Cultural and Racial factors influencing the diagnosis of schizophrenia:

An In-Depth Examination of Socio-Cultural Incompetence, Social Adversity, and Genetic Differences

Taanya Kapur

Abnormal Psychology

Prof. Shalaan Farouk

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*Introduction*

While criteria in the DSM-5 aim to be objective, structured, specific and accurate, the role that subjective perceptions play in diagnosis and the potential biases that appear in this process cannot be ignored. Given that a lot of criteria depend on the observations of subjective behaviors and their manifestations- the potential of these to be biased is important to acknowledge. The influence of cultural and racial factors on the diagnosis, assessment, and treatment of psychiatric symptoms constitutes a complex and pressing issue within diagnosing psychotic illnesses. While the DSM-5 aims to be holistic and account for cross-cultural factors in diagnosing mental illness, the fact that it originates in Western society within the American Psychiatric Association and the sociocultural implications of that context cannot be ignored. More specifically, research has pointed to the alarming reality that Black and Hispanic individuals in the United States are more likely to be diagnosed with psychotic illnesses than White individuals (Schwartz & Blankenship, 2014). This essay undertakes an in-depth exploration of the possible reasons for these disparities, focusing on three key themes: the socio-cultural incompetence of physicians, the social adversity faced by minority groups, and the possibility of actual genetic differences between racial groups.

*Socio-Cultural Incompetence of Physicians/Clinician Bias*

An often-overlooked factor, the socio-cultural incompetence of healthcare providers, is a significant contributor to the overdiagnosis of psychotic disorders among racial and ethnic minorities. The term socio-cultural incompetence here encapsulates a lack of awareness or understanding of cultural nuances in symptom presentation, which can lead to misinterpretation of symptoms, and consequently, overdiagnosis of severe mental illnesses like psychosis (Schwartz & Blankenship, 2014). The study by Schwartz & Blankenship demonstrates how minorities like the Black and Hispanic community are more likely to be diagnosed with Schizophrenia than people of the White ethnic community. An important reason is the clinician bias itself in interpreting symptoms. For instance, cultural expressions of distress like willful silence or withdrawal for self protection, may be misinterpreted as a negative symptom of schizophrenia like avolition, can lead to an inflated diagnosis rate of schizophrenia among minority communities. Expressions of spiritual beliefs, community connections, or expressions of trauma can be misinterpreted due to the clinician's lack of cultural understanding of the patient’s background. Additionally, biases, both conscious and unconscious, may influence diagnostic decisions. For example, Trierweiler (2014) found that African American clinicians on average associated schizophrenia diagnosis with more Positive symptoms like delusions and hallucinations across their patients, and Non-Black clinicians were more likely to associate Schizophrenia with negative symptoms like anhedonia and motor retardation. This indicates that clinician’s race and ethnicity influences their perception of aspects of the schizophrenia diagnosis of Positive symptoms of delusions or hallucinations itself.

The potential reasons for this could be the focus on communication barriers by clinician’s of Non-African American communities which African-American clinicians were not as focused on. For example, cultural norms such as not sharing problems easily and presenting a stoic front within the African-American community could lead to lower detection of Negative symptoms by clinicians from the same background, who perhaps don’t regard it as unusual behavior. Logically this makes sense as the person from the community is more likely to perceive that as expected behavior, whereas clinicians from a different background are more likely to catch on to it as a negative symptom or ‘deviant behavior’. Trierweiler (2014). However when taking the results into account it is important to consider that the sample size of clinicians was limited and the African-American clinicians were from a lower socio economic background, which will be considered as an entirely separate confounding factor but cannot negate the significance of the patterns indicated by the results.

Given that a clinician bias can exist for clinicians from minority and non-minority backgrounds in terms of misdiagnosing or missing symptoms, resolving the bias cannot involve just changing the clinician’s background. What is clear is that racial and cultural differences in clinician background can affect diagnosis and hence it is important to consider the capacities, beliefs and assumptions brought into schizophrenia. Difference in the diagnosis by clinicians based on culture can be attributed to socio-cultural incompetence. The reason clinicians from different ethnicities display some kind of bias can be attributed to their own background precluding them from understanding the context of their patient and understanding norms of that society so that they can differentiate between culturally normative reservation in interaction and avolition, for instance.

However, a potential concern with increased sensitivity to racial and cultural background is the potential scope for racially charged assumptions on the part of the clinician that could lead to inaccurate assessment of symptoms based on stereotypes. The aim of standardized symptomatology is to eliminate the potential for subjective bias. Schwartz et al (2009) explored the potential implications of stereotyped beliefs on clinician assessment and found that the higher diagnosis of African-American with psychotic illnesses like Schizophrenia which ‘involve acting out in ways that interfere with or disrupt others’ were due to the overall interpretation of African-American’s behaviors as more likely to be socially defiant, deviant and disruptive. Preconceived notions of the community were affecting the overdiagnosis of symptoms. The prevalence of psychotic illness in African-American communities is already higher due to these biases and this can further affect the perception of the clinicians. However, an important limitation in this research was that some of this clinical help was court-ordered which means the participants could be already perceived as socially deviant based on criminal records. However, the effect sizes found in the study were significant enough and in congruence with previous literature in emphasizing how awareness of client race can impact schizophrenia diagnosis. This demonstrates the dangers of an increased sensitivity to clients’ background which can tread the fine line of developing different biases based on stereotypical perceptions.

The concern of racial assumptions is not just related to overdiagnosing but underdiagnosing based on misattribution of cultural assumptions as well, which poses a further complication for clinicians. With minority populations like the Black population in the UK, the underdiagnosis is of major depressive disorder, where flat affect and anhedonia are misattributed as a product of the cultural norm of restricted expression in Black cultures, even in cases where the patient may have MDD. While this does not directly affect the diagnosis of schizophrenia it contributes to the larger discourse of the clinicians biases as cultural awareness is very tenuous and complex. The same symptom - flat affect- can be misperceived as a negative symptom of schizophrenia as opposed to a cultural norm leading to overdiagnosis and on the other hand the cultural norm can be overemphasized leading to under diagnosis of a clinical symptom.

This demonstrates the overall complexity of the issue where the clinician needs to be sensitive and aware of the culture to understand norms but not allow pre-existing assumptions to misinterpret symptoms either which can lead to both underdiagnosis and overdiagnosis based on racial and cultural difference. Standardized symptomatology is considered a way to counteract this bias but as Alegria et al. (2010) argues, a one-size-fits-all approach to mental health diagnoses and treatment is detrimental as it often overlooks cultural, contextual, and individual differences so standardization does not eliminate but can exacerbate bias. This is why awareness of clinician bias when looking at so-called standardized symptoms in terms of their own positionality, potential biases and their understanding of the cultural norms in which their client comes from are equally important in developing a sociocultural competency. A key aspect of this competency is also taking into account the client's own perception and interpretation of their distress in their respective sociocultural context. (Scwartz 2009). Given that the diagnostic criteria relies heavily on clinician assessment of the patient overtime, clinician bias is one of the most foremost considerations when trying to understand sociocultural differences of results.

*Social Adversity of Minority Groups*

Beyond the parameters of healthcare institutions, the social adversity faced by racial and ethnic minority groups is another key factor influencing the diagnosis of psychotic illnesses. These adversities include, but are not limited to, discrimination, socio-economic disadvantages, and other forms of social stress, which can generate or exacerbate mental health issues (Morgan et al., 2004). This issue is complex because social adversity can contribute to the onset of Schizophrenia, but even the onset of schizophrenia can contribute to social adversity. Furthermore, the expression of responses to circumstances and mental illness are present but fine. Specifically, experiences of discrimination can lead to increased psychological stress, a well-established risk factor for Schizophrenia. On the other hand, a person could express behaviors that resemble Schizophrenic symptoms like demotivation and flat affect; it could be a safeguard in response to discrimination. Discrimination, in this context, can be understood as a chronic stressor that, over time, can lead to a variety of negative health outcomes.

To understand the specific relationship between social adversity and psychotic illness Das-Munshi et al. (2018) conducted a study focusing on the experiences of racism and discrimination among minority groups. Their findings indicate a clear association between experiences of racism and increased levels of paranoia and hallucinations. The study focused on ethnic density and how being with the same ethnicity could reduce the incidence of psychotic illness further bolstering the idea that minorities are more vulnerable due to lower ethnic density in their respective demographics**. T**his study implicates experiences of discrimination as one of the causes of Schizophrenic symptoms, rather than an alternative explanation for the expression of symptoms. However, an article by Veling et al (2008)suggested that instances of perceived discrimination of individuals were not a risk-factor in the onset of Schizophrenia, amongst immigrants within the Netherlands. Given the specific context of the study, the findings are not necessarily generalizable but suggest the investigation of other, more prominent risk factors is necessary.

Aside from discrimination, socio-economic status is an important risk factor; there is a correlation between minorities and lower-socioeconomic status which needs to be considered as an independent possible factor for the increased incidence of schizophrenia. Cooper (2005) conducted a database review of schizophrenia incidence and socio-economic status. His findings suggested that the incidence of schizophrenia was higher in lower socio-economic backgrounds, specifically in immigrant populations highlighting it as a risk factor. The study demonstrated support for the ‘environmental breeder’ hypothesis that indicates there are certain environmental factors like low-economic factors which are enough to facilitate the manifestation of schizophrenia. ‘pre- and perinatal factors, such as abnormal pregnancy, obstetric complications and low birth weight, are associated on the one hand with schizophrenia risk’ (Cooper, 2005). A key feature of this study is that it demonstrates that the low socioeconomic status of ethnic minorities could not be explained by the downward social drift hypothesis. This hypothesis suggests that individuals with schizophrenia experience a downward socioeconomic shift, due to their illness and its effect on education and careers. The theory implies that the incidence of schizophrenia is what causes the socioeconomic shift, whereas the study suggests that the socioeconomic factors are precursors to the onset of the illness. While the social-drift does exist in his population, his study demonstrates that this in itself was not enough of an explanation of the incidence of schizophrenia in the immigrant population in the UK whose socio-economic backgrounds were determined by other factors. Hence he highlights the importance of socio-economic status as a risk factor but suggests that it is not enough to be judged as ‘neither a sufficient or necessary cause.’ This clearly indicates the strength of SES background as a risk factor but, like discrimination, not independently a strong enough one.

The need to investigate more social factors is further strengthened by Kirkbride et al (2018) who studied psychosis incidence in the Black Minority Ethnic group in Britain. They found that elevated psychoses was not explained by lower socio-econimic status of the BME population and was misattributed as a result of socio-economic drift. It is important to note that this study focuses on general psychotic-illnesses but the risk factors remain the same. This study indicates that in some cases SES background is not a risk-factor within minorities suggesting that some other factors be considered to explain the higher diagnosis of Schizophrenia within racial and ethnic minorities.

Morgan et al (2009) suggests that the relationship between minorities and Schizophrenia is more complex than just discrimination or socio-economic status as it is modulated by factors such as coping mechanisms and genetic predispositions. For example, in the UK, The Black Caribbean and African population develop five times more Schizophrenia than the white population and according to the authors this is linked to a broad range of social factors which tend to have a ‘developmental trajectory characterized by increased likelihood of exposure to subsequent adversities, each of which is likely to have a compounding effect’ (Morgan et al 2007.) According to the study minorities that experience social exclusion, poor access to education and opportunities and discrimination all contribute to poor future outcomes and these risks can predate the onset of symptoms of psychosis or increase the risk of developing psychosis in a dose-response fashion. This reinforces the idea of the previous literature of which social factors contribute to Schizophrenia and additionally explain how they interact and compound the risk of developing psychosis. Majority of the literature suggests that while developing psychosis itself can lead to social adversity, the key reason for higher incidence of Schizophrenia in fact a complex combination of social adversities including discrimination, socioeconomic status and coping mechanisms that minorities experience at different levels that can create a strong predisposition for developing Schizophrenia.

Another important consideration brought up by Morgan et al is the biological implications of social adversity. Social adversity leads to the sensitization of the mesolimbic dopaminergic system and increased activation of the hypothalamic–pituitary–adrenal (HPA) axis. These are important given that dopaminergic activity is closely linked with incidence of psychotic symptoms. Social adversity also affects the structure and functioning of the amygdala and corpus callosum which have been implicated in Schizophrenia. Finally they suggest that genetic vulnerability and its interaction with the aforementioned social factors can be one of the most important predictors in developing Schizophrenia.The concrete biological implications increase vulnerability and highlight the multi-layered effect of social adversity in creating a predisposition for Schizophrenia within racial and ethnic minorities. While the genetic factors here are addressed as a consequence of adversity, it is also important to explore the possibility of genetic causes.

*Genetic Links*

Genetic differences between different racial and ethnic groups have been debated as a potential factor that leads to the difference in diagnosis of Schizophrenia in different minorities. While socio-cultural biases and systematized racism and adversity clearly influence the onset. diagnosis and subsequent treatment of the disorder, the possibility of objective biological differences cannot be discounted. The genetic cause of schizophrenia is itself unclear because of complex gene interactions, hence the existing literature is limited but pertinent.

A study by Turetsky et al. (2015) explores the effect of a viable genetic endophenotype, a genetic predisposition seen as observable clinical behavior, on a brainwave pattern, P300 that reduces in amplitude for schizophrenic patients. The study found that for people who had not used drugs in the past, the patterns were similar across racial groups. But for previous drug-users, healthy African-Americans had similar brainwave patterns to African-American’s with Schizophrenia but this was not the case for the other racial groups. Hence this difference indicates that with the interaction of substance use, even non-schizophrenic African-American’s exhibit a particular brainwave pattern that other races do not, which can be a potential predisposition for the illness. However, the study did not claim to conclude this with any certainty just that a genetic difference between the two groups did exist in the context of Schizophrenia.

The possibility of genetic differences were confirmed by another study by Kaufmann et al (1998) who used genetic screening (genome wide scans) using short-tandem-repeat markers to look for genetic markers linked to schizophrenia. The study did not find promising links in specific criteria, they did find certain links within chromosomes that could be implicated as a cause of Schizophrenia. The biomarkers within these chromosomes were different for African-American samples than they were for European-American samples. Certain chromosomal linkages of Chromosome 10 are found in Caucasian American schizophrenic patients but not in families of African American schizophrenic patients. (Faraone et al, 1998). These genetic differences and their epigenetic manifestation can partially explain why schizophrenia prevalence varies amongst ethnic groups in America. However, the specific interactions with the environment were not explored in depth, although the aforementioned study by Barsnehan et al suggests some of the ways in which social factors can influence gene expression as well. Overall, while there are certain genetic differences in ethnic and racial groups linked to Schizophrenia, the exact effect and the extent to which this creates a predisposition is still unclear. The volume and agreement of research in social and clinician factors are still stronger than that of genetics, although its influence is significant to consider. These three factors in combination explain how psychiatric bias, sociocultural factors and genetics can lead to the difference in diagnosis of Schizophrenia in racial and ethnic minorities.

*This is a very good assignment for which you have completed a considerable amount of research. In particular you have done in considering how concomitant factors, such as ethnic minority and socio-economic, status may interact with one another. It is a complex picture and you provide a very balanced account. In places your writing is not very clear, so that is an area you should improve upon. You also need to improve in the way that you cite previous research. See the APA for guidance of citing work for psychology papers.*

*Grade 37/40*

*Works Cited*

Alegria, M., Atkins, M., Farmer, E., Slaton, E., & Stelk, W. (2010). One size does not fit all: Taking diversity, culture and context seriously. Administration and Policy in Mental Health and Mental Health Services Research, 37(1–2), 48–60. https://doi.org/10.1007/s10488-010-0283-2

Cooper, B. (2005). Immigration and schizophrenia: The Social Causation Hypothesis revisited. British Journal of Psychiatry, 186(5), 361–363. https://doi.org/10.1192/bjp.186.5.361

Das-Munshi, J., Bhugra, D., & Crawford, M. J. (2018). Ethnic minority inequalities in access to treatments for schizophrenia and schizoaffective disorders: Findings from a nationally representative cross-sectional study. BMC Medicine, 16(1). https://doi.org/10.1186/s12916-018-1035-5

Faraone, S. V., Matise, T., Svrakic, D., Pepple, J., Malaspina, D., Suarez, B., Hampe, C., Zambuto, C. T., Schmitt, K., Meyer, J., Markel, P., Lee, H., Harkavy-Friedman, J., Kaufmann, C., Cloninger, C. R., & Tsuang, M. T. (1998). Genome scan of European-American schizophrenia pedigrees: Results of the NIMH genetics initiative and Millennium Consortium. American Journal of Medical Genetics, 81(4), 290–295. https://doi.org/10.1002/(sici)1096-8628(19980710)81:4<290::aid-ajmg3>3.0.co;2-y

Kaufmann, C. A., Suarez, B., Malaspina, D., Pepple, J., Svrakic, D., Markel, P. D., Meyer, J., Zambuto, C. T., Schmitt, K., Matise, T. C., Friedman, J. M., Hampe, C., Lee, H., Shore, D., Wynne, D., Faraone, S. V., Tsuang, M. T., & Cloninger, C. R. (1998). Nimh Genetics Initiative Millennium Schizophrenia Consortium: Linkage Analysis of African-American pedigrees. American Journal of Medical Genetics, 81(4), 282–289. https://doi.org/10.1002/(sici)1096-8628(19980710)81:4<282::aid-ajmg2>3.0.co;2-w

Kirkbride, J. B., Keyes, K. M., & Susser, E. (2018). City living and psychotic disorders—implications of global heterogeneity for theory development. JAMA Psychiatry, 75(12), 1211. https://doi.org/10.1001/jamapsychiatry.2018.2640

Morgan, C., & Hutchinson, G. (2010). The social determinants of psychosis in migrant and ethnic minority populations: A public health tragedy. *Psychological Medicine,* *40*(5), 705-709. doi:10.1017/S0033291709005546

Schwartz, R. C. (2014). Racial disparities in psychotic disorder diagnosis: A review of empirical literature. World Journal of Psychiatry, 4(4), 133. https://doi.org/10.5498/wjp.v4.i4.133

Schwartz, R. C., & Feisthamel, K. P. (2009). Disproportionate diagnosis of mental disorders among African American versus European American clients: Implications for Counseling Theory, research, and Practice. Journal of Counseling & Development, 87(3), 295–301. https://doi.org/10.1002/j.1556-6678.2009.tb00110.x

Trierweiler, S. J., Neighbors, H. W., Munday, C., Thompson, E. E., Jackson, J. S., & Binion, V. J. (2006). Differences in patterns of symptom attribution in diagnosing schizophrenia between African American and non-African American clinicians. American Journal of Orthopsychiatry, 76(2), 154–160. https://doi.org/10.1037/0002-9432.76.2.154

Turetsky, B. I., Dress, E. M., Braff, D. L., Calkins, M. E., Green, M. F., Greenwood, T. A., Gur, R. E., Gur, R. C., Lazzeroni, L. C., Nuechterlein, K. H., Radant, A. D., Seidman, L. J., Siever, L. J., Silverman, J. M., Sprock, J., Stone, W. S., Sugar, C. A., Swerdlow, N. R., Tsuang, D. W., … Light, G. (2015). The utility of P300 as a schizophrenia endophenotype and predictive biomarker: Clinical and socio-demographic modulators in Cogs-2. Schizophrenia Research, 163(1–3), 53–62. https://doi.org/10.1016/j.schres.2014.09.024

Veling, W., Hoek, H. W., & Mackenbach, J. P. (2008). Perceived discrimination and the risk of schizophrenia in ethnic minorities. Social Psychiatry and Psychiatric Epidemiology, 43(12), 953–959. https://doi.org/10.1007/s00127-008-0381-6