5-2022

The Impact of Implicit Bias on the Overdiagnosis of Schizophrenia

Ace Ogbebor
California State University - San Bernardino

THE IMPACT OF IMPLICIT BIAS ON THE OVERDIAGNOSIS OF SCHIZOPHRENIA

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Social. Work

by

Ace Ogbebor

May 2022

THE IMPACT OF IMPLICIT BIAS ON THE OVERDIAGNOSIS OF SCHIZOPHRENIA

A Project

Presented to the

Faculty of

California State University,

San Bernardino

by

Ace Ogbebor

May 2022

Approved by:

Dr. James Simon, Facuclty Supervisor, Social Work

Dr. Laurie Smith, M.S.W. Research Coordinator

ABSTRACT

According to the American Psychiatric Association (2017), Black Americans are more likely to be diagnosed with schizophrenia and less likely to be diagnosed with a mood disorder in compassion to their White counterparts presenting with the same symptoms. To address mechanisms of implicit bias and the implications for mental health practice, it is imperative to investigate the diagnostic process of students who will enter the field of mental health.

According to the Council on Social Work Education, 80% of MSW graduates work in positions providing micro-level direct service to individuals, families, and groups (CSWE, 2019). Moreover, 80% of MSW graduates are licensed clinicians or plan on pursuing licensure within the next five years. The purpose of this study was to explore the clinician-client dynamic by analyzing clinical-decision making in students currently enrolled in Master of Social Work (MSW) graduate programs.

The goal of the study was to gain insight into the significance of race during the process of diagnosing individuals with mood disorders. The quantitative study was designed to examine the impact implicit bias on the diagnosis of mental illness using a vignette and clinical impressions survey. Based on the findings from 73 surveys, MSW students tend to under-diagnose major depressive disorder and over diagnose schizoaffective or schizophrenia disorder when assessing a Black client. However, despite these findings,

race/ethnicity did not emerge as significantly associated with overdiagnosis; only the severity of diagnosis was associated with the overdiagnosis.

ACKNOWLEDGEMENTS

I wish to acknowledge the two smartest and hard-working individuals in my life: my mother and my partner. Beyond being inspired by the both of you, the constant support and encouragement has provided me the fuel to accomplish my goals. I am exceptionally grateful for the presence of two glorious women by my side. Additionally, I want to thank Paul and Gail Castillo, who always had faith in my future and regularly joked that they'd be "my first clients."

Furthermore, the endless positivity from family, friends, and well-wishers is much appreciated. Most importantly, I wish to acknowledge God and the light that has constantly remained lit at the end of the tunnel—I have truly enjoyed the journey and I am excited for what the future holds as I continue to expand my knowledge and experience.

"Trust the process and enjoy the journey" – Paul Castillo

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

Problem Formulation

Implicit bias is understood as unconscious stereotypical generalizations held about groups of people in society (Project Implicit Mental Health, 2011). Individuals are often unaware of the underlying thoughts and beliefs they may have for certain racial groups, sexual orientations, or gender expressions. Implicit bias can lead to misperception of preconceived notions associated with social groups (American Psychological Association, 2019). Researchers have found that the presence of implicit bias has serious implications for the mental health field as clinicians may project unconscious thoughts or beliefs onto clients, jeopardizing the effectiveness of treatment and may contribute to the misdiagnosis of psychiatric disorders (DeAngelis, 2019; Strakowski, 2003). Despite implications of implicit bias within the healthcare system, extensive research examining the impact of implicit bias on psychiatric diagnosis is lacking (Adams et al., 2018).

The diagnosis of mental health disorders such as bipolar disorder or schizophrenia can be a helpful tool for clients and clinicians to identify and address disruptive and stressful symptoms. Researchers at Oxford University have described the diagnostic process as complex and intricate as clinicians must delve into patient illness history to conclude on and categorize their

symptoms (Baerheim, 2001). Baerheim explains that when patients consult clinicians regarding their symptoms, they initiate a process of labeling, classification, course of treatment, and placement into a prognosticate (Baerheim, 2001). Embracing a mental illness diagnosis can potentially lead to effective treatment, symptom management, and improved quality of life. Conversely, being misdiagnosed with a mental illness can lead to increased risk of social impairment, substance abuse, and suicide (Nasrallah, 2015).

The diagnosis of mental health disorders cannot be made solely off physical observation or by administering objective medical tests. Instead, clinicians are trained in their MSW graduate study to carry out evaluations and assessments based on *The Diagnostic and Statistical Manual of Mental Disorders, fifth edition* (DSM-5) to conclude on a diagnosis (APA, 2013). Clinicians are required to use a combination of their expertise, self-report from the client, and collateral information to make a proper judgment of diagnosis. Clinical conclusions and recommendations are highly susceptible to implicit biases, as provider's perceptions may be skewed by generalized stereotypes or by pathologizing culture (Adams et al., 2018).

For example, researchers Smith and Patton (2016) interviewed 37 young Black men aged 18-24 who had experienced the homicidal death of a loved one. All the participants experienced symptoms of post-traumatic stress disorder (PTSD), and hypervigilance was most frequently reported by the Black young men. Researchers noted that participants perceived their heightened vigilance as

protective behavior and as a coping mechanism to experiencing community violence. Other studies conducted with young Black males found that all participants endorsed hypervigilant behavior while being assessed for PTSD after experiencing recurrent interpersonal trauma (Rich, Grey, 2005). With the leading cause of death being homicide for Black 24–34-year-old men, it is imperative to consider the behavioral consequences of living in a state of being a target.

Some clinicians may understand the hypervigilant behavior in Black males as an adaptive and natural consequence of trauma, racial profiling, and discrimination in society. Meanwhile, others may associate the behavior with anxiety and paranoia relating to schizophrenia, which is likely to influence screening, diagnosis, and treatment (Adams et al., 2018). Studies have revealed that these circumstances have led to the overdiagnosis of schizophrenia in the Black community (Moran, 2014; Strakowski et al., 2003). Researchers have found that clinicians are inclined to view psychotic symptoms in Black clients as proxy to schizophrenia, rather than other mood disorders, despite the overlap in symptoms. Additionally, healthy paranoia, an emerging defense against hostile environmental conditions in the Black community, is often perceived as a psychotic symptom and reinforces the misdiagnosis of schizophrenia (Moran, 2014).

Considering the impact of implicit bias on the misdiagnosis of psychiatric disorders is relevant to the micro social work field because it examines how

discrimination can be unconsciously activated by mental health professionals. Although clinicians are trained to apply cultural humility to practice, evidence has shown that healthcare professionals have the same rates of implicit bias as the wider population (FitzGerald & Hurst, 2017). The Implicit Association Test (IAT) is an assessment test developed by Harvard University that measures attitudes and beliefs that people may be unwilling or unable to report (Project Implicit Mental Health, 2011). Understanding the presence of implicit bias in clinicians provides an opportunity to provide effective treatment for marginalized populations. Analyzing implicit bias within clinician-client dynamics can strengthen rapport and it can provide insight into the mechanisms reinforcing mental health disparities (Adams et al., 2018).

Purpose of the Study

The following chapters will present the quantitative study of how implicit bias affects diagnostic accuracy of MSW students. The goal of the study was to explore the clinician-client dynamic by analyzing clinical-decision making in students currently enrolled in Master of Social Work (MSW) graduate programs. According to the Council on Social Work Education, 80% of MSW graduates work in positions providing micro-level direct service to individuals, families, and groups (CSWE, 2019). Moreover, 80% of MSW graduates are licensed clinicians or plan on pursuing licensure within the next five years. MSW graduates are often aligned in positions to diagnose and treat individuals with mental disorders.

This study gauged the impact of implicit bias on the decision-making of students who are incoming clinicians and mental health professionals. To address mechanisms of implicit bias and the implications for mental health practice, it is imperative to investigate the diagnostic process of students training to become clinicians. The completion of the study provided insight into the significance of race during the process of diagnosing individuals with mood disorders.

The research study has a quantitative design to gain perspective into the clinical judgment of Master of Social Work students. Eligible participants must currently be enrolled in an accredited Master of Social Work program. During the study, participants read a clinical vignette about a young man presenting with several symptoms, then completed a survey about their diagnostic impressions. The client's race, mental health history, and symptoms functioned as the independent variable of the study. The disorder diagnosed by participants, along with their race/ethnicity, were measured as the dependent variable based on diagnostic impressions from the vignette. Participants answered several demographic questions to identify other possible variables. The data collected from the survey is informed by social identity theory and dual-process theory for an eclectic analysis of implicit bias and the misdiagnosis of mental illness.

Essentially, dual process theory explains decision-making as a two-tier process. System 1 is intuitive, unconscious, and automatic. Conversely, system 2 is much more deliberate, conscious, and analytical. An interplay of both systems is at work during the decision-making process while diagnosing. Simultaneously,

social identity theory states that individuals categorize others into social groups, each with attributions and qualities. Social identity theory defines implicit bias as unconscious positive and negative attitudes or beliefs towards individuals. Intersecting these theories provides a framework to investigate mental health disparities by examining the clinician's decision-making and the influence of stereotypes and attitudes. Eclectic utilization of both theories will enable consideration of how the unconscious knowledge in System 1, made up of social categorization and associations, manifests in the diagnostic process.

Significance of Project for Social Work

The value of the study lies in the potential to understand the decision-making of MSW students during the diagnostic process. As racial mental health disparities continue to rise, MSW students, the next generation of clinicians, have a duty to evaluate the provision of treatment to address the overdiagnosis of schizophrenia amongst Black clients. Examining clinical decision-making is foundational in combating the misdiagnosis of mental illnesses and improving outcomes, especially for individuals in Black communities.

Furthermore, this project's focus on racial mental health disparities only begins the conversation about how our social identities impact the likelihood of being over-diagnosed by mental health professionals. Information from this study can be used in future projects to examine other social categorizations such as, gender, sexual orientation, or socioeconomic status. Progressing the exploration

of the dynamics between clinicians and clients should lead to a future intersectional analysis of how mental health professionals diagnose individuals with mental disorders.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The literature review chapter will set the stage for the study of the significance of race during the process of diagnosing individuals with mood disorders by providing a literary context of implicit bias in the mental health field, and how it presents in clinicians during the diagnostic process. The literature is derived from various disciplines such as social work, cognitive psychology, and sociology. The literature and theoretical overview will provide a conceptual framework to assess the implicit biases of Master of Social Work students and their diagnostic accuracy. Additionally, to apply the intersecting perspectives of dual process theory and social identity approach to diagnostic accuracy, the chapter will extensively examine both ideologies and their convergence regarding clinical judgment.

Clinical Diagnosis

The identification and categorization of symptoms functions as a tool for clinicians and clients, although there are varied responses to being diagnosed with a mental illness. The process of being diagnosed is the first step towards treatment and recovery, and often evokes a sense of relief for those suffering

(NAMI, 2020). For others, mental disorder diagnoses are perceived as misconceptions and are rejected by clients.

Historical Perspective

Mental illness is a universal occurrence defined as disturbances to personal experience, social behavior, and physical functioning (Fàbrega, 2001). References to mental illness have been made universally throughout time, however, social practices and responses to disturbances are evolving constructs that are based on cultural values. In small scale societies, mental illnesses are "found but they are either uncommon, hardly reaching proportions that render them socially visible, and disorganizing (i.e., as major behavioral breakdowns) or relatively common, forming part of the general, 'run of the mill' more or less minor illnesses that healers or shamans are called on to treat on a regular basis" (Fàbrega, 2001).

Conversely, the same mental disturbances present as challenging visible problems in large scale societies that have complex social systems. In densely populated, large communities, mental disturbances are constructed into social paradigms. Fàbrega (2001) explains that as these constructions persist and become social problems, community distress will manifest the development of institutions to handle the issue. During the second half of the eighteenth century, cultural changes in Anglo-European society brought about medical and social institutions founding the base Western psychiatry. Population growth, as result of social and economic changes such as urbanization, migration, industrialization,

and the evolution of the medical profession, provided structural conditions for mental disturbances to transform into a major epidemiologic problem in Western culture (Fàbrega, 2001).

The categorical essence of Western psychiatry can be traced to Anglo-European developments of knowledge during the nineteenth century (Fàbrega, 2001). Descriptive psychopathology is defined as a method of collecting information regarding the current state and history of a psychiatric condition, thus constructing the requirements of the disorder. During the early 1900's, Karl Jasper initiated the descriptive system of terms, concepts, and experiences relating to mental disturbances, which heavily evolved the existing knowledge relating to clinical psychiatry (Hafner, 2015). The generation of clinical knowledge was studied through a cultural lens rooted in middle class values and belief systems. Western social standards regarding responsibility, conduct, and deportment influenced the delineation between normality and abnormality (Fàbrega, 2001).

Contemporary Perspective

Throughout the subsequent decades, researchers sought to develop standardized classification systems to define and address psychiatric disorders. The *Diagnostic and Statistical Manual of Mental Disorders 5th Edition* (DSM-5) and the *International Statistical Classification of Diseases and Related Health Problems 10th revision* (ICD-10) are globally recognized systems deemed acceptable for guiding mental health services (Van Heugten-van der Kloet et al.,

2015). Van Heugten-van der Kloet et al (2015) state that the DSM-5 is successful in standardizing the language and conceptualization of psychiatric disorders, however, the descriptive and categorical nature contributes to its failings as a system.

Van Heugten-van der Kloet et al (2015) assert that the diagnostic process in the DSM-5 takes on a descriptive approach to clinical case formulation. Descriptive diagnosis consists of the clinician's hypothesis and professional considerations of syndromes based on observable elements such as differential diagnosis, predisposing risk components, and maintaining factors (Van Heugten-van der Kloet et al., 2015). Using their clinical judgment, their descriptive diagnoses are "translated" into a DSM-5 classification. Research suggests that the categorical disposition of the DSM-5 is problematic in its regard of disorders as discrete units without gray area (Van Heugten-van der Kloet et al., 2015). The DSM-5 acknowledges that "scientific evidence places many, if not most disorders on a spectrum with closely related disorders that have shared symptoms, shared genetic and environmental risks" (American Psychological Association, 2013). Consequently, disorder categorization becomes debatable and validation for diagnosis decreases (Van Heugten-van der Kloet et al., 2015).

For example, the research shows that the presence of psychosis can occur in a variety of disorders including schizophrenia, schizoaffective disorder, bipolar disorder, major depressive disorder (MDD), and posttraumatic stress disorder (PTSD) (American Psychiatric Association, 2013). Researchers posit

that the presentation of psychosis with dysregulated mood points to psychotic mood disorder while the confluence of psychosis and disordered information processing may characterize schizophrenia (Dubovsky et al., 2021). Additionally, researchers found that the presentation of psychosis was not distinguishable between categorical diagnosis, highlighting the overlap within the DSM-5 that can lead to misdiagnosis (Dubovsky et al., 2021).

Racial Mental Health Disparities

Racial mental health disparities exist across ethnic minorities groups and continue to pose an obstacle for marginalized individuals to receive high quality care services. Disconnection between clinicians and clients appear to significantly contribute to health care disparities as studies indicate interactional dysfunction (American Psychiatric Association, 2017). Additional sources of racial mental health disparities include stigmatization, economical challenges, disbelief in mental health treatment, and language barriers (American Psychiatric Association, 2017). Researchers examining the trends of mental health care across racial groups have identified several differences in clinical outcomes, indicating evidence of disparities in access and utilization of services.

McGuire and Miranda (2008) found that minority groups were more likely to delay or fail to seek mental health treatment, which is congruent with their likelihood to receive inadequate care when treated. The study (2008) has shown that while receiving services, people of color were less likely to receive optimal

treatment for depression and anxiety. Consequently, African American clients terminate their mental health treatment prematurely and rate dissatisfaction with their treatment more often than White clients (McGuire & Miranda, 2008). Other findings support this data, as researchers found negative experiences with mental health professionals may cause African Americans to doubt mental health services and decrease treatment adherence (Adams et al., 2018).

One study found that therapists were twice as likely to misdiagnose mental illness in individuals from disadvantaged communities (Nakash & Saguy, 2015). According to the American Psychiatric Association (2017), African Americans were more likely to be diagnosed with schizophrenia and less likely to be diagnosed with a mood disorder in comparison to their White counterparts presenting with the same symptoms. Differences in the presentation of emotional distress has been cited as a likely factor advancing the misdiagnosis of schizophrenia in African American communities. Furthermore, the American Psychiatric Association (2017) found differences in clinician communication styles between African American and White clients; clinicians were 23% more verbally dominant and utilized 33% less patient-centered approaches with African American clients.

Provider discrimination, defined by McGuire and Miranda (2008) as the implicit biases, stereotypes, and underlying assumptions about clients and the distribution of disease, is a prominent source of racial mental health disparities. Researchers explain, clinicians harboring bias against certain individuals may

present as variations in the quality-of-care services (McGuire & Miranda, 2008). Evidently, misinterpretation of emotional expression may be sustained by the implicit biases of mental health professionals (Adams et al., 2018).

Master of Social Work Students

Social workers embody most licensed mental health professionals in the United States. The Substance Abuse and Mental Health Services Administration (SAMHSA) reports that there are more clinical social workers than psychiatrists, psychiatric nurse practitioners, and psychologists combined (SAMHSA, 2021). The U.S. Bureau of Labor Statistics projects an estimated 23% increase in employment demand for social workers in the mental health field by 2022 (BLS, 2014). The presence of social workers within the mental health field cannot be understated, which emphasizes the need for clinical training that prepares social work students to recognize and challenge their own biases prior to becoming a clinician.

The competencies enforced by the Council on Social Work education highlight the need for students to identify oppressive mechanisms within social structures that affect individuals and perpetuate social injustices. Social work students are expected to understand explicit and implicit forms of discrimination in order to advocate for patient equity. However, researchers have found that social work students are not prepared to recognize and address their own biases that negatively impact provision of services (Rogerson et al., 2021). The lack of

personal awareness of biases in social work students has implications for the visceral decision-making that occurs within the mental health field (Rogerson et al., 2021).

Theories Guiding Conceptualization

Dual Process Theory

An examination of clinical reasoning must occur in order to analyze how implicit biases of mental health professionals may surface during the diagnostic process. Clinical reasoning is described as the mental system used to evaluate and manage patient problems (Pelaccia et al., 2011). Application of clinical reasoning to dual process theory will provide a framework to understand the complex, cognitive processes of MSW students that take place while assessing clients.

Dual process theory is an approach to understanding how individuals make decisions using cognitive reasoning. The theoretical framework arranges reasoning into two separate, interconnected systems (Pelaccia et al., 2011). System 1 is described as automatic, intuitive, and experiential. When information is initially perceived by individuals, unconscious mechanisms in System 1 begin producing responses based on one's belief system. Responses from System 1 are highly reliant on contextual cues, especially visual and auditory stimulation, as the reflexive processing is driven by recognition, prior experience with similar encounters, and stereotypes. Additionally, System 1 is highly dependent on the

affective status, such as mood, of the individual perceiving the environment (Pelaccia et al., 2011).

Conversely, Pelaccia et al. (2011) characterized System 2 as deliberate, analytical processing. Processing of information in System 2 is substantially slower as individuals must gather additional information from the environment and apply rational “rules” acquired from learning. Gronchi and Giovannelli (2018) maintain that applying models of thinking, weighing possible options, and considering potential alternatives to perceived information requires more cognitive effort than System 1.

During cognitive reasoning, an interplay between both cognitive systems allows individuals to make decisions about perceived information. The automatic System 1 is unconsciously activated upon perception, which prompts confirmation or invalidation from the analytical System 2 (Pelaccia et al., 2011). Gronchi and Giovannelli (2018) argue that the processing between systems functions through the “Hybrid Two-Stage Model”. The model constructs the systems into two steps; the first stage, “shallow analytic monitoring process”, actively detects potential conflicting information between the systems, and the second stage “optional deeper processing” is triggered once contradicting information between the two systems are identified (Gronchi, Giovannelli, 2018).

When applying dual process theory to mental health practice, System 1 and System 2 are represented in clinical decision-making as pattern recognition and hypothetico-deduction, respectively (Pelaccia et al., 2011). Exploring the

mental processes of MSW students through dual process theory will enable examination of clinical decision-making through a dichotomous perspective of reasoning. Furthermore, application of the theoretical framework will afford analysis of the contextual variables that may impact pattern recognition in clinical practice.

Social Identity Theory

Social identity theory is a framework centralizing social group membership and relations between individuals. The theoretical framework is founded on five dimensions: social identity, social structure, identity content, strength of identification, and context (Kreindler et al., 2012). Mechanisms of the social dimensions can be applied to dynamics between mental health professionals and clients in clinical practice.

The first dimension of social identity consists of the categorization that individuals associate with themselves and assign to others. People organize their environments through the construction of social groups, prompting the emergence of in-groups (“us”) and out-groups (“them”). When comparing the membership of their own group to others, individuals tend to focus on the shared attributions linked with the categorization, reinforcing group behavior such as privilege or discrimination (Kreindler et al., 2012). Kreindler et al. (2012) contend that the second dimension of social structure determines the power and status of each social group.

According to social identity theory, norms, stereotypes, and attributions associated with each group are reflected in identity content. Members of social groups internalize the characteristics and content of their identification; consequently, the resulting conditioning strongly influences group behavior and the evaluation of others (Kreindler et al., 2012). Researchers explain that the intensity in which an individual internalizes and identifies with a social group determines the fourth dimension, strength of identity. These factors of identity demonstrate the dynamic and fluid mechanisms of group categorization that are based solely on social contexts, encompassing the fifth dimension of Social Identity Theory (Kreindler et al., 2012).

Summary

The previous section provided historical and literary context to present foundational information regarding the perpetuation of implicit bias within the mental health field. Additionally, the section examined both dual process theory and social identity approach as useful frameworks to explore clinical decision-making.

CHAPTER THREE

METHODS

Introduction

The following chapter presents an overview of the methodology used for the research project. The personal information of participants has remained anonymous and confidential throughout the study. The chapter will include details of participant selection, sampling methods, and data collection. Lastly, the section concludes with the procedures of data analysis.

Study Design

The goal of the study is to explore the clinician-client dynamic by analyzing clinical decision making in students currently enrolled in Master of Social Work (MSW) graduate programs. According to the Council on Social Work Education, 80% of MSW graduates work in positions providing micro-level direct service to individuals, families, and groups (CSWE, 2019). Additionally, the majority of MSW graduates plan to pursue licensure and apply their expertise to positions that diagnose and treat individuals with mental disorders. Considering the research indicating the overdiagnosis of psychotic disorders in the Black community, this study examines race and the impact of implicit bias on the decision-making of students who are incoming mental health professionals. The

cross-sectional, quantitative design of the study provides subjective insight of diagnostic reasoning of MSW students.

Sampling

The research study was conducted using convenience sampling by recruiting MSW students from the state university. The requirement for participation included active enrollment in a MSW program. The MSW students sought out were enrolled in a CSWE accredited program with both on-campus and distance learning. The student status of participants included first year students, second year students, and third year students (part-time program). The enrollment status of participants allowed for an analysis of clinical decision-making from the perspective of individuals who are in training to provide mental health services. The recruitment of participants was conducted through an announcement sent via email calling for MSW student involvement in an anonymous study.

Data Collection and Instruments

Individuals who were interested in participating in the study were provided the necessary documents through a link to Google forms. The study was conducted with willing and able participants who agreed to the provided consent form (Appendix A). After consenting to participation, individuals were first instructed to answer demographic questions on the survey. The inquiry of

demographics included the following factors: race, age, gender, student status, field of bachelor's study, years of mental health experience, and engagement in professional diversity training. Participants were prompted to answer the demographic questions to their best ability, and to then move onto the clinical vignette.

Participants were provided with a clinical vignette and a questionnaire (Appendix B and Appendix C) to document their diagnostic findings. The collection instrument was developed with the collaboration of the research advisor and practicing psychiatrists from the researcher's employment to construct a narrative of a patient with symptoms of major depressive disorder; this vignette went through several iteration to ensure the symptom description was realistic enough to describe depressive symptoms while also allowing for some ambiguity with respect to symptoms that vary by culture that could also be labeled as psychotic symptoms depending on the clinician. This was done to assess whether clinicians of various backgrounds would diagnose the client as having depression or a more severe diagnosis such as bipolar disorder or schizophrenia.

Thus, the clinical vignette featured a young African American male, Dwayne, presenting with depressed mood, lack of motivation, isolation, and symptoms that mimicked auditory hallucinations. After reading the vignette, participants were instructed to answer diagnostic questions such as: "Are Dwayne's behaviors appropriate for his age and culture? Is Dwayne presenting

with psychosis? Is Dwayne presenting with paranoia? Is Dwayne presenting with low self-esteem?" Other questions prompted participants to rate the severity of Dwayne's symptoms on a scale from 1 (not severe) to 5 (severe). Lastly, participants were directed to select the most appropriate diagnosis for Dwayne with the options of bipolar disorder II, major depressive disorder, schizoaffective disorder, and schizophrenia. A section was provided for participants to add any comments regarding their diagnostic impressions.

Procedures

Participants were solicited through a convenience sampling approach by recruiting individuals from a state university. Data collection took place between December 2021 and February 2022 after receiving university approval from the Institutional Review Board (IRB), #IRB-FY2021-179. Eligible participants were sought out through the help of faculty from the social work graduate department. Faculty members sent out information regarding the study to MSW students through a distribution email. The email included a link to the survey that provided participants anonymous access to consent forms, demographic questions, the clinical vignette, and the questionnaire. Participants were informed on the purpose of the study, along with the risks and benefits of participation (Appendix A). The estimated time to complete the survey was between ten to fifteen minutes. After completing the survey, the subjects were thanked and debriefed on the study to provide insight into their participation (Appendix D). Participants

were encouraged to seek out counseling and psychological services to address any resulting discomfort. Additionally, participants were provided with resources and websites to explore that further explain implicit bias.

Protection of Human Subjects

The study was conducted with all the necessary precautions to protect the anonymity and confidentiality of all participants. The participants were given access to complete the study anonymously, without providing any identifying information. Prior to the start of the survey, participants were notified that engagement was strictly voluntary and could be withdrawn at any time without consequence. The demographic information of participants was collected to determine statistical significance, however, questions were limited to questions about social group membership and mental health experience. At the completion of the study, contact information for the researcher advisor was provided to participants in the case of any concerns or questions. The anonymous information gathered from data collection remained digital and was deleted from the system after the data analysis was completed.

Data Analysis

The study employed quantitative data analysis techniques to evaluate the information collected. The independent variable of the study was the racial demographic of the participant, while the dependent variable of the study was the

diagnosis selected. Additional analyses were conducted to examine variations by other demographic characteristics from participants including: the years of mental health experience, the discipline of their bachelor's degree, and whether they have attended professional diversity training. Lastly, questions measuring diagnostic impressions regarding symptom severity and risk of suicidal ideation were analyzed to determine further variation.

To extensively analyze the quantitative data, the relationship between race and diagnostic impression was examined using SPSS software. To answer the research questions, bivariate analyses were conducted using Pearson's Chi-2 tests for categorical variables and Pearson's correlations for numerical variables. Variables that emerged as significant in the bivariate analyses were included in a final multivariate logistic regression model to examine whether MSW student race is associated with diagnosis of schizophrenia while controlling for other significant variables.

Summary

The quantitative study was designed to examine the impact of racial implicit bias on the diagnosis of mental illness. The approach of the study provided insight into the clinical impressions of incoming mental health professionals that are being trained to diagnose and treat patients. The analysis of data sought to obtain information to understand how race can affect diagnostic impressions among future MSW clinicians.

CHAPTER FOUR

RESULTS

Introduction

The following chapter presents the findings from the study that aimed to examine the diagnostic accuracy of MSW students. An overview of descriptive frequencies and analytical tests are presented to report any significant findings that are discussed in the next chapter. The descriptive and bivariate results provide insight to answer the following research questions: (1) Are MSW students accurately diagnosing Black clients with depression?; (2) Are MSW students over diagnosing Black clients with schizophrenia?; (3) Does the race/ethnicity of MSW students impact their diagnostic accuracy of Black clients?

Sample Description

The study took place between December 2021 and February 2022 and consisted of 75 students that submitted the survey. After reviewing the data, two responses were omitted from the study due to incomplete surveys that were submitted with unanswered questions. Thus, the data was analyzed with the remaining results for 73 participants that completed the survey.

The mean age of participants was 34 with a standard deviation of 9. Most participants identified as female (n=61, 81%), while others identified as male (n=13, 17.3%) and non-binary (n=1, 1.3%). The sample had a diverse

racial/ethnic background with Hispanic/Latinx individuals (n=37, 49.3%) making up half of the sample. Next there were Caucasian individuals (26.7%), Black individuals (13.3%), Asian/Pacific Islander individuals (8%), and Mixed raced individuals (2.6%).

The educational background of the participants showed variance with most possessing bachelor's degrees in psychology (n=23, 30.7%), social work (n=17, 22.7%), and sociology (n=17, 22.7%). Other disciplines studied by participants included criminal justice (n=5, 6.7%), human development, (n=3, 3.9%), and human services (n=2, 2.7%). The remaining participants studied other social science and art disciplines.

The MSW enrollment status of the participants varied according to foundational students in their first year of students and advanced year placement completing either their second or third year depending on whether they were in the 2- or 3-year program. The sample included 1st year full-time participants (n=10, 13.3%), 1st year part-time participants (n=14, 18.7%), 2nd year full-time participants (n=18, 24%), 2nd year part-time participants (n=13%, 17.3%), and 3rd year part-time participants (n=20, 26.7%).

The professional background of participants was measured by years of clinical mental health experience and participation in workplace diversity training. Slightly over half of the participants had 0-1 years of experience (n=40, 53.3%), while others had 2-5 years of experience (n=22, 29.3%) and over five years of experience (n=13, 17.3%). Additionally, roughly half of the participants had

attended professional diversity training (n=55, 73.3%); the remaining participants stated that had not participated in professional diversity training (n=19, 25.3%). The demographic characteristics of participants are presented in Table 1.

Table 1.

Demographic characteristics of study sample

	N (%)	M
Age	75	34
Sex		
Female	60 (81.5%)	
Male	13 (17.5%)	
Non-binary	1 (1%)	
Race/Ethnicity		
Hispanic/Latino	36 (48.6%)	
Caucasian/White	20 (27%)	
African/Black American	10 (13.5%)	
Asian/Pacific Islander	6 (8.1%)	
Other	2 (2.7%)	
MSW student status		
1st Year Full-time	10 (13.5%)	
2nd Year Full-time	18 (24.3%)	
1st Year Part-time	14 (18.9%)	
2nd Year Part-time	13 (17.5%)	
3rd Year Part-time	19 (25.6%)	
Years of Mental Health Experience		

0-1 years	40 (54%)
2-5 years	21 (28.3%)
5+ years	13 (17.5%)
Discipline of Bachelor's Degree	
Human Services	2 (2.7%)
Psychology	23 (31%)
Sociology	17 (22.9%)
Social Work	17 (22.9%)
Criminal Justice	5 (6.7%)
Other	10 (13.5%)
Participation in professional diversity training	
Yes	55 (73%)
No	19 (25.6%)

Note. Other degrees identified by participants includes: Human Development, International Relations, Public Administration, Political Science, Liberal Studies, and Art

Research Findings

Descriptive Results

The following section presents the responses from participants, which are outlined below in Table 2. After reading the clinical vignette featuring a Black male client named Dwayne, participants were prompted to answer multiple questions about the presented symptoms and their clinical impressions. The frequency distributions were used to answer the first two research questions: (1)

Are MSW students accurately diagnosing Black clients with depression?; (2) Are MSW students over-diagnosing Black clients with schizophrenia?

Participants reported whether the behavior of the client was within normal range for his age and culture. Based on the provided information, 82% of participants (n=60) did not find the client's behaviors appropriate for his age culture. Additionally, participants were presented with a scaling question to determine the severity of the mental health symptoms the client was experiencing. The Likert scale was utilized to measure "*how severe would you rate Dwayne's symptoms?";* with intervals*: (1) not severe, (2) slightly severe, (3) moderately severe, (4) severe, (5) very severe.* Over half of participants perceived the client as (4) severe (n=43, 57.3%), while almost a quarter of participants rated the client as very severe (n=18, 24%). The remaining participants found the client moderately severe (n=12, 16%) and slightly severe (n=2, 2.7%).

Next, the survey prompted participants to assess the client for various mental health symptoms. To measure the clinical impressions of participants the survey posed closed questions (yes/no) relating to the client's self-image, perception, thought processing, and engagement in high-risk behaviors. The researchers asked, *"Is Dwayne presenting with psychosis?; Is Dwayne presenting with low self-esteem?; Is Dwayne presenting with suicidal ideation?; and is Dwayne presenting with paranoia?"* Most participants diagnosed the client with psychosis (n=62, 82.7%), low self-esteem (n=59, 78.7%), and paranoia

(n=58, 77.3%). Most participants did not find the client to be presenting with suicidal ideation (n=48, 64%).

Lastly, the survey posed a categorical question to examine diagnostic accuracy. The researchers prompted participants to *"select the most appropriate diagnosis for Dwayne based on the information given in the vignette."* The following options were provided: *(1) bipolar disorder II, (2) major depressive disorder, (3) schizoaffective disorder, (4) schizophrenia*. In the vignette, the client presents with severe depressive symptoms that are aligned with the correct diagnosis of MDD. Roughly half of the participants incorrectly diagnosed the client with schizoaffective disorder (n=38, 50.7%). About 28% of participants correctly diagnosed the client with MDD (n=21). The minority of participants selected bipolar disorder II (n=2, 2.7%) or stated they needed additional information to diagnose (n=2, 2.7%).

Table 2
Participant Survey Responses

	N (%)	M
Appropriate behavior for age and culture?		
Yes	60 (81.5%)	
No	13 (17.5%)	
How severe would you rate Dwayne's behavior?		
Not Severe	0 (0%)	
Slightly Severe	2 (2.7%)	
Moderately Severe	12 (16%)	
Severe	43 (57.3%)	
Very Severe	18 (24%)	
Is Dwayne presenting with psychosis?		
Yes	62 (82.7%)	
No	13 (17.3%)	
Is Dwayne presenting with low self-esteem?	14 (18.9%)	
Yes	59 (78.7%)	
No	16 (21.3%)	
Is Dwayne presenting with suicidal ideation?		
Yes	27 (36%)	
No	48 (64%)	
Is Dwayne presenting with paranoia?		
Yes	58 (77.3%)	
No	17 (22.7%)	
Most appropriate diagnosis		
Bipolar Disorder II	2 (2.7%)	

Major Depressive Disorder	21 (28%)
Schizoaffective Disorder	38 (50.7%)
Schizophrenia Disorder	12 (16%)
More information needed	2 (2.7%)

Note. “Other” option was allotted for participants to add their own diagnosis. Two participants reported that additional information was needed.

Bivariate Results

Bivariate analyses for categorical variables were conducted using chi-square statistics to examine factors that impacted the diagnostic accuracy of participants. Specifically, the third research question assessed the impact of student race/ethnicity on diagnostic accuracy. It should be noted that an overdiagnosis variable was created that combined the aforementioned diagnosis variable into a dichotomous variable indicating overdiagnosis as schizophrenia/schizoaffective disorder versus bipolar/major depressive disorder; two responses that indicated more information needed were dropped. This new variable indicated that 66% of participants (n=50) over-diagnosed the client with schizoaffective or schizophrenia disorder. Subsequently, chi-square analyses were used to examine whether rates of overdiagnosis varied by race/ethnicity as well as other demographic variables.

Table 3.

Bivariate Associations between overdiagnosis and demographic variables

	Overdiagnosis		chi-square test
	No (n=23)	Yes (n=50)	
	%	%	χ^2(df)
Gender			
Female	78.3	82.0	χ2(2)=2.2
Male	17.4	18.0	
Non-Binary	4.3	0.0	
Ethnicity/Race			
White	26.1	28.0	
Black	21.7	10.0	χ2(2)=2.3
Hispanic/Latinx	43.5	52.0	
Asian/Pacific Islander	8.7	8.0	
Two or more	0.0	2.0	
Age			
18–25	26.9	23.5	
26–35	47.7	47.6	χ^2(2)=4.4
36 and older	25.4	28.9	
Experience			
0-1 years	56.5	50.0	
2-5 years	21.7	34.0	χ2(2)=1.2
5+ years	21.0	16.0	
MSW Status			
1st Year Full-time	8.7	16.0	
1st Year Part-time	26.1	16.0	χ2(2)=1.7
2nd Year Full-time	26.1	24.0	
2nd Year Part-time	17.4	16.0	
3rd Year Part-time	21.7	28.0	
Participation in Diversity Training			
Yes	78.0	72.0	χ2(2)=0.65
No	21.7	26.0	

Note. Column percentages provided, compare across rows.

To explore the race/ethnicity analyses further, dichotomous variables were created for each race/ethnicity to avoid cells with 0 responses in them as this a requirement for the chi-2 test. Subsequently, the overdiagnosis variable was tested again using recoded variables. As indicated in Table 4, there was no significant association when rates of overdiagnosis were compared to responses from White students versus other students ($\chi 2$=0.029, df=1, p<0.865), from Black students versus other students ($\chi 2$=1.836, df=1, p<0.175), and Hispanic/Latinx students versus other students ($\chi 2$=0.458, df=1, p<0.499).

Table 4.

Bivariate Associations between overdiagnosis and recoded race/ethnicity

	Overdiagnosis		chi-square test
	No (n=23)	Yes (n=50)	
	%	%	χ2(df)
White vs Everyone Else			
Else	32.1	67.9	χ2(2)=.029
White	30.0	70.0	
Black vs Everyone Else			
Else	28.6	71.4	χ2(2)=1.8
Black	50.0	50.0	
Hispanic/Latinx vs Everyone Else			
Else	35.1	64.9	χ2(2)=.458
Hispanic/Latinx	27.8	72.2	

Note. Row percentages provided, compare across columns

Considering no differences emerged by race/ethnicity, additional analyses were conducted to identify significant association with the overdiagnosis variable using Pearson's correlations, which are presented in Table 5. Again, race/ethnicity did not emerge as significant. However, the severity rating ($r = -.272$, $p < 0.05$) and the belief that psychoses were present ($r = -.272$, $p < 0.05$) was significantly associated with an overdiagnosis. Interestingly, race/ethnicity did emerge as significantly associated with the severity rating with White students giving lower severity ratings ($r = -.272$, $p < 0.05$).

Table 5.
Correlation Matrix

	1	2	3	4	5	6
1. Overdiagnosis	1					
2. Severity Scaling	.27*	1				
3. Presentation of psychosis	.336**	.314**	1			
4. White Students	.020	-.235*	.117	1		
5. Black Students	-.159	-.015	-.028	-.237*	1	
6. Hispanic/Latinx Students	.079	.113	-.041	-.595**	-.387**	1

Note *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Summary

The research findings were presented in this chapter to answer the research questions examining the diagnostic accuracy of MSW students assessing a Black client. The following research questions were examined: (1)

Are MSW students accurately diagnosing Black clients with depression?; (2) Are MSW students over-diagnosing Black clients with schizophrenia?; (3) Does the race/ethnicity of MSW students impact their diagnostic accuracy of Black clients? Frequency distributions found that 28% of students accurately diagnosed the Black client with MDD, while over half of the students (66%) over-diagnosed the Black client with schizoaffective or schizophrenia disorder. However, significant associations did not emerge when rates of diagnosis were compared to racial variables.

CHAPTER FIVE

DISCUSSION

Introduction

The following chapter presents the conclusions made from the research questions: (1) Are MSW students accurately diagnosing Black clients with depression?; (2) Are MSW students over-diagnosing Black clients with schizophrenia?; (3) Does the race/ethnicity of MSW students impact their diagnostic accuracy of Black clients? Additionally, the limitations of the study will be discussed along with recommendations for future social work practice and research.

Discussion

The purpose of this study was to examine the diagnostic accuracy of MSW students. The research shows that upon graduation the majority of MSW students pursue clinical positions that require diagnosing individuals. The study aimed to assess the ability of students to correctly diagnose Black clients with major depressive disorder, as the research demonstrates that the population is commonly over-diagnosed with schizophrenia. The findings from the study yielded data supporting the argument that Black clients are underdiagnosed with mood disorders and over-diagnosed with psychotic disorders. However, the race

of the participants did not emerge as a significant factor impacting the rates of overdiagnosis.

These finds reject what we expected to find given the numerous studies indicating that Black clients are over-diagnosed (Moran, 2014; Strakowski et al., 2003). As a possible explanation there are various factors contributing to the lack of association between overdiagnosis of psychotic disorders and the racial background of students. For instance, the sample was made up of a racially diverse population, with those identifying as Hispanic/Latinx accounting for the majority. This is unlike many of the previous studies conducted with a large representation of White participants (Davidio et al., 2008; van Ryn et al., 2011). Thus, it is possible that being in a diverse school environment where White students are not the majority may have contributed to making issues related to race/ethnicity, such as discrimination, more salient and consequently affected their survey responses. Previous studies found that personal relationships with individuals from minority groups was impactful in improving knowledge, understanding, and cultural sensitivity in MSW students (Wahler, 2011).

Another possible explanation may be related to the type of curriculum that students may receive in diverse school settings. During their graduate studies the participants may have recently been trained in bias prevention or classes that focused on intersectionality, diversity and/or oppression, which may have impacted their responses. Studies examining the impacts of multicultural training find that student exposure to an intersectional approach of social work education

fostered an increased understanding of the disparities and inequalities, in addition to the systemic mechanisms that reinforce oppression, that impact client functioning and engagement with clinical services (Simon, Boyd, & Subica, 2021; Robinson et al., 2016).

Lastly, the debriefing statement, which informed participants that biases were examined within the study, was placed at the end of the survey and was visible on the same page as the survey when participants scrolled down toward the end of the survey. Furthermore, participants had the opportunity to modify the answers of their survey prior to submitting their survey thus they may have changed their responses after reading the true purpose of the study in the informed consent section.

Although race/ethnicity was not a significant factor in the overdiagnosis, participants still over-diagnosed the client from the vignette. Thus, other variables were examined to further analyze the factors that impacted the student's ability to correctly diagnose the Black client. Bivariate correlational tests found that students who rated the Black client with a higher severity rate and endorsed the presentation of psychosis were more likely to over-diagnose the client with a psychotic disorder. The participants perceived the client's perceptions of hearing and talking to God, along with the presentation of hypervigilance and paranoia as psychotic and severe. The perception of psychotic symptoms appeared to have trumped the client's depressive mood symptoms as over half of the students over-diagnosed the client with schizoaffective or schizophrenia disorder. The

client's negative symptoms, such as lack of motivation, hopelessness, isolation, insomnia, and paranoia highlighted mood disturbances appeared to be considered secondary to the participants. Based on the findings of the study, more than half of MSW students pathologized symptoms perceived as psychosis.

Interestingly, correlations between student race/ethnicity with the severity rating as well as with the client presented with behavior appropriate for culture were not significant with one exception–White students tended to give lower severity ratings. Despite assumptions that students of color do not possess racial biases, studies have shown that individuals can have biases towards others in their own racial group (Bruster et al., 2019). Additionally, researchers found that Black American caseworkers rated Black children and families at a higher severity of risk, in comparison to their White colleagues (Bruster et al., 2019). These findings emphasize the importance of an intersectional approach to education that prompts all MSW students to identify and challenge their biases that may impact their ability to work with a diverse range of clients, regardless of a shared group membership. None of the race/ethnicity variables were correlated with the question asking if the behavior was appropriate for the client's culture. Thus, it may be that overdiagnosis needed to be examined as an interaction between race/ethnicity and perceived severity ratings.

Limitations

There are limitations of the study that emerged as the researchers reviewed the data and considered recommendations for future research. Limitations consist of factors relating to sample population, the information given in the clinical vignette, and the type of questions listed on the survey.

The first limitations of the research findings relate to the population studied. The study originally intended on having two versions of the clinical vignette, one with a Black client and one with a White client, to provide comparative insight. Additionally, the researchers planned on implementing the survey among practicing psychiatrists. However, the anticipated small sample size made the approach impossible to execute. As a result, the survey was changed to only having one vignette using a convenience sample of MSW students due to similar concerns of a low response during a global pandemic. Though 73 completed surveys, the small sample size precluded the analysis of interactions between student race/ethnicity and severity ratings. Lastly, although there were students representing various backgrounds, there was an unequal distribution of the racial/ethnic identities of participants. Thus, findings from these studies may not apply to other settings with less diverse student populations.

Next, the following limitations relate to the clinical vignette provided to the students. The vignette could have included additional information regarding the mental health history of the client. The vignette did provide clues of recent psychosocial stressors that would trigger depressive symptoms; however, an

indication of the client's lack of hospitalizations or prior diagnosis may have been useful information for students. Finally, the clinical vignette could have specified that the client did not experience hearing and talking to God until the onset of his depressive episode.

Lastly, the remaining limitations focus on the questions posed to the participants of the students. To gain more insight into the students' clinical impressions, the survey could have prompted participants to answer more questions about the client's depressive symptoms. Moreover, more questions could have been posed to gauge the student's perception of the stressors in the Black client's life such as his difficulties in school, interpersonal conflicts, and his media consumption that may impact his mood and behaviors. In addition, the survey could have assessed for the level of exposure that students had to topics related to oppression and racism.

Recommendations for Social Work Practice and Research

The completion of this research project has highlighted the importance of examining clinical impressions of mental health providers to avoid over-diagnosing Black clients in social work practice. The research findings show that symptoms of psychosis, such as auditory hallucinations, heavily impact the diagnostic judgment of MSW students. MSW students who are pursuing clinical positions can improve their diagnostic accuracy through the following interventions: maintaining a non-pathologizing stance to assessments, utilizing

clinical supervision to improve diagnostic skills, reading literature on overdiagnosis of schizophrenia in Black communities, referring to the notes on diagnostic differentials in the DSM-5, and seeking out training opportunities that focuses on serving diverse populations that are oppressed in the United States. Additionally, some studies emphasize the importance of social work students having opportunities to challenge assumptions relating to race, gender, sexuality, and other social identities to disrupt the preconditioned conceptions (Robinson et al., 2016). Researchers contend that social work education should utilize intersectional approaches to facilitate critical self-reflection and discussion, with the goal of improving the provision of services and client-clinician dynamics (Robinson et al., 2016).

To further explore the diagnostic accuracy of MSW students, future research should focus on gaining additional insight into each participant's sense of confidence in diagnosing clients. For example, subsequent studies may prompt participants to identify whether they have the ability and skills to accurately diagnose clients. Additionally, future studies should examine the differences in the perception of symptoms based on the race of the client if they anticipate a higher response rate and have access to a larger study body. For instance, having two sample groups with each diagnosing either a White or Black client for comparative insight.

Summary

In conclusion, the research findings suggest that MSW students tend to under-diagnose major depressive disorder and over-diagnose schizoaffective or schizophrenia disorder when assessing a Black client. The research did not find any associations between the race of MSW students and the overdiagnosis of a Black client. The factors contributing to the findings include the perceptions of high acuity with the presence of symptoms relating to psychosis and the discount of depressive symptoms. To address the processing that influences diagnostic judgment MSW students should: strive to maintain a non-pathologizing stance, utilize clinical supervision, and engage in training and educational opportunities that focus on the provision of services for diverse populations. Lastly, future research should expand on this project by conducting a two-sample study that provides comparative insight on the diagnostic differences between White clients and Black clients.

APPENDIX A

INFORMED CONSENT

CSUSB
WE DEFINE THE Future
CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO
5500 University Parkway, San Bernardino, CA 92407
www.csusb.edu

INFORMED CONSENT

The study in which you are asked to participate is designed to examine how implicit bias may affect diagnostic accuracy. The study is being conducted by Ace Ogbebor, a graduate student, under the supervision of Dr. Simon James, Adjunct Professor in the School of Social Work at California State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board at CSUSB.

PURPOSE: The purpose of the study is to examine clinical decision-making and implicit bias of MSW students

DESCRIPTION: Participants will be asked questions regarding their clinical impressions after reading a clinical vignette.

PARTICIPATION: Your participation in the study is totally voluntary. You can refuse to participate in the study or discontinue your participation at any time without any consequences.

CONFIDENTIALITY: Your responses will remain confidential, and data will be reported through a digital form.

DURATION: It will take 10 minutes to complete the survey.

RISKS: There are minimal risks from participation in this study. Although not anticipated, minimal risks may be present when answering the various vignette questions. You are not required to answer and may skip any questions or end your participation in the study if this occurs.

BENEFITS: An increased awareness of one's clinical judgment and implicit bias may arise as a result of participation.

CONTACT: If you have any questions about this study, please feel free to contact Dr. James Simon at (909) 537- 5501.

RESULTS: Results of the study can be obtained from the Pfau Library ScholarWorks database (http://scholarworks.lib.csusb.edu/) at California State University, San Bernardino after July 2022.

APPENDIX B

CLINICAL VIGNETTE

Clinical Vignette

Please read the following scenario and complete the provided survey.

Dwayne is a Black 24-year-old male student enrolled at a local community college. His family reports that over the last four months, Dwayne's behaviors have noticeably changed, and they are concerned for his well-being. Despite usually passing with a B+ average, Dwayne stopped attending his classes regularly and failed his last semester. Additionally, his long-term relationship with his girlfriend of four years ended abruptly three months ago. According to his family, Dwayne was planning on proposing to her. His family reports that since the break-up, Dwayne seems depressed and has been isolating himself in his apartment. The family reports this is unlike his usual motivated and family-oriented behavior. The few times the family has seen Dwayne, he appears to have lost weight and has not been maintaining his physical appearance (hasn't shaved or cut his hair for months). His mother denies any history of manic episodes.

During Dwayne's intake assessment he presents as agitated, yet willing to engage with providers. Dwayne reports sleeping about three to four hours each night. He shares that he's lost motivation to go to class and no longer desires acquiring a degree stating, "what's the point?" Dwayne presents with hypervigilance and ambivalence. When his isolation is questioned, Dwayne is initially unresponsive then says, "when I think about it, the voice in my head and

what I see in the news or the Internet tells me not to go out, it's not safe for me". Dwayne confirms that he hears voices that are not his own and perceives them as "God talking to me." Dwayne reports he does not feel comfortable talking to his family because he doesn't trust his parents and they treat him like he's "crazy". Dwayne stated that it was becoming harder for him to feel excited about things anymore and often thinks about what the next life will be like.

APPENDIX C

CLINICAL IMPRESSIONS

Please answer the following questions as if you were the clinician assigned to Dwayne.

1. Are Dwayne's behaviors appropriate for his age and culture?

    a. Yes

    b. No

2. On a scale of 1-5, with 1 being not severe and 5 being the most severe, how severe would you rate Dwayne's symptoms? (Please circle one)

Not severe

Severe

1 2 3 4 5

3. Is Dwayne presenting with psychosis?

    a. Yes

    b. No

    c. Unable to answer

4. Is Dwayne presenting with low self-worth?

    a. Yes

    b. No

5. Is Dwayne presenting with suicidal ideation?

    a. Yes

    b. No

6. Is Dwayne presenting with paranoia?

a. Yes

b. No

7. Select the most appropriate diagnosis for Dwayne after reading the vignette:

a. Bipolar Disorder Type 2

b. Major Depressive Disorder

c. Schizoaffective Disorder

d. Schizophrenia

e. Other (please provide other diagnosis below)

Is there anything else you would like to add regarding your diagnostic impressions?

APPENDIX D

DEMOGRAPHICS

Please complete the following demographic questions to your <u>BEST</u> ability.

1.What is your ethnicity/race?

a. Hispanic/Latinx
b. Black
c. White (Non-Hispanic)
d. Asian/Pacific Islander
e. _____ Other (please specify)

2. How many years of mental health experience do you have?

a. 0-5 years
b. 5-10 years
c. 10+ years

3. What is your age?

4. What is your gender?

a. Female
b. Male
c. Non-binary

5. Current MSW Status:

a. 1st year full-time
b. 1st year part-time
c. 2nd year full-time
d. 2nd year part-time

e. 3rd year part-time

6. Bachelor's Degree:

   a. Human Services

   b. Psychology

   c. Sociology

   d. Social Work

   e. Criminal Justice

   f. Other

7. Have you participated in professional diversity training?

   a. Yes

   b. No

APPENDIX E

INSTITUTIONAL REVIEW BOARD

APPROVAL

Date: 4-15-2022

IRB #: IRB-FY2021-179
Title: How do implicit biases affect the diagnostic accuracy of mental health professionals?
Creation Date: 12-11-2020
End Date:
Status: Approved
Principal Investigator: James Simon
Review Board: Main IRB Designated Reviewers for School of Social Work
Sponsor:

Study History

Submission Type Initial	Review Type Exempt	Decision Exempt
Submission Type Modification	Review Type Exempt	Decision Exempt

Key Study Contacts

Member Ace Joyce Ogbebor	Role Co-Principal Investigator	Contact 007070603@coyote.csusb.edu
Member James Simon	Role Principal Investigator	Contact James.Simon@csusb.edu
Member James Simon	Role Primary Contact	Contact James.Simon@csusb.edu

APPENDIX F

RECRUITMENT LETTER

Hello,

This research study is seeking the participation of current Master of Social Work students to complete a survey regarding clinical decision making of MSW students. Your participation will take place through an anonymous online survey after reading a short vignette, which will take approximately 10 minutes. This research study has been approved by both the CSUSB Institutional Review Board (IRB) and the primary investigator/research supervisor, Dr. James Simon.

Please click the link below to access the survey material. Your participation is greatly appreciated.

https://docs.google.com/forms/d/e/1FAIpQLScA1LuW4YoU3Y7sFG0CynTw6P7kQuYj8hGQKy2xuXhSSN6Esg/viewform

Thank you,

Ace Ogbebor

APPENDIX G

DEBRIEFING STATEMENT

CSUSB
WE DEFINE THE Future
CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO
5500 University Parkway, San Bernardino, CA 92407
www.csusb.edu

Debriefing Statement

I would like to thank you for your time and participation in this research study. The study you just completed explored the impact of implicit bias on clinical decision making by analyzing diagnostic processing. Implicit biases are the attitudes and beliefs individuals unconsciously associate with groups of people. Dual process theory states that decision making occurs through two processes: System 1, the implicit (unconscious) process, and System 2, the explicit (conscious) process. The study is particularly interested in how automatic and unconscious, implicit processing influenced by social constructs in System 1 may present while diagnosing mental illness.

While no foreseeable risks to participants were anticipated, please contact the following numbers should you experience any discomfort following your participation in this study and would like counseling.

CSUSB Counseling & Psychological Services 909-537-5040

We would also like to invite participants to explore the page by the Institute for Healthcare Improvement that explores how to reduce implicit bias while working with patients (http://www.ihi.org/communities/blogs/how-to-reduce-implicit-bias). We welcome participants to explore the Project Implicit website and take the Implicit Association Test (IAT) at https://implicit.harvard.edu/implicit/takeatest.html. Last, we encourage participants to explore the following sites if you have additional information regarding implicit bias:

https://cpnp.org/perspective/2018/10/382582

https://www.aadprt.org/training-directors/anti-racism-and-diversity-resources

https://www.apa.org/monitor/2019/03/ce-corner

If you have any additional questions, please contact Dr. James Simon at james.simon@csusb.edu. Furthermore, to request a copy of the final project please contact California State University, San Bernardino: School of Social Work at (909) 537-5501, however individual results will not be included in the report as data collected from participants will remain anonymous.

REFERENCES

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Publisher.

Abramowitz, C., & Dokecki, P. (1977). The politics of clinical judgment: Early empirical returns. *Psychological Bulletin, 84*(1), 460-476.

Alegría, M., Alvarez, K., Ishikawa, R. Z., Dimarzio, K., & Mcpeck, S. (2016). Removing Obstacles to Eliminating Racial And Ethnic Disparities In Behavioral Health Care. *Health Affairs, 35*(6), 991-999. https://doi:10.1377/hlthaff.2016.0029

Bate, L., Hutchinson, A., Underhill, J., & Maskrey, N. (2012). How clinical decisions are made. *British journal of clinical pharmacology*, *74*(4), 614–620. https://doi.org/10.1111/j.1365-2125.2012.04366.x

Bruster, B. E., Lane, T. Y., & Smith, B. D. (2019). Challenging implicit bias: Preparing students to practice with African American families. *Social Work Education*, *38*(5), 654–665. https://doi.org/10.1080/02615479.2019.1594753

Carrington, C. H. (2006). Clinical depression in African American women: Diagnoses, treatment, and research. *Journal of Clinical Psychology*, *62*(7), 779-791. https://doi:10.1002/jclp.20289

Dubovsky, S. L., Ghosh, B. M., Serotte, J. C., & Cranwell, V. (2021). Psychotic depression: Diagnosis, differential diagnosis, and treatment. *Psychotherapy and Psychosomatics*, *90*(3), 160–177.

https://doi.org/10.1159/000511348

Dovidio, J. F., Penner, L. A., Albrecht, T. L., Norton, W. E., Gaertner, S. L., & Shelton, J. N. (2008). Disparities and distrust: The implications of psychological processes for understanding racial disparities in health and Health Care. *Social Science & Medicine*, *67*(3), 478–486. https://doi.org/10.1016/j.socscimed.2008.03.019

Fàbrega, H. (2001). Culture And History In Psychiatric Diagnosis And Practice. *Psychiatric Clinics of North America, 24*(3), 391-405. https://doi:10.1016/s0193-953x(05)70236-7

FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. *BMC Medical Ethics*, *18*(1). https://doi.org/10.1186/s12910-017-0179-8

Garb, H. N. (2006). Race Bias, Social Class Bias, and Gender Bias in Clinical Judgment. *Clinical Psychology: Science and Practice*, *4*(2), 99-120. https://doi:10.1111/j.1468-2850.1997.tb00104.x

Gronchi, G., & Giovannelli, F. (2018, July 17). *Dual Process Theory of Thought and Default Mode Network: A Possible Neural Foundation of Fast Thinking.* Frontiers in Psychology. https://www.frontiersin.org/articles/10.3389/fpsyg.2018.01237/full

Hafner, H. (2015). Descriptive psychopathology, phenomenology, and the legacy of Karl Jaspers. *Dialogues in Clinical Neuroscience Nosology, 17*(1), 19-29. https://doi:10.31887/dcns.2015.17.1/hhafner

Institute of Medicine (US) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. National Academies Press (US).

Kreindler, S. A., Dowd, D. A., Dana Star, N., & Gottschalk, T. (2012). Silos and social identity: the social identity approach as a framework for understanding and overcoming divisions in health care. *The Milbank quarterly*, *90*(2), 347–374. https://doi.org/10.1111/j.1468-0009.2012.00666.x

Major, B., Mendes, W. B., & Dovidio, J. F. (2013). Intergroup relations and health disparities: a social psychological perspective. Health psychology: official Journal of the Division of Health Psychology, *American Psychological Association*, *32*(5), 514–524. https://doi.org/10.1037/a0030358

Mcguire, T. G., & Miranda, J. (2008). New Evidence Regarding Racial and Ethnic Disparities In Mental Health: Policy Implications. *Health Affairs, 27*(2), 393-403. https://doi:10.1377/hlthaff.27.2.393

Merino, Y., Adams, L., & Hall, W. H. (2018, March 1). Implicit Bias and Mental Health Professionals: Priorities and Directions for Research. *Psychiatric Services*, *69*(6), 723-725. https:// doi/10.1176/appi.ps.201700294

Mcdowell, M. J., Goldhammer, H., Potter, J. E., & Keuroghlian, A. S. (2020). Strategies to Mitigate Clinician Implicit Bias Against Sexual and Gender Minority Patients. Psychosomatics.

https://doi:10.1016/j.psym.2020.04.021

Mcleod, S. (2019, January 1). *Social Identity Theory*. Simply Psychology. https://www.simplypsychology.org/social-identity-theory.html

Moran, M. (2014). Overdiagnosis of Schizophrenia Said to Be Persistent Among Black Patients. *Psychiatric News*, *50*(1), 1–1. https://doi.org/10.1176/appi.pn.2015.1a17

Nakash, O., Saguy, T. (2015). Social Identities of Clients and Therapists During the Mental Health Intake Predict Diagnostic Accuracy. *Social Psychological and Personality Science, 6*(6), 710-717. https://doi:10.1177/1948550615576003

Pelaccia, T., Tardif, J., Triby, E., & Charlin, B. (2011). An analysis of clinical reasoning through a recent and comprehensive approach: the dual-process theory. *Medical Education Online, 16*(1), 5890. https://doi.org/10.3402/meo.v16i0.5890

Rich, J. A., & Grey, C. M. (2005). Pathways to Recurrent Trauma Among Young Black Men: Traumatic Stress, Substance Use, and the “Code of the Street.” *American Journal of Public Health*, *95*(5), 816–824. https://doi.org/10.2105/ajph.2004.04456

Robinson, M. A., Cross-Denny, B., Lee, K. K., Werkmeister Rozas, L. M., &

Yamada, M. (2016). Teaching note—teaching intersectionality: Transforming cultural competence content in social work education. *Journal of Social Work Education*, *52*(4), 509–517. https://doi.org/10.1080/10437797.2016.1198297

Rogerson, C. V., Prescott, D. E., & Howard, H. G. (2021). Teaching social work students the influence of explicit and implicit bias: Promoting ethical reflection in practice. *Social Work Education*, 1–12. https://doi.org/10.1080/02615479.2021.1910652

Smith, J. R., & Patton, D. U. (2016). Posttraumatic stress symptoms in context: Examining trauma responses to violent exposures and homicide death among Black males in urban neighborhoods. *American Journal of Orthopsychiatry*, *86*(2), 212–223. https://doi.org/10.1037/ort0000101

Strakowski, S. M., Keck, P. E., Arnold, L. M., Collins, J., Wilson, R. M., Fleck, D. E., Adebimpe, V. R. (2003). Ethnicity and Diagnosis in Patients With Affective Disorders. The Journal of Clinical Psychiatry, 64(7), 747–754. https://doi.org/10.4088/jcp.v64n0702

NAMI. Understanding *Your Diagnosis*. (2020). https://www.nami.org/Your-Journey/Individuals-with-Mental-Illness/Understanding-Your-Diagnosis.

Van Heugten Van Der Kloet, D., & Van Heugten, T. (2015). The classification of

psychiatric disorders according to DSM-5 deserves an internationally standardized psychological test battery on symptom level. *Frontiers in Psychology, 6*(1).https://doi:10.3389/fpsyg.2015.01108

van Ryn, M., Burgess, D. J., Dovidio, J. F., Phelan, S. M., Saha, S., Malat, J., Griffin, J. M., Fu, S. S., & Perry, S. (2011). The impact of racism on clinician cognition, behavior, and clinical decision making. Du Bois *Review: Social Science Research on Race, 8*(1), 199–218. https://doi.org/10.1017/s1742058x11000191

Wahler, E. A. (2011). Identifying and challenging social work students' biases. *Social Work Education*, *31*(8), 1058–1070. https://doi.org/10.1080/02615479.2011.616585