

*The Dynamics Of A Therapeutic
Dance/Movement Intervention For
Individuals With TBI: Comparison With
Physical Therapy Using Laban
Movement Analysis (LMA)*

Presentation By

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Purpose of Project

The focus of this study was to gain a better understanding of the dynamics of a therapeutic dance/movement-based intervention for individuals with TBI by comparing it to conventional physical therapy. Physical therapy, given its longevity in providing rehabilitation services, afforded a means by which to more systematically explore dance/movement.

Methodology

Through the lens of a Certified Movement Analyst (CMA), clinician analyzed five individuals with TBI as they participated in five weekly therapeutic dance/movement sessions and five physical therapy sessions. Laban movement Analysis (LMA) was used as the observation and analytic tool for elucidating similarities and differences between the two interventions in relation to the case studies. Sessions were videotaped and analyzed using LMA language and symbols for comparison.

Laban Movement Analysis (LMA)

- Originated from Rudolf Laban and Irmgard Bartenieff's pioneering work in movement research in the 1800 and 1900s.
- LMA is a systematic approach to observing, describing, and analyzing quantitative and qualitative changes in human movement through Body, Effort, Shape, and Space (BESS)
- LMA provides a comprehensive language and analytic framework for describing and recording human movement

LMA Language

Body, Effort, Space, and Shape (BESS)

Body

Body describes the action of the torso and limbs by observing body attitude, whole body and body part movement and developmental patterns

- Body Attitude – BESS baseline – general and specific impression of maintained or constantly recurring postural characteristics
- Whole Body – Homologous, homolateral, contralateral, trunk/limb relationship, posture gesture merger
- Use of Body Parts – carriage, gesture vs. support, body part awareness, limb relationship, center of gravity
- Developmental Patterns – neural radiation, spinal, breath support and phrasing, core support, weight shift, spatial intent

Effort

Effort describes how the body concentrates its exertion as the body changes in its quality of movement through Time, Weight, Space, and Flow.

<u>Effort</u>	<u>Induging</u>	<u>Condensing</u>
Space	Indirect	Direct
Weight	Light	Strong
Time	Sustained	Quick
Flow	Free	Bound

Space and Shape

- *Space* describes the location, amount and symmetry of the external space one uses during movement which includes space harmony, one's outer architecture, and one's kinesphere
- *Shape* describes the movement of the body's internal components in supporting or influencing external activity such as with one's inner architecture, shape flow, directional movements, and shaping qualities

Movement Themes

- Inner/Outer
- Exertion/Recuperation
- Mobility/Stability
- Function/Expression

Summary of Findings

The physical therapy intervention worked on body level connectivity and single joint action movement from a Body perspective. In comparison, the dance/movement-based intervention incorporated the dynamics of Effort-Life, change in Shape, and Spatial Intent and Spatial Pathways, providing the spectrum of Body, Effort, Space, and Shape (BESS) components in harmony with the Movement Themes: Inner/Outer, Exertion/Recuperation, Function/Expression, and Mobility/Stability. The dance/movement-based intervention imparted an integrative mind-body approach to learning about one's Inner and Outer self and one's ability to cope with and connect with one's environment.

Summary of Findings and Conclusions

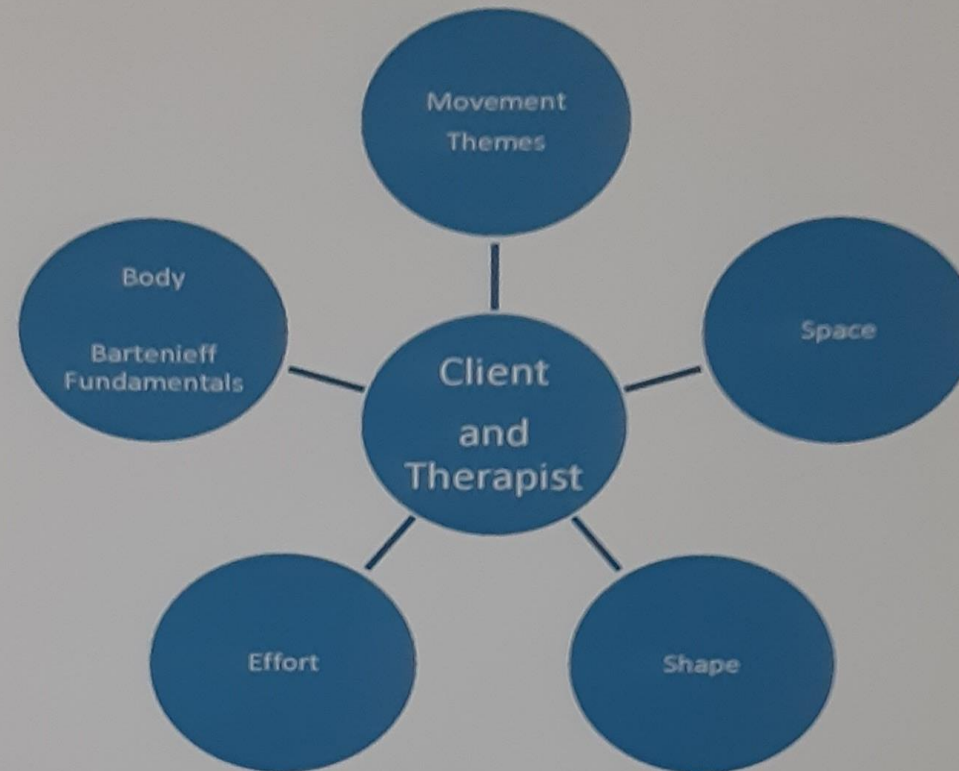


Figure 1. Thematic of LMA used in recording client observations during physical therapy and dance/movement sessions

(Re)Learning from a Bodily-Kinesthetic Approach

- Historically, treatment interventions for individuals with TBI have concentrated on the physical, cognitive, and behavioral efforts resulting from injury through the provision of physical, occupational, and speech therapies.
- Much less focus has been placed on integrating all these domains and including the psycho-social needs of individuals with TBI to create an integrative mind and body approach to rehabilitation.
- Unlike conventional treatments, DMB therapy is an approach that combines all these domains and integrates the mind-body.
- Kinesthetic learning is an important treatment modality and is known to be developmentally more basic and central to life than other inroads.

Dance/Movement-Based Intervention As A Learning Tool

- Brain-muscle communication is fundamental for sensory-motor function and is critical to the physical, cognitive, and psycho-social restructuring after a brain injury occurs.
- Our whole being which includes our physical, cognitive, and psycho-social framework efforts effects each other, whether under normal or pathological conditions (Berrol, 1990).
- We learn about ourselves and the world around us through our bodies (Piaget & Inhelder, 1969).

Benefits Of A Dance/Movement-Based Intervention For Individuals With TBI

- Post TBI, an individual's sense of self is often altered requiring an integrative mind-body approach to aid in (re)discovering a sense of self and connection with the environment.
- A dance/movement-based intervention employs and promotes a creative and expressive technique/treatment modality to assist individuals with learning about their capabilities and areas to improve upon
- Its process encourages individuals movement experiences from a functional and expressive perspective



Implications

Addressing the comprehensive needs of individuals with TBI is an on-going concern in rehabilitation as well as evaluating the efficacy of conventionally used therapeutic modalities. A dance/movement-based intervention has not been an integral part of these services, however, this study demonstrated its potential for us in TBI rehabilitation as well as the benefits of treating the whole self as part of the integrative human experience.

There is a substantial need to foster rehabilitation services that promote an integrative approach such as the dance/movement intervention presented in this study. The study provided evidence to suggest that dance/movement is a valuable therapeutic modality for individuals with TBI. As rehabilitation professionals, we need to be progressive and creative in our efforts to develop and implement services that assist individuals with rediscovering themselves and connect with the world around them.

Contributions To TBI Rehabilitation

Knowledge was added to the current literature at an opportune time in the TBI rehabilitation field. Professionals are recognizing the need to change current assumptions about the essential aspects of treatment and seek other non-conventional medical model approaches to rehabilitation. This study offers a therapeutic modality that has the potential for meeting this need and resonates with the current literature recommending the need for rehabilitative approaches that expand beyond the medical model of service delivery. We need to further study the dance/movement-based intervention to investigate and understand its broad-based efficacy in rehabilitating individuals with TBI. Expanding the use and application of LMA as a potential analytic tool would be equally meaningful.