Overdiagnosis of Schizophrenia in Black Patients

Chantel Fletcher, Danielle Hairston, M.D., David Puder, M.D.

There are no conflicts of interest for this episode.

Introduction

For decades, Black patients have been consistently diagnosed with schizophrenia more than their white counterparts despite epidemiological data not supporting a true disparity (Gara, et a., 2019; Gara, et al., 2012; Olbert, et al., 2018; Whaley, 2001). Still, the exact causes and solutions have not been firmly established (Gara, et a., 2019; Gara, et al., 2012; Olbert, et al., 2018; Whaley, 2001). There is currently an overdiagnosis of schizophrenia in Black male patients, especially.

In addition to Black patients being diagnosed with schizophrenia at higher rates than white patients, they also are more likely to receive high doses of antipsychotics and depot antipsychotics (Arnold, et al., 2004). Exact causes and solutions for this problem are also not firmly established (Arnold, et al., 2004).

Inaccurate diagnosis of schizophrenia and/or missed diagnosis of affective disorders can lead to inappropriate and inadequate treatment; worsened outcomes can follow. Because schizophrenia is a complex condition with a broad range of signs and symptoms that also occur in other mental disorders, it can be difficult to differentiate it from other serious mental disorders, especially mood disorders. Notably, these other conditions should actually be ruled out before arriving at a diagnosis of schizophrenia.

Furthermore, erroneously diagnosing schizophrenia can dampen expectations of a good prognosis. Additionally, antipsychotics can cause significant side effects and prescribing them inappropriately can lead to undue burden on patients. As a historically marginalized group, receiving inappropriate diagnoses and subsequent inadequate treatment further adds to the difficulties that Black patients face.

It is imperative that psychiatrists do their part to avoid adding to existing health disparities and that they practice in ways that actively counter these disparities.

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Historical Context

Inappropriate diagnoses of Black populations can be traced back to slavery in this country. Historically, a diagnosis called “drapetomania” was used to pathologize enslaved Black people’s desire to be free. Receiving this diagnosis could actually lead to placement in insane asylums.

In the 1960s, schizophrenia shifted from commonly being assigned to “weak-minded” white women who suffered from what was labeled “hysteria” and could not take care of their families to being assigned to Black men who wanted to voice their needs and their distrust of the system in the civil rights era. It became a diagnosis of “belligerent” and “aggressive” Black men. Around this time, advertisements for Haldol emerged as a drug that can treat belligerent people who need to be controlled.

Disparities in Schizophrenia Diagnosis

As previously stated, Black patients are diagnosed with schizophrenia more often than their white counterparts, which is in contrast to epidemiological findings (Gara, et al., 2019; Gara, et al., 2012; Olbert, et al., 2018; Whaley, 2001). Exact figures vary.

- Olbert, et al. found that Black patients are diagnosed with schizophrenia 2.4 times more frequently than white patients (OR=2.42, 95% CI [1.59, 3.66]) (Olbert, 2018). This was the case when using both structured (OR=2.43, 95% CI [1.59, 3.72]) and unstructured (OR=1.77, 95% diagnostic assessments) (Olbert, 2018).
- Gara, et al. found that Black patients had higher rates of clinical diagnoses of schizophrenia than non-Latino white patients did, even after controlling for covariates like serious affective disorders (Gara, et al., 2012).
    - When schizophrenia was narrowly defined, a significant ethnicity/race effect was found even after controlling for all other predictors (χ_2^2 = 10.4, P = .01) (Gara, et al., 2012).
    - When schizophrenia was broadly defined, there were also significant differences between African American patients and white patients (OR=2.5; 95% CI, 1.4-4.5) (Gara, et al., 2012). A comparison between African American patients and non-Latino white patients also yielded a significant odds ratio (OR=2.7; 95% CI, 1.5-5.1) (Gara, et al., 2012).
    - Black patients did not significantly differ from white patients in overall severity of manic and depressive symptoms but did evidence more severe psychosis (Gara, et al., 2012).

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In addition to being diagnosed with schizophrenia more often, Black patients are also more frequently assigned to the paranoid subtype of schizophrenia than white patients (Whaley, 2001). Due the complexity of this issue, it is likely that there are reasons specific to patient-clinician interactions, as well as reasons outside of that arena. However, clinicians have more control over themselves than outside factors. Thus, it is prudent for them to be aware of the issues that arise in clinical practice when it comes to the diagnosis (inaccurate or otherwise) and treatment of schizophrenia in Black patients.

Affective Symptoms and Schizophrenia Diagnosis

Gara, et al. found that Black patients with schizophrenia are more likely than non-Latino white patients to screen positive for major depression (Gara, et al., 2019). Among patients with schizoaffective disorder, the difference in percentages of positive screening for depression is not significant between Black patients and non-Latino whites (13% among Black patients versus 10% among non-Latino white patients) (Gara, et al., 2019). It is hypothesized that this may be due to affective symptoms being built into the diagnosis (Gara, et al., 2019).

This phenomenon is consistent with findings in existing literature (Gara, et al., 2019). The PHQ-9 is a commonly used screening tool that has a cut off of $\geq$10 for depression (Gara, et al., 2019). It is important to recognize that this score tends to capture people who may only have mild depression, as well as people with negative symptoms of schizophrenia, such as anhedonia and low motivation (Gara, et al., 2019).

It is possible that there is conscious or unconscious bias toward the meaning of psychiatric symptoms in Black patients, and that underemphasis of affective symptoms can be a manifestation of this (Gara, et al., 2019). Underemphasis of affective/mood symptoms in Black patients could be a reason why Black patients are diagnosed with schizophrenia more than white patients (Gara, et al., 2019). This can be true even for patients who may have screened positive for depression based on the PHQ-9 but do not ultimately meet all ICD-10 criteria for major depression (Gara, et al., 2019).

Failing to adequately consider affective/mood symptoms in patients may steer clinicians away from diagnoses such as major depression with psychotic features, schizoaffective disorder, or bipolar disorder (Gara, et al., 2019). Interestingly, a 2012 study by Gara, et al. found that Black patients did not significantly differ from white patients in overall severity

of manic and depressive symptoms, but did appear to experience more severe psychosis (Gara, et al., 2012). Still, it must be emphasized psychosis is not exclusive to schizophrenia and should not preempt a comprehensive review of diagnoses other than schizophrenia.

Cultural Issues and Schizophrenia Diagnosis

In a study by Whaley, which examined both the agreement between clinical and research diagnoses of schizophrenia and the association between cultural mistrust and disagreement of these diagnoses with regards to paranoid schizophrenia, several agreement categories were created based on clinical, SCID, and best estimate diagnoses (Whaley, 2001). Agreement among clinical diagnoses of schizophrenia with SCID and best estimate diagnoses was poor (κ=0.11, p=ns, κ=0.13, p=ns, respectively). Agreement with SCID and best estimate diagnoses of schizophrenia was favorable (κ=0.73, p<0.0001).

Cultural mistrust among Black patients does not predict an increase in clinical diagnoses of paranoid schizophrenia, but it is positively associated with odds of diagnosis by the best estimate method.

- Best estimate OR=1.51 when compared to clinical diagnosis
- Best estimate OR=2.92 when compared to SCID diagnosis

There is significant reported correlation between patients' self-reported cultural mistrust and interpersonal distrust (Whaley, 2001). These two parameters may overlap in presentation (Whaley, 2001). Patients who did not have comorbid substance abuse, who score high on measures of distrust, and who express more social desirability appear to be more likely to receive a clinical diagnosis of paranoid schizophrenia.

Cultural factors may contribute to Black patients with mood disorders having higher levels of psychotic symptoms or symptoms that are interpreted as psychosis**.** For example, a reasonable paranoia and cultural mistrust can be understandable sequelae of dealing with racism (Gara, et al., 2012). This may influence patient behavior when interacting with clinicians. It is imperative that a comprehensive evaluation be conducted in order to determine the root cause of a patient's anger; anger must not be interpreted in singularity. For example, depression can manifest as anger and, at times, anxiety manifests in irritability. Without the context of the individual such as their trauma experiences, family history and their experiences, or an understanding of the patient's current reality, certain diagnoses may be inappropriate or premature.

Another example includes use of slang that clinicians may misinterpret as disorganized speech. A couple examples include “You don’t want smoke.” “Smoke” in this instance refers to confrontation, conflict, and the like. Another example is “I was ear hustling.” “Ear hustling” means eavesdropping. Devising and testing culturally sensitive instruments for diagnosis might improve clinical assessments. In the meantime, it is important that clinicians be thoughtful about how cultural differences may impact the diagnostic process and work to address it.

Uncomfortable Topics

In order to best serve your patients, become comfortable broaching uncomfortable topics such as racism, domestic or interpersonal violence, and trauma.

Additionally, do not ignore racially-charged and racially-motivated incidents in the media. Ask how the patient was affected by it.

For instance:

- How did the Amhaud Arbery killing impact you? Were you affected by the results of that trial?
- Did the murder of George Floyd impact you in any way?
- Is this something that your family experienced? (In regards to similar racially discriminatory experiences)
- Is this something you are worried about for your children?

You can ask these questions even if you are not a Black psychologist or psychiatrist. A helpful preface to a conversation about these topics could be to verbally acknowledge to them that you know that you do not know what this is like but that you are trying to understand in order to better help them.

In this uncomfortable and possibly completely unfamiliar territory to you as a clinician, be ready to be wrong and instead be a safe place for them to disagree with you. Come to terms with the fact that you may not have all the answers.

Sex, Ethnicity, and Antipsychotic Medication Use

Black men are given antipsychotic medication more often than Black women and white men and women, particularly depot antipsychotics (adjusted $\chi 2 = 5.77$, $df = 1$, $OR_a = 2.6$; 95% confidence interval [CI]: 1.19 – 5.14; $p < 0.02$) (Arnold, et al., 2004). Among Black patients with bipolar and depressive disorders, there is a significant ethnicity effect on high-dose antipsychotic prescribing (adjusted $\chi 2 = 4.4$, df = 1, ORa = 8.1; 95% CI: 1.15–58.82; $p < 0.04$) (Arnold, et al., 2004). Black patients with psychotic mood disorders have an increased likelihood of being prescribed more than 10 haloperidol equivalents in comparison to white patients (Arnold, et al., 2004). Interestingly, ethnicity effects on high-dose antipsychotic prescribing do not appear (adjusted $\chi 2 = 0.63$, df = 1, ORa = 1.4; 95% CI: 0.59 – 3.48; $p>0.4$) (Arnold, et al., 2004). Also interesting to note, it seems that there are no significant differences between sex and ethnic group rates of second-generation (clozapine, risperidone, olanzapine, or quetiapine) (adjusted $\chi 2 = 0.44$, df = 1, ORa = 1.13; 95% CI: 0.78 – 1.64; $p>0.5$) or first generation (adjusted $\chi 2 = 0.02$, df = 1, ORa = 1.03; 95% CI: 0.70 – 1.52; $p>0.8$) antipsychotic prescribing was found (Arnold, et al., 2004).

Though the reasons for higher use of depot antipsychotic medication in Black men is unclear, it can perhaps be linked to compliance concerns (Arnold, et al., 2004). It is important to note, however, that depot antipsychotic usage does not necessarily lead to increased treatment compliance in Black patients (Arnold, et al., 2004). The use of higher doses of antipsychotics in Black patients does not appear to be due to clinical severity (Arnold, et al., 2004).

Per Dr. Hairston, there is a longstanding myth that Black men actually require and tolerate higher doses of antipsychotics. In reality, they are at higher risk for developing extrapyramidal symptoms due to higher doses, particularly if they are psychotropic naive. Additionally, historically and currently, Black patients are more likely to be involuntarily hospitalized and less likely to be offered therapy as a treatment.

Moving Forward

Adequately addressing this issue will require a multipronged approach due its complex nature and enduring presence, requiring detailed and intentional actions, such as to:

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- Document and evaluate as objectively as possible without first putting your own interpretation onto what is seen.
- Comprehensively evaluate patients in order to avoid arriving at inaccurate diagnoses.
- Consider the reasoning behind anger in patients. It may not always be inappropriate or secondary to psychosis.
- Clarify subjectively ambiguous statements rather than automatically assuming their meaning and concluding that they are indicative of psychosis.
- Assess the effectiveness of patient treatment plans at appropriate intervals and troubleshoot any problems.
    - When appropriate, troubleshooting can include reassessing the diagnosis.
- Regularly screen patients for affective and depressive symptoms.
- Become familiar with how symptoms may present differently in other racial groups.
- Consult with culturally sensitive clinicians when assessing and treating patients.
- Assess the interracial attitudes of Black patients during clinical evaluations.
- Make use of structured interviews and/or rating scales when possible, even though the effect size on decreasing overdiagnosis is reportedly small.
- Examine practice patterns and statistics when possible with regards to diagnostic rates and treatment methods.
- Demonstrate empathy, approach each patient with an open mind, and practice humility.
- Keep in mind that the perceived power differential between themselves and physicians is one of many factors that make trust harder to establish.
- Be prepared to be wrong.
- Be prepared to be uncomfortable with the realities of racism in the healthcare system.
- Advocate for patients.
    - Provide them with information that helps them navigate the health system and communicate assertively, clearly, and thoughtfully with their healthcare providers.
    - Help patients learn about mental health in general and their particular diagnoses by providing them with patient-friendly sources of information.
- Continue research in this area to further elucidate causes and potential solutions.

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Sources

Arnold, L. M., Strakowski, S. M., Schwiers, M. L., Amicone, J., Fleck, D. E., Corey, K. B., & Farrow, J. E. (2004). Sex, ethnicity, and antipsychotic medication use in patients with psychosis. Schizophrenia research, 66(2-3), 169–175. https://doi.org/10.1016/S0920-9964(03)00102-6

Gara, M. A., Minsky, S., Silverstein, S. M., Miskimen, T., & Strakowski, S. M. (2019). A Naturalistic Study of Racial Disparities in Diagnoses at an Outpatient Behavioral Health Clinic. Psychiatric services (Washington, D.C.), 70(2), 130–134. https://doi.org/10.1176/appi.ps.201800223

Gara, M. A., Vega, W. A., Arndt, S., Escamilla, M., Fleck, D. E., Lawson, W. B., Lesser, I., Neighbors, H. W., Wilson, D. R., Arnold, L. M., & Strakowski, S. M. (2012). Influence of patient race and ethnicity on clinical assessment in patients with affective disorders. Archives of general psychiatry, 69(6), 593–600. https://doi.org/10.1001/archgenpsychiatry.2011.2040

Olbert, C.M., Nagendra, A., & Buck, B. (2018). Meta-Analysis of Black vs. White Racial Disparity in Schizophrenia Diagnosis in the United States: Do Structured Assessments Attenuate Racial Disparities? Journal of Abnormal Psychology, 127, 104–115.

Whaley, A. L. (2001). Cultural mistrust and the clinical diagnosis of paranoid schizophrenia in African American patients. Journal of Psychopathology and Behavioral Assessment, 23(2), 93–100. https://doi.org/10.1023/A:1010911608102