

LETTER TO THE EDITOR

Hospitalizations for suicide attempt during the first COVID-19 lockdown in France

When the first lockdown was implemented to limit the spread of coronavirus disease 19 (COVID-19), many experts alerted on the potential risk of suicide. Indeed, prolonged social isolation due to the stay-at-home directives has been associated with increased loneliness,¹ known to increase suicide risk. Although data on deaths by suicide during the lockdown are still scarce, the first month of the pandemic might have been characterized by a lower suicide mortality rate.² A timely study showed that in Japan, the monthly suicide rate decreased by 14% in the first 5 months of the pandemic, but then increased by 16% during the second wave.³ Research on the relationship between the COVID-19 pandemic and suicidal acts (SA) can help to rapidly adapt healthcare systems. However, results are still limited and inconclusive, possibly due to insufficiently representative or too small samples. To our knowledge, only one population-based study reported a lower incidence of self-harm in the United Kingdom in April 2020 compared with the previous years, especially in women and people younger than 45 years.⁴

In France, the first national lockdown was from March, 16 to May, 11 2020 (home confinement, limited social contacts, closure of schools and of all unnecessary business activities). We used the French national hospital discharge database (Programme de Médicalisation des Systèmes d'Information, PMSI) to identify SA-related hospitalizations (ICD-10 codes X60 to X84) in Medicine/Surgery services of public- and private-sector hospitals. We compared the patients' SA methods, death rate during hospitalization, sex and age (<30, 30–59 and >59-year-old) during (March 16–May 11), before (January 19–March 15) and after (May 12–July 7) the lockdown, and during the same periods in 2019. Patients aged 10 years and older were included (Table 1).

During the lockdown, 10,400 patients (mean age: 41.30 ± 18.88 years) were hospitalized for SA (10,839 hospital stays). Non-violent/non-severe SA (ie self-poisoning or self-cutting without the need of intensive care unit admission) were the most frequent (78.96%). SA incidence decreased during the lockdown. Compared with the same periods in 2019 and the period before the lockdown, the frequency of non-severe/non-violent SA as well as the percentage of women and of <30-year-old suicide attempters

were significantly lower during and after the lockdown. For instance, 8558 (78.96%) non-severe/non-violent SA were hospitalized between the lockdown (16 March and 11 May 2020) in comparison to 11,118 (80.57%) non-severe/non-violent SA between 16 March and 11 May 2019 ($p < 0.01$) and 11,147 (81.67%) non-severe/non-violent SA between 18 January and 15 March 2020 ($p < 0.01$). Conversely, the highest death rate during hospitalization was observed during the lockdown. For instance, 187 deaths (1.8%) were reported between the lockdown (16 March and 11 May 2020) in comparison to 142 deaths (1.07%) between 16 March and 11 May 2019 ($p < 0.01$) and 177 deaths (1.35%) between 18 January and 15 March 2020 ($p < 0.01$).

Our results are consistent with the observed decrease of suicidal behaviours in many countries during the strict lockdown.^{4,5} This decrease may be explained by several factors: the so-called “pulling-together effect” observed in times of national tragedies, the work adaptation (reduced working hours and work-from-home policies), the subsidies to limit financial distress, the reduced access to illegal drugs. However, the absolute number of violent or severe SA (and related deaths during hospitalization) remained relatively stable. This discrepancy could be explained by the non-hospitalization of patients with not serious SA during this period of limited access to emergency departments,⁵ unlike the most serious attempts. Another possible explanation is that the psychosocial context did not shield people who performed the most serious SA, reflecting worse psychopathology. It strengthens the hypothesis that violent or severe SA may be a specific suicidal phenotype. Nevertheless, our results will have to be interpreted in the light of the total suicide mortality rate for 2020 even if our results are not generalizable to the general population, but only in those hospitalized at the time of self-harm. Moreover, the PMSI database may underestimate SA frequency because it records emergency stays lasting >24 h.

Suicide prevention should remain a priority because the frequency of violent/severe SA remained unchanged, and this might lead to an increase in the suicide rate during the COVID-19 pandemic. Additional studies are needed to identify the long-term impact of the COVID-19 pandemic

TABLE 1 Description of characteristics of suicide attempt (SA) and subjects hospitalized for suicide attempt

	2019			2020		
	January, 18-March, 15 (P1)	March, 16-May, 11 (P2)	May, 12-July, 7 (P3)	January, 18-March, 15 (P4)	March, 16-May, 11 (P5) Lockdown	May, 12-July, 7 (P6)
SA	<i>N</i> = 13,142	<i>N</i> = 13,800	<i>N</i> = 14,439	<i>N</i> = 13,649	<i>N</i> = 10,839	<i>N</i> = 12,769
Non-violent and Non-severe SA	10,663 (81.14%)	11,118 ^{a‡} (80.57%)	11,617 ^{b‡} (80.46%)	11,147 ^{c‡,d‡} (81.67%)	8558 ^{a‡,c‡} (78.96%)	10,059 ^{b‡,d‡} (78.78%)
Subjects	<i>N</i> = 12,629	<i>N</i> = 13,264	<i>N</i> = 13,882	<i>N</i> = 13,076	<i>N</i> = 10,400	<i>N</i> = 12,288
Death	176 ^{g‡} (1.39%)	142 ^{a‡,g‡} (1.07%)	185 (1.33%)	177 ^{c‡} (1.35%)	187 ^{a‡,c‡} (1.80%)	179 (1.46%)
Age	i‡	a‡,h‡	b‡,h‡,i‡	c‡,d‡	a‡,c‡,e‡	b‡,d‡,e‡
<30 years	4659 (36.89%)	4882 (36.81%)	4780 (34.43%)	4941 (37.79)	3256 (31.31%)	3871 (31.50%)
30–59 years	6134 (48.57%)	6431 (48.48%)	6908 (49.76%)	6161 (47.12)	5450 (52.40%)	6102 (49.66%)
>59 years	1836 (14.54%)	1951 (14.71%)	2194 (15.80%)	1974 (15.10)	1694 (16.29%)	2315 (18.84%)
Women	7684 (60.84%)	8106 ^{a‡} (61.11%)	8544 ^{b‡} (61.55%)	7958 ^{c‡,d‡} (60.86%)	6111 ^{a‡,c‡} (58.76%)	7244 ^{b‡,d‡} (58.95%)

Results are expressed as frequencies and percentages. Periods were compared within (2019: ^g for P2 vs. P1, ^h for P2 vs. P3 and ⁱ for P1 vs. P3; 2020: ^c for P5 vs. P4, ^d for P6 vs. P4, ^e for P5 vs. P6) and between years (^a for P5 vs. P2, ^b for P6 vs. P3). Significant comparisons after Benjamini & Hochberg correction (False Discovery Rate) were reported ([†]*p* < 0.05, [‡]*p* < 0.01).

on suicidality due to its psychosocial consequences and expected neuropsychiatric sequelae.

⁴Departement Information, Médicale CHU Montpellier, Montpellier, France

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DECLARATION OF INTEREST

None declared.

PEER REVIEW

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Emilie Olié^{1,2,3}
Erika Nogue⁴
Marie Picot⁴
Philippe Courtet^{1,2,3}

¹IGF, CNRS, INSERM, Univ. Montpellier, Montpellier, France

²Department of Emergency Psychiatry and Acute Care, Lapeyronie Hospital, CHU Montpellier, Montpellier, France

³FondaMental Foundation, Créteil, France

Corresponding Author: Emilie Olié e-olie@chu-montpellier.fr
Department of Emergency Psychiatry & Post-Acute Care, Academic Hospital of Montpellier 371 avenue Doyen Gaston Giraud 34295 Montpellier cedex 5 France

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