

**Conclusions:** Mental health status improved among Hungarian adults in the past decade up until 2019 but the trend turned into the opposite by 2023. Further research is warranted to uncover the underlying causes of the latest changes.

**Disclosure of Interest:** None Declared

## EPP0029

### Regional Inequalities in Diagnosis and Therapies in Greece regarding Autism Spectrum Disorders

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**Introduction:** Autism spectrum disorders (ASD) represent a major public health concern on a global scale. The increasing prevalence of ASD worldwide, coupled with the arising demand for treatments, underscores its important role in the public mental health discourse. Ensuring the equitable integration of children with ASD and their families into all aspects of society becomes an imperative task, in order to eradicate the stigma associated with the broad spectrum of autism, encompassing both visible and concealed dimensions.

**Objectives:** The primary objective of this study was to determine the crude prevalence of ASD in Greece nationwide, while also examining regional disparities in both prevalence and therapies. The study spanned a three-year period from February 2019 to February 2022 and relied on retrospective data sourced from the Greek National Organization for Healthcare Services Provision (EOPYY).

**Methods:** EOPYY provided de-identified data, including information such as sex, age, diagnosis, and treatment for each child, facilitated by hashed social security numbers. Statistical analysis of the dataset was performed using the open-source statistical program R.

**Results:** A total of 18,245 children aged 2 -17 years were diagnosed with ASD in Greece, representing a nationwide crude prevalence rate of 1.16%. Regional disparities were evident, with prevalence rates ranging from 0.49% in the North Aegean to 1.57% in Crete. Over the three-year study period, a total of 15,328,327 non-medical therapies were prescribed, corresponding to an annual average of 264 therapies per child. Statistically significant differences between the thirteen regions in Greece were observed, ranging from 230 to 323 annual therapies per child.

**Conclusions:** Our findings align Greece's ASD prevalence with the global estimate of 1 in 100 children, as per the World Health Organization. Disparities between rural and urban areas in Greece may be attributed to differences in diagnostic procedures and the availability and accessibility of specialized services for autistic individuals. Thus, the establishment of a national surveillance system for ASD is recommended to enhance our understanding

of the autism spectrum, monitor changes in prevalence, and identify potential contributing factors to autism conditions. Furthermore, these evidence-based results offer invaluable insights for crafting policies concerning healthcare, education, and employment for individuals with ASD in order to ensure the development of people with autism, their wellbeing, and a good quality of life.

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## EPP0030

### Exploring Causal Relationships in Mental Health Literacy Through Twitter Content: A Machine Learning Approach

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**Introduction:** The concept of Mental Health Literacy (MHL) is inherently multidimensional. However, the interrelationships among its various dimensions remain insufficiently elucidated. In recent years, the textual analysis of social media posts has emerged as a promising methodological approach for longitudinal research in this domain.

**Objectives:** This study aimed to investigate whether temporal causal associations exist between recognition of mental illness (R), mental illness stigma (S), help-seeking efficacy (HE), maintenance of positive mental health (M), and help-seeking attitude (HA).

**Methods:** Tweets were collected at three distinct time points: T1, T2, and T3, spanning the period from November 1, 2021, to December 31, 2022. We employed a machine-learning approach to categorize the posts into five MHL facets. Using these facets, we trained a machine learning model, specifically Bidirectional Encoder Representations from Transformers (BERT), to determine the MHL scores. To be eligible, an account must have an R facet score at T1, and M, S, HE facet scores at T2, as well as an HA facet score at T3. In total, we retrieved 4,471,951 MHL-related tweets from 941 users. We further employed structural equation modeling to validate the causal relationships within the MHL framework.

**Results:** In the evaluation, BERT achieved average accuracy scores exceeding 89% across the five MHL facets in the validation set, along with F1-scores ranging between 0.75 and 0.89. Among the five MHL facets—maintenance of positive mental health, recognition of mental illness, help-seeking efficacy, and help-seeking attitudes—each demonstrated a statistically significant positive correlation with the others. Conversely, mental illness stigma exhibited a statistically significant negative correlation with the remaining four facets. In the analysis using single-mediation models, each of the individual mediator variables—namely, mental illness stigma, help-seeking efficacy, and maintenance of positive mental health—exhibited significant indirect effects. In the multiple-mediation model, two mediator variables—help-seeking efficacy and maintenance of positive mental health—demonstrated significant indirect effects. These findings suggested that the