

THE RELATIONSHIP BETWEEN FREQUENT EMERGENCY DEPARTMENT VISITS AND MENTAL HEALTH: A RETROSPECTIVE STUDY FOR THE BURDEN OF MENTAL ILLNESS AMONG EMERGENCY DEPARTMENT SUPER USERS.

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ABSTRACT

Objective: While emergency departments (ED) generally see patients with uncommon urgent and emergent complaints, some patients seek ED several times every year. Our purpose was to define frequent users of ED into categories, and to correlate the number of visits and mental health diagnoses. Our hypothesis was that there is a higher prevalence of mental health disorders among patients who visit ED more frequently.

Methods: This retrospective study used de-identified electronic administrative data from Sunrise Emergency Care System and Clinibase. Data from all adult ED sites in Calgary (FMC, PLC, RGH, and SHC), and dating from August 2013 to July 2014 were included. We analyzed the data using descriptive statistics and means. Based on the number of annual visits at any site, patients were categorized as infrequent users (≤ 1 visit), frequent users (FRU) (2-4), highly-frequent users (HFRU) (5-9), and super-users (SU) (≥ 10). We used ICD-10 codes for each visit to determine the top 10 diagnoses for each category. Mental and behavioral codes included diagnoses related to psychiatric illness and substance abuse.

Results: A total of 304737 visits for 223632 individual patients (18.6% of Calgary's population) occurred during the study period. Of all ED users, more than half used the ED more than once (52.6%), comprised of 40.8%, 8.5%, and 3.3% for FRU, HFRU, and SU respectively. Unspecified abdominal pain was the top diagnosis overall (21%), as well as in the FRU (21%) and HFRU (22%). However, mental and behavioral disorder was the top diagnosis in the SU group (28%). The ranking of mental and behavioral disorder rose from 10th, to 5th, to 1st from FRU to HFRU to SU, accounting for 4%, 9%, and 28% of diagnoses respectively. We observed a positive correlation between the absolute number of patient visits per year and number of patient's visits with mental health diagnoses (Pearson $r = 0.496$; $p < 0.001$).

Conclusion: Over half of the ED users visit ED more than once per year, and majority of them visit ED 2-4 times per year. Mental and behavioral health disorders are more commonly seen in patients who visit ED more frequently. Abdominal pain is the most common reason for visiting ED overall, and in the FRU and HFRU groups. However, mental and behavioral disorder is the most common diagnosis in the SU group. This indicates that interventions to impact super-users require a focus on mental health, whereas other high frequency users might benefit from teaching and better follow up of GI complaints.