

DEVELOPMENT OF AN INSTRUMENT FOR OBSERVATION IN DANCE MOVEMENT THERAPY (DMT)

Graciela Vella¹ and Elena Torres Solera²

¹Escuela de Formación. ²Gerencia de atención primaria de Mallorca

Dance movement therapy (DMT) is based on the therapeutic use of movement. One of the existing problems is the lack of objective evaluation tools to measure the emotional behaviors of movement. Objective: to develop an observation tool in Spanish to assess movement behaviors related to the dimension of interpersonal relationships. Method: a literature review was carried out of the coding systems used in DMT, the scale dimensions were defined, a preliminary construction of the observation tool was produced and a pilot test was run with a group of mental health patients. Results: three main outcomes were established in the therapeutic session (interpersonal relationships, use of space and participation) with 29 items being applied to the group using quantitative and qualitative measures. Conclusions: this observation tool allows us to make an objective evaluation of the results, to perform an assessment before, during and after the treatment and to write a report for each session.

Key words: Dance movement therapy, Observation tool, Psychotherapy, Movement.

La danza movimiento terapia (DMT) se basa en el uso terapéutico del movimiento. Una de las problemáticas existentes es la escasez de herramientas para observar de manera objetiva las conductas emocionales del movimiento. Objetivo: desarrollar una pauta de observación en castellano que permita evaluar las conductas del movimiento relacionadas con la dimensión de relaciones interpersonales. Método: se hizo una revisión bibliográfica de los sistemas de codificación más empleados en DMT, la definición de las dimensiones, una construcción preliminar de la escala y por último, una evaluación piloto con un grupo de pacientes de salud mental. Resultados: se establecieron tres variables (relaciones interpersonales, utilización del espacio y la participación) con 29 ítems evaluados durante la sesión terapéutica que permiten su aplicación en grupo y con medida cualitativa y cuantitativa. Conclusiones: Este instrumento permite objetivar resultados, hacer una valoración inicial, durante y al final del tratamiento y la redacción de la memoria de cada sesión.

Palabras clave: Danza movimiento terapia, Instrumento de observación, Psicoterapia, Movimiento.

Dance Movement Therapy (DMT) is an integrated psychotherapy within the creative arts. Its therapeutic purpose is the psychophysical integration of the individual based on the methodological foundation of psychotherapies (Meekums, 2002; Rodríguez, 2009; ADMTE, 2001), theories of nonverbal communication, psychodynamic theories, observation systems and motion analysis (San Pedro Santana, 2009). DMT is based on one of man's oldest means of therapeutic expression: dance and expressive movement (Cruz, 2006).

The basic premise of DMT is the constant interaction between the body and the mind. In DMT, the main tool is the body and its language (movement). Specifically, this approach determines the body as a means of connecting with the world and movement as communication and the fundamental expression of a person's inner will: a primary manifestation of his life (Cruz, 2006). Therefore,

this technique explores the connection between movement and emotion (Reich, 1949; Bernstein, 1975; Navarre, 1982; Rossberg-Gempton & Poole, 1992; Payne, 2006).

DMT differs from other body therapies in that it is not pedagogical; it does not teach patients to modify their movements but instead it works from the spontaneous movement of the individual. It suggests self-exploration through both physical and verbal indications (Saskia, 2007). It stimulates the release of feelings, communication and non-verbal contact (Espenak, 1981) and it can be applied individually or in groups, to any population (ADTA, 1999)

Movement is the practitioner's means of observation, analysis and intervention. It is produced immediately, in a short time, and it involves a multitude of factors. Observation as a method is a systematic, valid and reliable record of annotation of behavior or manifest behavior that has a number of advantages.

The general structure of the observation is characterized by the description of observable behaviors (criteria) and their subsequent registering for evaluation. The evaluation

Correspondence: Elena Torres Solera. Gerencia de atención primaria de Mallorca. Reina Esclaramunda 9. 07003 Palma. España.
E-mail:elenatorres@ibsalut.caib.es



of the patient in the course of this psychotherapy should be an individual continuous (dynamic) process, through which the professional makes an appraisal of the therapy, the patient's progress and their personal situation. It should be possible to register the assessment from within the room, with the main instrument being direct "participative" observation, meaning that it is a concept which involves the psychotherapist in an active and dynamic way (Labrador, 2004).

One of the objectives of the evaluation is to have a written reflection of the individual progress of each patient in order to gain a progressively clearer perception of the changes that occur during the therapeutic process.

From these data, certain behaviors will also appear that are characteristic of each variable. Behavior is segmented according to specific criteria, the units are defined in reference to specific codes and language, and the interpretation of the situation is transcribed in a defined register (Izquierdo, 2000).

Due to its nature as an arts therapy, there is a lack of systematic evaluation in DMT. This increases the difficulty of demonstrating objective results. DMT has a predominance of qualitative research with small samples or case studies in which dance therapists describe phenomena observed in a therapeutic setting without using specific observational tools. Although there are few quantitative studies (and none in Spain) that assess its effectiveness (Xia, 2011, Ritter, 1996), the literature suggests that DMT with patients with schizophrenia or other serious psychological disorders increases communication skills, interpersonal contact and enjoyment of the activity (Chace, 1953; Sandel, 1980; Saskia, 2007).

These difficulties, which are common to all art-based psychotherapies, have been a point of reflection for various dance therapists (Burton, 2009). Fifty years after the first appearance of Laban's motion analysis system, one of the initial problems still occurs today: how can we observe emotional behaviors of movement objectively and specifically and how can we describe them with a specific vocabulary? Why are the observation records most used in DMT not used to show the progress of patients and the efficacy of this psychotherapy?

The existing systems are broad and include many dimensions to observe. Using them in their entirety requires the assistance of an external observer or sessions to be recorded. Therapists need comprehensive training to be able to implement this therapy, so it cannot be

applied by just any practitioner who wants to observe movement behavior.

In this context, we propose to develop a simple observation tool in Spanish, to assess movement behaviors related to the dimension of interpersonal relationships.

MATERIAL AND METHODS

For the development of the observation tool or 'DMT observation questionnaire', we have used a process consisting of four phases: 1) a literature review of the most commonly used observation scales in DMT; 2) a definition of the dimensions; 3) a preliminary construction of the instrument and 4) its practical application in a group of patients with severe mental pathology, mainly paranoid schizophrenia.

Literature review of the scales/methods of observation in DMT

The coding systems used to interpret body movement have been created according to specific purposes.

As such, Rudolf von Laban developed a system that is capable of observing and analyzing any visible movement, Laban Movement Analysis (LMA), based on four general principles of movement: mobility/stability, functionality/expression, effort/recovery, interior/exterior and five basic concepts: body, effort, space, shape and the relationship established between them (BESS-R). It includes a specific language (Barbara, 2008). Laban created a system of symbols (Labanotation), in English, applicable to all populations, permitting us to record changes that occur in movement and to describe them qualitatively and quantitatively (Laban, 2006).

Additionally, the Barternieff Fundamentals are known as a body re-education system. They are based on Laban's theory, kinesiology and the phases of motor development. Barternieff created her Fundamentals according to nine basic principles (breathing, core support, spatial intent, weight transference, dynamic alignment, initiation and sequencing of movement, developmental patterning, rotary factor and effort intent). The main objective is to achieve correct use of movement, working the relationship between the body and the voice, to promote physical and mental health through a variety of exercises and physical movements with the ultimate goal of re-educating and re-designing the body to where it was before the trauma, injury and/or pain. Movement is considered as a constantly changing process that reflects the personality of



the individual (Bárbara, 2008). Barternieff did not create a scale to represent visually the results observed.

Subsequently, Judith Kestenberg designed an instrument applicable to children and adults: the KMP (Kestenberg Movement Profile). Kestenberg's movement profile combines a psychoanalytical perspective and features of Laban's movement analysis. It evaluates movement patterns in relation to their natural dynamics as indicators of intrapsychic health. It contains eight categories: tension flow rhythms, tension flow attributes; pre-effort, effort, bipolar flow, unipolar flow; shaping in directions and shaping in planes (Loman, 2008) representing two lines of development. System I (tension-flow/effort), focused on the evolution of patterns in relation to the inner reality of the individual. System II (shape-flow/shaping) a line of development that explains the relationship with space and objects (Cross & Kogh, 2004). The KMP can be represented graphically. Including both systems, up to 120 factors of different movements can appear (through 29 polar dimensions). The diagrams are complicated to understand and to describe in detail due to the multitude of dimensions shown.

Finally, another tool aimed at observing movement is the MPI, Movement Psychodiagnostic Inventory, designed by Martha Davis to measure involuntary movement disorders that occur in patients with schizophrenia and other mental disorders. It is not validated for adults without pathology or children (Cruz & Kogh, 2004). The observation mapping is a continuous line from no movement to excessive movement. Thus, using the MPI (Davis, 1991) it is possible to distinguish and discriminate between movement patterns that are typical amongst patients with schizophrenia and other disorders.

Definition of dimensions

The dimensions of the observation tool were created from a review of the most used observation systems in DMT specified in the previous section, the characteristics of the disorder of schizophrenia described in the DSM-IV, some of the concepts of Laban's movement analysis and the methodology of Marian Chace (Cruz & Kogh, 2004).

The observation tools published to date have been created to describe movement in its entirety, with a wide range of dimensions, and consequently the presence of an external observer is needed to complete them and sessions must be recorded for later analysis.

On the other hand, one of the proven benefits of DMT is an improvement in communication skills, and interpersonal

relationships are one of the difficulties in the disorder of schizophrenia. Given these two premises, it was agreed to develop a simple instrument, focusing on one single dimension that the therapist can apply after each therapy session.

Thus, the dimension of interpersonal relationships was broken down into three sub-dimensions: a) the relationship with others in the therapeutic space; b) the use of personal and social space, and c) the verbal and nonverbal participation of the individual.

a) Relationship to others, understood as the participation of the individual within the group from the moment of arrival until the subject leaves the therapeutic space.

Body and movement are key aspects for structuring the subject (Winnicott, 2002). The human being's capacity to move begins when it is a fetus in the womb, protected from the outside world. At birth, its body develops movements that allow it to ease out of its spherical shape, to begin to unfold its legs and arms away from the center of the body until it can stretch and begin to see the outside world. Humans utilize broader, more complex and defined bodily actions once they acquire a clear conception of space, awareness of gravity and muscle strength. Emotional growth and development is related to the human need to expand and explore the use of the body in relation to space (Anfusso, 2009).

In Dance Movement Therapy the practitioner is involved in the process facilitating what Buber (1977) calls an I-Thou encounter, in a horizontal relationship between therapist and client.

Eye contact between doctor-patient and patient-group is one of the important points in DMT because it confirms the existence of the individual. As J. P. Sartre states: "eye contact is what makes us real and directly aware of the presence of another person as a human being who has his own consciousness and intentions" (Davis, 1989). Both the eyes and eye contact are a bridge for communication and building connections.

Dance Movement Therapy sessions usually begin in a circle: a potential space of interaction in which all share a common task, while at the same time being different from one another.

The circle is an emotional support that encourages individuals to take their first exploratory activities of movement as a way of implementing a primitive curiosity to discover the world. The circle is led by the practitioner, who encourages the action and interaction at both the individual and group level.



Everything to do with a birth is marked by skin-to-skin contact. The situation is repeated in any close relationship between people: each occurrence of a kiss, hug or a caress to share intense feelings of love, joy, fear or pain.

The hand is the primary instrument of touch. It contains more tactile corpuscles than any other body part. Therefore, touching is mainly a function of the hand, but it is not a mechanical operation. In human terms, to touch is to feel the contact with another person. "To be in contact" means to have a relationship with someone (Stern, 1991).

- b) Use of space: the relationship of the individual with the personal and social space.

The space is the real, physical environment that surrounds the individual and locates it in relation to where it is in the outside world. The kinesphere determines the personal space of action, thought, feeling and movement of an individual. Laban mentions: "All movement takes place when moving the body or parts of the body from one spatial position to another. Whether the body moves or is still, space surrounds it. Around the area of the body is the sphere of movement or kinesphere, constituting the personal space of the individual. Outside the boundaries of this area is the social or general space which the person can only enter by moving away from the original position" (Laban, 2006).

The individual must transfer its own kinesphere to other spaces to discover the social and connective world. Moving the upper limbs away from the center to the periphery of the body is the beginning of the interaction with the environment. When we move, we create relationship changes with something: an object, a person, or even parts of our own body, and physical contact can be established with any of these.

People express themselves through movement, the voice, eyes and words. Blocking or interrupting any of these channels of expression weakens and fades emotion.

- c) verbal and nonverbal participation: verbal and non-verbal expression of the individual.

Verbal language has its roots in proprioceptive sense, i.e., as Sandor Rado says, body language is the basis of speech (Lowen, 1977). Communication is primarily sharing with others the experiences and reactions that our body has in the situations and events of life. The expression of self is projected to the outside through

gestures, postures and movements. We can communicate different emotional states, such as sadness, joy, shame, apathy, indifference and curiosity.

Words are the storehouse of experience. They function on a cultural level because studying history without the aid of written or spoken words would be a superhuman task. Words serve the individual in the same way as they serve society. The history a person has lived is in his body but his conscious history is in his words. If a person has no memory of their experiences, they will lack words to describe them. But if they remember their experiences, they will express them in spoken or written words. Once the memory is translated into words, it becomes an objective reality (Davis, 1989).

But it is the nonverbal experiences that can construct a different version of the same event.

Words are a means of exchange and of new possibilities of being with others but they cannot reflect all of our experiences, emotions and feelings. Feeling and experiencing are important factors because without them words are empty.

Preliminary Construction of the instrument

The data collection tool is characterized generally by presenting a preliminary observation component and then another interpretation of the data according to the various behaviors that characterize the DMT sessions and psychotherapy work with patients with mental health problems.

To obtain a clearer reading, it was proposed to evaluate the different sub-dimensions at three different moments in time.

Our proposed observational record is based on the session structure often used in psychotherapy. Specifically, in relation to the theories of DMT, we have taken as a reference the psychotherapy session structure and working methods of Marian Chace (Cruz & Kogh, 2004). This precursor proposed a system of group therapy that uses movement and dance as the predominant mode of interaction, communication and expression, organized into three parts:

1. Beginning (called warm-up)
2. Middle (or development of the subject)
3. End (closure)

Thus the observation tool will be applied in these phases and the three dimensions will be evaluated, taking into



consideration the style of intervention and the objectives of each dimension. These stages that define the moment of evaluation can be outlined in detail as follows:

✓ **In the warm-up stage**, the initial contacts, defined as the individual’s relationship with the practitioner and their participation and inclusion with the other participants, are observed. This stage also includes the initial formation of a circle (group circle), when the first formal (verbal and physical) movements of the session are established.

Key points for observation in this stage include everything related to the greeting, the inclusion in the group circle and participation in the circle.

✓ **The development stage of the session:** after the warm-up phase has begun, in which the subject makes direct contact with their own body, the session continues with the proposals outlined by the practitioner. These will vary depending on the objectives set and the state of the group. During this part of the session, work can occur in the individual’s own space (individually, without interaction with others, constructing and maintaining their own kinesphere) or in shared spaces (in communication with others).

At this stage the evaluations focus on everything related to the use of space, interpersonal interactions and remaining in the therapeutic space.

✓ **The closing of the session** includes the entire process of completion of the psychotherapeutic session. Clo-

sure is carried out through a feedback round (physical and/or verbal) and a small closing ritual, saying goodbye until the next session. At this stage the evaluation of participation, verbal and non-verbal communication is important.

Therefore, a preliminary construction of the tool was made, which identified the three sub-dimensions with their distinct items throughout the three stages of DMT sessions. A summary is shown in Figure 1.

Practical application in a group of patients with severe mental illness

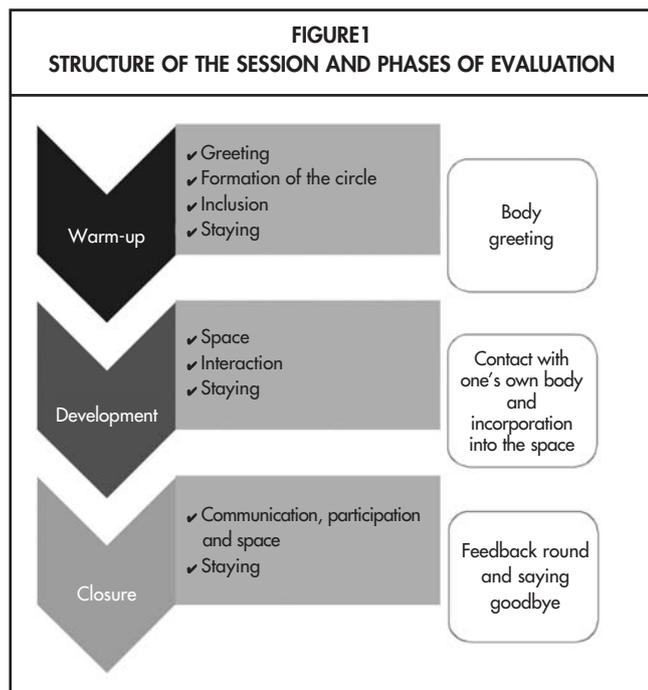
The treatment was applied for six months to a mental health group. All participants were adults diagnosed with serious mental illness in the stable phase. The group took part in one session every week for 21 weeks. All sessions were recorded to facilitate the validation of the tool.

A data collection file was created in which each sheet reflected the following details: the date, session number, items to be evaluated and the patients. In order to test the feasibility, in each session, the dance therapist had a copy with an observations section to fill out at the end of the session.

The evaluation process involved two external observers, one of them in situ and another subsequently reviewing the session. Detecting the discrepancies between the two, we were able to better define the items and create the explanatory notes. The item “therapeutic space” was also added in the three stages of evaluation, since some patients left the space during the sessions without giving prior warning.

The results of the practical application of the observation tool allowed us to observe small changes in the patients’ progress, especially in communication with the practitioner (eye contact and expansion of greeting), group members (transfer of the kinesphere, use of different spaces, body distance and acceptance of proposed interactions among three or more members) and verbal and non-verbal expression at the end of the session (expanded participation).

Once the results were obtained and the discrepancies clarified, the same sub-dimensions were used but with more defined items, so that the therapist could use them with each patient after a group session. In general, no type of annotation was made by the practitioners during the sessions of dance movement therapy. Thus the presence of an outside observer would not be necessary to assess the behaviors, although this would be preferable





in order to avoid subjectivity. The observer would require prior training.

Using the same characteristics, the movement behaviors of any population can be observed and recorded. It is a simple instrument and it is useful for, amongst other things, writing reports and objectively justifying the progress and setbacks of patients.

RESULTS

This tool that we have called "inter-DMT" is based on a series of observable behaviors (described in the recording sheet) which are classified according to whether they are present or not (YES/NO). The tool consists of 29 items, divided into 3 blocks, which correspond with the parts of a standard DMT session. Each phase contains different blocks that evaluate the three sub-dimensions. Table 1 shows the inter-DMT together with the clarifications.

The initial contact phase includes 5 blocks and 11 items: **Block I: Greeting.** In this block (items 1 to 5) the individual's relationship with the practitioner is observed and evaluated. The items included in this section enable us to evaluate and analyze the first stages of communication and interaction with others.

Block II: Inclusion. The relationship with others is observed and evaluated (items 6 and 7).

Block III: Participation. The relationship with others is observed and evaluated (items 8 and 9).

Block IV: Staying. The relationship with others is observed and evaluated (item 10). The individual's voluntary staying in the therapeutic space is observed and evaluated.

Block V: Evaluation (item 11). Responses for each item are evaluated overall with a facilitating or positive aspect where responses are scored with a "yes", participants are *spontaneous* and *remain* in the group, and a negative or difficult aspect with responses scored with "no", and participants *requiring assistance* or *withdrawing* from the group.

The developmental stage of the session consists of 4 blocks and 12 items:

Block I: Space (items 12 to 16). The relationship with others is observed and evaluated in terms of utilization of space.

Block II: Interaction. Behaviors towards others are observed and evaluated in terms of the proposed interaction (items 17 to 21). The individual's initiative towards others and the individual's responses to the

interaction proposals made by the practitioner are evaluated.

Block III: Staying (item 22). The individual's voluntary stay in the therapeutic space is observed and evaluated.

Block IV: Evaluation (item 23). The responses for each item are evaluated and include a facilitating or positive aspect where responses are scored as follows: *smile, eye contact, gestures, movements, response, no response, interactions of two people, three people, more than three people, intimate, personal, social* and *staying*. There is also a negative or difficult aspect, with *yes / no responses* and *withdrawal*.

The closing phase of the session consists of 3 blocks and 6 items.

Block I: Communication, participation and space (items 24 to 27).

Block II: Staying (item 28). The individual's voluntary stay in the therapeutic space is observed and evaluated.

Block III: Evaluation (item 29). Responses for each item are evaluated and include a facilitating or positive aspect where responses are scored with a *yes, ample verbal* and *stays*. The other negative or difficult aspect has the responses *no, reduced verbal, nonverbal* and *leaves*.

DISCUSSION

Movement is more than a sum of factors. It should be understood in its entirety, as a set of behaviors that occur in a variable context. Observing movement is a task that requires a structure and systematization in order to be able to photograph specific moments and compare progress in different phases of the individual.

In recent years a number of specific instruments have been proposed for use in dance movement therapy. All of these have been produced in English and in reference to the Anglophone culture and contexts. There is currently no validated observational tool for application in Spanish in dance movement therapy sessions. This tool has been created for use in Spain; the cultural context of the group or individual must be taken into account if using this observation tool.

This is the result of an exhaustive analysis of one of the points that make up human behavior and one of the difficulties that characterize the disorder of schizophrenia: interpersonal relationships.

It is intended as an instrument to facilitate the observation, analysis and subsequent intervention by the practitioner in therapeutic sessions; it is a guide to corroborate the progress and/or setbacks experienced during treatment, as well as to



**TABLE 1
OBSERVATION TOOL: INTER- DMT**

TABLE 1 OBSERVATION TOOL: INTER- DMT				
Initial contact				
Block I: Greeting				
1. Greets the practitioner	Yes		No	
2. Verbal greeting	Yes		No	
3. Maintains eye contact during greeting	Yes		No	
4. Responds to the expansion of the greeting	Yes		No	
5. Includes body contact during greeting (*)	Yes		No	
Block II: Inclusion				
6. Joins the group	Yes		No	
7. Mode of inclusion (*)	Spontaneous		With help	
Block III: Participation				
8. Shows interest in participating in the circle (*)	Yes		No	
9. Accepts hand contact with others (*)	Yes		No	
Block IV: Staying				
10. Therapeutic space (*)	Stays		Leaves	
Block V: Evaluation				
11. Overall evaluation	Nº of positive responses		Nº negative responses	
Development of the session				
Block I: Space				
12. Stays within own kinesphere	Yes		No	
13. Transfers kinesphere (*)	Yes (a little/a lot)		No	
14. Obstructs the path of others in the space (*)	Yes		No	
15. Allows others to invade personal space	Yes		No	
16. Use of the different spaces in the room (*)	1-2-3			
Block II: Interaction				
17. Initiates behaviors towards others	Smile	Eye contact	Gestures	Movements
18. Does not initiate behaviors (*)	Responds		Does not respond	
19. Accepts or does not accept interaction proposals (*)	In pairs	In groups of three	More than three	
20. Rejects interaction proposals	Yes		No	
20. Interpersonal space (*)	Intimate	Personal	Social	
21. Interpersonal space (*)	Intimate		Personal	Social
Block III: Staying				
22. Therapeutic space (*)	Stays		Leaves	
Block IV: Evaluation				
23. Overall evaluation	Nº positive responses		Nº negative responses	
Closure of the session				
Block I: Communication, participation and space				
24. Type of closure (*)	Verbal		Symbolic	Combined
25. Located within the circle (*)	Yes		No	
26. Stayed in the circle (*)	Yes		No	
27. Participation (*)	Reduced		Extended	Non verbal
Block II: Staying				
28. Therapeutic space (*)	Stays		Leaves	
Block III: Evaluation				
29. Overall evaluation	Nº positive responses		Nº negative responses	
(*) clarifying notes				
(5) Greeting according to Spanish customs. Body contact is considered to be one/two kisses, a hug or handshake.				
(7) Help is considered to be that offered by the practitioner or fellow group member. Difficulties / physical limitations are not recorded here; rather it concerns the patient's attitude regards being included in group work, symbolized in the group circle. Also observed and evaluated is whether or not the individual's location causes the circle to break up or, if located outside the boundaries of the circle, whether the individual is facing towards the inside or outside. If the subject is located inside the circle, it is considered an invasion of the common space and interpreted as a way of not being with others. If the location is outside the boundaries of the circle, it is interpreted as a way of remaining apart from other members.				
(8 and 9) Individual physical participation (warm-up) in relation to the acceptance or rejection of physical contact through the hands, regardless of the duration of this contact.				
(10, 22 and 28) It is not considered an abandonment of the therapeutic setting if the practitioner has been given prior notice.				
(13) Depending on whether the individual relates or does not relate to the social space, this relationship may be reduced or expanded. Reduced relationship: the individual scarcely moves from the boundaries of their kinesphere or personal space. Expanded relationship (greatly): the individual is included in the social space.				
(14) Yes: intentionally; No: the subject moves away from the occupied space.				
(16) 1: central (start and finish); 2: lateral or periferal; 3: other spaces.				
(18) Only responds to the behaviors initiated by others or does not have any kind of response.				
(19) Only evaluated when these responses are accepted.				
(21) Intimate: < 60cm; personal: 60 cm between individuals; social: > 60 cm.				
(24) It depends on the style and intention of the practitioner. Item 27 is only evaluated if the verbal option is checked.				
(25 and 26) The inclusion, interest and participation of the individual in the group circle are observed during the closing phase of the session.				
(27) Reduced verbal: subject simply answers what is asked; verbal expanded: adds information and expands the conversation; nonverbal: does not speak.				



mediate the task of the practitioner and focus on the observation of these variables.

As a new tool, it requires practitioners to undertake prior training, because some items can be misleading if the coding system is not known. It can only be applied in the observation of group interventions in different populations of either adults or children, with or without pathology. To date the tool has been tested with a mental health group, which has led us to restructure and improve it, producing the final version presented in this article.

The analysis of the validity and reliability of this construct is not an objective of this research. However further studies are required that will expand our knowledge of the items described and their functioning, for the subsequent validation of the tool using a quantitative and qualitative approach.

In terms of the benefits of using this tool, we observe that it enables us, in addition to quantifying the situation of the subject, to provide an overall analysis (diagnostic value) of a particular dimension, the individual in relation to himself and the group. It has a practical format that facilitates annotation and serves as a script for the subsequent development of the report.

With the measurements obtained we can perform periodic monitoring to enable us to assess the dynamic evolution of the patient throughout the psychotherapeutic process, which facilitates the designing of a course of action to follow.

One limitation of this tool is typical of observation and the complexity of human behavior: the limitations of language in expressing observable behavior, and the possibility of double interpretation.

With the creation of this tool, the way has been opened for its continued use in the future, both for dance therapists and for other practitioners to observe the emotional behaviors of movement in order to proceed to its validation.

REFERENCES

- American Dance Therapy Association (ADTA). (1999). Available at: <http://www.adta.org>.
- Anfusso, A., De Souza, L. & Ojeda, J. (2009). *De la elocuencia de los cuerpos. Seminarios de Psicomundo [On the eloquence of bodies. Psicomundo Seminars]*. Available at URL: www.edupsi.com [Consulted 16 May 2011].
- Asociación española de danza movimiento terapia [Spanish Association of Dance Movement Therapy] (ADMTE). (2001). Available at: <http://www.danza-movimientoterapia.com>.
- Bárbara, A. (2008). *Actor Training. The Laban way. An integrated approach to voice, speech and movement*. New York: Allworth Press.
- Bernstein, P.L. (1975). *Theory and methods in dance-movement therapy* (2nd edition). Dubuque, IA: Kendall/Hunt.
- Buber, M. (1977). *Yo y tú [I and thou]*. Buenos Aires: Nueva visión.
- Burton, A. (2009). Bringing arts-based therapies in from the scientific cold. *Lancet Neurology*, 8(9), 784-785.
- Chace, M. (1953). Dance as an adjunctive therapy with hospitalized mental patients. *Bulletin of Menninger Clinic*, 17, 219-225.
- Cruz, R.F. & Kogh, S.C. (2004). Issues of validity and reliability in the use of movement observations and scales. In R.F. Cruz & C.F. Berrol (Eds.), *Dance/Movement therapists in action. A working guide to research options* (pp.45-68). Illinois: Publisher LTD.
- Cruz, R.F. (2006). Assessment in dance/movement therapy. In L.B. Stephanie (Ed.), *Creative arts therapies manual* (pp 133-143). Illinois: C.C. Thomas.
- Davis, F. (1989). *La comunicación no verbal [Non verbal communication]* (14^{ed}). Madrid: Alianza.
- Davis, M. (1981). Movement characteristics of hospitalized psychiatric patients. *American Journal of Dance Therapy*, 4(1), 52-71.
- Espenak, L., Adler, A., & Lowen, A. (1981). *Dance therapy-theory and applications*. Springfield, IL: Charles C. Thomas.
- Fischman, D. (2005). *Danza movimiento terapia. Encarnizar, enraizar y empatizar. Construyendo los mundos en que vivimos*. I Congreso de Artes del movimiento IUNA (Instituto Universitario Nacional del Arte). [Dance movement therapy. Enraging, taking root and empathizing. Constructing the worlds in which we live. I Congress of Arts of the IUNA movement]. Buenos Aires, Argentina.
- Hackney, M. E. & Earhart, G. M. (2010). Social partnered dance for people with serious and persistent mental illness. A pilot study. *The Journal of Nervous and Mental Disease*, 198(1), 76-78.
- Izquierdo, C. & Anguera, M.T. (2000). Hacia un alfabeto compartido en la codificación del movimiento corporal en estudios observacionales [Towards a shared alphabet in the codification of body movement in observational studies]. *Psicothema*, 12(2), 311-314.



- Laban, R. (2006). *El Dominio del Movimiento [The mastery of movement]* (2ª Ed). Madrid: Fundamentos.
- Laban, R. (1991). *La Danza Educativa Moderna [Modern educational dance]* (2ªEd). México: Paidós.
- Loman, S. & Sossin, M. (2008). Introducción al perfil de movimiento de Kestenberg y la DMT. [Introduction to the Kestenberg Movement Profile and DMT]. In H. Wengrower & S. Chaiklin (Eds.), *La vida es danza: el arte y la ciencia de la danza movimiento terapia [The Art and Science of Dance/Movement Therapy: Life Is Dance]* (pp 271-284). Barcelona: Gedisa.
- Lowen, A. (1977). *Bioenergética [Bioenergetics]*. México:Diana.
- Meekums, B. (2002). *Dance Movement Therapy: a creative psychotherapeutic approach*. London: SAGE Publications.
- Meekums, B. (2008). Pioneering Dance Movement Therapy in Britain: Results of narrative research. *The Arts in Psychotherapy*, 35(2), 99-106.
- Ritter, M. & Low, K. (1996). Effects of dance/movement therapy: A meta-analysis. *The Arts in Psychotherapy*, 23(3), 249-260.
- Navarre, D. (1982). Posture sharing in dyadic interaction. *American Journal of Dance Therapy*, 5, 28-42.
- Payne, H. (2006). *Dance movement therapy-theory, research and practice* (2a Ed). Sussex: Routledge.
- Pernicone, A. (2011). *La importancia del rostro materno en la obra de Winnicott [The importance of the mother's face in the work of Winnicott.]*. Seminarios de Psicomundo [Psicomundo Seminars]. Available at: <http://www.edupsi.com> [Consultado 16 de mayo de 2011].
- Reich, W. (1949). *Character analysis*. New York: Simon & Schuster.
- Rodriguez, S. (2009). Danza movimiento terapia: cuerpo, psique y terapia [Dance movement therapy: body, mind and therapy]. *Avances en Salud Mental Relacional*, 8(2), 1-20.
- Roosberg-Gempton, I. & Poole, G. (1992). The relationship between body movement and affect: from historical and current perspectives. *The Arts in Psychotherapy*, 19, 39-46.
- Salas-Calderón, S. (2007). Psicoterapia del movimiento: herramienta terapéutica con pacientes esquizofrénicos [Movement Psychotherapy: a therapeutic tool for schizophrenic patients]. *Actualidades en Psicología*, 21(108), 97-115.
- Sandel, S.L. (1980). Dance therapy in the psychiatric hospital. *Journal of the National Association of Private Psychiatric Hospitals*, 11, 20-26.
- San Pedro Santana, N (2009). El papel de la danza movimiento terapia en una institución de salud mental [The role of dance movement therapy in a mental health institution]. *Avances de salud mental relacional*, 8(3), 1-8.
- Stern, D. (1991): *El mundo interpersonal del infante: una perspectiva desde el psicoanálisis y la psicología evolutiva* [The interpersonal world of the infant: A view from psychoanalysis and developmental psychology]. Buenos Aires:Paidós.
- Winnicott, D.W. (2002). *Realidad y juego* [Playing and reality]. Barcelona: Gedisa.
- Xia, J. & Grant, T. J. (2009). Dance Therapy for schizophrenia (Review). *Cochrane Database System review*, 21(1).