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Chronic Illness Histories of Adults Entering Treatment for Co-occurring Substance Abuse and Other Mental Health Disorders

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Abstract

Little is known about the medical status of individuals entering treatment for co-occurring substance abuse and other mental disorders (COD). We analyzed the medical histories of 169 adults entering outpatient treatment for CODs, estimating lifetime prevalence of chronic illness and current smoking, comparing these rates to the general population, and examining psychiatric and substance-related correlates of chronic illness. Results revealed significantly higher prevalence of hypertension, asthma, arthritis, and smoking compared to the general US population, and showed an association between chronic illness and psychiatric symptom distress and substance use severity. Findings support integration of chronic illness management into COD treatment.

INTRODUCTION

Recent estimates suggest that 4% of the US adult population experience co-occurring substance abuse and other mental disorders (COD).¹ Having COD increases the risk of medical morbidity.^{2–4} Those with mental disorders are more likely to have more than one medical condition and the presence of a substance use disorder uniquely increases the odds of having a medical condition above that of other mental disorders alone.^{5–7}

Specialized integrated treatment programs are the evidence-based practice for individuals with CODs however, medical treatment is rarely overtly identified as an integral component of such care.^{8–11} Unmanaged chronic illnesses lead to an increased risk of morbidity/mortality^{7,12} and could exacerbate CODs,^{7,13} potentially interacting to result in negative treatment outcomes. Medical treatment is often unavailable because of a lack of insurance and the historic lack of integration between behavioral and physical health care.⁷ Furthermore, little is known about the medical health status of individuals entering COD treatment. The aims of this study were to: (1) survey the prevalence of chronic medical illness and tobacco smoking among adults entering COD treatment, (2) examine differences in chronic medical illness prevalence between this COD sample and the general population,

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Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this paper.

and (3) examine psychiatric and substance-related correlates of chronic illness rates among individuals with COD. It was hypothesized that rates of chronic illness and tobacco smoking among those in COD treatment would be higher than rates in the general US population and that chronic illness would be associated with greater mental health and substance use symptom severity.

METHODS

Participants

Participants were 169 patients between the ages of 18 and 64 presenting for treatment in a publicly funded, university-based outpatient COD program. All gave written informed consent, and the study was approved by the university Institutional Review Board (IRB). Participants were selected from a larger cohort of 469 patients consecutively assessed within 3 months of their initial intake appointment. Potential participants were excluded if medical history data were absent and/or data on any measures were deemed invalid. Comparison of selected ($n = 169$) and not selected ($n = 300$) participants on demographic variables showed no differences in gender ($\chi^2_{(1)} = .10, p = .75$) or age ($\chi^2_{(1)} = .02, p = .88$) distributions. However, those selected were more likely to report 13 or more years of education ($\chi^2_{(1)} = 6.74, p = .01$) and were less likely to be African American ($\chi^2_{(2)} = 8.41, p = .02$).

Measures

Chronic medical illness histories were obtained from each participant's COD medical record. At intake, all patients were asked to complete a 114-item medical history questionnaire, which was reviewed by a clinician for completeness. Questions pertaining to lifetime presence of five common chronic illnesses (diabetes, hypertension, asthma, cancer, and arthritis) and one question regarding current smoking status were examined.

Primary psychiatric and substance use diagnoses using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)¹⁴ diagnostic codes were obtained by review of participants' COD medical record. DSM-IV-TR diagnoses were determined by an interdisciplinary treatment team (psychologists, psychiatrists, and social workers).

Psychiatric symptom severity was assessed using the Symptom Checklist-90-Revised (SCL-90-R).¹⁵ The Addiction Severity Index-Multimedia Version (ASI-MV) was used to assess substance use severity.¹⁶

Statistical Analyses

Prevalence rates of chronic illness in this sample were compared to reported rates in the general US population using z -tests for two proportions. US prevalence data for persons aged 18–64 for diabetes, hypertension, asthma, cancer, arthritis, and smoking were obtained from the Centers for Disease Control and Prevention for comparison purposes.¹⁷ Presence or absence of a chronic illness was examined categorically for association with gender, ethnicity, age, level of education, smoking status, and primary psychiatric and substance use diagnosis using chi-square analyses. Independent t -tests were used to analyze differences on the ASI-MV and SCL-90 scales based on presence or absence of chronic illness. Pearson correlations were conducted to explore whether the number of endorsed chronic illnesses were associated with scores on the ASI-MV and SCL-90.

RESULTS

Lifetime Prevalence of Chronic Illness

Table 1 shows sample characteristics and demographic comparisons by chronic illnesses. COD had significantly higher rates of smoking and medical illness than the general population for all illnesses except cancer.

Psychiatric and Substance Use Characteristics of Those with Chronic Illness

Patients with one or more chronic illnesses reported greater somatic ($t_{(135)} = 3.34, p = .001$; Cohen's $d = .58$), depressive ($t_{(135)} = 2.18, p = .03$; $d = .38$), psychotic ($t_{(135)} = 2.19, p = .03$; $d = .38$), and overall psychiatric symptom distress ($t_{(135)} = 2.00, p = .048$; $d = .35$) compared to patients reporting no history of chronic illnesses. Similarly, patients with one or more chronic illnesses reported greater drug use severity ($t_{(144)} = 2.30, p = .023$; $d = .43$) than those reporting no history of chronic illnesses. Presence of a chronic illness did not differ categorically by primary psychiatric or substance use diagnosis (all $\chi^2_{(1)} < 2.41, p > .12$). The number of chronic illnesses endorsed was significantly positively correlated with drug use severity ($r = .20, p = .02$), somatic distress ($r = .32, p < .001$), and intensity of endorsed psychiatric symptoms ($r = .18, p = .03$).

DISCUSSION

Lifetime prevalence of hypertension, arthritis, and asthma, was significantly higher in our COD sample than in the general population. Findings also highlight the significantly elevated prevalence of smoking in our COD sample when compared to the general population. Several studies have documented the increased incidence of medical morbidity in populations experiencing substance abuse, other mental disorders, or co-occurring disorders. Our findings corroborate the findings of at least four of these studies with elevated rates of hypertension,^{4,12} asthma,^{4,5} and arthritis,⁴ as well as tobacco smoking^{4,12,18} as a risk for medical problems.

Few studies have investigated the correlations between psychiatric distress, drug use severity, and comorbid medical illness. Our results correspond to a recent recommendation for research into the potential elevations in psychiatric and substance use symptom severities associated with the presence of chronic illnesses in a heterogeneous outpatient COD population.⁷ Our findings suggest that independent of DSM-IV-TR diagnoses, report of somatic complaints, intensity of endorsed psychiatric symptoms, and severity of drug use may be especially elevated in those with a history of multiple chronic illnesses presenting for outpatient COD treatment.

Limitations of this study exist due to its cross-sectional design, limited sample size, reliance on self report of chronic illness, and lack of structured diagnostic interview techniques for psychiatric and substance use diagnoses. For these reasons, our findings are offered as preliminary, and we encourage further investigation—particularly, investigations that include other chronic illness risk factors (eg, body mass index), comparison of findings to non-COD groups, and assessment of prescribed medical treatment adherence for individuals with COD.

The presence of chronic medical illness may be considered an additional “co-occurring disorder” which amplifies the suffering of these individuals, and in a circular loop, exacerbates the other disorders contributing to further treatment challenges. These findings support the inclusion of medical screening and referral as part of integrated assessment and treatment planning. Furthermore, they provide evidence for the importance of integrating behavioral and physical health care within a collaborative-care environment.⁷

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TABLE 1
Prevalence of chronic illness in sample across demographic variables and compared to US prevalence

	Chronic diseases (%)				
	Diabetes	Hypertension	Asthma	All cancers	Arthritis
US prevalence: <i>n</i> = 187,026	6	18	7	5	16
Study sample, <i>n</i> = 169	9	28*	27*	6	24*
Gender:					
Male, <i>n</i> = 96	6	28	28	6	21
Female, <i>n</i> = 73	13	27	26	7	30
Ethnicity:					
Caucasian, <i>n</i> = 124	6	21	23	6	19 [‡]
Hispanic, <i>n</i> = 25	13	54 [§]	33	8	42
African American, <i>n</i> = 20	21	32	42	5	42
Age:					
18–39, <i>n</i> = 73	9	22	29	2	22
40+, <i>n</i> = 96	9	32	26	10 [‡]	28
Education:					
0–12 years, <i>n</i> = 67	2	32	29	5	27
13+ years, <i>n</i> = 92	10 [‡]	25	25	8	24
Smoking status: <i>n</i> = 128					
Yes, <i>n</i> = 103	7	29	25	2	25
No, <i>n</i> = 25	13	36	38	9	29

* Significantly different compared to US prevalence at $p < .05$.

[‡] Significantly different from relevant comparison group at $p < .05$.

[‡] Significantly different compared to Hispanics and African Americans at $p < .05$.

[§] Significantly different compared to Caucasians at $p < .01$.