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# Disparities between Black and White Client Outcomes in Outpatient Treatment for Substance Use Disorder

## Abstract

What racial disparities exist between Black and White clients receiving intensive outpatient substance use disorder treatment? There has been an increasing urgency to identify and address health disparities in our communities as our field attempts to better align opportunities and services for underserved populations and people in minority groups. The Center for Practice Transformation (CPT) at the University of Minnesota partnered with NUWAY® to investigate differences between Black and White clients at the time of their admission to services and at discharge. Results indicate that differences exist when clients are admitted to care and these differences are reduced at the time of discharge, showing that treatment services may play a positive role in reducing racial disparities.

## Background

Research focusing on racial and ethnic disparities in substance use disorder (SUD) treatment outcomes is rather limited, especially comparing outcomes for White and Black Americans. The literature reviewed emphasizes racial disparities in treatment engagement or completion<sup>5</sup>, lack of access to publicly funded SUD treatment centers<sup>1</sup>, mandated SUD treatment<sup>4</sup>, or the role of religiousness in SUD treatment outcomes<sup>3</sup>. However, recent research has begun to attend to what factors may improve outcomes for Black American clients<sup>7</sup>. Given the socioeconomic disparities and inequities that Black clients may be experiencing compared to White clients<sup>8</sup>, further research is required to determine how SUD treatments can be tailored to not only address substance use or comorbid mental health disorders but also housing instability, food insecurity, unemployment, and other factors that may be hindering clients' improvement.

This study was conducted by the University of Minnesota's Center for Practice Transformation (CPT) as part of an ongoing larger study of outcomes at NUWAY®, a large non-profit organization in the Midwest serving individuals recovering from substance use disorders and co-occurring mental illnesses. NUWAY® integrates a sober housing experience into treatment programming with their Recovery in Supportive Environments (R.I.S.E.) model which is unique to the agency. The data collected includes racial data on all clients at the organization, making it possible to investigate differences in self-reported outcomes between groups based on racial identity. This study aims to uncover any differences between Black and White identifying clients at the time of their admission to treatment and at the time of their discharge from care.

## Methods

Clients receiving intensive outpatient services at NUWAY® are given the option to enroll in the study at the time of their admission. Electronic surveys are completed at admission included demographic questions as well as measures of substance use, recovery capital, depression, and anxiety. Additional demographic information as well as days in treatment were gathered using the electronic health record at NUWAY®. At the time of discharge, participants were invited to complete another survey including additional questions about their care and the above-mentioned measures. Data was collected at discharge regardless of whether a person had completed the program successfully or not. CPT Research staff distributed surveys upon discharge from treatment. Identifying information was removed for analysis to protect the privacy of participants. To compare the survey results for White and Black/African American clients, data subsets were created in IBM Statistical Package for Social Sciences (SPSS) to analyze responses from only Black and White clients. Survey responses from clients identifying as

Disparities between Black and White Clients													
	Substance Use	Days Sober	Days in Care	Comorbid Mental Health	Coping	Self-Care	Relationships	Material Resources	Outlook on Life	Recovery Importance	Depression	Anxiety	Food Insecurity
Intake	+	+	N/A	-	+	+	-	+	-	-	-	-	+
Discharge	-	-	+	-	-	-	-	+	-	-	-	-	+

mixed-race or biracial (e.g., Black and White) were included in the Black client sample. Mann-Whitney tests were conducted to determine if significant differences exist in outcomes between the two client groups.

## Results

From August of 2019 to August of 2021, data was collected from a total of 5,707 clients; 3,104 of whom identified as White and 810 identified as Black or African American ( $n = 3,914$ ). Approximately 74% of study participants identified as White and 15% Black or African American. Participants were allowed to select more than one choice representing race.

### Differences at Intake

Overall, six out of twelve metrics that were noted as being statistically significantly different between Black and White clients at the beginning of their care at NUWAY®. Analysis of intake survey data provided by clients indicated that Black and White clients differed significantly in their substance use ( $U = 621,127, p = 0$ ), coping ( $U = 605,327, p = 0$ ), self-care ( $U = 521,642.50, p = 0.039$ ), and material resources ( $U = 528,235.50, p = 0.012$ ). Significant group differences were also found for food insecurity ( $U = 47,044, p = 0$ ), and days sober ( $U = 25,967.50, p = 0.033$ ). All observed differences showed that Black clients reporting more difficulty in those areas than White clients. There were no differences between groups in comorbid mental health conditions, relationships, outlook on life, recovery importance, depression, or anxiety.

### Differences at Discharge

Notably only two metrics remained statistically significantly different among Black and White clients at discharge from care at NUWAY®. Analysis indicated that Black and White clients differed significantly only in material resources ( $U = 39,926, p = 0.038$ ), and food insecurity ( $U = 3,091.50, p = 0.029$ ). One additional metric was measured at discharge, days in care ( $U = 1,077,365, p = 0$ ) was significantly different between the two groups. The differences that remained continued to show Black clients reporting more difficulty in those areas than White clients. There were no observed differences in substance use, days sober, comorbid mental health, coping, self-care, relationships, outlook on life, recovery importance, depression, or anxiety.

## Discussion

Results showing Black clients report significantly more substance use at the time of admission, more difficulty coping, more difficulty with self-care, fewer material resources, more food insecurity, and significantly fewer sober days compared to White clients at NUWAY® is not necessarily surprising given the socioeconomic disadvantages that Black populations experience<sup>3</sup>. Given the findings of this study, however, SUD treatment can lessen (decrease) these disparities. Prior research has shown that treatment at NUWAY® improved outcomes for all participants<sup>2</sup>. Although differences in material resources and food insecurity persisted between Black and White clients from intake to discharge, the results demonstrate that NUWAY®'s R.I.S.E. programming may support Black clients in a way that helps them to overcome challenges associated with race in their communities.

Remaining disparities at discharge such as material resources connected to employment and money management can also help guide treatment agencies to tailor services to better meet the needs of Black clients. For example, organizations might consider incorporating

the expertise of vocational specialists into outpatient programming to prepare clients for returning to the workforce at discharge. This would provide clients transitioning out of intensive outpatient programming with access to employment services that may also subsequently support metrics such as food security. In addition to vocational specialists, organizations may also consider implementing financial planning services to support clients in budgeting their financial resources. Learning how to balance financial obligations (e.g., rent, child support, educational expenses) may also reduce experiences with food insecurity.

While this study provides some important insight into racial disparities between Black and White clients at intake and discharge from intensive outpatient services, additional investigation uncovering causes for such disparities is warranted. Future studies may help identify important ways organizations can effectively address and ameliorate external factors that may negatively impact the amount of time clients can commit to substance use treatment (e.g., childcare, lack of family support system, incarceration).

## Limitations

During the COVID-19 pandemic NUWAY® suspended in-person programming, which included the provision of lunch for all clients. Prior to the suspension of programming, some clients were receiving lunch during care and this study was not able to control for whether a person received lunch during their care which may affect food insecurity findings.

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## SUGGESTED CITATION

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