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Trends in psychiatric emergency visits: insights from France's largest psychiatric emergency department

Marine Ambar Akkaoui^{1,2*}, David Barruel³, Valérie Dauriac-Le Masson³, Raphael Gourevitch¹ and Alexandra Pham-Scottet^{1,4}

Abstract

Introduction Psychiatric emergency departments (EDs) in France have been under pressure from several factors, exacerbated by the COVID-19 pandemic. The pandemic led to an increase in psychiatric disorders, particularly anxiety and depression, with younger people and women being most affected. The aim of this study was to provide a comprehensive description of the trends in the number of visits to the largest psychiatric emergency department in France, with a particular focus on the period preceding and following the advent of COVID-19 pandemic.

Methods This retrospective study analyzed data from 69,764 visits to the Centre Psychiatrique d'Orientation et d'Accueil (CPOA) in Paris from 2016 to 2023. Patient data, including demographics, reasons for visit, and diagnoses, were collected and analyzed to identify trends over this period.

Results The study observed a 28.5% increase in ED visits from 2016 to 2023. The increase was primarily driven by mood and anxiety disorders, which showed increases of 38.6% and 75.4%, respectively. The average age of patients decreased, reflecting a younger population increasingly affected by psychiatric problems. Interestingly, despite the increase in ED visits, hospital admissions decreased by 11.9%, with a notable decrease in involuntary commitment.

Discussion The findings highlight a paradox where increased psychiatric ED visits are not accompanied by an increase in hospital admissions. This suggests a shift toward outpatient care due to systemic factors, including reduced hospital bed availability and challenges in accessing timely outpatient services. This study underscores the need to strengthen outpatient mental health services to effectively manage the growing demand. Further research, especially multicenter studies, is recommended to validate these findings and inform policy changes.

Keywords Psychiatric emergencies, Emergency department, Psychiatric hospitalization, COVID-19, Psychiatric disorders

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Introduction

Psychiatric emergency departments (EDs) in France [1] have been in crisis for several years for multiple reasons [2]. Patients are increasingly experiencing psychological and psychiatric difficulties before reaching the psychiatric ED. The COVID-19 pandemic has increased the prevalence of psychiatric disorders, especially anxiety and depressive disorders. A meta-analysis of 48 studies conducted in over 200 regions across the globe revealed that this increase was particularly pronounced among young people and women [3]. Economic difficulties prevent a large proportion of patients from accessing private psychiatrists. Another obstacle is the great distance or even the absence of private psychiatrists in certain geographical areas. For public psychiatry, community mental health centers (CMHCs) are saturated or have long waiting times, diverting new patients to emergency services.

Working conditions in psychiatric EDs are particularly difficult because of lack of staff, facilities and beds. Downstream from emergency services, for inpatient care, psychiatric hospitals are often saturated, for difficulties transferring patients from EDs to inpatient care, and patients remain in the ED for several days. For post-emergency outpatient care, CMHCs are chronically understaffed, so these patients in need of outpatient care return to psychiatric EDs, thus completing the vicious cycle of the saturation of psychiatric EDs.

Paradoxically, there are few French or international studies on visits to psychiatric EDs and the evolution of visits over several years. Most published studies examined only the short-term impact of the health crisis associated with the COVID-19 pandemic on psychiatric ED visits, with a collapse of ED visits during the lockdown period, regardless of the country: France [4, 5], Spain [6], Italy [7–10], Portugal [11], Germany [12], Greece [13], Switzerland [14], Israel [15], Australia [16] or the United States [17–20]. The only psychiatric emergency service that reported an increase in visits during the pandemic was in Modena, Italy [21].

In some studies, a decrease in psychiatric emergency visits was followed by an increase in visits in the period after the pandemic [22]. A study conducted in France [23] showed that after a 20% decrease in psychiatric emergency visits in 2020, such visits increased again in 2021 but at a lower level than before the pandemic, except for women aged 15–24 years, whose post-pandemic visits increased by 39% as compared with the pre-pandemic period. The number of emergency visits for neurotic disorders increased between 2019 and 2021 in all age groups. Furthermore, the number of emergency visits for mood disorders increased meaningfully by 44% [23].

We did not find any international literature on psychiatric emergency visits for the period before and after

2021, the mid-point of the pandemic, and all studies cited so far focused on the period immediately before and after the COVID-19 pandemic. To date, no study has described the evolution of psychiatric emergency visits over a longer observation period of several years. The aim of our retrospective observational monocentric study was to describe the trends in number of visits to the largest psychiatric ED in France, the Centre Psychiatrique d'Orientation et d'Accueil (CPOA), located at the historic site of the Sainte-Anne hospital in Paris, from 2016 to 2023.

Methods

Data collection

Data were provided by the Department of Medical Information of the Paris University Hospital Group of Psychiatry and Neurosciences (GHU Paris Psychiatry & Neurosciences) and extracted from electronic patient records. The following information was collected for each consultation: date of visit, patient age and sex, reason for consultation in the psychiatric ED (one or more possible reasons for each patient), patient's provenance before the consultation (home, school, work etc.), mode of arrival at the ED (personal means, ambulance, police or fire brigade, family), main diagnosis by the psychiatrist after the consultation according to the International Classification of Diseases, 10th revision, in the main categories (F1: mental and behavioral disorders due to the use of psychoactive substances, F2: schizophrenia, schizotypal and delusional disorders, F3: mood (affective) disorders, F4: neurotic, stress-related and somatoform disorders, F5: behavioral syndromes associated with physiological disorders and physical factors, F6: disorders of adult personality and behavior), and orientation after the ED visit (hospitalization or outpatient).

Each visit to the CPOA was considered a discrete event; if a patient visited on multiple occasions during the study period, each visit was counted independently.

Data were extracted from 11 January 2016 (the date when patient records were computerized at the CPOA) to 31 December 2023.

Population

We included all patients ≥ 15 years old who consulted at the CPOA during the study period and who did not object to the use of their anonymized data (this was not the case for any patients during the study period). Patients under the age of 15 were excluded from our analyses (0.2% of patients).

Statistical analyses

Data were provided on a daily time scale. First, data are described with mean (SD), median (range) or number (%)

for each year. Temporal trend analyses were performed to assess the evolution of the number of emergency psychiatric consultations over time. Data were then aggregated by year (we added up the number of visits and calculated the age as the average over the period). To provide a clear visual representation of the temporal evolution of the French COVID-19 crisis, in the graphical illustrations, we chose the date of 15 March 2020 as the reference point, marking the commencement of the first lockdown. The analyses involved using R Studio software.

Ethical considerations

Patients who objected to the use of their anonymized data were excluded from the study. This research project was registered on the Health Data Hub platform, and GHU Paris signed a commitment to the reference methodology MR004 on 20 July 2018 (simplified declaration to the national Commission on Information Technology and Freedoms [CNIL]). Finally, this research was approved by the Research Ethics Committee of GHU Paris.

Results

From 11 January 2016 to 31 December 2023, there were 69,764 consultations at the CPOA, corresponding to 50,014 patients. Sociodemographic characteristics of patients are summarized in Table 1.

The main reasons for ED visits are summarized in Table 2 (several reasons for consultation were possible for each patient).

Table 1 Sociodemographic characteristics of patients consulting the Centre Psychiatrique d'Orientation et d'Accueil during the study period. ED: Emergency Department

Sociodemographic data	N (n = 69,764 visits)	%
Sex		
Female	37,214	53.2
Male	32,717	46.8
Age (years), mean	35.9 (range 15.0–98.2, SD 15.2)	
Patient's provenance before ED		
Home	41,896	60.1
General hospital	11,377	16.3
Street	9681	13.9
Institution	3522	5.0
Work	1250	1.8
School	544	0.8
Mode of arrival		
Personal means	53,959	77.3
Ambulance	11,506	16.5
Police or fire brigade	2349	3.4
Social services	451	0.6
Other	1182	1.7

Table 2 Main reasons for consulting the Centre Psychiatrique d'Orientation et d'Accueil during the study period

Reasons for consultation	n	%
Depressive symptoms	22,274	31.9
Anxiety	21,223	30.4
Suicidal thoughts	12,762	18.2
Delusions	12,159	17.4
Sleep disorders	6186	8.9
Agitation—excitement	4980	7.1
Suicidal behavior	4372	6.3
Reclusive, withdrawn, bizarre	3044	4.4
Wandering, pathological travel	2712	3.9
Complaints related to alcohol	2463	3.5
Heteroaggressive behavior	2023	2.9
Enquiries relating to drug addiction	2019	2.9
Social enquiry	1345	1.9
Somatic complaints	1089	1.6
Eating disorders	919	1.3
Administrative enquiries	844	1.2
Request for information	809	1.2
Confusional syndrome	272	0.4
Mutism	204	0.3

The total number of ED visits increased by 28.5% over the 7-year period, with the exception of 2020, which corresponds to the beginning of the COVID-19 period and several lockdowns in France. This overall increase is supported by an increase in number of consultations for mood disorders, which increased by 38.6% over the 7-year period, and anxiety disorders, which increased by 75.4% (Fig. 1). Furthermore, the number of individuals consulting a psychiatrist for the first time increased by 13.2% from 2016 and 2023 (18.6% vs 21.2%). These data are summarized in Table 3.

The number of patients admitted to psychiatric wards after their consultation at the CPOA decreased, with a reduction of 11.9%. Additionally, we found a notable decrease in proportion of involuntary commitments, with a 25.2% reduction in cases admitted under restraint (Fig. 2). The results are detailed in Table 4.

Figure 3 shows the changes in overall percentage of hospital admissions and involuntary commitments.

Furthermore, the average age of patients decreased since 2016, with a decrease of -8.9% (the mean age was 37.9 years in 2016 and decreased to 34.5 years in 2023) (Fig. 4).

Discussion

Our study shows a continuous increase in number of visits to the CPOA from 2016 to 2023, mainly related to an increase in visits for anxiety and mood disorders.

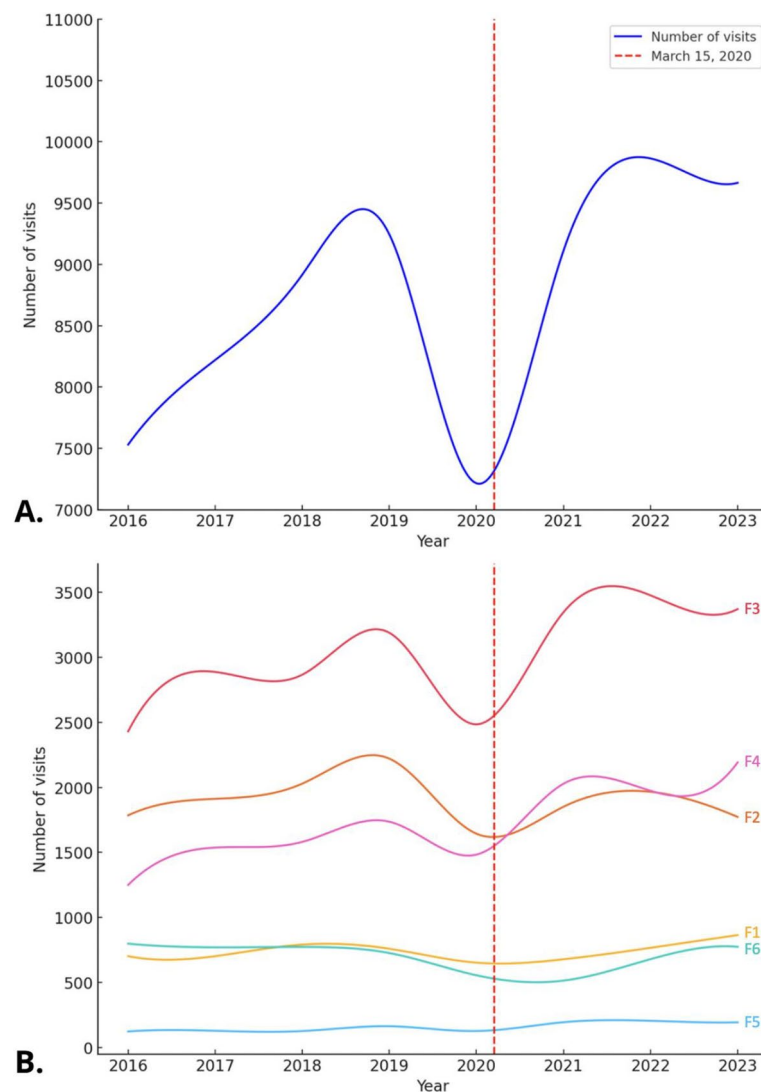


Fig. 1 Changes in monthly number of visits to the Centre Psychiatrique d'Orientation et d'Accueil over the study period. **A** Total number of visits. **B** Number of visits per ICD-10 diagnostic code. ICD-10: International Classification of Diseases, 10th revision, F1: mental and behavioral disorders related to the use of psychoactive substances, F2: schizophrenia, schizotypal disorders and delusional disorders, F3: mood (affective) disorders, F4: neurotic, stress-related and somatoform disorders, F5: behavioral syndromes related to physiological disorders and physical factors, F6: personality and behavioral disorders in adults

These findings agree with those of the CoviPrev study, which identified an increase in anxiety and depressive episodes after the onset of the COVID-19 pandemic [24]. The first pandemic restrictions had led to a reduction in number of emergency psychiatric consultations but was followed by a rebound in consultations [25], particularly among younger patients. This observation is reflected in our study, finding a meaningful reduction in the average age of patients consulting the CPOA and a more marked reduction in age after COVID-19. These results are consistent with data in the literature finding that young people were more affected by the COVID-19 pandemic, with

an increase in malaise among young people in France [26, 27] and an increase in suicidal behavior among young people, especially young women [28]. In our study, the difference between the mean and median age remains stable over time, but indicates a distribution of consultation ages towards younger patients, consistent with the age of onset of psychiatric disorders [29].

Notably, the observed increase in consultations for depression and anxiety as well as the reduced age of ED populations had already commenced before the onset of the COVID-19 pandemic and has continued to increase linearly since then. Moreover, in our study the increase

Table 3 Number of consultations per year for the total population and by psychiatric diagnosis

Year	Total	ICD-10 code					
		F1 – Substance use disorders	F2 – Psychotic disorders	F3 – Mood disorders	F4 – Anxiety disorders	F5 – Eating disorders	F6 – Personality disorders
2016	7530	702	1785	2431	1250	123	798
2017	8220	702	1912	2888	1537	128	770
2018	8916	791	2029	2867	1581	126	773
2019	9244	759	2221	3189	1736	163	726
2020	7214	652	1644	2485	1483	126	555
2021	9111	678	1851	3347	2028	194	514
2022	9864	766	1966	3477	1974	205	679
2023	9665	864	1773	3371	2192	193	774
Change (%)	+28.5%	+23.1%	-0.7%	+38.6%	+75.4%	+56.9%	-3.0%

ICD-10 International Classification of Diseases, 10th revision, F1: mental and behavioral disorders related to the use of psychoactive substances, F2: schizophrenia, schizotypal disorders and delusional disorders, F3: mood (affective) disorders, F4: neurotic, stress-related and somatoform disorders, F5: behavioral syndromes related to physiological disorders and physical factors, F6: personality and behavioral disorders in adults

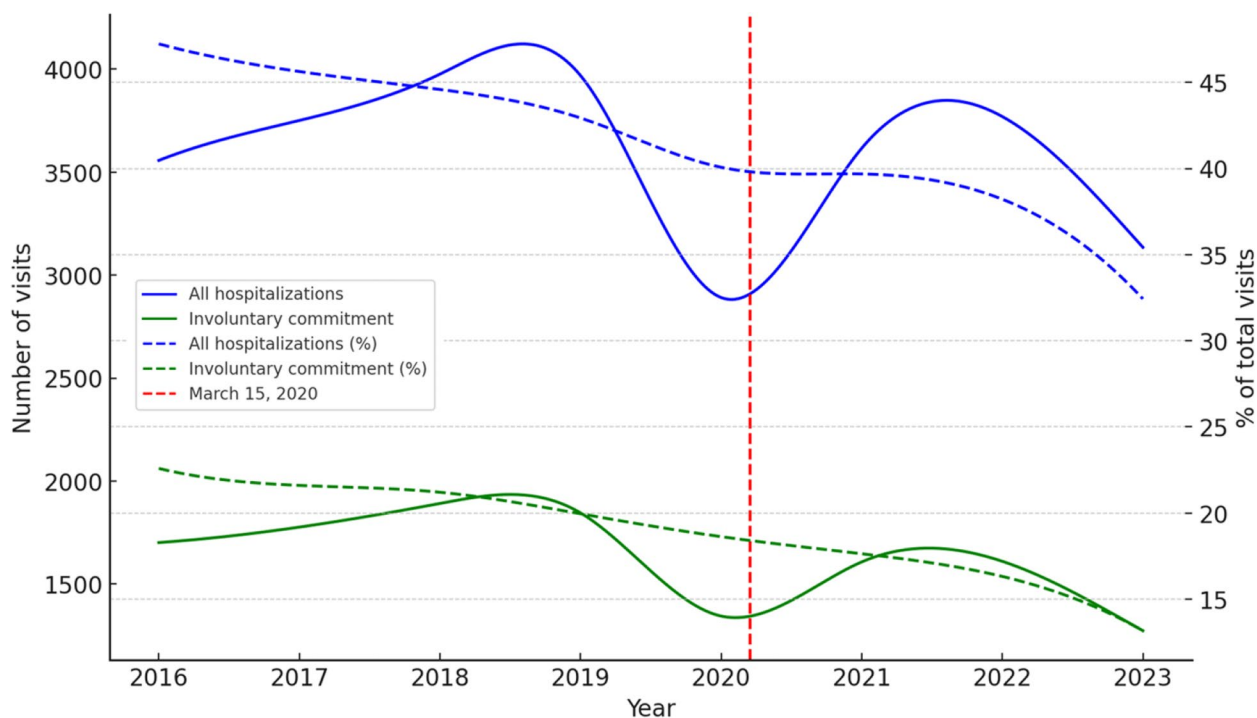


Fig. 2 Change in the total number of hospital admissions over the study period and as a percentage of total visits to the Centre Psychiatrique d'Orientation et d'Accueil (CPOA). In blue: monthly percentage of visits in CPOA followed by any hospitalization by any mode; in green: monthly percentage of visits in CPOA followed by hospitalization with involuntary commitment

in the number of consultations seems to be even greater before COVID-19 than after. This observation agrees with a previously formulated hypothesis that COVID-19 only made a pre-existing situation worse [28] and indicates that additional general factors (social, economic, climatic, etc.) contribute to the exacerbation of the population's distress [30, 31].

Other hypotheses could explain this increase in psychiatric emergencies. A first hypothesis is linked to the reduction in on-call services at other health facilities in Paris and the inner suburbs. Patients turn to the CPOA because they cannot be seen elsewhere or they are referred to the CPOA by other EDs because of no psychiatrist on duty in the establishment. A second

Table 4 Total number of hospital admissions (HAs), including involuntary commitments (ICs). Percentages are given for each psychiatric diagnosis in relation to the total number of HAs or ICs

Total	ICD-10 code													
	F1 – Substance use disorders		F2 – Psychotic disorders		F3 – Mood disorders		F4 – Anxiety disorders		F5 – Eating disorders		F6 – Personality disorders			
	HAS	ICs	HAS	ICs	HAS	ICs	HAS	ICs	HAS	ICs	HAS	ICs		
2016	3557	1701	310 (8.7%)	154 (9.1%)	1785 (38.2%)	1359 (51.6%)	2431 (36.9%)	1311 (28.2%)	226 (6.4%)	32 (1.9%)	43 (1.2%)	14 (0.8%)	240 (6.7%)	78 (4.6%)
2017	3751	1776	273 (7.3%)	99 (5.6%)	1912 (38.2%)	1432 (54.4%)	2888 (39.4%)	1478 (28.0%)	266 (7.1%)	54 (3.0%)	34 (0.9%)	8 (0.5%)	210 (5.6%)	53 (3.0%)
2018	3976	1891	307 (7.7%)	121 (6.4%)	2029 (37.8%)	1504 (33.9%)	2867 (37.0%)	1472 (26.3%)	265 (6.7%)	36 (1.9%)	25 (0.6%)	11 (0.6%)	222 (5.6%)	67 (3.5%)
2019	3969	1845	319 (8.0%)	113 (6.1%)	2221 (39.8%)	1578 (57.0%)	3189 (37.7%)	1497 (26.9%)	279 (7.0%)	39 (2.1%)	30 (0.8%)	10 (0.5%)	211 (5.3%)	48 (2.6%)
2020	2891	1344	232 (8.0%)	75 (5.6%)	1644 (38.8%)	1122 (58.6%)	2485 (40.4%)	1169 (26.3%)	196 (6.8%)	33 (2.5%)	24 (0.8%)	5 (0.4%)	164 (5.7%)	45 (3.3%)
2021	3616	1607	270 (7.5%)	100 (6.2%)	1851 (36.8%)	1329 (59.7%)	3347 (40.3%)	1456 (22.3%)	307 (8.5%)	48 (3.0%)	37 (1.0%)	6 (0.4%)	140 (3.9%)	32 (2.0%)
2022	3770	1610	272 (7.2%)	97 (6.0%)	1966 (36.0%)	1357 (57.8%)	3477 (38.6%)	1457 (24.4%)	279 (7.4%)	41 (2.5%)	41 (1.1%)	11 (0.7%)	186 (4.9%)	34 (2.1%)
2023	3135	1273	271 (8.6%)	82 (6.4%)	1773 (34.0%)	1066 (57.3%)	3371 (40.7%)	1277 (25.8%)	212 (6.8%)	25 (2.0%)	38 (1.2%)	5 (0.4%)	190 (6.1%)	39 (3.1%)
Change (%)	-11.9%	-25.2%	-12.6%	-46.7%	-21.6%	-17.0%	-2.6%	-31.7%	-6.2%	-21.9%	-11.6%	-64.3%	-20.8%	-50.0%

ICD-10 International Classification of Diseases, 10th revision, F1: mental and behavioral disorders related to the use of psychoactive substances, F2: schizophrenia, schizotypal disorders and delusional disorders, F3: mood (affective) disorders, F4: neurotic, stress-related and somatoform disorders, F5: behavioral syndromes related to physiological disorders and physical factors, F6: personality and behavioral disorders in adults

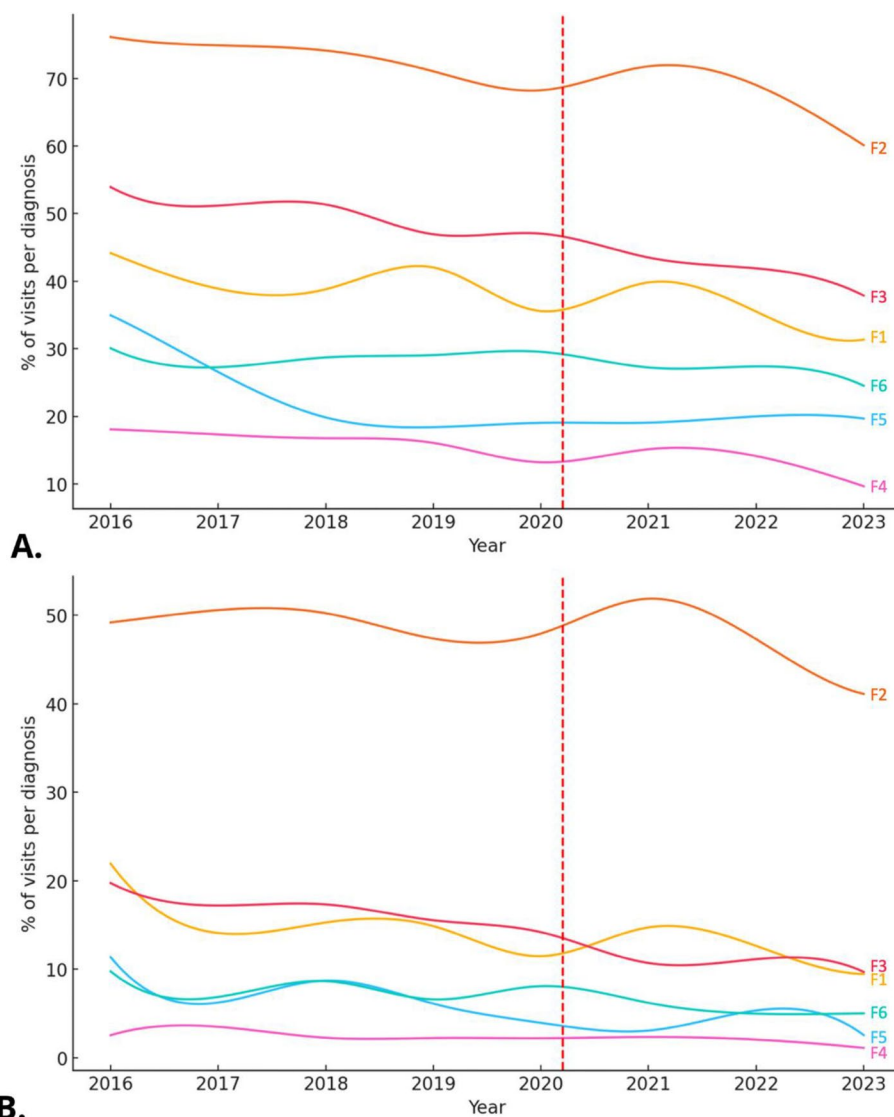


Fig. 3 Percentage of hospitalizations (A) and involuntary commitments (B) by psychiatric diagnosis as a percentage of the number of admissions by ICD-10 diagnostic code, per year. **A** Changes in overall percentage of hospital admissions by psychiatric diagnosis (as a proportion of the total number of consultations per diagnosis). **B** Changes in percentage of involuntary commitments by psychiatric diagnosis (as a proportion of the total number of consultations per diagnosis). ICD-10: International Classification of Diseases, 10th revision, F1: mental and behavioral disorders related to the use of psychoactive substances, F2: schizophrenia, schizotypal disorders and delusional disorders, F3: mood (affective) disorders, F4: neurotic, stress-related and somatoform disorders, F5: behavioral syndromes related to physiological disorders and physical factors, F6: personality and behavioral disorders in adults

hypothesis concerns the shortage of providers (psychiatrists and nurses) in CMHCs, which means that appointments often take several months, and the difficulties in accessing general practitioners, which could lead to patients with less serious pathologies presenting to psychiatric emergencies because they are unable to find a consultation in the short or medium term. This phenomenon is exemplified by the observed increase in the number of patients consulting a psychiatrist for the first time during their visit to the CPOA. Third, the

increase in consultations to the psychiatric ED may also reflect an increase in the prevalence of anxiety and mood disorders in the general population, as previously outlined in other studies [24]. Finally, as a result of the various mental health awareness campaigns and the introduction of national suicide prevention numbers (3114) and telephone helplines (PsyIDF), patients are more likely to seek psychiatric care than they were a few years ago [32]. Another, more neurobiological hypothesis concerns the direct effect of Covid-19 on

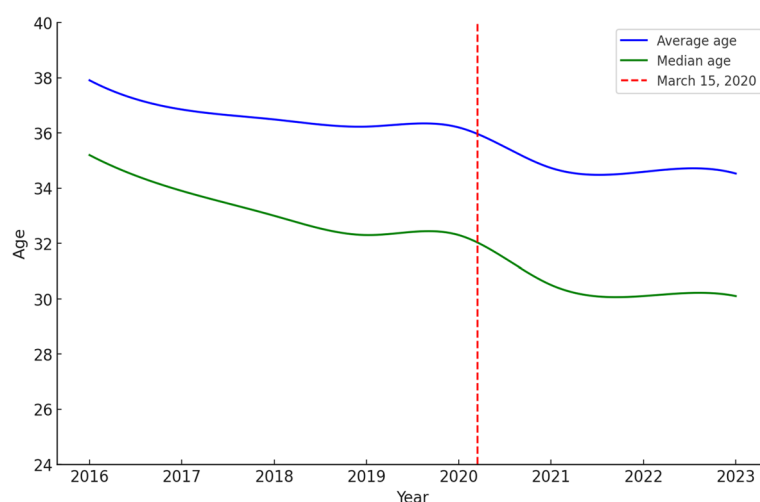


Fig. 4 Change in average age of patients consulting the CPOA over the study period, per year

cerebral inflammation and the occurrence of psychiatric symptoms [33].

Paradoxically, although the number of visits to the psychiatric ED increased over the years, the proportion of total visits represented by hospital admissions decreased meaningfully, whatever the psychiatric diagnosis. The decrease in hospital admissions could be explained in part by the lack of available inpatient beds, forcing service providers to find alternative outpatient solutions and reduce the number of indications for hospitalization. Indeed, a recent DREES report showed a decrease in the number of psychiatric hospital beds over the last 3 years (-1000 beds or -3.1% in the public sector in 2021–2022) [34]. In contrast, as mentioned previously, a number of patients may consult EDs because of the difficulty in finding a consultation appointment, which would lead to an increase in outpatient referrals. Another hypothesis, similar to the one formulated previously, is that patients requiring outpatient care have difficulty finding consultations in the city and consult EDs instead. This hypothesis is consistent with the increase in the number of patients consulting a psychiatrist for the first time in our study.

The increase in number of psychiatric ED consultations, combined with the decrease in psychiatric inpatient admissions, suggests that outpatient care arrangements must be strengthened. At the CPOA, the introduction of post-emergency consultations by a nurse in advanced practice has allowed for providing follow-up care for patients in crisis situations while they wait for follow-up care at a CMHC, thus avoiding systematic recourse to hospitalization in certain cases [29, 35]. Also hospital sectors that have the impression that EDs are over-hospitalizing patients

must be reassured that they are not. In reality, the data from our study show that we are able to manage more patients without a proportional increase in hospital admissions.

This study has a number of limitations. Although the CPOA is the largest psychiatric ED in France, this was a single-center study, which limits the generalizability of the conclusions to other institutions or regions. In addition, biases associated with the coding of emergency admissions may affect the accuracy of the data (classification bias). Differences in coding practices between the different practitioners working at the CPOA during on-call duty may have introduced a classification bias in that EDs are not the appropriate place to make an accurate diagnosis and there is may be some variability between practitioners. In addition, the ICD-10 coding system, which is grouped into broad categories, does not allow differentiation between certain diagnostic subcategories that might have been of interest for further study. In our study, only 6.3% of patients were seen in the ED after a suicide attempt, which is lower than in a general ED [36]; in fact, the CPOA does not receive patients who attempted suicide and require medical attention, and patients are referred to a general ED. In the literature, findings regarding post-COVID suicidal behavior are inconsistent [37]. However, in France, several studies have suggested an increase in suicide attempts among specific population groups, particularly young women [28]. Moreover, a number of patients consulted multiple times during the study period; it was not possible to extract their data independently. However, it would be interesting to do so in a future study to assess the influence of these repeat patients on psychiatric emergency department flow.

Conclusion

This retrospective study performed at the CPOA over the past 7 years, with a large sample of patients, showed a meaningful increase in number of visits to the psychiatric ED, particularly for mood and anxiety disorders. Paradoxically, despite this increase in consultations, the hospitalization rate decreased, which suggests a change in how patients are cared for and an increasing focus on outpatient management. Several factors could explain these trends, both clinical and organizational, including the reduction in out-of-hours services in other facilities, staff shortages in CMHCs and the continuing impact of the COVID-19 pandemic on mental health. In this situation, outpatient mental health services must be strengthened to continue to provide appropriate care without systematic recourse to hospitalization. Future multicenter research, specifically by age and sex subgroups, would be useful to confirm our findings and refine strategies for managing psychiatric emergencies in France.

Authors' contributions

MAA and DB contributed to data collection; MAA and APS analyzed the data; MAA did the statistical analysis. RG, LT et VL validated the results and manuscript. All authors participated in the analysis and writing of the manuscript.

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Not applicable.

Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

Patients who objected to the use of their anonymized data were excluded from the study. This research project was registered on the Health Data Hub platform, and GHU Paris signed a commitment to the reference methodology MR004 on 20 July 2018 (simplified declaration to the national Commission on Information Technology and Freedoms [CNIL]). Finally, this research was approved by the Research Ethics Committee of GHU Paris.

Competing interests

The authors declare no competing interests.

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