

COVID-19, Telemedicine and Emergency Department Referrals: An Audit and Retrospective Chart Review of Patient Presentations and Follow-up Times to a CMHT

Mu'adz Zubir, Joan Costello, Cormac Erwins, Aziemah Ali, Leona Judge & Marese Cheasty
Balbriggan Community Mental Health Team

ABSTRACT

Mental health care shifted radically after the onset of COVID-19 with changes in how patients presented for help and how services provided much needed care. In this study, we examined the impact of COVID-19 on the pattern of patient presentations to the emergency department (ED) who were subsequently referred to the community mental health team (CMHT) for follow-up. We also examine the impact of telemedicine on time to initial follow-up for these patients. Out of 119 referrals from the ED, those presenting during the pandemic vs pre-pandemic, were significantly younger, mean age 33.1 years (SD=12.3) vs 40.0 years (SD=14.5), $p=0.006$, included a higher proportion of new patients, 55.8% vs 33.3%, $p=0.015$, had higher proportion of presenting complaints of suicidal ideation and lower proportions of affective, psychosis and suicidal/self-injurious acts, $p=0.006$. The ratio of patient gender and time to initial follow-up were similar between these two periods. There was no significant change on time to follow-up upon implementing telemedicine consultations, with median days to initial follow-up of 6 days pre-pandemic, 4.5 days during pandemic + prior to telemedicine and 6.5 days during pandemic + telemedicine, $p=0.602$.

METHOD

Retrospective data from all patient charts that were actively attending the Balbriggan Community Mental Health Team were examined. We located and identified all assessment reports from the ED in each patient chart. The date of attendance at the Emergency Department was used to categorize the data into three separate groups i.e. attendances prior to 12th March 2020 (prior to COVID-19 pandemic), between 12th March 2020 and end of August 2020 (during the COVID-19 pandemic but prior to the introduction of telephone consultation as follow-up) and between September 2020 and March 2021 (during the COVID-19 pandemic and with introduction of telephone consultation as follow-up method). The length of time to initial follow-up was calculated in days from date patient seen in the ED to date of initial review in the outpatient clinic either in-person or via telephone. Other demographic and clinical data were collected as shown in the results. Statistical analysis was performed using Microsoft Excel with χ^2 test used to compare categorical data and the Kruskal-Wallis test to compare median time to follow-up.

DISCUSSION

Our data found a higher proportion of new patients and a younger cohort being referred to our team during the pandemic (Table 1). The younger age of patients being referred to our clinic during the pandemic may reflect reluctance among older patients to seek help due to the higher risk of contracting COVID-19. A higher proportion of new patients being referred may indicate an acute emergence of behavioural and psychological responses to the pandemic in previously well patients. The relative increase in proportion of patients presenting with thoughts of self-harm and suicidal ideation during COVID-19 may indicate an increased level of stress and difficulties in coping during the pandemic (Table 2).

The introduction of telemedicine did not appear to reduce the time to initial follow-up for patients referred to the team from the Emergency Department (Table 3). The median time to initial follow-up was less than 7 days for all three time periods.

CONCLUSION

Our study provides preliminary data on the impact of telemedicine on time to follow-up to CMHTs and changes to the pattern of patient's presenting for emergency mental health complaints. Further studies involving a larger sample size can help clarify our results and guide our implementation of telemedicine into our service.

RESULTS

	Pre-COVID-19	During COVID-19	<i>p</i>
Age (mean)	40.0 (SD=14.5)	33.1(SD=12.3)	0.006*
Female	40 (60.6%)	33 (62.3%)	0.853
Male	26 (39.4%)	20 (37.7%)	
Known Patient	44 (66.7%)	23 (44.2%)	0.015*
New Patient	22 (33.3%)	29 (55.8%)	
No of Days to follow-up(median)	6.0	5.5	0.99

Table 1 Descriptive statistics pre and during the pandemic for mean ages, gender, frequency of known and new referrals, and median number of days to follow-up.

Presenting Complaint Categories	Pre-COVID-19	During COVID-19	Percentage difference
Psychosis	12 (18%)	7 (13%)	-41.70%
Affective	16 (24%)	5 (10%)	-68.80%
Suicidal Ideas	14 (21%)	27 (51%)	92.00%
Suicidal/Self-harming acts	24 (37%)	14 (26%)	-41.70%
Total	66	53	

$\chi^2 (3, N=119) = 12.55, p = 0.006^*$

Table 2 Frequencies and percentages of presenting complaint categories before and during the COVID-19 pandemic with the percentage difference. The χ^2 value was analysed comparing the difference in proportion of presenting complaint categories pre- and during COVID-19.

	Pre-COVID-19 (n=63)	COVID-19 without telemed (n=18)	COVID-19 with telemed (n=34)
Median	6	4.5	6.5
Mean	15.14	17.72	9.91
SD	33.54	46.63	11.36
Minimum	0	0	0
Maximum	248	202	58

Table 3 Length of time to initial follow-up post ED assessment according to different periods of time. Analysis using the independent-samples Kruskal-Wallis test showed no significant differences in the median time to follow-up across the three time-periods, $p=0.602$.