rapamycin (mTOR), inhibition of eukaryotic elongation factor (eEF2) kinase, and brain-derived neurotrophic factor (BDNF) synthesis. Effects of ketamine are rapid, occurring in hours to minutes, but short-lasting, days to weeks. However, concomitant exposure and response prevention therapy (ERP), a subtype of CBT, prolongs ketamine effects. In fact, ketamine-enhanced neuroplasticity might potentiate cognitive and behavioural relearning, improving long-term clinical outcomes in OCD. There are some advantages of using ketamine, including no requirement for daily administration, increasing a patient's compliance and reducing the stigma of prolonged and daily intake of medications, the availability of nasal spray formulations that provide better handling and fewer safety profile issues and side effects, and in the case of concomitant medications, the possibility to reduce doses, thereby again improving safety profiles and reducing side effects. However, the current evidence is still not strong enough to recommend ketamine for clinical practice currently. There is still need for more research on ketamine as an anti-obsessive-compulsive medication. No conflict of interest

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### P2432

# NEUROSCIENCE APPLIED 3 (2024) 105401 A PRELIMINARY REPORT OF THE FIRST PSYCHIATRIC EMERGENCY TEAM SERVICES BASED MENTAL HEALTH WELFARE CENTER IN SOUTH KOREA

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**Introduction:** In South Korea, there was no officially independent mental health and suicidal emergency system in local catchment areas funded by the government and operated by local mental health welfare centers until 2019. In accordance with the 'Priority Act for the Protection and Rehabilitation of Persons with Severe Mental Illness' announced by the Ministry of Health and Welfare of the Republic of Korea in May 2019, the first team for mental health and suicidal emergencies operated by the city mental health welfare center was established in the Paju City (population 465,617; 2020 year) on behalf of 31 metropolitan and suburban cities and counties in Seoul and Gyeonggi metropolitan area in South Korea.

**Objectives:** This study is the preliminary report of the Paju City psychiatric emergency team for 3 years from Jul. 2020 to Jun. 2023. We investigated the main cause of compulsory emergency admission to psychiatric hospitals, as well as the demographic characteristics of individuals in psychiatric emergency cases. **Methods:** A total of 630 (130 cases/year) psychiatric emergencies occurred over three years. All psychiatric emergencies reported to the Paju City Mental Health Center were received through police, fire departments, and community centers from July 2020 to June 2023. In all instances, whenever an emergency call was made, a psychiatric emergency team was promptly dispatched to the scene and alongside the police, conducting an assessment.

The Korean Psychiatric Intervention Crisis Assessment Tool (CRI) was used to assess the severity of psychiatric emergencies. All data were analyzed with SPSS. Results: In all age groups except for those in their 20s, men were more likely to report to the emergency rescue team. The percentage of emergency cases requested by the police has been steadily increasing over the past three years. In the first year of implementing the emergency system, numerous emergency cases related to recruitment were requested from the town office. However, the percentage of recruitment cases handled by the police increased year after year. The percentage of cases where police intervened due to the risk of self-harm increased from 52.66% to 64.44% year after year. The percentage of committing violent acts recently has also increased from 13.61% to 36.89%. The lack of a family support system seemed to be more closely associated with psychiatric emergencies and compulsory admissions. A history of psychiatric treatments, symptoms of hallucinations, and violent behavior are also important for psychiatric emergencies and compulsory admissions, but the chronicity of mental illness does not correlate with psychiatric emergencies.

**Conclusions:** This result is a preliminary report of the Korean psychiatric emergency systems in one urban-rural complex area, the Paju city in Seoul and Gyeonggi metropolitan area in South Korea. Additional analysis and investigation are needed to systematically establish our country's and metropolitan area's psychiatric emergency system.

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### P2433

#### NEUROSCIENCE APPLIED 3 (2024) 104758

# PARTICIPATION IN AN ITALIAN CANCER SCREENING PROGRAM AMONG PEOPLE WITH PSYCHIATRIC DIAGNOSES: A RETROSPECTIVE COHORT STUDY

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**Objective:** Individuals with severe mental disorders die 10 to 20 years earlier than the general population [1], both for "natural" (e.g. somatic-diseases) and "non-natural" (e.g. suicide, accidental traumas) causes. Notably, cancer emerges as a significant contributor to this mortality disparity, with nearly doubled mortality rates among patients with severe mental illness [2], often due to delayed diagnosis [3]. While previous studies have explored cancer screening participation among people with mental illness [4], these investigations have primarily focused on hospital-based settings, lacking specific investigation within Italy's community psychiatric system, characterized by a territorial organization into Community-Mental-Health-Centers (CMHCs) [5]. The current study examines the prevalence of cancer screening among patients under the care of Trieste's CMHCs, alongside sociodemographic and clinical factors influencing their participation.

**Methods:** This retrospective cohort study included 1252 individuals diagnosed with psychiatric disorders up to 2019 from four Trieste CMHCs, eligible for cancer screening by sex and age. Sociodemographic and clinical data were collected. This study was approved by the Ethical Committee of the Local Health Authority (Prot. 079\_2020H, 29.09.2020, Comitato Etico Unico Regionale FVG). Independent variables included gender, age, nationality, education level, marital status, living condition, employment status, number of clinical visits, primary psychiatric diagnosis and psychiatric comorbidity. Dependent variables were participation in cervical, breast, or colorectal cancer screening programs. Data were collected from Electronic-Health-Records (EHR). Descriptive analyses were included to compare demographic and clinical characteristics. Factors influencing cancer screening uptake were identified using logistic regression models. Data analysis was performed using SPSS-18.0 for Windows.

Results: The participation rates to the cancer screening programs were lower among patients with mental illness compared to the general population in Trieste. Breast and cervical cancer screening rates were approximately one-third lower, while colorectal cancer screening rates were approximately halved compared to the general population. Breast cancer screening was significantly influenced by educational level and diagnosis, with higher participation rates in college-educated and anxiety disorder patients. Cervical cancer screening was notably impacted by age, nationality, employment, and living situation, with higher participation rates in younger patients, Italian citizens (compared to foreign), employed and those living with stepfamily. Colorectal cancer screening was primarily affected only by age, with higher participation rates in the 66-69 age group compared to the 56-60 age group. Among the predictive variables, older age was associated with lower cervical cancer screening participation, while foreign citizenship correlated with reduced participation in cervical cancer screening. Living with stepfamily members was associated with increased cervical cancer screening uptake. Higher education and employment status were associated with increased breast cancer screening participation. Intriguingly,

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patients diagnosed with anxiety disorders exhibited higher cancer screening participation, potentially due to heightened health-related anxiety prompting increased health monitoring.

**Conclusion:** Mental Health Services should focus on increasing patients' participation in cancer screening programs and address this pivotal issue possibly by using the factors we found to be associated with lower participation rates. This intervention will improve patients' health, bridging the gap between mental health and general healthcare services and promoting equitable access to preventive care.

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### P2434

NEUROSCIENCE APPLIED 3 (2024) 104759 UNRAVELING BURNOUT: PERSONALITY PROFILES AND STRESS RESILIENCE AMONG MEDICAL PROFESSIONALS

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**Background**: Burnout among medical professionals has emerged as a significant concern, critically affecting both the well-being of healthcare workers and the overall quality of healthcare delivery. This condition is characterized by symptoms of emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. Particularly prevalent in high-stress professions such as healthcare, burnout can severely impact the efficacy and empathy with which care is provided. In Serbia, where medical professionals often face high demands and insufficient resources, the study seeks to understand how intrinsic personality traits correlate with the likelihood and severity of burnout. By identifying these personality factors, the research aims to pinpoint which traits may predispose or protect individuals from the adverse effects of burnout, thereby proposing more tailored interventions to enhance resilience and well-being in healthcare settings.

**Methods**: Employing a cross-sectional design, the study surveyed 304 medical doctors across Serbia using an online self-assessment tool. The participants were diverse in terms of specialty and geographic location, enhancing the representativeness of the results. Personality was assessed using a localized version of the Big Five Inventory, which measures neuroticism, extraversion, openness, conscientiousness, and agreeableness. Burnout levels were measured using the Copenhagen Burnout Inventory, focusing on work-related domains. Statistical analyses included descriptive statistics, t-tests, and linear regression to examine the relationships between personality traits and burnout symptoms.

**Results**: The comprehensive survey of 304 physicians, consisting of 114 males and 190 females, provided a broad dataset from various healthcare settings across Serbia. The age of participants ranged between 25 to 66 years, averaging 37.38 years. A significant number of participants were married (49.0%) or in a relationship (28.3%), with the majority employed in tertiary healthcare institutions (57.2%) and predominantly in the public sector (82.9%). The t-test results indicate no significant differences in burnout levels at work based on gender or whether participants had undergone communication skills training. However, there was a notable difference in burnout among participants who felt they lacked sufficient time for each patient, with these individuals reporting higher burnout. Although there was a tendency for those experiencing more burnout to seek psychological help, this did not statistically significantly differ from those with lower burnout levels. The analysis of burnout levels revealed critical insights into the influence of workplace and personal factors. Significant predictors were extraversion in the negative direction ( $\beta$ = -0.24) and conscientiousness ( $\beta$ = 0.21) and openness ( $\beta$ = 0.12) in the positive direction.

**Conclusion**: The findings underscore the complex interplay between personality and occupational stress among medical doctors in Serbia. Interventions aimed at reducing burnout should consider the psychological makeup of individuals, offering targeted support that considers personality traits. Further research is necessary to explore the longitudinal impact of personality on burnout and to evaluate intervention strategies aimed at enhancing resilience among medical professionals.

No conflict of interest

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### P2435

## NEUROSCIENCE APPLIED 3 (2024) 104760 FOOD FOR MOOD: THE IMPORTANCE OF FATTY ACIDS FOR THE EMOTIONAL WELL-BEING OF MEDICAL STUDENTS

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**Introduction**: Recently, the link between diet and mental health has gained scientific interest. Numerous studies have established a correlation between nutrient intake and emotional well-being, particularly among high-stress populations (1). In particular, fatty acids (FA): saturated (SFA) and unsaturated (UFA), which are known to alternate neurological pathways and inflammatory processes, potentially influencing mood and cognitive functions, have been the focus of extensive research. Researchers found diets high in SFA can increase the risk of developing psychiatric disorders, including depression and anxiety. On the opposite spectrum are found UFA like omega-3, which have been consistently linked with reduced inflammation and lower incidences of depression (2). Kie-colt-Glaser et al. (2011) found that medical students who consumed higher levels of trans fats exhibited more severe symptoms of stress and anxiety compared to their peers (3).

Our research aims to delineate the relationship between various types of dietary FA, and mental health outcomes, employing a combination of dietary assessments, blood FA- and inflammation-related factors and psychological assessment to identify potential dietary predictors of mental well-being.

**Methods:** Intake of FA, UFA, SFA, and milk (MFA) was estimated based on the Dietary Habits and Nutrition Beliefs (komPAN) Questionnaire. The questions that characterized each type of FA in the daily diet was chosen, and the frequency of intake was estimated by selecting one out of six frequency categories. The results were divided by the total number of possible points in each FA category and expressed in percentage. The student population with the presence of mental health problems was determined based on a cut-off point in: GAD-7 (anxiety symptoms) PSS-10 (stress symptoms), and PHQ-9 (depressive symptoms).

The FA-and inflammation-related factors (blood markers: complete blood count, C-reactive protein, total cholesterol, cholesterol HDL, LDL, triglycerides (TG)) and dietary intake of FA: SFA, milk-derived fatty acids (MFA), and UFA were input into the C&RT algorithm to find potential predictors of mental-health-related outcomes in the student population.

**Results**: 72 medical students (51% of females) were enrolled in this study. The median age of participants was 24 (range 19-32). Our analysis revealed significant predictors of students' mental health status. These include SFA intake >44.05% (as detected by komPAN), a neutrophil to lymphocyte ratio (NLR) >1.39, and TG  $\geq$ 75 mg/dl. The potential predictors of anxiety symptoms were: SFA intake >44.05%, MFA intake  $\leq$ 40.28%, HDL >73.55 mg/dl and monocyte to HDL ratio >0.0056. The potential predictors of stress symptoms were: SFA intake >44.05%, HDL >78.4 mg/dl and MFA intake  $\leq$ 37.5%.

**Conclusion**: The research conducted provides clear evidence of a significant relationship between the intake of certain FA and the mental health of medical students.