




The Role of Race in Admission to a Dual Diagnosis Unit Versus General Inpatient Psychiatric Unit in those with Active Substance Use

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PUBLISHED ABSTRACT

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ABSTRACT

Psychiatric disorders are highly comorbid with substance use disorders, and the presence of co-occurring conditions increases severity of illness and complicates recovery. Those with comorbid mental illness and substance use disorders may benefit from specialized services, specifically integrated dual diagnosis treatment. Admission to a dual diagnosis unit requires health care providers to consider a number of factors, including severity of illness, psychiatric history, bed availability, and providers' perceived likelihood of benefit of specialized services. Ideally, decisions regarding the necessity of substance use treatment are made independent of race, and yet, racial disparities exist among those who are offered substance use treatment. The aim of this study was to evaluate the demographic differences of patients who are identified as having active substance use admitted from the comprehensive psychiatric emergency program (CPEP) to a dual diagnosis unit versus those admitted to a general inpatient psychiatric unit. Our study consists of a retrospective analysis of patients, aged 18–90 ($n = 100$), admitted to either a dual diagnosis unit (8B) or general psychiatric unit (6K) at Mount Sinai Beth Israel (MSBI), a private metropolitan hospital in New York City, between November 1st to November 30th, 2020. We hypothesized that there are racial disparities in unit assignments while accounting for a variety of potentially relevant demographic and clinical variables. The primary outcome was a comparison of demographic factors, particularly racial composition, of those admitted to the dual diagnosis unit versus those admitted to the general psychiatric unit. After accounting for 6 clinical and 3 other demographic variables, patients of Black race were over 5 times more likely (adjusted odds ratio 5.31; $P = 0.011$) to be assigned to 8B than patients of White, Asian, or Other race. Additional contributors to 8B assignment were male gender, IM or IV PRNs, and documented substance use (**Table 1**). There were no significant differences between Black and Non-Black patients in rates of substance use detected on toxicology (**Table 2**). These findings suggest that race may be a driving factor in unit assignment, and unconscious racial bias may potentially confound admission decision-making, limiting access to available resources and services for some populations. More research is needed to understand factors contributing to racial disparities in substance use treatment.

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| PREDICTOR | CATEGORIES | FREQUENCY (%) | ADJUSTED ODDS RATIO | 95% CONFIDENCE INTERVAL | P VALUE |
|--------------------------|--------------------------|---------------|---------------------|-------------------------|-------------|
| Race | Black | 33 (37.5) | 5.31 | 1.46–19.28 | .011 |
| | Non-Black (W.A.O) (ref.) | 55 (62.5) | — | | |
| Age | Mean + s.d. | | 0.98 | .944–1.02 | .343 |
| Gender | Male | 47 (53.4) | 4.38 | 1.27–15.11 | .019 |
| | Female (ref.) | 41 (46.5) | — | | |
| Domicile Status | No | 11 (12.5) | 1.98 | .33–11.92 | .457 |
| | Yes (ref.) | 77 (87.5) | — | | |
| Last MSBI Admit | 6K | 10 (11.4) | .000 | .000–.000 | .998 |
| | 8B | 13 (14.8) | 1.14 | .25–5.27 | .865 |
| | None (ref.) | 65 (73.9) | — | | |
| CPEP Broset | 1–2 | 20 (22.7) | 1.50 | .31–7.25 | .612 |
| | >2 | 6 (6.8) | 1.25 | .06–27.73 | .888 |
| | 0 (ref.) | 62 (70.5) | — | | |
| PRN Medications | IM + 2 IV | 16 (18.2) | 13.56 | 1.12–165.48 | .041 |
| | PO | 16 (18.2) | 1.10 | .24–4.99 | .898 |
| | None (ref.) | 56 (63.6) | — | | |
| Time in CPEP | 12–24 hours | 15 (17.0) | 1.83 | .26–12.95 | .547 |
| | <12 hours (ref.) | 73 (83.0) | — | | |
| Documented Substance Use | Yes | 45 (51.1) | 5.69 | 1.57–20.55 | .008 |
| | No (ref.) | 43 (48.9) | — | | |
| CPEP Diagnosis | Mood | 42 (47.7) | 0.53 | .14–1.98 | .340 |
| | Psychotic (ref.) | 46 (52.3) | — | | |

Table 1 Predictors of Unit Assignment to Dual Diagnosis (8B) Versus General Inpatient Psychiatry (6K).


| TOXICOLOGY SCREEN | PEARSON CHI-SQUARE VALUE | DF | ASYMPTOTIC SIGNIFICANCE (2-SIDED) |
|----------------------|--------------------------|----|-----------------------------------|
| Urine Amphetamine | 3.737 | 2 | .154 |
| Urine Barbiturates | .311 | 1 | .577 |
| Urine Benzodiazepine | .534 | 2 | .766 |
| Urine Buprenorphine | .311 | 1 | .577 |
| Urine Cannabinoid | 1.229 | 2 | .541 |
| Urine EDDP | .383 | 2 | .826 |
| Urine Fentanyl | .534 | 2 | .766 |
| Urine Oxycodone | .311 | 1 | .577 |
| Urine Tramadol | .960 | 2 | .619 |
| Urine Cocaine | 4.144 | 2 | .126 |
| Urine Methadone | .420 | 2 | .811 |
| Urine Opiate | .351 | 2 | .839 |
| Urine PCP | .311 | 1 | .577 |
| Urine Alcohol | 1.625 | 2 | .444 |
| Blood Alcohol | 2.593 | 2 | .273 |

Table 2 Comparison of Toxicology Results of Black and Non-Black Patients.

COMPETING INTERESTS

The authors have no competing interests to declare.

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