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Short communication

The Effects of the 1st National COVID 19 Lockdown on Emergency Psychiatric Visit Trends in a Tertiary General Hospital in Israel

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ABSTRACT

Objective: To examine whether the 1st COVID-19 lockdown in Israel affected emergency psychiatric presentations in a general hospital.
Method: We studied files of patients who underwent psychiatric consultation in the emergency-room (ER) at the Tel-Aviv Sourasky Medical Center during a lockdown imposed in 2020. Parallel data were obtained from 2017-2019, as control.
Results: The number of psychiatric consultations dropped during the lockdown period; an increased relative number of compulsory psychiatric hospitalizations was documented and a decreased rate of consented psychiatric hospitalizations.
Discussion: Less psychiatric patients approached the ER during the lockdown period, pointing to an urgent need to facilitate access to psychiatric care in future times of crisis.

1. Introduction

The coronavirus pandemic (COVID-19) is generating substantial increases in the global burden of depression, anxiety, and acute stress disorders (Ettman et al., 2020; Marroquín et al., 2020). Aside from fear of contagion and the tragic loss of lives, secondary effects on mental health are caused by the pandemics' broader impact, most notably - the lockdown and physical distancing requirements and the negative economic consequences (Yao et al., 2020). Concerns were raised regarding the ability of patients to seek medical help in times of national lockdowns, including in cases of psychiatric emergencies such as suicide (Bojdani et al., 2020; Carpiniello et al., 2020; Hernández-Calle et al., 2020; Schreiber et al., 2021). We sought to examine whether the first general lockdown imposed in Israel during the beginning of the COVID-19 pandemic in 2020 affected emergency psychiatric presentations in a large tertiary general hospital in Tel Aviv. We hypothesized that patients approaching the ER for a psychiatric reason during a lockdown, would present with more severe symptoms, manifested in higher rates of hospitalizations and suicidality (attempts and ideation) (Brenner and Bhugra, 2020).

2. Methods

2.1. Study design and participants

We performed a retrospective cohort study using routinely collected administrative data from the Tel Aviv Sourasky Medical Center (TASMC) software systems. Our sample included all patients aged 18 and above who were admitted to the TASMC emergency room (ER) and for whom a psychiatric consultation was requested and completed, during the 1st lockdown imposed in Israel due to the COVID 19 pandemic between March 15th and April 30th 2020 (lockdown period). Parallel data were obtained from the same dates in 2017, 2018 and 2019, grouped, and served as control: for total admissions to the ER,

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completed psychiatric evaluations and age, data was averaged. For other demographic and outcome variables, data was summed, and also presented by relative rate in percentages. The data included demographic measures, details about previous psychiatric and/or psychological treatments; psychiatric diagnosis including suicidality, and ER visit outcome (psychiatric consented or compulsory hospitalization, discharge).

Data were anonymized and each patient received a unique, serial number. The study was approved by the TASMC's Ethics Committee (IRB).

2.2. Statistics

All statistical analyses were conducted using IBM SPSS Statistics for Windows, version 25 (Armonk, NY: IBM Corp.). A between-groups analysis was performed to compare both demographic and outcome measures between the lockdown period sample and the control sample. For association between frequency variables, chi-square tests were performed. For quantitative measures, a one-way ANOVA was performed. P-value < 0.05 was considered statistically significant for all analyses.

3. Results

3.1. General and demographic data

The absolute number of psychiatric consultations in the ER dropped during the lockdown period - 143 consultations in 2020, compared with an average of 254.67 (SD 20.59) in the control period. The overall number of ER visits for any reason was also lower in the lockdown period compared to control - 9,310 compared to an average of 17,554.67 (SD 824.68), respectively. Nevertheless, the proportion of patients for whom a psychiatric consultation was completed, did not differ between the lockdown period and the control period - 1.54% in the study sample, compared with an average of 1.45% (SD 0.10%) in the control period ($X^2(1)= 0.281$, p=0.59) No differences were documented between the study period and the control period in age (t(904)=0.321, p=0.75), sex, ($X^2(1)= 0.27$, p=0.60) marital status ($X^2(4)= 6.54$, p=0.16 or prior psychiatric follow-up (yes/no) ($X^2(1)= 0.01$, p=0.92). Full demographic details are shown in Table 1.

3.2. ER diagnosis and visit outcome

The association between period of ER admission (lockdown vs. Control) and ER visit outcome (compulsory hospitalization / consented hospitalization / other non-psychiatric hospitalization or discharge) was significant ($X^2(2)=10.45$, $p<0.01$). An increased relative rate of enforced psychiatric hospitalizations was documented during the lockdown period compared to the control period (lockdown: 14.7%, Control: 8.8%), and a decreased relative rate of consented psychiatric hospitalizations (lockdown: 4.2%, Control: 11.4%).

The rate of suicidality (ideation and/or attempts) in the lockdown period was not significantly higher than that of the control period (13.3% of all ER psychiatric diagnoses compared to 9.7%, respectively, ($X^2(1)=1.69$, p=0.19).

In the lockdown and control periods, the most prevalent diagnosis of patients was from the psychotic spectrum (schizophrenia, schizoaffective disorder, delusional disorder). Full data regarding diagnosis and visit outcome are shown in Table 1.

Table 1
Baseline characteristics, psychiatric diagnosis and ER visit outcome of patients who were admitted to the ER and completed a psychiatric evaluation in the COVID 1st lockdown period (march 15th to Apr 30th, 2020) compared to the control period (same dates, 2017-2019, grouped). Significant values are showed in bold.

Baseline characteristics	Lockdown period (2020)	Control period (2017-2019)	Sig.
Total admissions to ER for any reason (control averaged)	9,310	17,554.67 (SD 824.68)	
Completed psychiatric evaluation n (%) (control averaged)	143 (1.54%)	254.67 (1.45%, SD 20.59)	p=0.59
Average age, years (SD) (control averaged)	40.5 (18.74)	39.9 (18.34)	p=0.75
Marital status:			p=0.16
Married, n (%):	18 (12.6)	137 (17.9)	
Single, n (%):	103 (72.0)	500 (65.4)	
Separated / divorced, n (%):	15 (10.5)	82 (10.7)	
Widowed, n (%):	4 (2.8)	26 (3.4)	
Previous or current psychiatric ambulatory care n (%)	57 (39.9)	308 (40.3)	p=0.92
Major psychiatric diagnosis in ER:			P=0.19
Psychotic spectrum, n (%)	37 (25.9)	177 (23.2)	
Affective (mood) spectrum, n (%)	11 (7.7)	102 (13.4)	
Anxiety spectrum, n (%)	2 (1.4)	40 (5.2)	
Adjustment disorder, n (%)	20 (14)	109 (14.3)	
Suicidality (%)	19 (13.3)	74 (9.7)	
Substance abuse (%)	8 (5.6)	42 (5.5)	
Cognitive/delirium (%)	6 (4.2)	20 (2.6)	
Other (%)	2 (1.4)	50 (6.5)	
ER visit outcome:			**p<0.01**
Psychiatric consented hospitalization, n (%)	6 (4.2)	87 (11.4)	
Psychiatric compulsory hospitalization, n (%)	21 (14.7)	67 (8.8)	
Other (non-psychiatric hospitalization, discharge (%)	116 (81.1)	610 (79.8)	

4. Discussion

In this study, we report that less people approached the ER of a large general hospital in Tel-Aviv during the 1st national lockdown imposed in Israel due to the COVID pandemic, in concordance with similar reports from other countries who imposed lockdown measures (Wong et al., 2020). We further found that a smaller absolute number of patients underwent psychiatric evaluation in the ER during the lockdown period. As data point to an increase in mental illness during the pandemic, it is prudent to conclude that many patients in need of psychiatric care did not seek it, possibly due to fear of contagion in hospital settings and / or due to the lockdown measures. The significant drop we observed in the relative rate of consented psychiatric hospitalizations during the lockdown period and the increase in enforced psychiatric hospitalizations further strengthens our assumption that only more severely ill patients "dared" approach the ER {the law in Israel enables coercion of hospitalization only in severe case of psychosis accompanied by danger to self or others (Article 9 2018)}. We assume that at least some patients requiring consented hospitalization were reluctant to cooperate with medical advice, due to reasons mentioned above. As reported in previous studies, we also did not find a significant change in referrals to the ER due to suicidality (ideation and/or attempts) in the lockdown period compared to the control period (Hernández-Calle et al., 2020), and this differs from reports from the 2003 severe acute respiratory syndrome (SARS) epidemic, describing an increase in suicide risk at that time (Cheung et al., 2008). It is of extreme importance to realize though, that changes in suicidality recorded in the ER, do not necessarily reflect suicidality rates in the general population, as even in "normal" times - a large majority of suicidal cases do not present to ERs (Crosby et al., 1999).

The COVID pandemic is yet to end, and future lockdowns cannot be ruled out, thus the findings described above pose a major public health challenge, and point to an urgent need to facilitate access to psychiatric care for those in need, as well as implementing alternative outreach

strategies during similar times of crisis in the future. Such interventions may include broader usage of telehealth services for psychiatric consultations, or the establishment of designated "front-line psychiatric" facilities at times of crisis, intended solely for patients with no physical symptoms, seeking only psychiatric help.

Declaration of Competing Intrests

All authors declare no conflict of interest.

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