EMDR with ‘on the spot’ techniques for PTSD in Advanced Dementia: exploring current clinical practice

An AI-Assisted Approach to Quantitative and Qualitative Practice-Based Data Analysis in Dementia Research Using a LangFlow-Based Language Model

Introduction

Patients with dementia often experience neuropsychiatric symptoms (NPS). These symptoms cause distress and suffering to patients and their surroundings. The risk factors for NPS are complex and not well understood. Even with individualized treatment plans combining pharmacological and non-pharmacological interventions, these symptoms are often chronically present. There is increasing attention to the possible role of life-span trauma and PTSD and a pressing need of evidence based interventions.

Experts consider EMDR promising for PTSD in dementia. However, the application of EMDR in individuals with advanced dementia presents challenges due to cognitive and functional decline combined with somatic comorbidity. The only scientific literature describing EMDR in advanced dementia is a case report by Amano & Toichi (2013) describing three successful cases with so-called “EMDR-on-the-spot” techniques. Although these findings are promising and could have a positive effect on neuropsychiatric symptoms, there is currently no scientific consensus. However, variations of EMDR-on-the-Spot are already used in Dutch clinical practice. Highlighting the need for systematic research and protocol development.

Statement of the problem

Building on this emerging clinical use, it also suggests that professionals perceive potential clinical value. However, the absence of guidelines and scientific consensus on the application of EMDR contributes to professional uncertainty, reluctance to intervene and methodological challenges in research.

Research in individuals with advanced dementia is complex due to ethical and methodological challenges, including issues related to informed consent, outcome measurement and high clinical heterogeneity. Clinical practice-based knowledge is therefore an important source of information.

Research objectives

- Exploring current clinical practice to establish clinical guideline, improve the feasibility of EMDR and enhance professional decision making.
- Contribute to a more structured approach for research on this topic.
- Exploring innovative research methods to use practice-based knowledge in research

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Method

Research Design

Explorative Cross-sectional online survey of Dutch psycholists working in dementia-care (n = 50).

Measures

Structured items on EMDR experience, perceived effectiveness, familiarity with “EMDR on the spot”, protocol adaptations, difficulties, and outcome monitoring

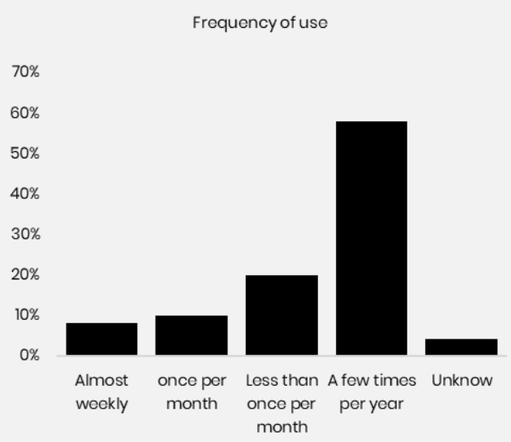
Data analysis

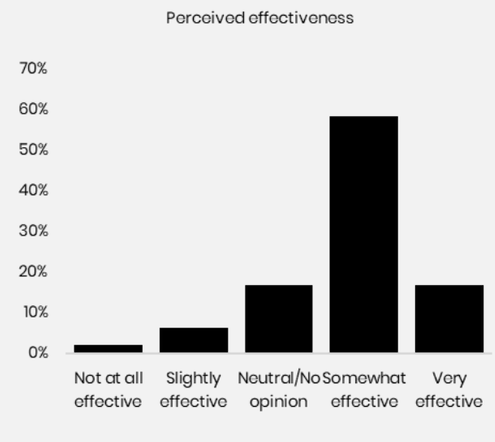
Analyses were performed within the AI Hub of SURF, supported by the NWO Computing Time on National Computer Facilities program.

Descriptive statistics for quantitative items and thematic coding of free-text responses using a Large language model (openai/gpt-oss-120b), designed specifically for this use with a Langflow pipeline.

Preliminary results

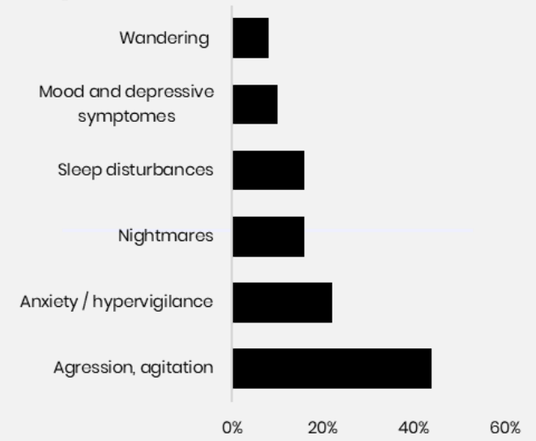
Descriptives





The sample included 50 participants (M = 6.9 years of experience, range = 2.8–18, SD ≈ 4.9), comprising GZ-psychologists (n = 41), Clinical Psychologists (n = 1), Clinical Neuropsychologists (n = 3), and Psychologists (n = 5). 69% working in VVT (n = 34), 12% sGGZ (N=12), 6 % sGGZ & VVT combined (n=3), 2% private practice (n = 1), 8 % unknown (n= 4).

Reported symptom improvement



Respondents could report multiple symptoms; percentages overlap; findings reflect recurrent improvements observed across reported case descriptions.

Sentiment analysis

71% of the professionals who applied EMDR view the intervention as effective. Positive sentiment is mainly driven by clinical success cases (with improvement of behavioural symptoms).

However, uncertainties remain. The Lack of standardized guidance, training and ethical/safety concerns generate a substantial amount of neutral or negative sentiment, particularly when dealing with advanced dementia

Challenges reported with EMDR in advanced dementia

- The lack of standardized protocols, diagnostic instruments and structured scientific evidence
- Client resitance and ethical constraints and safety concerns (for instance, informed consent issues or agressive behaviour).
- Diagnostic uncertainty about the target image
- Clinicians are divided in introducing stimuli to activate a target memory (56% add stimuli, 24% avoid, 20% uncertain).
- Practical issues: therapists are experiencing difficulties with being present during a possible re-experiencing moment.

Possible factors associated with higher perceived effectiveness

- Strong hypothesis of a plausible trauma target, informed by family/heteroanamnesis
- High protocol adaptation - short session, simple bilateral stimulation (mostly tapping or motor tasks) and focus on PC. Mostly no SUD scales and NC.
- Team and family involvement – shared support, safety agreements, and joint observation of behavior.
- Therapeutic competence – extensive EMDR experience, specialized training in EMDR with older adults, and regular supervision.

Join Our Delphi Study on EMDR-in advanced dementia

We invite professionals to participate! Your input will support consensus building and protocol development. Interested in participating? Please get in touch for further information.

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Learn more about our projects

Discussion

- Systematic outcome measurement, clear training, and an ethically sound dementia-adapted protocol are the three priority areas to move the field from “experimental case-by-case” to an evidence-based practice.
- *The responses to the survey will be studied in more depth; to form a first definition of EMDR with on the spot techniques and to form a first idea of the key elements of the treatment. We will test our ideas in an international Delphi study, to enhance scientific research and protocol development.*

Preliminary recommendations for clinical practice

- Follow an EMDR training and become part of an intervision group
- Formulate a clear hypothesis linking trauma to symptoms
- Involve the nursing team and family, ask for daily behavioural observations to monitor the effect
- Adaptations and simplifications to the protocol are necessary
- Involve the multidisciplinairy team and family members in decision making.

Research team

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