Published in final edited form as:

J Addict Med. 2017 ; 11(2): 161–162. doi:10.1097/ADM.0000000000000280.

Physical and Mental Health Comorbidities Associated with Primary Care Visits for Substance Use Disorders

Pooja A. Lagisetty, MD, MSc^{1,2,4}, Donovan Maust, MD, MSc^{2,3,4}, Michele Heisler, MD, MPA^{1,2,3}, and Amy Bohnert, PhD^{2,3,4}

¹Division of General Medicine at University of Michigan, Ann Arbor

²Institute for Health Policy and Innovation, University of Michigan, Ann Arbor

³Department of Psychiatry at University of Michigan, Ann Arbor

⁴Center for Clinical Management Research, VA Ann Arbor Healthcare System

Introduction

Policymakers are calling for integrated models to treat substance use disorders (SUDs) in primary care settings. To guide adaptation of such models, understanding which health conditions commonly co-present with SUDs among patients in primary care visits is important. Mental health and infectious disease comorbidities among patients with SUDs are well-described (Regier et al., 1990, Bing et al., 2001), but little is known regarding other physical comorbidities. We examined the most common physical and mental comorbidities associated with primary care visits for patients where SUDs were or were not a focus of the visit.

Methods

We analyzed data from the National Ambulatory Medical Care Survey (NAMCS) and the National Hospital Ambulatory Medical Care Survey (NHAMCS) hospital outpatient departments (OPD) component from 2009–2011. NAMCS/NHAMCS are cross-sectional surveys administered by the National Center for Health Statistics (NCHS; Hyattsville, MD) that generate nationally representative estimates of ambulatory care provided in the United States (Hing et al., 2010, Hsiao et al., 2010). For each visit, physicians can report up to three diagnoses using the *Internal Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) and/or mark a check box for fifteen common comorbidities.

We limited the sample to visits by adults seen by a general medicine provider (family medicine, internal medicine, and pediatrics) and classified each encounter by whether a SUD diagnosis (alcohol, tobacco, opioid, and other including illicit substances), was recorded (Olfson et al., 2014). Comorbidity presence was identified by check boxes where present and by written ICD-9 codes (Asao et al., 2014). We used multivariable logistic regression to

adjust for patient demographics and test the association of SUD with the presence of a given comorbidity.

Results

There were 56,391 total observations from 2009–2011, representing an estimated 1.18 billion ambulatory visits, at general medicine ambulatory settings by adult patients. Of these, 17.6 million included a SUD diagnosis (alcohol 8.6%, tobacco 64.2%, opioid 9.6%, other 16.73%) and 1.16 billion did not.

After adjusting for demographics, the most common medical comorbidities recorded for SUD-related visits (Table 1) were hypertension (32.6%) and hyperlipidemia (18.6%), with rates that did not differ significantly from the non-SUD related visit. Hepatitis C and HIV were recorded for less than 1.0% of SUD visits. SUD visits had a significantly higher percentage of psychiatric comorbidities of depression, bipolar disease, and anxiety than visits without a diagnosis of SUD.

Discussion

The top comorbidities noted during US ambulatory visits for persons with SUDs to primary care providers are common chronic medical diseases. As has been previously shown, SUD-related visits have high psychiatric comorbidity. However, psychiatric comorbidity is still noted less often common than chronic medical conditions such as hypertension and hyperlipidemia in visits to primary care physicians.

Our study has limitations. NAMCS/NHAMCS only allows providers to list three diagnoses for each visit and therefore under-represents comorbidities and produces variation based on diseases more commonly addressed by specific provider types. However, these surveys are designed to understand care delivery systems by representing the population of patients receiving ambulatory care.

Conclusions

As national SUD-related ambulatory visits continue to rise (Frank et al., 2012), these findings implicate that patients with SUDs might benefit from novel care models to co-manage SUDs and chronic medical conditions common to primary care.

Acknowledgments

Funding Support: Dr. Lagisetty was supported by the Robert Wood Johnson Clinical Scholars Foundation.

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Table 1

Adjusted^a Distribution of Medical and Psychiatric Comorbidities among General Medicine Patients with and without SUD

	SUD	no SUD
	n=1051	n=55340
<u>Medical Comorbidities (%)^b</u>		
Chronic Renal failure	2.3	1.8
CHF	0.6	2.2 ^{**}
Cancer	5.4	4.2
Asthma	7.9	7.0
Arthritis	11.2	13.0
COPD	11.2	5.4 ^{**}
Diabetes	8.7	14.5 ^{**}
Hyperlipidemia	18.6	23.1
HTN	32.6	33.1
Ischemic Heart Disease	1.9	3.6 [*]
Obesity	8.6	9.9
Osteoporosis	2.3	3.7
Hep C ^c	0.1	0.1
HIV	0.8	0.9
Chronic Pain	2.7	3.6
<u>Psychiatric Comorbidity (%)</u>		
Depression	5.7	2.7 ^{**}
Bipolar	2.3	0.6 ^{**}
Anxiety	13.4	3.5 ^{**}
Schizophrenia	0.2	0.1

Note: Sample weight was applied.

^a adjusted for demographic characteristics (age, race, gender, insurance status, region of the US, and metropolitan statistical area)

^b adjusted proportions of comorbidity derived using predicted margins of logistic regression

^c unadjusted results

^{*} <0.05,

^{**} <0.005