Bridging the Gap Between Common Mental Disorders and Service Use: The Role of Self-Rated Mental Health Among African Americans

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Objective: *The unmet need for mental health care in racial/ethnic minorities has been a major public health concern. Using a sample of African Americans, this study questioned whether self-rated mental health (SRMH), an individual's subjective assessment of personal mental and emotional status, modifies the link between mental disorders and service use.* **Design:** *Cross-sectional analyses of the Milwaukee African American over-sample of the Midlife Development in the United States (MIDUS II) study, 2005—2006.* **Setting:** *In-home personal interviews.* **Participants:** *Self-identified African American/ black participants aged 40 to 85 years (N = 460).* **Measurements:** *Participants were assessed if they met the diagnostic criteria for three common mental disorders (major depression, generalized anxiety disorder, and panic disorder) in the prior 12 months, using the Composite International Diagnostic Interview (CIDI). Response to a single-item SRMH was dichotomized (excellent/very good/good or fair/poor). Service use was indicated by the use of any services in the past year (mental health specialist, general doctor, and clergy).* **Results:** *Multivariate analyses identified a significant interaction between mental disorder and SRMH in predicting service use. The likelihood of service use increased substantially when individuals with a disorder reported their mental health to be fair/poor.* **Conclusions:** *Reflecting its subjective nature, SRMH enhances our understanding of individual variations in self-recognition and help-seeking behaviors. Findings suggest that interventions that enhance an individual's self-awareness of mental health problems may help bridge the gap between mental health care needs and service use in African Americans.* (Am J Geriatr Psychiatry 2015; 23:658—665)

Key Words: Mental disorder, service use, self-rated mental health, African Americans

A gap between the presence or severity of mental disorder ("need") and mental health service use has persisted over the past decades. According to findings from the National Comorbidity Survey Replication, fewer than half (41.1%) of individuals with any 12-month DSM-IV disorder received

treatment.[1] Although this reflects an improvement from the 25% receiving treatment at the baseline National Comorbidity Survey conducted a decade earlier,[2] the discrepancy between disorder and mental health care continues to be a major public health concern. The unmet need for mental health care is particularly pronounced among racial/ethnic minorities.[3–5] Although findings may vary by types of disorders and services considered, African Americans in general show a lower rate of mental health service use than non-Hispanic white patients.[1,6,7] It is also notable that non-specialty care such as religious and spiritual advisors often serves as the major source of mental healthcare.[4,6]

Over the past few decades, a sizable body of literature has accumulated on barriers to mental health care in both general and racial/ethnic minority populations. Examples of identified service barriers include individual-level and contextual factors such as low socioeconomic status, lack of health insurance, stigma associated with mental illness, low mental health literacy, disbelief in mental health treatment, and limited availability of culturally competent mental health providers.[1,4,6–11] One potentially influential factor that has not received much attention is self-assessment of mental health. Although an individual's awareness of the presence and severity of symptoms has been suggested as an initiator of service use in the transtheoretical model of behavioral change[12] and the help-seeking decision-making model,[11,13] there is a lack of empirical studies addressing its role particularly with racial/ethnic minorities. As an indicator of "perceived need for mental health care," self-rated mental health (SRMH) may play a key role in the process by making individuals recognize the need and seek help.

A single SRMH item asking "How would you rate your overall *mental* health?" has recently received attention in mental health research and services.[14,15] A strong association of SRMH with mental health symptom measures[14,16] and mental disorder[17,18] has been demonstrated, and it has been validated as an efficient mental health indicator.[18] Studies have also reported a connection between SRMH and mental health service use.[18–21] Unlike the conventional mode of assessment, which focuses either on the predictors of SRMH[14,16,17] or on its implications for service use,[21] the present study examines its role both in response to mental disorder and in seeking mental health care. The assessment of this simultaneous dynamic involves the interactive or combinational function of mental disorder and SRMH. Our assumption is that service use is most likely when the awareness of mental disorder is reflected in one's subjective assessment of overall mental health. In other words, unrecognized mental health problems may pose a barrier to service use.

Using a sample of African Americans, a group known to have mental health care disparities,[1,5–7] the present study examined how the link between mental disorder and service use may be affected by SRMH. We hypothesized that the likelihood of service utilization among individuals with mental disorder would be increased when they rated their mental health as fair/poor rather than as excellent/very good/good. Reflecting its subjective nature, SRMH is expected to enhance our understanding of individual variations in self-recognition and help-seeking behaviors, where the presence of mental disorder does not always eventuate in the use of appropriate services.

METHODS

Data

The data were from the Milwaukee African American oversample of the Midlife Development in the United States (MIDUS II) study, 2005–2006.[22] Using a stratified area probability sampling, data were collected from 79 census tracts with populations at least 40% African American in Milwaukee County, Wisconsin. The census blocks were stratified by income, with roughly half coming from tracts in which the median household income was $40,000 or greater, and the remainder coming from tracts in which the median household income was below $40,000. Information was gathered via in-home interviews using a Computer Assisted Personal Interview protocol and subsequent self-administered mail surveys. The overall response rates for the in-home interviews and mail-surveys were 70.7% and 67.2%, respectively. All variables used in the present investigation came from the data collected through in-home interviews. Among the total of 592 participants, the present investigation was based on 460 self-identified African American/black participants aged 40 to 85 years. None of them had more than 5% missing information on the variables used in the present

investigation. More detailed information regarding the data set can be found elsewhere.[22,23]

Measures

Self-Rated Mental Health. Parallel to the self-rating of physical health, participants were asked if they would say their overall *mental* or *emotional* health was excellent, very good, good, fair, or poor. The five-point response was dichotomized into 0 (excellent/very good/good) or 1 (fair/poor).

Mental Disorder. The MIDUS II surveys used the Composite International Diagnostic Interview- Short Form (CIDI-SF) to examine if participants met diagnostic criteria for mental disorders in the prior 12 months.[24] The present study considered three common mental disorders: major depression, generalized anxiety disorder, and panic disorder. The CIDI is a fully structured diagnostic interview designed to be used by trained interviewers who are not clinicians, and its use with diverse racial/ethnic groups including African Americans has been validated.[24] Diagnosis was based on the third edition-revised of the American Psychiatric Association's (APA) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R).[25]

Service Use. Participants were asked how many times in the past 12 months they saw each of the professionals in the following list about their emotional, mental, and personal problems: 1) psychiatrist, 2) general doctor (e.g., general practitioner or other medical doctor), 3) mental health provider (e.g., psychologist, professional counselor, marriage therapist, or social worker), and 4) clergy (e.g., minister, priest, rabbi, or other spiritual advisor). The initial list was regrouped into three categories: 1) mental health specialist (combining the first and third categories), 2) general doctor, and 3) clergy. The frequency reported in each category was dichotomized into 'not used' or 'used,' and a binary variable was computed to indicate the use of any service (1) or no use (0).

Demographic Variables. Demographic information included age (in years), sex (0 = male, 1 = female), marital status (0 = married, 1 = not married), and educational attainment (0 = less than high school, 1 = high school or higher). Participants were asked if they had health insurance that would cover the cost of any mental health visits (0 = no, 1 = yes). The number of existing chronic medical conditions was assessed by using a 30-item checklist of common diseases and conditions (e.g., asthma, high blood pressure, heart problems, and diabetes). Based on the score distribution, responses were dichotomized into 0 (0–2 conditions) and 1 (3 or more conditions).

Analytic Strategy. The overall characteristics of the sample, as well as subgroup distributions by mental disorder, SRMH, and service use, were descriptively assessed. Logistic regression models were estimated on the outcome measure of service use. Main and interaction effects of the predictive variables were examined using a sequential entry strategy of 1) demographic and background variables, 2) mental disorder, 3) SRMH, and 4) the interaction between mental disorder and SRMH. When the interaction term was significant, further analyses on subgroups were conducted to show how the link between mental disorder and service use was modified by SRMH.

Complex survey weights to adjust for possible design effects in the MIDUS II data were not available in the public data set. As is customary in other studies using these data,[23,26,27] we performed unweighted analyses. To assess the sensitivity of the unweighted inference, and to reflect our uncertainty about the proper standard errors of the estimates under the sampling process outlined earlier, we compared the estimated standard errors from bootstrapped logistic regression models to those from the standard logistic regression models.[28] The bootstrapped standard errors are slightly larger in general, thus providing somewhat more conservative statistical tests. In no instance, however, were differences sufficiently large to alter the substantive findings reported here. Alternative sensitivity checks, including specifying robust standard errors[29] and using alternative resampling methods such as the jackknife,[30] yielded identical substantive findings for the primary effects of interest. Given the nature of the MIDUS II design, we stress that inference pertains to the African American population in contexts resembling those on which this sample is based, as outlined earlier.

RESULTS

Descriptive Information of the Sample

Table 1 summarizes descriptive information on the sample and study variables. The sample included 460 participants, aged between 40 and 85 years, with an

TABLE 1. Descriptive Characteristics of the Sample (N = 460)

Variable	M ± SD (Minimum − Maximum) or %
Age (years)	54.9 ± 10.6 (40−85)
Sex (female)	62.0
Marital status (married)	29.8
Education (≥high school)	75.8
Mental health insurance coverage (yes)	77.8
Chronic medical conditions (3 or more)	52.6
Mental disorder	
Major depression	8.7
Generalized anxiety disorder	3.0
Panic disorder	3.7
Having any disorder[a]	12.2
Comorbidity	0.15 ± 0.45 (0−3)
Self-rated mental health	
Excellent/very good/good	83
Fair/poor	17
Service use	
Mental health specialist[b]	10.4
General doctor	17.3
Clergy	9.8
Use of any service[a]	27

[a]Variable used in multivariate analyses.
[b]Psychiatrist and mental health provider.

average age of 54.9 years (SD: 10.6). More than half of the participants were women (62%). About 30% were married, and 76% received a high school education or more. Approximately 78% had health insurance that covered mental health service use, and more than half of the sample (52.6%) had three or more chronic medical conditions. The overall characteristics of the sample were similar to those observed in national samples of African Americans of a similar age range.[31]

The prevalence rates of major depression, generalized anxiety disorder, and panic disorder were 8.7%, 3.0%, and 3.7%, respectively. The proportion of individuals with any disorder was 12.2%. The proportion of the sample that had one, two, and three disorders was 9.3%, 2.4%, and 0.4%, respectively, and comorbidity averaged 0.15 (SD: 0.45). Seventeen percent of the sample rated their overall mental health as fair or poor, and 27% had used services for their mental health concerns.

Subsample Distributions

Table 2 summarizes subsample distributions by mental disorder, SRMH, and service use. Among the 12.2% of the sample who had at least one mental

disorder, the rating of SRMH was distributed relatively evenly between excellent/very good/good (48.2%) and fair/poor (51.8%). It is notable that half of the individuals with a disorder (55.4%) had used services in the past year. The rate of use was relatively evenly divided across the three types of services considered: about 34% for mental health specialist, 30% for general doctor, and 29% for clergy.

Mental health specialists were most frequently used by individuals with major depression (42.5%) and generalized anxiety disorder (42.9%). In contrast, among those with panic disorder, clergy (35.3%) were most often visited, followed by general doctor (23.5%). Mental health specialist (17.6%) had the lowest rank for this disorder. Although any interpretation requires caution due to the small sample size per subgroup, the finding suggests a potential lack of knowledge about panic disorder as a mental health issue.

Logistic Regression Models of Service Use

In the initial model, age, mental health insurance, and chronic medical conditions emerged as significant predictors of service use (Table 3). The odds of using services decreased by about 4% with an additional year of age. The odds ratio of service use was about 91% higher for those with mental health insurance and was over 2.5 times higher for those with three or more chronic medical conditions. In the subsequent models, each entered variable (mental disorder and SRMH) was shown to have a significant main effect. Services were more than three times as likely to be used by those with disorders and more than two times more likely to be used by those with fair/poor SRMH. In the final model, the interaction effect of mental disorder and SRMH provided evidence of a significant moderating effect.

Subgroup variation by the presence of mental disorder and SRMH was further examined by considering the interaction effect (Table 4). On a descriptive level, a substantial proportion (75.9%) of individuals who had a mental disorder and reported fair/poor SRMH was found to be service users. This rate is notably higher than the 33.3% observed in their counterparts who exhibited a mental disorder but rated their mental health as excellent/very good/good. Multivariate analyses by subgroups also presented similar findings (not shown in tabular format). The predictability of the presence of disorder to

TABLE 2.   Subsample Distribution on Mental Disorder, Self-rated Mental Health, and Service Use

| | | N (%) | | | | | |
| | | Self-Rated Mental Health | | Service Use | | | |
	Total (N = 460)	Excellent/ Very Good/ Good	Fair/Poor	Mental Health Specialist	General Doctor	Clergy	Any Service[a]
Type of mental disorder							
Major depression	40 (8.7)	17 (42.5)	23 (57.5)	17 (42.5)	13 (32.5)	10 (25.0)	22 (55.0)
Generalized anxiety disorder	14 (3.0)	5 (35.7)	9 (64.3)	6 (42.9)	5 (35.7)	4 (28.6)	8 (57.1)
Panic disorder	17 (3.7)	9 (52.9)	8 (47.1)	3 (17.6)	4 (23.5)	6 (35.3)	9 (52.9)
Having any disorder[a]	56 (12.2)	27 (48.2)	29 (51.8)	19 (33.9)	17 (30.4)	16 (28.6)	31 (55.4)
Comorbidity							
None	404 (87.8)	355 (87.9)	49 (12.1)	29 (7.2)	62 (15.5)	29 (7.2)	92 (23.0)
1	43 (9.3)	24 (55.8)	19 (44.2)	12 (27.9)	12 (27.9)	12 (27.9)	23 (53.5)
2	11 (2.4)	2 (18.2)	9 (81.8)	7 (63.6)	5 (45.5)	4 (36.4)	8 (72.7)
3	2 (0.4)	1 (50.0)	1 (50.0)	0	0	0	0

[a]Variables used in multivariate analyses.

TABLE 3.   Logistic Regression Models of Service Use

Step	Variable	B (SE)	Wald χ^2 (df = 1)	p	OR	95% CI
1	Age	−0.03 (0.01)	8.83	<0.01	0.96	0.94−0.99
	Sex	−0.11 (0.25)	0.21	0.64	0.89	0.54−1.45
	Marital status	−0.52 (0.27)	3.54	0.06	0.59	0.35−1.02
	Education	−0.01 (0.27)	.00	0.94	0.98	0.58−1.67
	Mental health insurance	0.64 (0.30)	4.72	<0.05	1.91	1.06−3.40
	Chronic medical conditions	0.95 (0.24)	15.3	<0.001	2.57	1.60−4.13
2	Mental disorder	1.21 (0.34)	12.9	<0.001	3.34	1.73−6.45
3	Self-rated mental health (SRMH)	0.79 (0.31)	6.64	<0.05	2.21	1.20−4.03
4	Mental disorder × SRMH	1.74 (0.76)	5.34	<0.05	5.72	1.30−25.1

Notes: B: unstandardized coefficient; SE: standard error; OR: odds ratio; CI: confidence interval.

service use varied substantially by SRMH. After controlling for demographic and background variables, the odds of service use among those with fair/poor SRMH was 7.08 times higher for those with mental disorder relative to those without mental disorder (Wald χ^2 [df = 1] = 7.12, 95% confidence interval [CI] = 3.01−25.1, p <0.01). In the subgroup with excellent/very good SRMH, the corresponding odds ratio was 1.44 (Wald χ^2 [df = 1] = 0.64, 95% CI = 0.58−3.57, p = 0.42).

DISCUSSION

Responding to the historical mental health care disparities in African Americans,[1,3–7] the present study conceptualized self-rated mental health as a potential factor that may help explain the gap between mental disorder and service use. An individual's subjective appraisal of mental health status is considered to be a critical part of help-seeking decision-making that determines the path regarding whether the presence of mental disorder is linked to the use of services.[11–13] Our investigation of 460 middle-aged or older African Americans from the Milwaukee African American sample of the MIDUS II study provided supportive findings on the critical role of SRMH as a promoter of service use.

About 12% of the sample had one or more of the three common mental disorders studied (major depression, generalized anxiety disorder, and panic disorder), and over half (55.4%) of them had used at least one of the services considered (mental health specialist, general doctor, and clergy). Because studies widely vary in their coverage of types of mental disorders and services, it is difficult to make direct comparisons. However, the 55% service use rate for major depression and the 52% for panic

TABLE 4. The Rate of Service Use in Subgroups

	Self-Rated Mental Health	
	Excellent/ Very Good/Good (N = 382)	Fair/Poor (N = 78)
No mental disorder (N = 404)	79/355 (21.6%)	13/49 (26.5%)
≥1 mental disorder (N = 56)	9/27 (33.3%)	22/29 (75.9%)

disorder observed in the current sample were lower than the rates reported for the general U.S. population (57% for major depressive disorder and 65% for panic disorder).[1] The proportion of individuals who reported their mental health status to be either fair or poor in the overall sample was 17%, and this rate is similar to the 15%−19% reported in other national samples of African Americans but higher than the 8%−10% reported in samples of non-Hispanic whites.[16,17] Observations of the subsample with mental disorder call attention to the role of SRMH. Despite the presence of a disorder, more than 48% still rated their mental health as excellent/very good/good, and only half had used services in the past year. The finding clearly demonstrates the importance of self-perceptions in understanding the correspondence between care need and actual receipt of care. Further, it suggests SRMH as a source for the discrepancy, and our multivariate analyses provided empirical support for this speculation.

In the emerging literature on SRMH, most attention has been paid either to its predictors[26,32] or to its associations with other mental health measures or service use.[14,16,17,21] An indirect or mediational model has also been suggested where the presence of mental health disorders leads individuals to evaluate their SRMH negatively, eventuating in the likelihood of increased service use;[21,33] this sequential model carries an inherent limitation in cross-sectional assessments, however. Our conceptualization of SRMH as a moderator is unique and relevant to cross-sectional research because it addresses simultaneous interactions between the presence of mental disorder and service use.

Multivariate analyses showed that service use was more likely in individuals with younger age, health insurance coverage, and multiple chronic medical conditions. This finding is in line with previous studies addressing predisposing and enabling factors of health service use[5,11−13] and the overlap between physical and mental health dimensions.[34]

Both the presence of mental disorder and fair/poor ratings of SRMH independently increased the likelihood of service use. In addition to the main effects, a significant interaction between the two was observed. In the presence of mental disorder, the likelihood of using services was greater when an individual's SRMH was fair/poor rather than excellent/very good/good. This finding signals that the mismatch between one's objective mental health status and subjective assessment poses a critical barrier to service use. Furthermore, it highlights SRMH as an intervening agent that can promote mental health service use. Given that service use is actualized when individuals perceive the need for care, intervention efforts should focus on ways to promote self-recognition and awareness of mental health issues.

Previous literature shows that the association between mental health measures and SRMH tends to be lower among African Americans than non-Hispanic whites.[14,16,21] In other words, African Americans are less likely to translate mental symptoms into self-recognition of overall mental health status.[21] An age group variation within the African American population also has been observed, whereby those of more advanced age exhibit a lack of association between mental health symptoms and SRMH.[16] The finding may have to do with cultural stigma and misconceptions that attribute mental and emotional concerns to part of normal aging process.[35,36] The overall findings suggest that African American population in general and its older members in particular are less likely to perceive their mental health symptoms as indicative of a mental health disorder requiring professional attention and call attention to them as a group to target specific interventions. The transtheoretical model of behavioral change[12] may be particularly relevant here and may help contextualize intervention strategies. SRMH is conceptually consonant with the change process of realistic self-reappraisal[12] that ultimately might generate movement from an early precontemplative stage to the stage of action regarding service utilization.

Consistent with previous studies of African Americans,[4,6] the use of non-specialty mental health care was notably high in the current sample. Among those with a mental disorder, approximately 29% had sought help from clergy, and this figure is

substantially higher than the 8.1% reported in the U.S. general population surveyed in the National Comorbidity Survey Replication.[1] This finding highlights the importance of educational modules, workshops, and inservices to help religious leaders in the African American community properly address community mental health needs and provide optimal mental health services. It also underscores the importance of a culturally sensitive approach to mental health care which will help older minority populations feel comfortable in seeking mental health care. Culturally attuned explanations of mental illness delivered by honored community agents in the African American community such as the clergy may be the front line for adequate and acceptable mental health care for older African Americans. The overall finding suggests the importance of health professionals partnering with religious leaders in efforts to promote community mental health.

Some limitations to the present study should be noted. The use of cross-sectional data with a regionally defined sample limits causal inferences and generalizability of the findings to the national level.

Another limitation is the lack of formal diagnosis by mental health professionals. It would be interesting to explore how formal diagnosis shapes individuals' self-perceptions and help-seeking behaviors. Given the limited scope of the current assessment, future efforts should include a broad range of mental and behavioral issues including substance disorders. Also, other age groups beyond the range of 40–85 years need to be included in order to incorporate a life-span perspective. Consideration also should be given to severity of mental disorders and frequency/intensity of service use. Lastly, attention should be given not only to service accessibility but also to qualitative aspects of the received services, such as perceived quality and satisfaction.

Despite these limitations, the present study contributes to research and practice on mental health care in African Americans. Findings suggest a critical role of SRMH in bridging the gap between mental health care need and service use. Intervention efforts need to focus on ways to promote self-awareness and recognition of mental health issues among African Americans.

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