

EFFECT OF MEMORY RELAY GAME -BASED TRAINING ON DEMENTIA AMONG ELDERLY INDIVIDUALS

Dinesh E¹ & Surya Vishnuram²

¹ Post graduate, Saveetha College of Physiotherapy, SIMATS, Chennai, Tamil Nadu, India.

² Tutor, Saveetha College of Physiotherapy, SIMATS, Chennai, Tamil Nadu, India.

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Dear Editor,

We would like to share our experience with the Psychiatria Danubina audience regarding aging-related behavioral and psychological changes, and the decline in an individual's capacity to process information—key signs of dementia, which is characterized by a progressive loss of brain function. Seniors with dementia often exhibit a wide range of behavioral and psychological characteristics (Peitl et al, 2024). Dementia, defined by acquired cognitive impairment that affects multiple domains and hampers social and professional functioning, is frequently linked to various brain pathologies, most commonly Alzheimer's disease and cerebrovascular problems (Radić et al., 2021, Wang et al., 2022). Diagnosing dementia typically involves a comprehensive history that evaluates cognitive deterioration and daily functional challenges, supported by feedback from close friends or relatives.

A detailed mental status examination by a physician is essential to identify deficiencies in memory, language, attention, executive function, physical cognition (including spatial orientation), and mood. Some characteristics, such as onset before age 65, rapidly progressing symptoms, and deterioration in multiple cognitive domains—except episodic memory—may indicate atypical dementia cases (Briganti et al., 2023). The progressive brain degeneration seen in dementia is often associated with behavioral issues, with violent behavior being one of the most challenging conditions, often requiring medication therapy, hospital stays, and psychiatric assessments (Giannouli et al., 2019, Hanzevacki et al., 2023).

Our research included ten subjects, both male and female, aged over 65, who were recently diagnosed with dementia (cognitive impairment) based on their Montreal Cognitive Assessment (MoCA) scores of 23. Current dementia treatments, such as quetiapine, selective serotonin reuptake inhibitors, and antipsychotic medications, are commonly used. (Radić et al., 2021) highlighted that psychotherapy and CBT are additional treatment options. Recently, memory relay games involving exercises like color identification, puzzle games, self-tests, drawings, Ludo, and numerical games have gained popularity as a non-invasive method to assist dementia patients with cognitive impairment. These activities utilize simple tools like balls, paper, pens, puzzle cards, and ladder game cards.

The purpose of this study was to examine the effects of memory relay game-based training on reducing cognitive impairment in the elderly population. The study was approved by the institutional ethics committee on human subjects (01/058/2023/ISRB/PGSR/SCPT) and followed the Helsinki Declaration guidelines. For the selected participants, pre-test values were obtained using the MoCA. The memory relay game-based training involved a combination of activities: a color identification game for 10 minutes, a personal and social question test for 10 minutes, a musical game and quiz for 10 minutes, and puzzle games with ladder cards for 10 minutes, conducted over 12 weeks (40 minutes per day, 4 days per week). Post-test values were obtained using MoCA after the completion of the intervention.

Para metrics	SD value	Mean value	T value	P value
Pre-test	1.65	19.5	24.78	P<0.05
Post test	1.34	26.7		

During our training sessions with patients suffering from cognitive impairment, we observed significant improvements in their treatment outcomes. Participants were fully informed about the study and provided written consent before the commencement of the study. Initial assessments were conducted using the MoCA as pre-tests. After 12 weeks of treatment, post-test measurements using the same assessment were taken. Statistical analysis indicated a significant result with a p-value of < 0.05, demonstrating that the memory relay game-based training technique positively impacted cognition levels among the elderly population. This study is expected to contribute significantly to the literature on dementia and memory training, offering insights that could enhance treatment strategies for healthcare professionals working with elderly patients experiencing cognitive impairment.

Sincerely,
Dinesh E.

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Correspondence:

Dr. Dinesh E,
Saveetha College of Physiotherapy, SIMATS,
Chennai, Tamil Nadu, India.
dineshdinuld@gmail.com

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RECENT STATISTICS ABOUT WEEKDAY SUICIDES IN THE US

Camilla Mattiuzzi¹ & Giuseppe Lippi²

¹ Medical Direction, Rovereto Hospital, Provincial Trust for Social and Sanitary Services (APSS), Trento, Italy
² Section of Clinical Biochemistry, University of Verona, Verona, Italy

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Dear Editor,

A seminal meta-analysis published by Martin Plöderl (2021) showed that the number of suicides in Austria in the period 1970-2017 was not evenly distributed across the different days of the week. In particular, a peak was observed on Mondays, while the number of suicides generally declined at weekends. We therefore planned a study to verify the reproducibility of these findings with more recent data and in a different country.

We performed a digital search of the most recent version of the US Centers for Disease Control and Prevention (CDC) WONDER online database for the years 2018-2022 (Centers for Disease Control and Prevention, 2024), an official nationwide

repository of death certificates. The search included the more recent searchable years (i.e., from 2018 to 2022) using specific ICD-10 codes for suicide (i.e., X60-X84: intentional self-harm), stratified by the different days of the week. Suicide data were reported as mean number of deaths \pm standard deviation (SD) over the searchable periods. Data were graphically plotted in Microsoft Excel (Microsoft, Redmond, WA, USA), and the statistical significance throughout the period was assessed using one-way analysis of variance (ANOVA) and Tukey post-hoc test (StatPages; Interactive Statistical Calculation). Statistical significance was set at $p < 0.05$. The study was conducted in accordance with the Declaration of Helsinki and the terms of the relevant local legislation.