

The impact of the COVID-19 pandemic on psychotropic medication initiation among adolescents and young adults – a time series analysis

Hanna Koskinen¹, Fredriikka Nurminen¹, Hanna Rättö¹, Timo Hujanen¹,
Leena Saastamoinen² and Heini Kari¹

¹Research at Kela, The Social Insurance Institution of Finland (Kela), Helsinki, Finland

²Finnish Medicines Agency Fimea, Kuopio, Finland



Objectives

The COVID-19 pandemic raised concerns about people’s mental health, particularly among adolescents and young adults. The initiation of psychotropic medications can serve as a proxy for identifying changes in mental health trends.

This study aims to analyze patterns of psychotropic medication initiations, providing insights into the mental health trajectory of adolescents and young adults in the context of COVID-19.

Methods

Data extracted from the National Prescription Centre of Finland include all individuals aged 12–24 years who start using psychotropic medication (ATC-classes N05A, N05B, N05C, N06A, N06C, N03AE01) 1.1.2017–28.2.2022. Data were analyzed using descriptive methods and an interrupted time series analysis using ARIMA modelling was performed to assess the effect of COVID-19 on psychotropic medication initiation.

Results

Between January 2018 and February 2022, a total of 140,581 people aged 12–24 initiated psychotropic medication in Finland. At baseline, the monthly number of new initiators was 2,457, with a slight, but statistically not significant increase in the monthly number of initiators (15; $p=0.169$).

After the start of the COVID-19-pandemic, the monthly number of initiators decreased by 497 ($p=0.055$) (-20% from baseline). After an immediate decline, an upward trend was observed (35; $p=0.052$). However, there were differences between medicine groups (**Figure 1**). While an increase in new users was observed in all age groups, the number of new psychotropic medication users per 1,000 of the same age group was highest for 22–23-year-olds.

The proportion of women initiating treatment was higher than men in all age groups. The most commonly used psychotropic medicine throughout the study period was escitalopram (**Table 1**).

Conclusion

Although the results of our analysis are not strongly statistically significant, they suggest an increasing post COVID-19-trend in the use of psychotropic medications, particularly antidepressants, especially among women and young adults. This highlights the need to prioritize mental health resources and services to meet the growing needs of adolescents and young adults.

Fig. 1. Projected and actual number of psychotropic medication initiations by medicine group between January 2018 and February 2022 (interrupted times series analysis, linear trends).

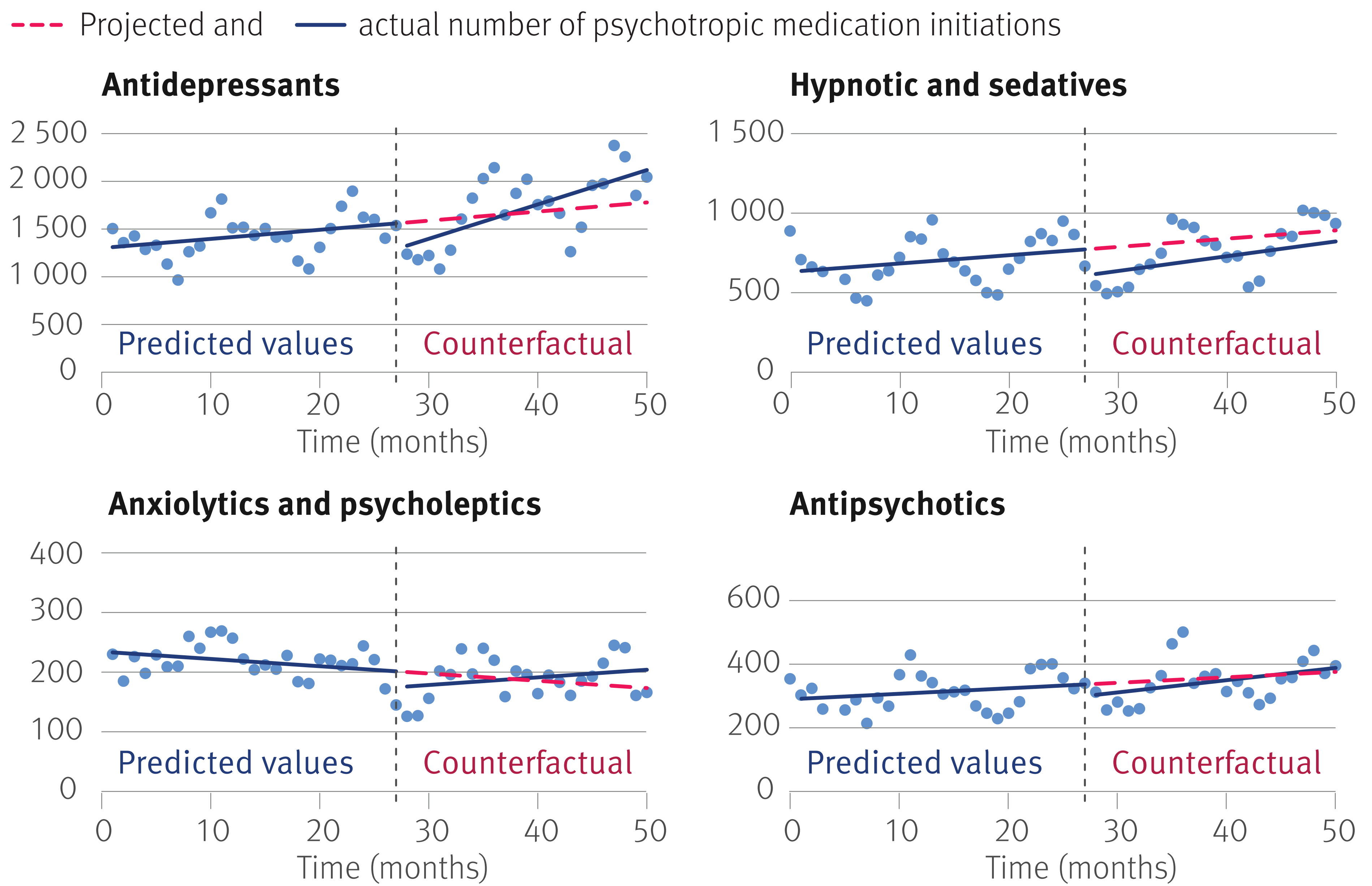


Table 1. The most prescribed medicines and their share of initiations within a medicine group.

	2018	2019	2020	2021	1–2/2022
Antidepressants					
Escitalopram	30.2	30.0	28.0	27.9	25.8
Mirtazapin	16.2	16.2	17.0	15.5	15.6
Fluoxetine	14.3	14.7	14.6	16.3	17.4
Hypnotic and sedatives					
Melatonin	76.0	78.4	81.4	84.1	85.6
Zopiclone	9.3	7.9	7.4	6.2	5.5
Zolpidem	5.7	5.2	4.7	3.8	2.7
Anxiolytics and psycholeptics					
Oksazepam	59.5	65.2	66.6	67.9	70.0
Diazepam	22.4	19.0	18.1	17.5	15.1
Amitriptyline and psycholeptics	6.5	5.7	5.7	5.5	6.6
Antipsychotics					
Quetiapine	66.8	67.5	67.3	68.9	70.5
Risperidon	12.5	11.4	10.4	10.8	8.3
Olanzapin	8.5	8.6	10.1	8.4	8.5

Contact information

Timo Hujanen, Senior Researcher, Research at KELA, timo.hujanen@kela.fi

