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Profiling Frequent Presenters to the Emergency Department for Mental Health Complaints: Socio-Demographic, Clinical, and Service Use Characteristics

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A B S T R A C T

Background: A small subset of individuals makes a disproportionate number of ED visits for mental health complaints.
Study Objectives: To explore the population profile and associated socio-demographic, clinical, and service use factors of individuals who make frequent visits (5 + annually) to hospital EDs for mental health complaints.
Methods: Case-control study using electronic health record data.
Results: Frequent presenters represented 3% of mental health ED patients and accounted for 18% of visits. Several factors were significantly associated with frequent ED use, including limited social support, documented personality disorder/traits, regular antipsychotic use, self-reported alcohol use, and having multiple referral sources.

Emergency departments (ED) offer accessible care 24 hours a day and act as a portal of entry for patients requiring immediate healthcare services. Overcrowding in hospital EDs is an issue experienced in many health systems, with increasing yearly visit rates commonly reported across countries (Pines et al., 2011). Though the most common reasons for visiting the ED include injury/accidental poisoning, symptoms/signs of disease, and respiratory diseases, about 4% of emergency visits to hospitals with general EDs and 20% of emergency visits to hospitals with designated psychiatric emergency services are for mental health complaints (Li et al., 2007; Pasic, Russo, & Roy-Byrne, 2005). There is a well-documented subgroup ('frequent presenters') of individuals with mental health concerns who make a disproportionate number of these mental health-related ED visits (Wooden, Air, Schrader, Wieland, & Goldney, 2009).

Based on the results of a recent systematic review (Vandyk, Harrison, VanDenKerhof, Graham, & Ross-White, 2013), we proposed a preliminary population profile for frequent presenters. This profile included socio-demographic, clinical, and service-use characteristics identified in existing studies exploring the population (n = 13 studies). While consensus was evident on certain factors, including those such as younger age, male sex, unemployment, transient living, and having a diagnosed psychotic disorder, many factors were explored in relatively few studies. Furthermore, important variables, such as assertive community treatment involvement and substance use, were often overlooked (Burns, Robins, Hodge, & Holmes, 2009). The purpose of this study was to build upon the above-mentioned systematic review by exploring a more complete profile of frequent presenters in a local total population.

Research questions:

1. What is the profile (socio-demographic, clinical, and service use factors) of individuals with mental health complaints who frequently present to hospital EDs (frequent presenters ≥ 5 visits annually);
2. Which socio-demographic, clinical, and service use factors are more commonly associated with frequent presenters than individuals with mental health complaints who present once annually to the same hospital EDs?

METHODS

Design

This case control study of frequent presenters took place in a regional healthcare center in South-Eastern Ontario. The center comprised of

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Table 1
Categorization of Independent Variables for Descriptive, Bivariate, and Multivariable Analyses.

	Categories used for descriptive analysis	Categories used for bivariate and multivariable analysis
Socio-Demographic Characteristics		
Age	1. < 40	
	2. 40–59	
	3. > 59*	
Sex	1. Male	
	2. Female*	
Marital status	1. Unmarried	
	2. Married*	
Children	1. No children	
	2. Has children*	
Type of housing	1. Not living in own home	
	2. Living in own home*	
Education	1. Not reported in chart[a]	
	2. Did not finish high school	
	3. Graduated high school*	
Finances	1. Receiving social assistance	1. Receiving social assistance
	2. Other source of income	2. Other source of income*
	3. Wage*	
Current employment	1. Not reported in chart[a]	1. Unemployed/not reported
	2. Unemployed	2. Employed*
	3. Employed*	
Past employment	1. Unknown[a]	
	2. Known past employment*	
Clinical characteristics		
Reported (Axis IV) social support[b]	1. Poor	1. Poor/Fair
	2. Fair	2. Good*
	3. Good*	
Most responsible Axis 1 diagnosis	1. Psychotic disorders	1. Serious mental illness[e]
	2. Affective disorders	2. Substance use/reactionary disorders*
	3. Substance use disorders	
	4. Anxiety disorders	
	5. Multiple disorders	
	6. Other (or no diagnosis)*	
Personality disorder (primary or comorbid)	1. Documented PD/PD traits	
	2. No PD of any type*	
Comorbid substance use disorder	1. Yes	
	2. No*	
Medical comorbidities	1. Single	1. Yes
	2. Multiple	2. No*
	3. None*	
Number of current medications[c]	1. 4+ per day	
	2. <= 3 per day*	
Takes an antipsychotic medication	1. Yes	
	2. No*	
Takes an antidepressant medication	1. Yes	
	2. No*	
Takes a sedative/hypnotic medication	1. Yes	
	2. No*	
Takes a mood stabilizing medication	1. Yes	
	2. No*	
Self-reported illicit drug use	1. Yes	
	2. No*	
Self-reported alcohol use	1. Yes	
	2. No*	
Violent behavior	1. At least 1 documented incident	
	2. None reported*	
Presenting complaint[d]		
Service use characteristics		
Referral source	1. Ambulance/Police/Multiple	
	2. Self only*	
Legal history	1. Jail/Charges/Legal troubles	1. Known legal troubles
	2. Unknown/Not documented	2. No/unknown*
	3. No (documented)*	
Care from a general practitioner (GP)	1. No GP	
	2. Has a GP*	
Care from a psychiatrist	1. Has a psychiatrist	
	2. No psychiatrist*	
Assertive community treatment involvement	1. Has active ACTT	
	2. No ACTT support*	
Past certification	1. Certified at least once	
	2. Never certified*	

* Reference category in bivariate and multivariable analyses.
[a] Information on education, current employment, and past employment was not available in health records for a number of participants necessitating a 'not reported in chart'/'unknown' category.
[b] Based on documented Axis IV (severity of psychological stressors) information reported in the physician's differential diagnosis and evidence of involvement in care by friends, family, and significant others where Axis IV information was not available.
[c] Number of medications taken was dichotomized by the mean.
[d] Information on presenting complaint was collected; however the data were too varied to collapse into meaningful categories. Therefore, this information is reported descriptively.
[e] It was necessary to collapse primary Axis 1 diagnosis in MVA. To keep the variable clinically meaningful and provide a snapshot of individuals with and without a psychiatrist-diagnosed mental disorder:

- Serious mental illness = psychotic, affective, anxiety, and multiples disorders
- Substance use/reactionary disorders = the substance use disorder category and the no Axis 1 disorder category

two acute care facilities with general EDs with a shared electronic health records system. Using administrative data, we identified all patients with five or more visits to the EDs for mental health complaints in the year 2010 (January to December). A comparison group of individuals with one mental health visit during the same time period was randomly selected.

Data were collected by the primary investigator, a PhD prepared registered nurse with 6 years of experience working clinically in an emergency department setting, with a designated psychiatric service. The electronic health records contained all hospital information available for the patients, as well as referral and consultation documents from partnering services and agencies. Older documents were scanned and available online as part of the electronic health record. As such, all pertinent information was reviewed to ensure accuracy of the information gathered (i.e. if there was evidence of a referral in the emergency record, the corresponding consultation report was verified). The dataset, including socio-demographic, clinical, and service use information from each patient's electronic health record, was created in a spreadsheet in Microsoft Excel.