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National level prescribing of psychotropic medication in primary care during the COVID-19 pandemic in England: potential implications for cardiometabolic health

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The COVID-19 (SARS-CoV-2) pandemic has had a global impact on healthcare provision. Changes in prescribing of commonly used medications can be used as a marker for diagnoses of new patients as well as measuring service levels for patients in primary care [1].

The consequences of the COVID-19 pandemic in relation to incident cases of depression and other mental health issues are well documented [2–4]. How much the prescribing of specific psychotropic medications was impacted by the pandemic has been less explored. This is relevant from a cardiovascular point of view as untreated depression and untreated psychosis are associated with a significantly elevated cardiovascular event rate [5,6].

We here compare prescribing data for psychotropic medication with common physical health medications in England before/during the COVID-19 pandemic.

Primary Care Prescribing data for different major national formulary classes of drug from March 2017 to February 2022 (5 years) were considered [7]. In order to capture the impact during periods of social restriction of access to health services for new diagnoses/existing conditions, repeat prescriptions and episodic prescribing were included with account taken of historical trend.

The pre-pandemic prescriptions issued each month from March 2017 to February 2020 were linearly extrapolated

forward to give estimates over the pandemic period to give an expected annual growth (EAG). From this the monthly average expected prescriptions for the pandemic period March 2020–February 2022 were calculated and compared to the actual average. The change in share of total prescriptions of the main antidepressant medications was evaluated to show relative change.

As comparative baseline, it was found that physical health medications had lower monthly prescription during the pandemic with antibiotic (which are episodic) –12.2% (EAG –1.4%), and the most repeat prescriptions for bronchodilators –1.8% (EAG 0%), hypertension and heart failure –1.3% (EAG 1%), and lipid regulating minimally less at –0.1% (EAG 2.3%). Mental Health monthly prescribing increased with hypnotics/anxiolytics by 0.6% (EAG –2.4%), antipsychotics by 0.5% (EAG 2.7%), and antidepressants up by 0.3% (EAG 4.9%). The profile of the three main antidepressant medications was: sertraline increased from 22.7 to 24.6% (+8%), mirtazapine increased from 13.0 to 13.6% (+5%), and venlafaxine stayed at 6.3% (0%).

The pandemic effect on psychotropic prescribing was not as large as might be expected, possibly impacted by limited access to services [8]. The fall in antibiotic prescribing may similarly reflect the impact of reduced access to services, limiting episodic prescribing.

The increase in anxiolytic/hypnotic and antidepressant prescribing above trend links to pandemic effects on anxiety/worry [2–4]. However, the increase is far from what might be expected, on the basis of what is known about the way that the COVID-19 pandemic resulted in increased rates of anxiety and depression in the UK population as elsewhere in the world [2,3,4]. The slight increase in antipsychotic prescribing likely relates to the use of antipsychotics in care home settings [9] and is additive to the trend before the pandemic for increased prescribing of antipsychotic medication in England [10].

Should our assertion that the increase in antidepressant prescribing be much less than anticipated, the inference is that depression has been underdiagnosed in England and possibly elsewhere. If untreated, depression is associated with an adverse cardiovascular profile [5,6] and poorer life/socioeconomic/health outcomes overall [11].

Going forward, an evaluation of individuals' experiences might illuminate why we have observed these prescribing trends. It is hoped that we can use the opportunity created by the COVID-19 pandemic to enable sustained, efficient, and equitable delivery of mental healthcare

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with attendant benefits for cardiovascular outcome in those affected by enduring mental health conditions [12].

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Data availability statement: the data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of interest

There are no conflicts of interest.

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