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Racial Differences in Mental Health Recovery among Veterans with Serious Mental Illness

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Abstract

Black consumers with serious mental illness (SMI) face significant challenges in obtaining quality mental health care and are at risk for experiencing significant disparities in mental health care outcomes, including recovery from mental illness. Patient-provider interactions may partly contribute to this disparity. The purpose of the current study was to understand the effects of race, psychosis, and therapeutic alliance on mental health recovery orientation among Veterans with SMI. Participants were Veterans who had an SMI being treated at two Veteran Affairs outpatient mental health clinics by a psychiatrist or nurse practitioner. Participants completed the Behavior and Symptom Identification Scale (BASIS-24), Mental Health Recovery Measure, and patient-report Scale to Assess the Therapeutic Relationship (STAR-P) which includes three subscales:

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Compliance with Ethical Standards:

The findings in the manuscript have not been published nor are being submitted elsewhere and it does not contain data that are currently submitted or published elsewhere.

Conflicts of Interest

There are no potential conflicts of interest. We do not have a financial relationship with the organization that sponsored this research. The manuscript has been seen and approved by all authors. All authors have full control of all primary data and agree to allow the journal to review the data if requested.

Ethical Approval

The protocol for data collection was approved by the Institutional Review Board of University of Maryland School of Medicine. All procedures performed in studies involving human participants were in accordance with the ethical standards of this institution's research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. This article does not contain any studies with animals performed by any of the authors.

positive collaboration, positive clinician input, and non-supportive clinician input. Regression analyses were used to determine interactive effects of race, psychosis severity, and therapeutic alliance variables. The sample was 226 Veterans (50% black, 50% white). Black participants were slightly older ($p < .05$), had higher baseline psychosis ($p < .05$), higher mental health recovery ($p < .05$), and perceived less non-supportive clinician input ($p < .01$) than white participants. Regression analyses indicated a significant three-way interaction among race, psychosis, and positive collaboration ($p < .01$). Greater positive collaboration attenuated the negative effect of higher levels of psychosis on mental health recovery orientation for black participants. Conversely, for white participants, positive collaboration had little effect on the negative relationship between psychosis severity and mental health recovery orientation. Increased levels of psychosis may inhibit patients' perceptions of their ability to recover from SMI. However, for black participants, positive collaboration with mental health providers may moderate the effects of psychotic symptomatology.

Keywords

Mental health recovery; Race; Psychosis; Therapeutic alliance; Serious mental illness

Introduction

The US Substance Abuse and Mental Health Services Administration's (2012) working definition describes recovery from mental health disorders as, "A process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential" (p. 3) [1]. Mental health recovery orientation is one's personal attitude toward living a satisfying, hopeful, and contributing life, even with limitations caused by psychiatric illness [2]. Mental health recovery orientation is influenced by both internal factors such as perceived connectedness, hope, optimism, and empowerment [3], as well as external factors such as social support and meaningful activities [4, 5]. In the context of mental health services, a stronger therapeutic alliance is associated with greater recovery orientation [6] while paternalistic care and indifferent mental health providers damage recovery outlook [7]. Psychiatric symptom severity and internalized stigma have been negatively associated with mental health recovery orientation [8, 9]. Individuals with serious mental illness (SMI), diagnosable psychiatric disorders such as schizophrenia, bipolar disorder, and severe depression associated with significant functional impairment, may be at greater risk of poor recovery orientation [10–12].

One factor that has not been examined in the research literature is the relationship between consumer race and recovery orientation. There is significant evidence to support the hypothesis that black consumers may have a less positive mental health recovery orientation than their white counterparts due to systematic inequalities in the mental health care system and consumer fears of unfair treatment [13]. A seminal report from the Institution of Medicine, Unequal Treatment, elucidates racial inequities in quality of health services persist despite the presence of confounding factors such as insurance, socioeconomic status, stage of health presentation, and comorbidities [14]. The report notes this may be partly attributed to consumer stereotyping by health providers. Social groups with lower power/

privilege who have historically been disenfranchised are at risk for being subject to implicitly biased stereotypes. As such, black consumers with an SMI may be doubly at risk for poorer mental health recovery orientation due to racial disparities in mental health care coupled with the significant symptomatology burden and societal stigma associated with SMI. Research has documented that black consumers experiencing SMI face additional barriers to accessing quality mental health care [15] and experience notable disparities in mental health care treatment and outcomes such as significantly higher prescription rates of long-acting injectable antipsychotics or significantly lower prescription of adjunctive psychopharmacologic treatments [16, 17], more frequent termination of treatment against medical advice [18], lower likelihood of receiving any outpatient treatment or minimally adequate follow-up treatment following inpatient psychiatric hospitalization [19], and less symptom improvement following first-episode psychosis [20].

There is evidence that therapeutic alliance improves treatment engagement and mitigates psychiatric symptomatology [20–22]. In a sample of patients with schizophrenia or schizoaffective disorder, greater mental health recovery orientation was associated with greater perceived quality of therapeutic alliance [23]. However, the relationship between therapeutic alliance, mental health recovery orientation, and psychosis is unclear for black consumers with SMI and may possibly contribute to mental health disparities [24]. Audio recordings of consumer-provider encounters for depression treatment found that providers engaged in less rapport building communication with black consumers and, despite no differences in patient symptomatology levels, providers were less likely to perceive black consumers as experiencing significant emotional distress [25]. Studies of mental health providers have documented inconsistent treatment outcomes between black and white consumers based on provider cultural competence [26, 27]. Researchers have attempted to address this issue by identifying provider behaviors that contributes to disparities [28], as well as cataloging culturally unique interaction patterns and communication behaviors to inform culturally sensitive care [29, 30]. However, research with psychiatrists has documented that they report having little to no familiarity with racial disparities literature and believe that racial disparities are the result of other providers' behaviors, rather than their own [31].

The pathways and mechanisms that may affect disparities among black consumers with SMI are multifactorial and complex. The predominant model of care for psychiatric illness is recovery-oriented, yet there is scant evidence on the extent that racial disparities permeate mental health recovery orientation. Previous work has attempted to understand racial mental health disparities through examining psychiatric symptomatology and therapeutic alliance, but not in concert. Grounded in the research literature documenting racial disparities and implicit bias in the health care system, the current study explores the interactions among race, psychosis, and therapeutic alliance on mental health recovery orientation in individuals with SMI.

Methods

Overview of Parent Study

Data were drawn from a randomized controlled trial examining a computerized intervention that assisted Veterans with SMI in receiving recommended monitoring for the metabolic side effects of second-generation antipsychotic (SGA) medications. Participants were recruited at two VA outpatient mental health clinics in the US Mid-Atlantic region, one serving a predominately metropolitan area and its surrounding suburbs and the other serving a relatively rural area. Veteran and provider participants provided informed consent and were enrolled in the study between March 2010 and October 2011. The Institutional Review Board of the University of Maryland School Of Medicine approved the study.

Participants

Veterans were eligible for the study if they were (1) 18 to 70 years of age; (2) diagnosed with a psychotic disorder (schizophrenia, schizoaffective disorder, psychosis disorder not otherwise specified (NOS)), bipolar disorder, major depression, or post-traumatic stress disorder (PTSD); (3) were currently prescribed one or more oral or injectable SGA medications available at baseline (aripiprazole, clozapine, olanzapine, quetiapine, risperidone, ziprasidone) by a psychiatrist or nurse practitioner (NP); (4) had at least two outpatient visits with the prescribing psychiatrist/NP in the past year; (5) were deemed by the provider to be clinically stable to participate in the study; and (6) had at least a fourth-grade reading level. Veterans with diagnoses of dementia or other organic brain syndrome or traumatic brain injury were excluded from participating. The final sample was 239. A full description of participants and methods can be found at Kreyenbuhl et al. (2017) [16]. Of the 239 participants who enrolled in the study, 226 Veterans were included in the current sample after eliminating participants who did not identify as black or white. There were a total of nine self-identified multiracial Veterans, three American Indian or Alaska native Veterans, and one native Hawaiian or other Pacific Islander Veteran who were excluded from the study. Due to the limited sample sizes, we were unable to analyze these subgroups separately.

Measures

The following were collected via self-report questionnaires at baseline prior to the start of the intervention in the parent study:

Dependent Variable

The Mental Health Recovery Measure (MHRM) is a 30-item, behaviorally anchored, self-report measure (range 0–4), where higher scores indicate greater orientation toward mental health recovery. Examples of items include “My quality of life will get better in the future,” “I maintain a positive attitude for weeks at a time,” and “I still grow and change in positive ways despite my mental health problems.” The measure was designed for use with persons who have SMI. The internal consistency of the 30-item MHRM is good (Cronbach’s alpha = .95) [32].

Independent Variables

Race was self-reported on a demographic questionnaire. Participants responded to “How would you describe your racial background?” Those who identified as black or African American or white were included in the current study. The psychosis subscale of the self-report revised Behavior and Symptom Identification Scale (BASIS-24) was used to assess psychosis severity. The psychosis subscale consists of four items: “During the past week how often did you... “hear voices or see things,” “think people were watching you,” “think people were against you,” and “think you had special powers?” Participants rated these items on a frequency likert scale (0 = never, 1 = rarely, 2 = sometimes, 3 = often, and 4 = always) creating a possible range of 0–16. The items were averaged and higher scores represented greater symptom severity [33]. The BASIS-24 psychosis subscale has shown good internal consistency for outpatient settings (Cronbach’s alpha = .77) [34], as well as concurrent validity with the Brief Psychiatric Rating Scale (BPRS) [35]. Factor structure, as well as reliability and sensitivity of the BASIS-24 has been demonstrated within both white and black participants [36].

Quality of the therapeutic relationship was measured by the average score (item range 0–4) of the 48-item, patient-report Scale to Assess the Therapeutic Relationship (STAR-P), with higher scores indicating higher relationship quality [37]. The measure has three subscales: positive collaboration, positive clinician input, and non-supportive clinician input. Higher scores on positive collaboration indicate higher perceived rapport, communication of goals, and openness and trust. Examples of items from this subscale include “We agree on what is important for me to work on,” and “My clinician and I work towards mutually agreed upon goals.” Higher scores on positive clinician input indicate greater perception that providers encourage, regard, support, listen to, and understand the client. Examples of items that comprise this subscale are “My clinician seems to like me regardless of what I say or do,” and “My clinician speaks with me about my personal goals and thoughts about my treatment.” On the nonsupportive clinician input subscale, higher scores indicate less perception that the provider is stern and impatient. Items from this subscale include “I believe my clinician withholds truth from me” and “My clinician is impatient with me.”

Covariates

We included age, years of education, and sex as covariates due to their potential to confound associations of interest, and for theoretical reasons. Additionally, trajectories for mental health recovery have been negatively impacted by education [38].

Data Analyses

Independent t tests and chi squared tests were used to compare differences in response by racial group. To examine the association between patient mental health recovery orientation (dependent variable) and patient race, psychosis, and patient perception of the quality of the relationship with their provider as measured by the STAR (primary independent variables of interest), a series of linear regression analyses were conducted. Three regression models were conducted for each STAR subscale (positive collaboration, positive clinician input, nonsupportive clinician input) separately to avoid collinearity because two of the STAR subscales were highly correlated ($r = .78$, $p < .01$), as well as to simplify interpretation of

results. Correlations among model variables by race are available upon request. For each STAR subscale, the first model tested the main effects of race, psychosis, and the STAR subscale. The second and third models tested two- and three-way interactions among these variables, respectively. Significant three-way interactions were plotted to facilitate interpretation. All models controlled for age, sex, and years of education.

Results

Among the white participants (113), the majority were male (88%) with a mean age of 53 ± 8 . There were 113 black participants, predominately male as well (89%) with a mean age of 56 ± 7 . White participants were significantly younger than black participants ($p < .05$). Black participants were more likely to have a schizophrenia spectrum or psychotic disorder diagnosis (43% vs. 19%; $p = .001$), report greater psychosis (1.1 ± 1.0 vs. $.8 \pm .9$; $p = .05$), have greater perception that the provider is stern and impatient (STAR non-supportive clinician input; 10.2 ± 2.0 vs. 9.3 ± 1.9 ; $p = .01$), and have greater mental health recovery orientation (83.9 ± 19.8 vs. 77.4 ± 19.9 ; $p = .05$). See Table 1. Because providers were predominantly white ($n = 19$, 90.5%) and female ($n = 17$, 81%), analyses on race- and sex-concordant patient-provider relationships were not possible in this study.

Model 1 for Mental Health Recovery with STAR positive collaboration as the independent variable had significant main effects (see Table 2). Controlling for covariates, black participants had higher mental health recovery scores ($p = .001$), those with higher psychosis scores had lower mental health recovery scores ($p < .001$), and those with greater STAR positive collaboration scores ($p < .001$) had greater mental health recovery orientation. Model 2 accounted for more variance in Mental Health Recovery ($R^2 = .25$, $p < .001$) and showed a significant two-way interaction between race and STAR positive collaboration ($p < .05$); black participants with higher perceived positive collaboration have greater mental health recovery compared to white participants. Model 3 was best fitting ($R^2 = .29$, $p = .002$), and had a significant three-way interaction among black race, psychosis, and STAR positive collaboration. Figure 1 illustrates this three-way interaction, which shows that greater positive collaboration attenuates the negative effect of higher levels of psychosis on mental health recovery orientation in black participants. Conversely, for white participants, STAR positive collaboration has little effect on the negative relationship between psychosis and mental health recovery orientation. When the STAR positive clinician input and nonsupportive clinician input subscales were examined as independent variables, main effects were similar to the model that included STAR positive collaboration but there were no statistically significant two- or three-way interactions (data not shown).

Discussion

The mental health care landscape has advanced to largely center around recovery or living a meaningful life in the context of psychiatric illness. Persons of black race experience greater disability burden and worse outcomes from mental illness treatment compared to their white counterparts [13, 14]. Less is known about protective factors that may support mental health recovery orientation in this vulnerable population. The purpose of the current study was to

examine racial differences in patients' perception of mental health recovery and to explore possible moderators.

Although the current study found that black participants reported higher levels of mental health recovery orientation than white participants, the relationship of race and mental health recovery was moderated by clinical variables. Specifically, black participants reporting higher levels of psychosis who perceived greater positive collaboration (i.e., higher perceived rapport, communication of goals, and openness and trust) with mental health providers reported greater mental health recovery orientation. This finding did not hold for white participants; among white participants, the relationship between greater levels of psychosis symptoms and poorer mental health recovery outlook was not attenuated by positive collaboration. It is unclear why positive collaboration, and not necessarily positive clinician input, is more beneficial to black consumers with SMI. Black patients report a greater preference for shared-decision making (SDM) with health providers than white patients [39]. Positive collaboration is more consistent with SDM compared to positive clinician input, because it facilitates the patient's active participation and expert role, which in turn may significantly contribute to their vital sense. Two potential explanations that may further underscore the importance of positive collaboration are influence of social challenges and the possibility that race serves as a proxy variable for other, unidentified variables.

Racial minorities and persons with disability have a common plight marked by social oppression, discrimination, marginalization, and stigmatization [40]. In the same way the nexus of black and disability (i.e., mental health disability and greater symptom burden) identities may pose barriers to recovery, the intersection may cultivate adaptive skills (e.g., identification of negative alliance) and build resiliency. Research has demonstrated that black participants were more likely than white participants to have stigmatizing attitudes toward persons with mental illness [41]. This may increase black consumers' hypervigilance and identification of negative alliance, providing greater opportunities to generate adaptive coping strategies such as seeking mental health treatment and collaboration with provider. Both black and disability cultural groups have historically demonstrated resilience and used meaning-making to cultivate a sense of pride, within-group connectedness, and recognition that group membership is not inherently limiting [40]. A study by Myaskovsky and colleagues found that black patients with spinal cord injury who perceived more racism reported better general health and those who had more distrust in the health care system reported greater perceived health status over a year [42].

Additionally, in our study, race may be serving as a proxy for other variables, which could help explain how positive collaboration with mental health providers for black consumers with increased levels of psychosis positively influences recovery. In other research, Putzke and colleagues found that health outcomes of spinal cord injury patients which appeared to be related to race were in fact influenced by other mechanisms correlated to race such as severity of injury, age, and education [43]. Among Hispanic Veterans with diabetes, the ecocultural domain of patient adaptation to illness accounted for more variation in health outcomes than ethnicity [44]. Cultural variables noted to have an increased presence and significance among black consumers with psychiatric disability [45], such as community support and spirituality, may better account for our findings [46, 47].

The findings of this study can help inform culturally sensitive mental health care. Higher scores on positive collaboration indicate higher perceived rapport, communication of goals, and openness and trust. While these are good clinical practices for all groups, this research indicates that positive collaboration with emphasis on active patient participation, may be a key factor in supporting recovery for black consumers with significant levels of psychosis. Providers working with black consumers with SMI should intentionally incorporate clinical tools and interventions, such as recovery goal setting, shared decision-making, or motivational interviewing, to encourage open communication and collaborative treatment goal setting.

Limitations

Although the current findings yielded preliminary evidence about factors that contribute to mental health recovery orientation, the relatively small sample size of predominately male Veterans receiving care in a single VA service system limits generalizability. The cross-sectional nature of the study also limits our ability to understand the direction of associations examined in the study (e.g., whether mental health recovery orientation is a catalyst to, or result of, therapeutic alliance with mental health providers). While the current study controlled for age, sex, and years of education to reduce confounding effects on mental health recovery, stratifying based on these variables was beyond the scope of this paper. Future research should explore these relationships since male sex, lower socioeconomic status, and age have all have been linked to greater psychiatric need, which may have implications for mental health recovery orientation [48]. The current study used racial/ethnic categories from the US Census from the year 2000; this is a limitation given racial/ethnic minority identification can evolve based on social and political climate.

Furthermore, due to limited diversity among providers, it was not possible to consider racial or gender concordance between the Veteran and the provider in this study. Race- concordant patient-provider interactions have been associated with increased trust, satisfaction, and intention to adhere [49]. This fundamental analysis may help differentiate underlying factors that impact therapeutic alliance such as implicit racial bias in race-discordant patient-provider relationships, versus experiences of having a mental health disability in race-concordant patient-provider relationships. Also, survey analysis of treatment encounters is limited in capturing details of communication patterns that have been shown to negatively affect perception of therapeutic alliance between racial minority patients and their providers [39, 50, 51].

Conclusions

Mental health providers should approach mental health care from a strength-based and person-centered framework in order to support patient resiliency and collaborative mental health care. This can entail understanding of lived experiences, cultural values and worldviews, an elicitation of patient preferences and priorities during mental health care visits. In order to reduce racial disparities in mental health care and facilitate positive mental health recovery outlook among black patients experiencing increased psychosis, providers should be prepared to utilize tools and treatment interventions that support positive collaboration and mental health recovery outlook.

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Figure 1. 3-way Interaction among Race, Psychosis, STAR Positive Collaboration, and Mental Health Recovery Orientation

Note: High Positive Collaboration (PC) trend line is the model-based estimated association between psychosis symptom level and MHRM for individuals who are one standard deviation (SD) above the mean on the STAR-P PC subscale. Low Positive Collaboration trend line is the model-based estimated association between psychosis symptom level and MHRM for individuals who are one SD below the mean on the STAR-P PC subscale.

Table 1

Sample Characteristics by Race

	Overall Sample N=226 M±SD (%)	White n=113 M±SD (%)	Black n=113 M±SD (%)
Age	54 ± 8	53 ± 9	56 ± 7 *
Gender (Male)	89	88	89
Years of Education	13.2 ± 1.8	13.3 ± 2.1	13.1 ± 1.6
Diagnosis			
Schizophrenia, Schizoaffective, Psychosis Disorder NOS	62	19	43 ***
Bipolar	63	42	21
Major Depression	52	27	25
PTSD	24	13	11
Behavior and Symptom Identification Scale (BASIS 24); Psychosis Symptoms Subscale Score	1.0 ± 1.0	.8 ± .9	1.1 ± 1.0 *
Scale to Assess Therapeutic Relationship (STAR)			
STAR Positive Collaboration	20.6 ± 4.2	20.6 ± 4.4	20.7 ± 4.0
STAR Positive Clinician Input	9.75 ± 2.3	9.9 ± 2.3	9.6 ± 2.3
STAR Non-Supportive Clinician Input	9.73 ± 2.0	10.2 ± 2.0	9.3 ± 1.9 **
Mental Health Recovery Measure Subtotal	80.6 ± 20.0	77.4 ± 19.9	83.9 ± 19.8 *

p<.001;

**
p<.01;

*
p<.05

¹ Scale To Assess the Therapeutic Relationship- Positive collaboration: rated from 0-‘Never’ to 4-‘Always;’ higher scores indicate higher perceived rapport, communication of goals, and openness and trust.

² Scale To Assess the Therapeutic Relationship- Positive clinician input: rated from 0-‘Never’ to 4-‘Always;’ higher scores indicate greater perception that providers encourage, regard, support, listen to, and understand the client.

³ Scale To Assess the Therapeutic Relationship- Non-supportive clinician input: rated from 0-‘Never’ to 4-‘Always;’ higher scores indicate less perception that the provider is stern and impatient.

⁴ Mental Health Recovery Measure: rated from ‘Strongly Disagree’ to ‘Strongly Agree’; higher scores indicate greater orientation toward mental health recovery

Table 2

STAR Positive Collaboration Regressed on Mental Health Recovery Orientation

	Multivariate analysis					
	Model I (R ² =.237)		Model II (R ² =.252)		Model III (R ² =.285)	
	F(6,219)=11.33, p<.001		F(9,216)=8.09, p<.001		F(10,215)=8.57, p<.001	
	B (SE)	t value	p	B (SE)	t value	p
Age	.33 (.15)	2.14	.034	.33(.15)	2.18	.030
Female	1.24 (3.90)	.32	.750	1.66(3.89)	.43	.671
Years of education	.26 (.65)	.40	.689	.41(.66)	.62	.538
Black	7.86 (2.42)	3.25	.001	7.88(2.46)	3.21	.002
Psychosis ^J	-7.50 (1.22)	-6.17	<.001	-7.18(1.89)	-3.79	<.001
Positive Collaboration ^J	0.98 (0.29)	3.44	<.001	.46(.41)	1.15	.254
Black*Psychosis ^J				-1.21(2.48)	-.49	.627
Black* Positive Collaboration ^J				1.18(.59)	1.99	.048
Psychosis* Positive Collaboration ^J				.05(.28)	.17	.869
Black*Psychosis* Positive Collaboration ^J						
					1.75 (.56)	3.14

^J Centered around means based on full baseline sample