Examining Racial Bias in the Clinical Management of Behavioral Emergencies in a General Medical Hospital

Rubin Smith, BA[2,4]

Stephanie Nieves, PharmD, BCPS[1]

Meredith Akerman, MS[3,4]

Jake Freeman, PharmD, MHA[1]

Aaron Pinkhasov, MD, DFAPA, FACLP[2]

[1]NYU Langone Hospital – Long Island, Department of Psychiatry
[2]NYU Langone Hospital – Long Island, Department of Pharmacy
[3]NYU Langone Hospital – Long Island, Biostatics Core, Division of Health Services Research
[4]NYU Long Island School of Medicine

BACKGROUND

In a general hospital setting, a behavioral emergency is a situation that presents an “imminent risk [...] of serious harm or death to self or others”. Management involves a rapid response team including clinical staff and security, often necessitating the use of physical and/or chemical restraints to manage the patient’s agitation. Presently, there is a focus in healthcare literature on racial disparities, largely attributing differences in care to unconscious biases and “unwarranted judgments.” Studies find that in emergency departments, Black patients experiencing behavioral emergencies are more likely to be dealt with by emergency security teams, receive more injections of antipsychotic medications and chemical sedation or be physically restrained than their White counterparts.

PURPOSE

Our study assesses all behavioral emergencies within a given time frame across a varied general hospital setting.

- The primary purpose of this study is to determine if Black patients are more likely to experience behavioral emergencies requiring security presence compared to White or other race/ethnicity patients while admitted in a general hospital setting
- The secondary purpose of this study is to determine if Black patients experiencing behavioral emergencies requiring security presence are more likely to be physically or chemically restrained compared to their non-Black counterparts

METHODS

Study Design:

- Single-site retrospective chart review of behavioral emergencies occurring between January to May of 2022
- All patients age 18 years and older admitted to NYU Langone Hospital – Long Island that required a security emergency response for behavioral emergency were reviewed
- Patient data was collected using our institution’s electronic medical record (EMR) called EPIC: age, sex, race, principal diagnosis, chemical restraint use, route of administration, and physical restraint orders
- Our institution’s security department provided a list of patients who experienced behavioral emergencies during this time frame (not part of the EMR)
- IRB approval was received via the exempt process

Statistical Analysis:

- Chi-square test was used to compare categorical data
- P-Values less than 0.05 were considered statistically significant

FIGURES

1. Behavioral Emergency Called By Race

	Black	White	Other
Behavioral Emergency	45	86	20
Non-Behavioral Emergency	4917	14433	5676
Total Population	4962	14519	5696

2. Restraints Administered by Race

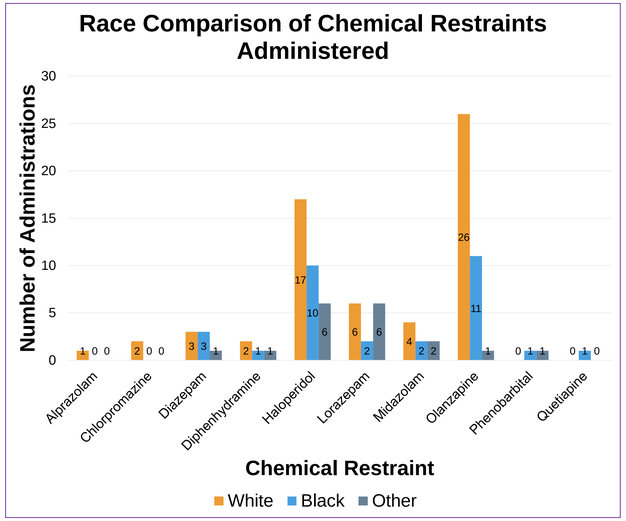
		NO (n=119)	YES (n=32)	p-value
Race	BLACK	33 (27.73%)	12 (37.5%)	0.0036
	OTHER	11 (9.24%)	9 (28.13%)	
	WHITE	75 (63.03%)	11 (34.38%)	
Gender	FEMALE	28 (23.53%)	12 (37.5%)	0.1119
	MALE	91 (76.47%)	20 (62.5%)	

FIGURES

3. Chemical Restraints Administered by Race

		NO (n=63)	YES (n=88)	p-value
Race	BLACK	19 (30.16%)	26 (29.55%)	0.9853
	OTHER	8 (12.7%)	12 (13.64%)	
	WHITE	36 (57.14%)	50 (56.82%)	

3. Chemical Restraint Usage



4. Comparison of Route of Administration

	White (n=86)	Black (n=45)	Other (n=20)	p-value
IM	38 (44.19%)	18 (40%)	7 (35%)	0.7257
IV	11 (12.79%)	6 (13.33%)	5 (25%)	0.3638
PO	12 (13.95%)	4 (8.89%)	2 (10%)	0.6694

RESULTS

- Total of 151 behavioral emergencies
  - 45 patients self-reported as Black
  - 86 patients self-reported as White
  - 20 patients self-reported as Other races
- Primary purpose: there was a significant difference in the rate of Behavioral Emergency Incidents among Black patients, Other, and White patients (0.91% vs. 0.35% vs. 0.59% respectively, chi-square test p<0.0010)
  - Black patients were 1.5x more likely to have an incident compared to White patients
  - Black patients were 2.5x more likely to have an incident compared to Others
- Secondary purpose: Black patients who required a behavioral response code had significantly higher rates of being physically restrained compared to their White counterparts (32.3% vs. 12.8% respectively, p=0.0037)
- No statistical difference among the three racial groups with respect to rates of chemical restraints
- Significant differences among the three racial groups with respect to the rate of anxiety (p=0.0004), dementia (p=0.0154), and Lorazepam use (p=0.0082)

FIGURES

6. Principle Diagnoses by Race

	White (n=86)	Black (n=45)	Other (n=20)	p-value
Anxiety	18 (20.93%)	0 (0%)	0 (0%)	0.0004
Depression	11 (12.79%)	7 (15.56%)	2 (10%)	0.8155
Substance abuse/withdrawal	24 (27.91%)	17 (37.78%)	8 (40%)	0.3843
OCD	7 (8.14%)	0 (0%)	0 (0%)	0.0998
PTSD	5 (5.81%)	0 (0%)	0 (0%)	0.2552
Schizophrenia	5 (5.81%)	3 (6.67%)	1 (5%)	1.0000
Bipolar	12 (13.95%)	2 (4.44%)	0 (0%)	0.0840
Delirium	21 (24.42%)	9 (20%)	4 (20%)	0.8129
Alzheimer's	1 (1.16%)	0 (0%)	1 (5%)	0.3350
Dementia	7 (8.14%)	11 (24.44%)	1 (5%)	0.0154
Other	15 (17.44%)	12 (26.67%)	7 (35%)	0.1738

LIMITATIONS

- Small sample size
- Potential for selection bias
- Inaccurate documentation in EMR

CONCLUSIONS

- Black patients are more likely to be physically restrained during a behavioral emergency than their White counterparts in a general hospital setting
- Male patients of all races are more likely to experience a behavioral emergency and require some form of restraints
- Given our findings, greater efforts to address racial disparities in the use of restraints and sedatives in healthcare settings are of critical importance
- Efforts to promote cultural competence and reduce unconscious biases among healthcare providers may be particularly important in addressing these disparities
- The development of guidelines for the use of restraints and sedatives in healthcare settings, particularly those that are both equitable and evidence-based, will no doubt be an important step forward in promoting efficacious and non-discriminatory behavioral emergency care for all patients, regardless of their background

REFERENCES

1. de Bruijn, W., Daams, J. G., van Hunnik, F. J., Arends, A. J., Boelens, A. M., Bosnak, E. M., Meerveld, J., Roelands, B., van Munster, B. C., Verwey, B., Figee, M., de Rooij, S. E., & Mocking, R. J. (2020). Physical and pharmacological restraints in hospital care: Protocol for a systematic review. Frontiers in Psychiatry, 10.
2. William J. Hall et al. “Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review”, American Journal of Public Health 105, no. 12 (December 1, 2015): pp. E60-e76.
3. Snowden LR. Bias in mental health assessment and intervention: theory and evidence. Am J Public Health. 2003 Feb;93(2):239-43. doi: 10.2105/ajph.93.2.239. PMID: 12554576; PMCID: PMC1447723.
4. Segal, S. P., Bola, J. R., & Watson, M. A. (1996). Race, quality of care, and antipsychotic prescribing practices in psychiatric emergency services [Editorial]. Psychiatric Services, 47(3), 282–286.

The authors of this presentation have no conflicts of interests to disclose.