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Introduction: Although, attempts to apply virtual reality (VR) in mental healthcare are rapidly increasing, it is still unclear whether VR relaxation can reduce stress more than conventional biofeedback.

Methods: Participants consisted of 83 healthy adult volunteers with high stress, which was defined as a score of 20 or more on the Perceived Stress Scale-10 (PSS-10). This study used an open, randomized, crossover design with baseline, stress, and relaxation phases. During the stress phase, participants experienced an intentionally generated shaking VR and serial-7 subtraction. For the relaxation phase, participants underwent a randomly assigned relaxation session on day 1 among VR relaxation and biofeedack, and the other type of relaxation session was applied on day 2. We compared the StateTrait Anxiety Inventory-X1 (STAI-X1), STAI-X2, the Numeric Rating Scale (NRS), and physiological parameters including heart rate variability (HRV) indexes in the stress and relaxation phases.

Results: A total of 74 participants were included in the analyses. The median age of participants was 39 years, STAI-X1 was 47.27 (SD = 9.92), and NRS was 55.51 (SD = 24.48) at baseline. VR and biofeedback significantly decreased STAI-X1 and NRS from the stress phase to the relaxation phase, while the difference of effect between VR and biofeedback was not significant. However, there was a significant difference in electromyography, LF/HF ratio, LF total, and NN50 between VR relaxation and biofeedback

Conclusion: VR relaxation was effective in reducing subjectively reported stress in individuals with high stress.

P115: Testing the feasibility of a multicomponent neuropsychological intervention for individuals at-risk of dementia: the REMINDER program

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Objective: Interventions aimed to optimize cognitive function and functionality in individuals at risk of dementia were scarce in validity studies. While some RCTs have been developed in cognitive training interventions, studies of multicomponent interventions (cognitive, social, and behavioral) integrating intervention targeting psychosocial risk factors (social isolation, depression, low cognitive reserve) is absent. Additionally, few efforts have been made to develop such validity studies with individuals at higher risk of dementia who still do not present objective cognitive decline, despite current recommendations in this regard. We aimed to start the validation of a 20-session multicomponent intervention – REMINDER program - with a feasibility test and a preliminary efficacy testing using a comprehensive outcome assessment protocol.

Methods: A feasibility randomized controlled trial (RCT) was conducted, recruiting

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community-dwelling individuals between 60 to 75 years old with increased risk of dementia (LIBRA dementia risk score). Fifteen participants took part in twice-a-week sessions of the REMINDER program, during twelve weeks. Data on the acceptability, satisfaction and adherence to the REMINDER program was collected, and an association between pre and post intervention motivation and knowledge about dementia risk was examined. For the preliminary efficacy testing we considered as primary outcome a performance-based functionality measure (UPSA) and secondary outcomes will include global cognition, emotional status, and lifestyle habits, tested prior and after the intervention.

Results: Rates of satisfaction throughout the REMINDER program sessions were high (75%, mean) as well as the adherences that was superior to the main dementia risk reduction programs referred in literature. (83%). Post-intervention efficacy testing is ongoing, however, levels of knowledge about dementia risk increased 12% compared with pre-intervention (34% pre-intervention, to 46% post intervention; p=.045)

Discussion: Preliminary data on feasibility and efficacy of the REMINDER program suggests this program is an engaging and motivating tool for dementia risk reduction, justifying the future implementation of a large-scale RCT. We expect that, with a larger efficacy study we can demonstrate the REMINDER program effects in behavior change and in the adoption of protective lifestyles for dementia prevention, and that the comprehensive outcome assessment proves to be effective and, therefore, replicable in further studies.

P116: Cessation of caregiving due to institutionalization: Dementia family caregivers' profile. A 3 year longitudinal study

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Objective: Caregiving of a relative with dementia is considered a chronic stressful situation that generates physical and psychological strain and that may have negative effects on caregivers' health. Many caregivers make the decision to enter their relatives in a nursing-home, however, there are few studies that analyze psychosocial (e.g., guilt) and biomarkers of cardiovascular risk (C-reactive protein, CRP) variables that are related to this decision during the caregiving process stress. The aim of this study was to analyze caregivers' differences between caregivers who finish the role of caring of their relatives with dementia and those who continue their caregiving role throughout the process of caring in a 3-year period.

Methods: The sample consisted of 294 family caregivers of people with dementia and was divided in two groups; a) caregivers who institutionalized their relatives during a 3-year period (12.7%); and caregivers who maintained their role as caregivers (87.3%).

Results: Preliminary results show that caregivers who institutionalized their relatives with dementia in some time point of the caregiving process presented at baseline more frequency of behavioral problems ($t = -2.95$; $p < .01$), more feelings of guilt ($t = -3.52$; $p < .01$) and compassion ($t = -3.79$; $p < .01$), reported less frequency of dysfunctional thoughts about caregiving ($t = 1.99$; $p < .05$) and presented higher levels of CRP ($t = 2.72$; $p < .01$), compared to caregivers who maintained their role as caregivers. In addition, caregivers who institutionalized their relative were younger ($t= 2.13$; $p < .05$) and reported more weekly hours ($t= -3.46$; $p < .01$) and more days

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