

participant may be associated with a low capacity to handle emotions during new experiences, causing a higher stress response.

P135: Electroencephalography-Based Neuro-emotional Responses during interactive scenario therapy in the person with dementia – case study

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Background: Immersive technologies have the potential to control cognitive and behavioural symptoms in people with dementia. A safe environment can be designed through a specific interactive scenario, according to the preferences and experiences of each user.

Objective: Mapping neuro-emotional responses during the interactive scenario therapy experience in a case study, with dementia, using electroencephalography (EEG).

Methods: A participant, 78 years old and diagnosed with moderate to severe Alzheimer's disease (female; Mini Mental State Examination score of 17 points; frontal assessment battery score of 8 points), underwent EEG analysis (EMOTIV EPOC X) using a protocol with interactive scenarios tailored to the participant's needs and preferences, the scenarios were designed from reminiscence strategies. The protocol included a stimulus that alternated between motor and cognitive activities (3 minutes), and breath-centered relaxation (1 minute). The scenarios used in this study were: setting up a living room; composing a cake recipe; shopping in the market to make a cake; looking for objects in the park; organizing a birthday party. These variables are provided, on a scale of 0 to 100, after processing by the algorithms of the EmotivPRO v3.0 software.

Results: The values found in the EEG analysis will be described without stimulus and with stimulus respectively. Thus, engagement (68.57 to 71.86); arousal (57.86 to 49.86), focus (61.57 to 57.00), interest (54.86 to 49.57), relaxation (33.86 to 30.86), and stress (53.71 to 43.00). The EEG data showed an increase in engagement when the patient was stimulated (68.57 to 71.86). Relaxation also increased (30.86 to 33.86) when the stimulus was removed. The stress level, as analysed by the EEG, was also higher in the period without stimulus and reduced in the period with the stimulus (53.71 to 43).

Conclusion: During a stimulus period in interactive therapy, there was an increase in engagement, which was related to an increasing focus during the stimulus. Lower values were observed compared to the period without stimulus, indicating a period of recovery after a period of concentration/arousal. Therefore, therapy with an interactive and familiar scenario, using a circuit of stimulus-breathing exercises, promotes a positive and adequate neuro-emotional response in a person with dementia.

P141: BRIGHT (Building Resilience in Geriatric Health Today)

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Aims: Geriatric depression and anxiety are increasingly relevant conditions in the ageing population of Singapore. Subsyndromal depression and anxiety in older adults is estimated at 20-50% of the population and often go undetected despite adverse effects on quality of life (Preisig et al., 2001), suicidality (Sadek and Bona, 2000), disability and inappropriate usage of medical services (de Beurs et al., 1999; Wagner et al., 2000), and cognition (Yoachim et al., 2013). BRIGHT is an early intervention group coaching programme to empower older adults to self-manage physical and mental health ailments so as to decrease healthcare utilization and expenditure. This paper aims to present the findings from three pilot runs of BRIGHT with older adults in the community setting.

Methodology: BRIGHT consists of 4 half-day workshops with both didactic and interactive components that leverage on the group-based therapy setting to promote psychoeducation, self-reflection, and reminiscence. This was delivered by a multidisciplinary team comprising psychiatrists, psychologists, and medical social workers. Simple digital literacy skills were taught and a mobile application to promote active lifestyles was utilized.

Groups are kept small at less than 15 participants each who were referred from community partners. They have been screened for subclinical depression and anxiety using the Geriatric Depression Scale (GDS), Geriatric Anxiety Inventory (GAI), 12-item Short Form Survey (SF-12), and Health Confidence Score (HCS). The same scales were administered again immediately upon completion of the programme to capture (1) reduction in depressive and anxiety symptoms, (2) quality of life, (3) improvement in health confidence, and (4) participant satisfaction.

Result: Average participant satisfaction was 82.2% - most qualitative feedback was positive but one group preferred the sessions to be conducted in Mandarin instead of English. GDS, GAI, HCS, and SF12 PCS scores improved by an average of 2.285, 0.969, 0.685, and 1.733 respectively. However, SF12 MCS scores decreased by an average of 1.795.

Conclusion: Preliminary quantitative data shows that BRIGHT appears to be an effective early intervention modality for older adults with subclinical depressive and anxiety symptoms. After an iterative process of refining the programme content, plans are underway to “train the trainers” so as to increase scale and sustainability.

P144: Are the older community-residents who did not respond to the administrative survey high risk group? Early detection and continuous support by the visiting nurse

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Background: Clinically, the older adults who do not respond to administrative surveys are at high risk for dementia and other diseases in many cases. The aim of this study is 1) to examine this hypothesis, and 2) to establish a support system to reach out to them and help them live well, in the community-based participatory research (CBPR) in Chiyoda-ward, Tokyo, Japan, using a mail survey as a starting point to visit older community-residents who did not respond to the administrative survey.

Methods: The participants were residents aged 65+, living in Chiyoda ward, Tokyo, Japan in 2021 (N=4009, mean aged 74.2±6.6, female 54.9%). We conducted the survey by following three steps. First, we distributed self-administered questionnaire to all participants by mail. Second, a survey request letter was mailed to the older