

**Introduction:** Autism spectrum disorder (ASD) is a childhood onset neurodevelopmental condition, that leads to permanent disability in a high proportion of cases. ASD is associated with a heterogeneous symptom presentation, which - besides social interaction and communication difficulties - encompasses altered sensory reactivity, including excessive hyper-sensitivity to stimuli, especially in the visual domain. Meta-analyses of fMRI studies revealed increased reactivity in visual task conditions in the temporal and occipital brain regions. Neural oscillations in the EEG gamma band are viewed as a candidate neurobiological marker for higher order sensory and perceptual processes, and social interactions.

**Objectives:** We investigated changes in gamma activity in the EEG in the eyes open (EO) vs. eyes closed (EC) condition in order to identify the neurobiological underpinning of the enhanced sensitivity to visual input in ASD as compared to typically developing (TD) subjects.

**Methods:** EEGs were obtained in EC and EO condition in ASD (N=23) and TD subjects (N=24) in an ongoing study. For EEG recording we used a high-density 128-channel BioSemi system, with 0.5 Hz frequency resolution. The spectral power in the gamma band (30-100Hz) was quantified by the power spectral density. To investigate whether changes in the gamma band were linked to changes in arousal instead of enhanced visual processing, we also examined alterations in the alpha band (8-13Hz) in the EO condition. Spectral power changes were determined for each EEG channel by computing the difference between the EC and EO conditions (EO-EC).

**Results:** Spectral power in the gamma band showed changes in the opposite direction in the two study groups: ASD subjects manifested significant ( $p < 0.05$ ) increase, while TD subjects had a decrease in the EO vs. EC condition in the temporal and occipital brain regions. By contrast, the changes in the alpha band were similar, with both groups exhibiting a spectral power decrease in the EO compared to the EC condition.

**Conclusions:** In ASD, an enhancement of gamma activity is present in the EO as compared to the EC condition in the posterior brain areas. These brain areas are involved in the processing of visual information, and gamma activity is considered as a measure of perceptual processes. Thus, the gamma alterations in the EO vs. EC condition may underlie the hyper-sensitivity symptoms to visual stimuli in ASD, and EEG can offer a simple to use tool to delineate the neurobiological foundation of the symptom presentation.

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**Disclosure of Interest:** None Declared

## Old Age Psychiatry

### EPP0531

#### Enhancing Quality of Life in the Elderly: The Impact of Psychosomatic Exercises on Healthy Aging

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**Introduction:** Older individuals constitute a significant portion of the population, and concerted efforts are underway to enhance the quality of this life stage by minimizing health issues and maximizing opportunities.

**Objectives:** This study aims to investigate the impact of psychosomatic exercises, including practices like yoga, meditation, and tai chi, as an alternative approach to promoting healthy aging and ultimately enhancing the quality of life among elderly individuals.

**Methods:** The study comprised 84 participants, with 51 individuals engaging in various forms of psychosomatic exercises and 33 serving as the control group, having no prior exposure to such practices. Data collection was carried out electronically, with the initial section gathering socio-demographic information and health-related details about the participants. The second part consisted of the WHOQOL-BREF quality of life scale, consisting of 26 questions, which assessed six domains: Overall Quality of Life and General Health, Physical Health, Psychological Health, Social Relationships, and Environment. Statistical analysis was performed with SPSS 26.

**Results:** The average age of the participants was 66.7 years. A statistically significant positive correlation was identified within the first subscale of the tool, "Overall Quality of Life and General Health," with scores of 74.3/100 for those engaging in psychosomatic exercises and 66.7/100 for those who did not ( $t(82) = -2.513$ ,  $p = 0.014$ ). However, no statistically significant differences were observed in the remaining subscales.

**Conclusions:** Psychosomatic exercises, including yoga, meditation, and tai chi, hold promise as a means to improve the overall quality of life and general health of elderly individuals. These practices could serve as valuable components of strategies aimed at promoting healthy aging. Further research is needed to explore their effects in greater detail and across various dimensions of well-being.

**Disclosure of Interest:** None Declared

## Neuroscience in Psychiatry

### EPP0532

#### Pursuing Sleep Architecture Remodeling: Effects of Psychopharmaceuticals on Sleep Structure

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**Introduction:** Sleep plays a pivotal role in overall physical and mental health, exerting a profound influence on general well-being and quality of life. The influence of psychopharmaceuticals on sleep structure is a critical research area, given their widespread use in the treatment of psychiatric disorders, yet their precise effects on sleep remain inadequately understood.

**Objectives:** This study aims to investigate how psychopharmaceuticals affect sleep architecture by identifying commonalities and disparities among different classes of psychotropic medications.

**Methods:** Systematic review of the literature encompassing studies assessing the effects of psychopharmaceuticals on sleep structure. Electronic databases such as PubMed were employed to identify pertinent studies published within the last decade.

**Results:** Diverse classes of psychopharmaceuticals have varying effects on sleep architecture. Additionally, prolonged use of specific psychopharmaceuticals was correlated with sleep disturbances,

such as insomnia. These findings hold significant implications for clinical practice, emphasizing the necessity of an individualized approach in treating patients with psychiatric disorders.

**Conclusions:** Psychopharmaceuticals exert a substantial impact on sleep architecture, with effects contingent on drug class and duration of use. Understanding these alterations is crucial for optimizing the treatment of patients with psychiatric disorders, striking a balance between therapeutic benefits and potential sleep-related adverse effects. Furthermore, these discoveries underscore the importance of closely monitoring the sleep of patients undergoing psychopharmacological treatment and tailoring therapeutic approaches in accordance with individual needs.

**Disclosure of Interest:** None Declared

## Old Age Psychiatry

### EPP0533

#### The possible role of platelet APP processing in the pathophysiology of Alzheimer's Disease

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**Introduction:** Alzheimer's disease (AD) stands as the most prevalent form of dementia. Alzheimer's Disease is acknowledged to have a complex origin, a gradual neurodegenerative progression, and a wide-ranging clinical profile marked primarily by progressive memory loss, cognitive decline, and various functional impairments that significantly diminish the quality of life: Key characteristics of AD encompass the presence of amyloid plaques, which are characterized by the pathological accumulation of insoluble  $\beta$ -amyloid ( $A\beta$ ) aggregates within the brain tissue and blood vessel walls. Several reports have indicated the existence of cerebral abnormalities within platelets in individuals afflicted by AD.

**Objectives:** The objective of this investigation was to review studies investigating the metabolism of APP in platelets among individuals with AD to identify potential dependable peripheral indicators leading to novel approaches to its management and treatment.

**Methods:** A systematic review according to the PRISMA guidelines was carried out, by accessing the PubMed database up to June 2023. The authors screened the titles and the abstracts of all the potentially relevant papers on the basis of a strict list of exclusion and inclusion criteria.

**Results:** A total of thirty-two studies were included. The evidence points towards the observation that AD individuals exhibit various modifications in platelet APP processing when compared to matched healthy controls, that are frequently associated with the severity of cognitive impairment and functional independence. The majority of the evidence supports changes in platelet ADAM-10 activity,  $\beta$ -secretase activity, APP ratio, a state of heightened platelet

activation or hyper-responsiveness, and a potential release of platelet APP via vesicular mechanisms, which may ultimately contribute to  $A\beta$  production.

**Conclusions:** Platelets offer a promising peripheral model for detecting and evaluating molecular changes associated with AD, as they hold the potential to provide vital insights into the development of an effective diagnostic tool and open doors to innovative therapeutic approaches.

**Disclosure of Interest:** None Declared

## Oncology and Psychiatry

### EPP0534

#### The European Portuguese version of the Reproductive Concerns After Cancer Scale for male cancer survivors: A preliminary psychometric validation study

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**Introduction:** Cancer treatments can affect male fertility. However, the reproductive concerns of this population remain little explored. There is a need to invest in understanding how concerns related to fertility and parenting affect psychosocial adjustment, in order to improve counseling in this context. To this end, it is a priority to provide reliable and valid measures for assessing this construct.

**Objectives:** This study aimed to translate, adapt and preliminarily explore the psychometric properties of the Portuguese version of the Reproductive Concerns After Cancer Scale - Male Version (RCAC-M).

**Methods:** Translation and back-translation were carried out by two independent translators. A reconciled version was obtained and evaluated by a panel of experts who ensured its cultural adaptation. Before studying the psychometric properties, a pre-test was carried out involving a focus group of 5 male cancer survivors who assessed the adequacy of the measure. The preliminary validation included 32 male cancer survivors aged between 18 and 55. Recruitment was carried out by providing an online questionnaire. A principal component analysis was carried out to explore the factor structure of the measure and to analyze the reliability and convergent validity of the measure.

**Results:** The results showed good internal consistency of a version consisting of 17 items, grouped into four factors: fertility potential,