changed that then we learned more on how to deal with the children, right? How to deal and how it isoh, to take care too, right?it changed a lot" - Interview 3
Full view of the human being	Whole	"But it changed a lot, she did it, as, one thing. We work with the child as a whole, right? Arms, legs, smile, you know, then, it brought a lot of really good stuff" – Interview 9
Worry with the quality of life of the patients	Life	"A better quality of life for the children and we learn much more as a professional" - Interview 9 $$

Table 2. Everyday routine and social interaction

Subcategories	Registry entries	Context entries
Importance of stimulating motor skills on daily basis	Stimulation	"and today you see that with a pencil you can stimulate a child, you, a paint, that's it right? A hug, shaking hand, stimulating the child to see you, right? And to see what happens around them." - Interview 14
Importance of motor learning within the different everyday environments	Environment	"To think they have to stay only on their chair, no, to provide other spaces, other environments that we didn't have this perception before and that was transmitted, I believe, through the MOVE." - Interview 1

Subcategories	Registry entries	Context entries
Higher motivation to perform pedagogical and motor activities	Motivation	"I notice as soon as they get more motivated to do the activity when we are using the MOVE" - Interview 15 $$
Motor skills evolution	Accomplishing	"a child who could not eat alone, now they can eat, feed themselves, take 2 steps and now take 10 steps or walk, right? The whole school patio, and then you see this difference, a show, right? A child who was extremely rigid, now they can let themselves go" - Interview 14

motor skills without help may impair learning, because, in addition to demotivating the child, it may cause them not to have possibilities to use their skills frequently nor to explore the environment around them. One of the main advantages of such protocol is that it provides motivation for students, by enabling the practice of motor tasks to be part of the child's daily life routine^{5,6}.

Table 3. Contributions to the MOVF

It is known that the patient's motivation is crucial in the rehabilitation process and that it is directly related to the success of the treatment, being vital that therapists consider the motivation of patients because, when patients are motivated, the participation in treatment and the acceptance of what is being proposed is greater^{25,26}. Moreover, the motivation is considered a key factor during therapy, since the child's will directs them towards using their full potential of motion, exploring their environment and becoming informed about their own body²⁷.

From the analysis of the reports of the interview, it became very clear that one of the best contributions that professionals noticed after application of the MOVE[®] in the institution was that children have come to like their pedagogical and motor activities better and felt more motivated to participate in classes. Furthermore, it was possible to perceive that the professionals have observed improvement in motor skills of the children after the start of the use of the MOVE[®] (Table 3).

CONCLUSION

Through this research it was possible to understand the opinion of the professionals involved regarding the use of the MOVE[®] approach in the institution and to check which contributions were perceived by them as to the acquisition of functional motor skills by the students after using this approach.

It could be observed that the application of the MOVE® in the institution has brought many gains relating to a more humanitarian view by the professionals, dedicated to the students' quality of life and to a full vision of the human being. With the implementation of the MOVE[®] in the school, professionals began to worry to stimulate motor learning in daily life and started to notice gains in motor skills of the children as well as greater motivation by these pedagogic and motor activities.

It is not ruled out that it is essential to carry out further studies which assist in this adaptation and promote the effectiveness and efficiency of the program in the search for greater functionality and quality of life for children with severe impairment.

REFERENCES

- O'Sullivan SB, Schmitz TJ. Fisioterapia: avaliação e tratamento. 5ª ed. São Paulo: Manole; 2010. p.1506.
- Shumway-Cook A, Woollacott MH. Controle motor: teoria e aplicações práticas. 3ª ed. São Paulo: Manole; 2010. p.632.
- Wiart L, Ray L, Darrah J, Magill-Evans J. Parents' perspectives on occupational therapy and physical therapy goals for children with cerebral palsy. Disabil Rehabil. 2010;32(3):248-58.
- Löwing K, Bexelius A, Carlberg EB. Goal-directed functional therapy: a longitudinal study on gross motor function in children with cerebral palsy. Disabil. Rehabil. 2010;32(11):908-16.
- Bidabe L. MOVE: Mobility opportunities via education. 7th ed. Bakersfield: Kern County Superintendent of Schools; 2003. p.286.
- Thomson G. Children with severe disabilities and the MOVE curriculum: foundations of a task-oriented approach. Chester: East River Press; 2005. p.286.
- Barnes SB, Whinnery KW. Effects of Functional Mobility Skills training for Young Students with Physical Disabilities. Except Child. 2002;68(3):313-24.
- 8. Barnes SB, Whinnery KW. Mobility Opportunities Via Education (MOVE): Theoretical Foundations. Phys Disabil. 1997;16(1):33-46.
- Ware NC, Wyatt MA, Geng EH, Kaaya SF, Agbaji OO, Muyindike WR, et al. Toward an Understanding of Disengagement from HIV Treatment and Care in Sub-Saharan Africa: A Qualitative Study. Plos Med. 2013; 10(1):01-10.
- Antunes HM; Campos CJG. Pais e responsáveis do adolescente deprimido: Buscando conhecer experiências que levam à procura do atendimento especializado. Rev Esc Enferm USP. 2007; 41(2):205-12.
- 11. Gil AC. Como elaborar projetos de pesquisa. 5ª ed. SP: Atlas; 2010. p.184.
- Rubin HJ, Rubin IS. Qualitative interviewing: The art of hearing data. 3rd ed. Thousand Oaks: Sage; 2012. p.288.
- Selltiz C, Jahoda M, Deutsch M, Cook S. Métodos de pesquisa nas relações sociais. São Paulo: EPU; 1974. p.687.

- Triviños ANS. Introdução à pesquisa em ciências sociais: a pesquisa qualitativa em educação. São Paulo: Atlas; 1987. p.175.
- 15. Bardin L. Análise de conteúdo. 5ª ed. Lisboa: Edições 70; 2009. p.281.
- Barnes SB, Whinnery KW. Move: hope for people with significant motor disorders. Except Par. 2004; 34(9):68-71.
- 17. Silva ID, Silveira MFA. A humanização e a formação do profissional em fisioterapia. Ciênc Saúde Coletiva. 2011;16(1):1535-46.
- Carvalho ENS, Maciel DMMA. Nova concepção de deficiência mental segundo a American Association on Mental Retardation-AAMR: sistema 2002. Temas Psicol. 2003;11(2),147-56.
- Harvey A, Robin J, Morris ME, Graham HK, Baker R. A systematic review of measures of activity limitation for children with cerebral palsy. Develop Med Child Neurol. 2008;50(3):190-8.
- 20. Darrah J, Law MC, Pollock N, Wilson B, Russell DJ, Walter SD, et al. Context therapy: a new intervention approach for children with cerebral palsy. Dev Med Child Neurol. 2011;53(7):615-20.
- 21. Tieman BL, Palisano RJ, Gracely EJ, Rosenbaum PL. Gross motor capability and performance of mobility in children with cerebral palsy: a comparison across home, school, and outdoors/community settings. Phys Ther. 2004;84(5):419-29.

- Jorqueira Neto AC, Blascovi-Assis SM. Contribuições do fisioterapeuta na inclusão escolar de alunos com deficiência sob a perspectiva do brincar. Cad Pos-Grad Dist Desenv. 2009;9(1):76-91.
- 23. Whinnery K. Mobility training using the MOVE curriculum: A parent's view. Teach Except Child. 2002;34(3),44-50.
- 24. Elkins KM. A Comparison Between the Achievement of Students With Severe Multiple Disabilities Using a Functional Mobility Curriculum Versus Traditional Programs [Dissertation]. La Verne: University of La Verne; 1994.
- 25. Vong SK, Cheing GL, Chan F, So EM, Chan CC. Motivational enhancement therapy in addition to physical therapy improves motivational factors and treatment outcomes in people with low back pain: a randomized controlled trial. Arch Phys Med Rehabil. 2011;92(2):176-83.
- Schuler T, Brütsch K, Müller R, van Hedel HJ, Meyer-Heim A. Virtual realities as motivational tools for robotic assisted gait training in children: A surface electromyography study. NeuroRehabilitation. 2011;28(4):401-11.
- 27. Whinnery SB, Whinnery KW. MOVE: Systematic Programming for Early Motor Intervention. Infants Young Child. 2007;20(2);102-8.