



Repetition, Return, and Rewiring: Dance Movement Therapy and the Healing of Chronic Pain

הכרוני טיפול בתנועה כגישה טיפולית לחיווט מחדש והחלמה ממעגל הכאב

Ronen Meirovich & Saar Shiran

Repetition and return are central motifs in the lived experience of chronic pain. Pain itself becomes a loop—neural, emotional, and behavioral—where the body repeatedly remembers danger even after the original physical injury has healed. Advances in neuroscience have revealed how chronic, or nociplastic, pain arises from altered central processing: predictive and affective brain networks sustain pain in the absence of ongoing tissue damage. This self-reinforcing cycle—where threat appraisals amplify pain, and pain reinforces threat—can be seen as a neuroplastic pattern of repetition. Body and mind are intertwined in a tangled web, influencing each other in a circular way.

While standard psychological and behavioral treatments can improve function, reductions in pain intensity are often limited. Newer neuroconstructivist and interoceptive models highlight the potential of embodied, experiential approaches to rewire these neural pathways. Dance Movement Therapy (DMT) offers precisely such an approach: through mindful movement, emotional expression emphasized by movement, and body-based awareness, it allows individuals to reinterpret sensations, regulate affect, and return to a sense of safety within the body.

We will present psychophysiological mechanisms underlying chronic pain and its maintenance within the brain's predictive control systems. We will show how DMT principles are integrated into the Technion's academic program for healthcare professionals—where movement-based experiential learning complements pain psychoeducation, bridging science and embodiment—and explore the advantages and uniqueness of DMT across professions. A short clinical case will illustrate how the patient, as a hero in a journey facing his pain, through guided movement, imagery, and positive embodiment, a patient with long-term



chronic back pain experienced decreased pain intensity, renewed vitality, and improved well-being.

Biography

Ronen Meirovich Dance/Movement Therapist, M.A., Senior Instructor.

Head of the DMT Section, Israeli Association of Arts Therapies

Lecturer, Department of Education, Tel-Hai College

Supervisor of M.A. students in Dance/Movement Therapy, University of Haifa

Therapist, Ministry of Education – specializing in the treatment of children in special education for the past 25 years.

Therapist, Welfare Department

Specializations:

- Trauma treatment
- Psychosomatic approach treatment
- Development of a Dance/Movement Therapy model for trauma and PTSD treatment

Recent Presentations:

Meirovich, R. (2024) **Introducing DMT as a mental health profession**, *Israeli*

Psychosomatic Association Conference, Jerusalem, Israel.

Meirovich, R. (2025) **Trauma treatment in the mining of time and space**, *Israeli*

Association of Arts Therapies Conference, Jerusalem, Israel.

Meirovich, R. (2025) **A Future Vision: Establishing DMT as a Central Profession in Psychotherapy**, EADMT Conference, Vilnius, Lithuania

Saar Shiran M.A. in Dance/Movement Therapy, specializing in chronic pain treatment.

Dance Movement Therapist at the Pain Clinic of Rambam Hospital and at 'Mashabim' - community stress prevention center. Provides individual and group therapy.

Lecturer and Course Coordinator at Technion – Israel Institute of Technology, Faculty of Medicine, Continuing Education Division, where she co-developed two multidisciplinary programs on mind–body approaches for chronic pain for healthcare professionals and therapists.



Holds clinical and research experience in the field of chronic pain, with expertise in integrating mind–body approaches, psychoeducation, and bodily-based tools for building resilience and coping with stress.

Recent Presentations

Shiran, S. (2023) **'When the Body Speaks' – Somatic intervention with CRPS patients combining Dance Movement Therapy and Pain Reprocessing Therapy.** *Israeli Psychosomatic Society Conference*

Shiran, S. (2024) **Connecting to the body and creating movement as a way to develop community resilience in situations of stress and chronic pain.** *Israeli Association of Arts Therapies & Rambam Healthcare Campus Seminar, Rambam Hospital, Haifa, Israel*

Shiran, S. (2025) **The courage to move through the pain,** *Israeli Association of Arts Therapies Conference, Jerusalem, Israel.*