

Collaboration Creates Cures, but Racism Resists Them:

Inpatient Psychiatric Patients With First Break Psychosis Have Better Outcomes When Medical Workups Are Completed, but Who Is Receiving the Workup?

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Background

- Psychosis disrupts an individual's connection with reality, creating various consequences.
- First break or first episode psychosis (FEP) is an integral part of psychiatric care, affecting an estimated 3% of people worldwide.
- However, FEP is not always psychiatric in origin.
 - Other causes include genetics, trauma, substance use, medication, or other physical illness.
- Therefore, medical diagnostic workups have been established as a standard of care in FEP to determine causality and improve outcomes.
 - Patients risk worsening of symptoms, relapse, reduced quality of life, and possibly death if not completed.
 - Hospitals risk higher costs, readmissions, incorrect treatment, and negative patient outcomes.
- Yet, psychosis has been historically associated with Black and brown communities to perpetuate racism, assuming psychiatric origin in these patients, but more likely to be medical in white and Asian patients.
- **Thus, everyone should have a medical workup – but is there a difference in who receives them?**

Objectives

- Assess for differences, if any, between those who did and did not receive medical workups in FEP.
- Formulate improved FEP workup based on any significant results.
- Bring awareness of bias, if any, to providers.

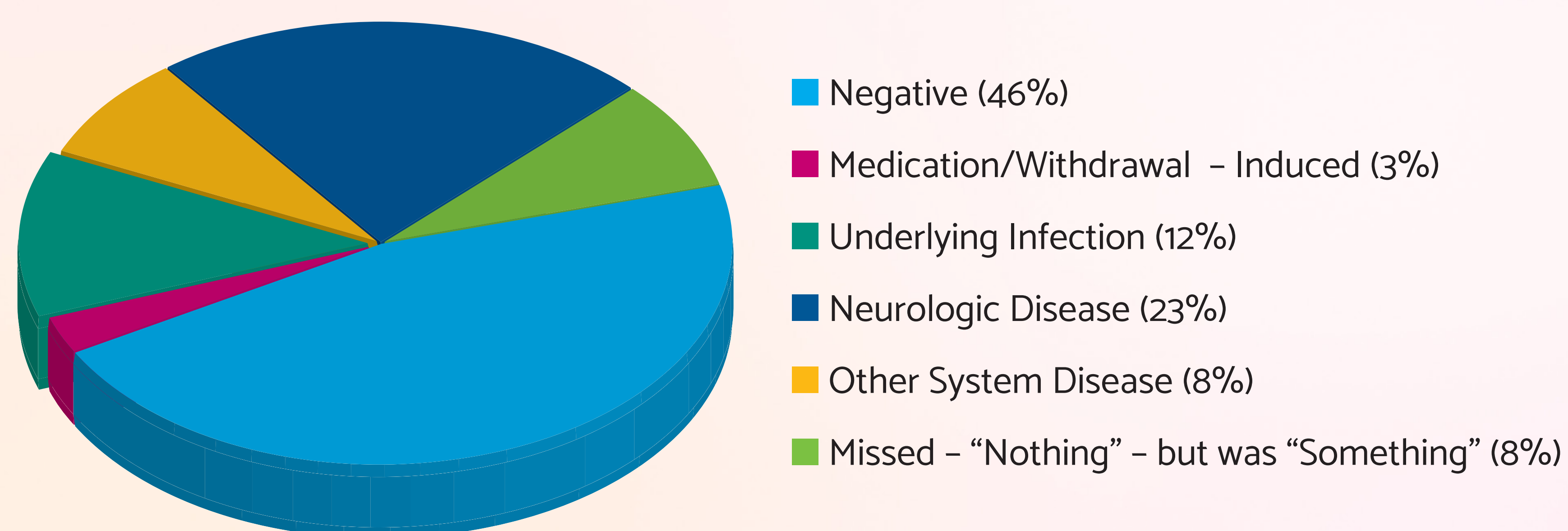
Methods

- Extract all data from the electronic medical record to evaluate charts from all FEP patients admitted from October 1, 2019 – September 30, 2021.
 - **Race, ethnicity, gender, age, chief psychotic symptom, labs, imaging, consults, and management**
- Define a basic FEP medical workup using NIH recommendations and clinical guidelines.
- Track % of those who received this workup.
- Calculate % with positive results.
- Determine % whose treatment changed.
- Stratify patients based on demographics.
- Analyze totals using p value <0.05 for differences.

Results

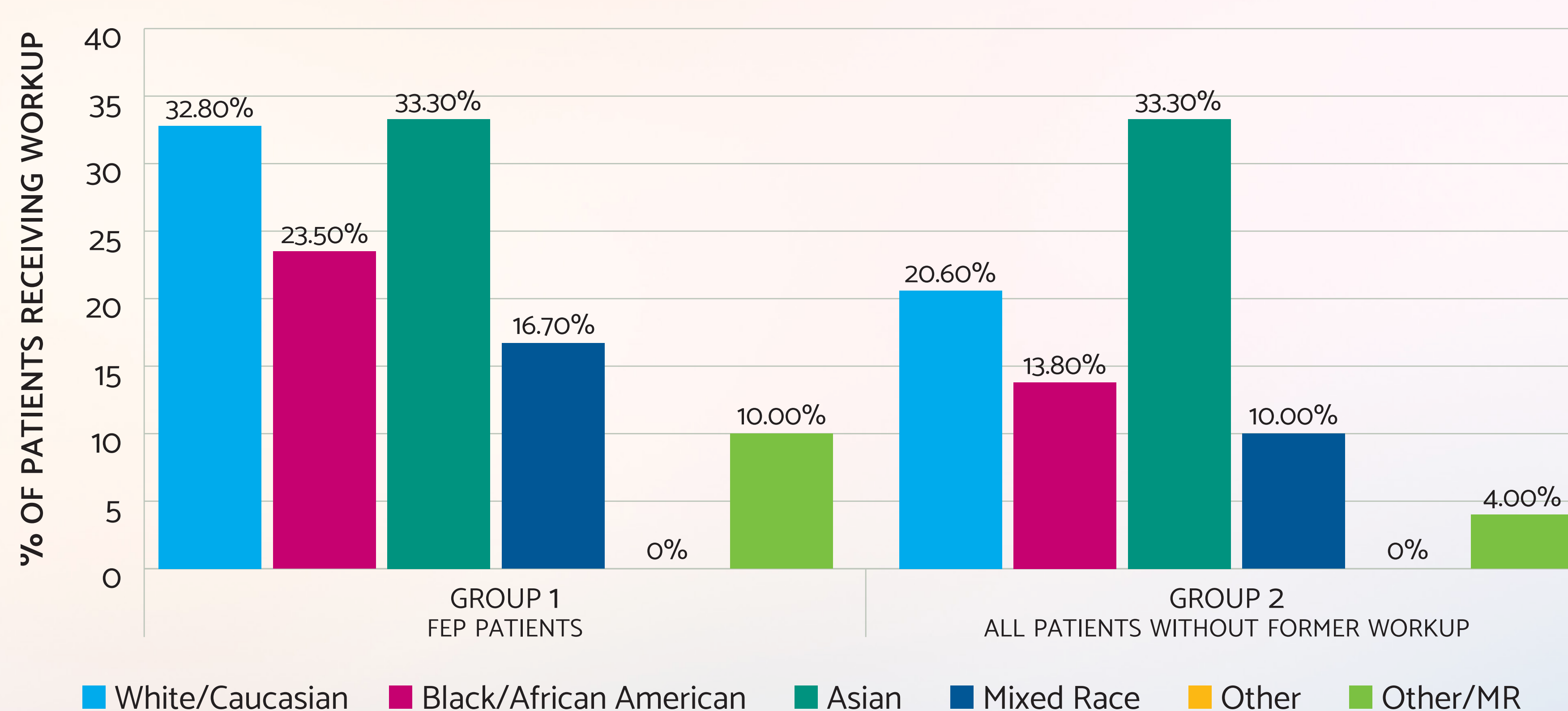
- Over 150 patient charts reviewed and analyzed
- 19.8% had positive initial labs that could have explained psychosis (16.5% were substance related)
 - **Low vitamin D, low thiamine, hypokalemia, leukocytosis, high TSH, proteinuria, and ketonuria were found at significantly higher rates**
- Positive urine studies for amphetamines and THC were highly common
- 27% received CT Head imaging
 - 16% had a positive finding
 - 12% had a clinically relevant abnormality
- 16% had additional consults for further evaluation
- 54% of FEP patients had positive findings
 - Most common non-psychiatric causes were: brain/spinal lesions, seizures, hormone abnormalities, thyroid disease, and benzodiazepine withdrawal

PERCENTAGE OF TOTAL RESULTS



- Differences were found in race, age, and chief complaint

FEP WORKUPS BY RACE



- 100% of patients 60 yo and above received workups
 - Compared with 22.5% <30 yo and 27.7% 30-59 yo
- Auditory hallucinations, ideas of reference, delusions, and visual hallucinations as the chief psychotic symptoms all garnered significantly more workups than other psychotic symptoms
- The most common antipsychotic choices were: olanzapine, risperidone, quetiapine, aripiprazole
 - Most efficacious were olanzapine and quetiapine

Discussion

- Less than 30% of FEP patients received a workup, highlighting a gap in standard of care
- **32% of patients that did not receive a workup were either readmitted and required a workup later or are still experiencing psychosis**
- Nearly 20% of FEP cases were potentially explained by admission labs, emphasizing the importance of thorough initial assessments
- Imaging findings paralleled national averages, suggesting CTH / MRI brain should become standard
- Age was a significant factor in receiving FEP workups for true FEP patients, with older patients (60+ years) much more likely to receive them
- **Racial disparities were observed, with "Mixed-race" and "Other" patients receiving significantly fewer workups than white and Asian patients**
- Certain psychotic symptoms (AH, IOR, Delusions, VH) elicited higher rates of FEP workups
- Olanzapine and quetiapine showed the highest efficacy rates among antipsychotics used
- Significant lab findings of hypokalemia, leukocytosis, elevated TSH, as well as substance use patterns, were identified, which could inform future screening protocols
- **6.5% diagnosed as secondary psychotic disorder**

Future Directions and Implications

- Implement a standardized FEP workup protocol
- Address disparities in FEP workups, especially regarding age and race
- Enhance initial screening processes to capture potential non-psychiatric causes of psychosis
- Further investigate the efficacy of different antipsychotics in the FEP population
- Consider research into the significant lab findings found in this patient population
- Be aware of implicit and explicit bias to provide equitable care
- Further integrative research between all specialties must be done to determine the root causes of disparities, as well as the root causes of psychosis

RESOURCES

Calabrese J. Psychosis. StatPearls - NCBI Bookshelf. May 2023.
Prakash J, et al. First-episode psychosis: How long does it last? A review of evolution and trajectory. Industrial Psychiatry Journal. 2021;30(2):198-204.
Skikic M, Arriola JA. First-episode psychosis: Medical workup. Child and Adolescent Psychiatric Clinics of North America.