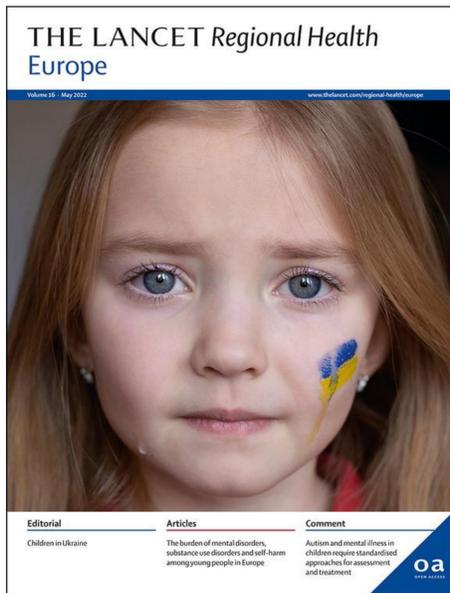


The burden of mental disorders, substance use disorders and self-harm among young people in Europe, 1990–2019: findings from the Global Burden of Disease study 2019

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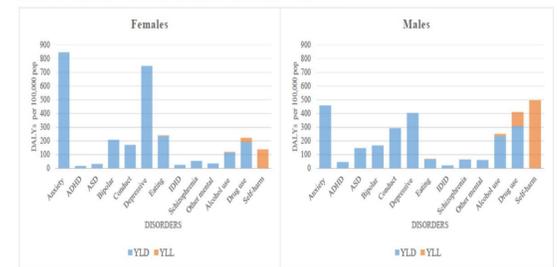


Methods and Materials

The Global Burden of Disease study provides annual estimates on prevalence, incidence and mortality for 369 diseases and injuries. Our analysis employed estimates from GBD 2019, which are available on the Global Health Data Exchange (GHDx). Uncertainty Intervals (UIs), and correlations with Sociodemographic Index (SDI), were also estimated.

| | | | | |
|---------------------------|---|---|--|------|
| Sex | M & F | | | |
| Age | 10-24 yo (85 millions in 2019) | | | |
| Measures | prevalence (MDs and SUDs) | incidence (self-harm) | YLDs | YLLs |
| Disorders (level 2 and 3) | MDs: anxiety disorders, attention deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), bipolar disorder, conduct disorder, depressive disorders, eating disorders, idiopathic developmental intellectual disability (IDID), schizophrenia, other mental disorders | SUDs: alcohol use disorders, drug use disorders | Self-harm | |
| Metric | <ul style="list-style-type: none"> count rates per 100,000 percentage changes from 1990 to 2019 | | relative 95% uncertainty intervals (UIs) | |

Figure 2: Disability Adjusted Life Years (DALYs) divided in Years Lived with Disability (YLDs) and Years of Life Lost (YLLs) for mental disorders, substance use disorders and self-harm in 31 European countries, females and males, age 10-24, year 2019



ADHD attention deficit/hyperactivity disorder, ASD autism spectrum disorder, IDID idiopathic developmental intellectual disability

| | 1990 | | | 2019 | | |
|-----------|---|--------------------|--------------------|---|--------------------|--------------------|
| | Spearman rank-correlation coefficient (P-value) | | | Spearman rank-correlation coefficient (P-value) | | |
| | MDs | SUDs | Self-harm | MDs | SUDs | Self-harm |
| MDs | 1.0 | | | 1.0 | | |
| SUDs | 0.64 (0.001) | 1.0 | | 0.47 (0.008) | 1.0 | |
| Self-harm | -0.04 (0.80) | -0.03 (0.86) | 1.0 | -0.30 (0.10) | -0.13 (0.47) | 1.0 |
| SDI | 0.16 (0.38) | 0.41 (0.02) | 0.37 (0.04) | 0.25 (0.17) | 0.35 (0.05) | 0.39 (0.03) |

MDs Mental disorders; SUDs Substance use disorders; SDI Socio Demographic Index

Spearman rank-correlation coefficients and relative P-values for association between prevalence of mental disorders, substance use disorders, incidence of self-harm and Socio Demographic Index in European Union, Iceland, Norway and Switzerland, years 1990-2019, both sexes, age 10-24. Significant results are highlighted in bold

Introduction

Mental health conditions (i.e. mental disorders (MDs), substance use disorders (SUDs) and self-harm behaviours) are important causes of disease burden among young people in high-income countries, with conduct disorder, depression and anxiety disorder ranking among the top ten causes of years lived with disability (YLDs).

Mental health is a major public health issue for European young people, with great heterogeneity in resource allocation for child and adolescent mental health services (CAMHS)

Many mental health conditions remain undetected and unmanaged for a long time

The Global Burden of Disease (GBD) study 2019 provides information on trends in the health status of populations and changes in the leading causes of disease burden over time by assessing prevalence, incidence, premature deaths and non-fatal health loss or disability.

AIMS

1. to describe the prevalence, incidence, years lived with disability (YLDs) and years of life lost (YLLs) of different mental disorders (MDs), substance use disorders (SUDs) and self-harm in males and females aged 10–14, 15-19 and 20-24 years, from 1990 to 2019, among 31 European countries;
2. to describe trends in the prevalence and incidence of these disorders across European countries over this 30-year period
3. to correlate the prevalence and incidence of these disorders and with the Socio-Demographic Index (SDI) of each European country.

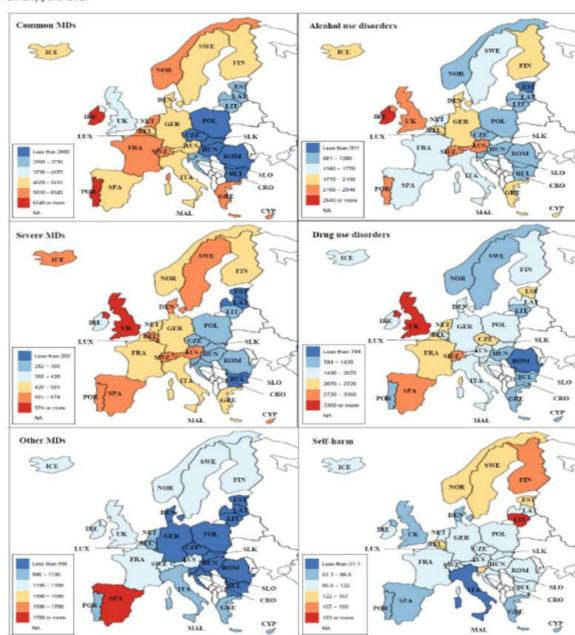
Results

In 2019, rates per 100,000 population were 16,983 (95% UI 12,823 – 21,630) for MDs, 3,891 (3,020 - 4,905) for SUDs, and 89.1 (63.8 – 123.1) for self-harm. In terms of disability, anxiety contributed to 647.3 (432 – 912.3) YLDs, while in terms of premature death, self-harm contributed to 319.6 (248.9–412.8) YLLs, per 100,000 population.

Over the 30 years studied, YLDs increased in eating disorders (14.9%;9.4-20.1) and drug use disorders (16.9%;8.9-26.3), and decreased in idiopathic developmental intellectual disability (-29.1%;23.8-38.5). YLLs decreased in self-harm (-27.9%;38.3-18.7). Variations were found by sex, age-group and country.

The burden of SUDs and self-harm was higher in countries with lower SDI, MDs were associated with SUDs.

Figure 1: Prevalence per 100,000 population aged 10-24 years of common, severe and other mental disorders (MDs), alcohol and drug use disorders, and incidence rate of self-harm in 31 European countries, both sexes, age 10-24, year 2019



Common MDs: anxiety and depressive disorders; Severe MDs: schizophrenia and bipolar disorder; Other MDs: eating disorders, attention deficit/hyperactivity disorder, autism spectrum disorder, conduct disorders, idiopathic developmental intellectual disability, other mental disorders

Discussion

This report describes the burden of mental conditions in young people living in Europe, covering a 30-year period during which Europe faced profound political, social and demographic changes.

Overall, the greatest burden is due to anxiety and depression. The report also describes changes in burden since 1990, with an increased burden due to disability from eating disorders and drug use disorders, and a decrease of idiopathic developmental intellectual disability, and alcohol use disorders. The burden of self-harm also decreased.

The burden of SUDs and self-harm is higher in countries with lower development status as measured by the sociodemographic index (SDI). MDs are positively associated with SUDs.

Conclusions

Mental health conditions in Europe represented a major health burden for younger people in the period 1990 to 2019, in terms of both disability and premature deaths.

Given that these conditions often predict same or worse conditions in adulthood, and given that the estimated direct and indirect costs of these disorders are higher than those of chronic somatic diseases, our findings emphasise the need for policies to strengthen mental health in future years, with a specific focus on young people. The reported estimates of the burden and changes over time may be used by stakeholders to inform health planning. They also serve as an important point of reference when the full public health impact of the COVID-19 pandemic is assessed, in particular in terms of the burden the pandemic has had on the mental health of young people in Europe.

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