Do Race & Ethnicity Contribute to the Incidence of Restraint & Seclusion on an Inpatient Psychiatric Unit at a New York City Private Hospital?

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BACKGROUND

Previous literature suggests that members of some racial and ethnic minorities, particularly Black and Hispanic individuals, can be perceived as more hostile, aggressive, and dangerous than White individuals, thus certain patients may be more likely to experience restraint and seclusion (R & S), as a potential reflection of clinician bias (2). The available literature on racial and ethnic differences in the use of R & S on inpatient psychiatric units is limited. However, this has been more robustly studied among patients evaluated in Emergency Departments (ED), with findings that Black adult and child patients are more likely to be physically restrained in the ED (1,3,4).

AIMS

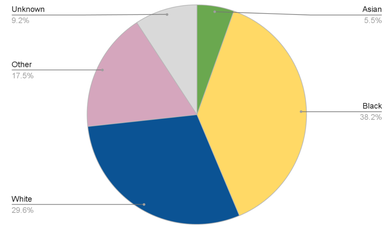
Evaluate if physical R & S had been used with different frequencies in patients of different racial and ethnic groups hospitalized on an inpatient psychiatric facility.

METHODS

We conducted a retrospective review of 414 patients, aged 18 to 70 years old, admitted to an inpatient psychiatric unit at Mount Sinai Beth Israel, a private metropolitan hospital in New York City, from September 2020 through March 2021. We hypothesized that race and ethnicity contribute to the incidence of restraint and seclusion after accounting for other clinical and demographic factors. Restraints included both manual holds and physical restraints. Demographic factors assessed included age, sex, height, weight, housing status; clinical factors included violence history, means of arrival to hospital, Broset scores obtained from Broset Violence Checklist, in the ED and on the inpatient unit, use of R &S in the emergency room, length of stay, discharge diagnosis, secondary substance use diagnosis, medication adherence, and PRNs received in the ED and on the inpatient unit.

RESULTS

Distribution of Racial Groups:



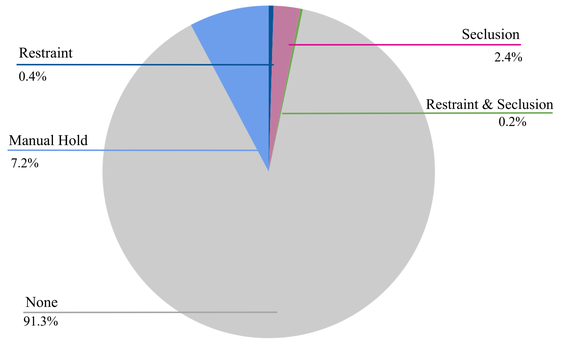
In bivariate analyses, only clinical factors (means of arrival, PRNs in the ED and on the inpatient unit, lack of secondary substance diagnosis, Broset score on the inpatient unit, number of days patients received PRNs, and poor medication adherence) predicted use of R & S on the inpatient psychiatric unit.

Table 1. Bivariate Comparisons, Significant Predictors of Restraint and Seclusion

Predictor	Categories	Yes R&S (%)	No R&S (%)	Statistic	P Value
Means of Arrival	EMS/NYPD	16 (18.6)	70 (81.4)	15.0	.001
	EMS	16 (7.5)	197 (92.5)		
	Self	4 (3.5)	111 (96.5)		
PRNs In ED	No	9 (4.4)	197 (95.6)	10.2	.006
	PO	6 (10.7)	50 (89.3)		
	IM	21 (13.8)	131 (86.2)		
PRNs on Inpatient Unit	No	1 (0.5)	206 (99.5)	130.3	<.001
	PO	4 (3.0)	131 (97.0)		.
	IM	8 (42.1)	11 (57.9)		
	PO/IM	23 (43.4)	30 (56.6)		
Secondary Substance Diagnosis	Yes	15 (6.0)	234 (94.0)	5.7	.014
	No	21 (12.8)	143 (87.2)		
Medication Adherence	Adherent (≥80% of days)	21 (6.1)	322 (93.9)	17.0	<.001
	Intermittent (20-79% of days)	12 (20.3)	47 (79.7)		
	No (<20% of days)	3 (25.0)	9 (75.0)		
Highest Broset Score on Inpatient Unit	Mean ± SD	4.03 ± 1.4	.98 ± 1.3	F (1,413) = 168.9	<.001
Number of Days PRNs Received	Mean ± SD	5.81 ± 5.3	1.27 ± 2.2	F (1, 413) = 99.2	<.001

RESULTS

Incidence of Restraint and Seclusion:



In a multivariable logistic regression, including predictors significant in bivariate analyses plus race, only IM PRNs on the inpatient psychiatric unit and highest Broset score predicted the use of R & S. Race was not predictive of the use of R & S.

Table 2. Multivariate Logistic Regression, Significant Findings + Race

Predictor	Categories	Yes R&S (%)	No R&S (%)	Adjusted Odds Ratio	95% Confidence Interval	P Values
PRNs on the Inpatient Unit	PO	4 (3.0)	131 (97.0)	1.4	.09 - 20.9	NS
	IM	8 (42.1)	11 (57.9)	44.2	2.6 - 756.4	.009
	PO/IM	23 (43.4)	30 (56.6)	13.7	.81 - 228.6	NS
	No (Ref.)	1 (0.5)	206 (99.5)	—	—	—
Race	Black	20 (11.5)	154 (88.5)	1.3	.09 - 17.8	NS
	White	9 (6.7)	126 (93.3)	1.62	.10 - 27.4	NS
	Other	6 (7.5)	74 (92.5)	4.6	.24 - 84.1	NS
	Asian (Ref.)	1 (4.0)	24 (96.0)	—	—	—
Highest Broset Score on Inpatient Unit	Mean ± SD	4.03 ± 1.4	.98 ± 1.3	2.8	1.8 - 4.4	<.001

DISCUSSION

These findings suggest that race did not significantly contribute to the incidence of R & S for the population studied. As prior history of violence was not determined to have a significant association with use of restraint and seclusion, associated factors of R & S should be further explored to better assess risk of violence on the inpatient unit to promote early intervention and reduce rates of restraint and seclusion. In addition, the use of a formal measure of behavioral risk, such as the Broset Violence Checklist, may help systematize assessment for the need for R & S and reduce influence of potential clini-

CONCLUSION & FUTURE DIRECTIONS

In this study, PRNs received on the inpatient unit and Broset scores, rather than race, were identified as clinically significant factors that are associated with the incidence of R&S. Structured assessment instruments may protect against sequelae of racial bias in clinical care. As other studies have found racial disparities associated with use of R & S, future research could assess whether implementation of clinically driven risk assessments reduce racial biases in use of R & S.

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