Psychosocial and Sociocultural Correlates of Depressive Symptoms Among Diverse African American Women

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Abstract

African American women are faced with many challenges regarding their historical, cultural, and social structural position in the United States that may heighten their vulnerability for depression, one of the most prevalent disorders that can engender poor functionality. The purpose of this cross-sectional pilot study was to foster greater understanding about the occurrence and correlates of depressive symptoms among a diverse convenience sample of 63 African American women recruited from a comprehensive primary health care clinic (n = 23), a small private academic institution (n = 25), and an urban community setting (n = 15). Self-report data concerning selected psychological, sociocultural, and biological factors were collected. Descriptive statistics, Pearson product moment correlation, and analysis of variance were used to analyze data. Results indicated several similarities and differences among the 3 groups of women concerning levels of depressive symptoms and their correlates. Among the total sample, symptoms of depression were mild among 65% of the women. Depressive symptoms were significant and positively associated with negative and ruminative thinking ($r = 0.79$, $p < .01$), low self-esteem ($r = 0.58$, $p < .01$), stressful life events ($r = 0.43$, $p < .05$), low social support ($r = 0.46$, $p < .01$), depression stigma (r= 0.36, $p < 01$), and indication of chronic diseases ($r = 0.34$, $p < .01$). Depressive symptoms were significant and negatively associated with resiliency ($r = −0.48$, $p < .01$) and spiritual well-being [$r = −.47$, $p < .01$). This research adds to the empirical data concerning contributors to depressive symptoms for African American women.

Keywords

depression; African Americans; women's health; psychosocial

BACKGROUND

Major depressive disorder (MDD) is one of the most prevalent mental health problems in the United States that is associated with considerable impairment in functioning, and it affects approximately 14.8 million adults annually with women aged 18 to 45 years accounting for the largest proportion of this group.[1] It is estimated that in the next 20 years, depression will be the leading cause of disability worldwide and in nations with high incomes, such as the

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United States.[2] It may be characterized as a pernicious psychiatric illness associated with episodes of long duration, high rates of chronicity, relapse and recurrence, psychosocial and physical impairment, and morbidity and mortality—with a 15% risk of death from suicide in patients with more severe forms of major depression. Women are twice as likely as men to suffer from major depression, and 1 woman in 4 is likely to suffer from a serious depressive episode at some time in her life.[3] Findings from the Summit on Women and Depression convened by the American Psychological Association suggest that an examination of life stress and trauma, interpersonal relationships, and cognitive styles, among other factors, may provide greater insight into contributors to major depression for women.[4]

MDD presents a formidable burden in the African American community.[5,6] There are several complex factors that lead to depressed moods in African Americans, and some of the challenges that may contribute to poor diagnosis and treatment among this population include low access to care, low socioeconomic status, low educational attainment, low quality of treatment, and cultural barriers.[7] Although African Americans are less likely than whites to be diagnosed with MDD, when they are, it tends to be more chronic and severe, and they are also much less likely to undergo treatment.[8] This may be due to stigma and less trust within the medical community; poor or no insurance coverage for mental health services; problems accessing culturally responsive mental health professionals; and reliance on family, friends, and/or religious communities for support. It is suggested that part of understanding an African American woman's experience of depression includes the recognition of the social context in which she lives that may include an examination of issues related to racism and violence.[9] Depressive symptomatology among African American women has been reported to be highest among women who are unable to work, have less than a high school education, report less than adequate social and emotional support, have a general dissatisfaction with life, and suffer from physical health problems.[10] There is limited research concerning major depression among diverse African American women, which is also underrecognized and undertreated.[11] However, more empirical data are needed to better determine strategies for improving screening, diagnoses, and culturally centered psychotherapeutic methods for the treatment of major depression among African American women.

The purposes of this cross-sectional pilot study were to foster greater understanding about the occurrence and psychosocial correlates of depressive symptoms among diverse cohorts of African American women. We aimed to determine the role of selected biological, psychological, and sociocultural factors to experiences related to depressive symptoms for this population of women. Thus, the following research questions were addressed:

- What are the occurrence and correlates of selected biological, sociocultural, and psychological variables to understanding depressive symptoms among diverse African American women?

- What are the similarities and differences among selected biological, sociocultural, and psychological variables with depressive symptoms among diverse African American women?

METHODS

Research Participants

The research participants included a convenience sample of 63 adult African American women from the greater Atlanta, Georgia, metro area. These women may or may not have been previously diagnosed with major depression but must have indicated a general interest in sharing their personal experiences concerning mental health and wellness. The primary factor that distinguished diversity among the cohorts of African American women was their

source for study recruitment. However, other background and demographic factors delineate similarities and differences among the 3 cohorts of women, employment status, educational levels, household income, professions/fields of work, health care insurance status, and history of diagnosed illnesses. Three cohorts of research participants were established from 3 recruitment sites. The total sample of 63 women were recruited from an urban community setting (n = 15), a comprehensive primary health care clinic (n = 23), and a small private academic institution (n = 25).

Recruitment Sites

Grady East Point Health Center—Grady East Point Health Center offers primary care for men, women, and children of all ages. It is a satellite community–based clinic for Grady Hospital, which is one of the largest public health care systems in the southeast. It provides health care services for primarily medically underserved and uninsured or underinsured individuals. There is a large population of ethnic minorities who receive health care services from this center, which is located in an urban community of the metro Atlanta area.

Morehouse School of Medicine—Morehouse School of Medicine (MSM), located in Atlanta, was founded in 1975 as a 2-year medical education program at Morehouse College, with clinical training affiliations with several established medical schools for awarding the MD degree. In 1981, MSM became an independently chartered institution and the first medical school established at a historically black college and university in the 20th century. MSM is among the nation's leading educators of primary care physicians. Its faculty and alumni are noted in their fields for excellence in teaching, research, and public policy and are known in the community for exceptional, culturally appropriate patient care.

East Point Library/Metro Atlanta Community—The East Point Library is located in Fulton County (a major location of recruitment of research participants). It is estimated that 15.5% of Fulton County residents aged 18 years and more are without health insurance coverage, and 14.4% of children are without health insurance coverage. Based on the most recent census data available, 26.5% of the African American population of Fulton County has a family income below the federal poverty level. In addition to high rates of uninsured persons, the south Fulton County area, which includes the city of East Point, is designated as a health professional shortage area for primary care health professionals, mental health professionals, and oral health professionals. The poverty levels, combined with a 7% high school dropout rate and 13.1% unemployment rate for the African American community and the shortage of health professionals, show the access gaps for health services in the Fulton County/metro Atlanta area.

Quantitative Assessment Instruments

Several paper-and-pencil measures were administered to research participants. All of these measures have demonstrated adequate psychometric properties with African Americans.

Measures of psychological factors—The psychological variables of interest include depressive symptoms, self-esteem, resiliency, negative and ruminative thinking, interpersonal relationship stress, and stressful/negative life events.

- Depressive symptoms: The Beck Depression Inventory, Second Edition,[12] used to assess the outcome variable depressive symptomatology, is a 21-item self-report inventory designed to assess affective, behavioral, cognitive, motivational, and vegetative aspects of depressive symptomatology.

- Negative and ruminative thinking: The Automatic Thoughts Questionnaire,[13] used to measure dysfunctional thinking, is a 30-item self-report questionnaire that

measures the frequency and degree of belief in negative cognitive ruminations associated with depressed mood.

- Self-esteem: The Self-esteem Scale, used to measure the variable self-esteem,[14] is a 10-item, self-report, unidimensional measure of attitude toward the self as a component of self-concept.

- Relationship stress: The Relationship Assessment Scale,[15] used to measure the variable intimate relationship stress, is a 7-item self-report subjective measure of satisfaction in a close relationship.

- Stressful life events: The Stressful Life Events Scale[16] assessed recent stressful life events occurring within the previous 12 months by self-rating to the nearest month.[16] This scale includes 11 personal events: assault, divorce/separation/breakup of romantic relationships, financial problems, serious housing problems, serious illness/injury, job loss, legal problems, loss of a confidant, serious marital problems, having been robbed, and serious difficulties at work. In addition, there are 4 social network events, including: serious trouble getting along with an individual in the network, serious personal crisis of someone, death of someone, and serious illness of someone in the network, (spouse, child, parent, sibling, significant other). All items were rated as minor, low-moderate, high-moderate, and severe.

- Resiliency: The Connor-Davidson Resilience Scale[17] is a 25-item scale that measures 5 constructs of resiliency: personal competence, high standards, and tenacity; personal structure (eg, trusting one's instincts, strengthening effects, and tolerance of stress); social competence and support (humor, positive relationships, and acceptance of change); control; and spiritual influence.

Measures of sociocultural factors—The sociocultural variables of interest include spirituality, social support, and stigma.

- Social support: The Social Support Appraisals Scale,[18] used to measure the variable of social support, is a 23-item self-report instrument designed to assess subjective appraisals of social support received by an individual through interactions with family, friends, and others.

- Spirituality: The Spiritual Well-Being Scale, used to measure spirituality,[19] is a 20-item self-report instrument with 2 subscales. The Religious Weil-Being subscale contains 10 items that refer to one's relationship with God. The Existential Weil-Being subscale contains 10 items that measure a dimension of well-being in relation to one's meaning, ideals, faith, commitment, and purpose in life relative to the world, without any specific religious reference.

- Stigma: Stigma was measured by the Depression Stigma Scale,[20] which is an 18-item self-report instrument with 2 subscales—perceived (social) stigma (9 items) and personal stigma (9 items).

Measure of biological factors

- Chronic conditions checklist: A checklist was developed by the principal investigator that queries previous diagnosis or current diagnosis of selected chronic conditions that are prevalent among African American women. Selected health conditions included: diabetes, heart disease, cancer, stroke, lupus, etc. A convenience group of 15 African American women participated in a pilot-testing phase of the development of the instrument. Specifically, in a group setting, 5 women—representative of each of the target groups of interest (community, clinic,

professional)—gave feedback regarding their experiences (ie, ease at understanding the concepts and format of the checklist) of using the assessment tool. All of the responses from the women were favorable. Additionally, the readability level of the checklist was assessed using the Fleisch-Kincaid Readability Scale, and it yielded a readability level of 7.6. This was deemed an appropriate reading level for the study's target population of women.

Measure of background factors

- Demographic/background questionnaire: A demographic questionnaire was developed by the investigator that queried background information about the respondent. Gathered information included age, ethnicity, marital status, household income, insurance status, number of children, employment status, and profession.

Procedures

This cross-sectional pilot study was approved by the MSM institutional review board and the Grady Hospital and Clinics Research Oversight Committee. Recruitment flyers were posted in various areas at each site approximately 1 week prior to study recruitment. For the primary health care clinic recruitment site, eligible women were approached in waiting rooms. For the academic/professional employment recruitment site, a detailed e-mail was sent to potential research participants inviting them to participate in the study. For the community recruitment site, eligible women who were in the East Point Library were approached for study participation. Women that responded affirmatively were phoned to set up an appointment to meet at a mutually agreeable time. At the meeting, the informed consent process took place (ie, review of informed consent document, responding to questions, securing signature on informed consent forms, etc). A copy of the informed consent form was given to each participant. All participants were given the date and location of the women's mental health and wellness empowerment session, which was scheduled to occur no more than 2 weeks after initial contact was made with each research participant.

Three mental health and wellness women's empowerment sessions (approximately 1.5 hours) were held for each of the 3 subsamples of African American women. In each session, research participants completed the assessment measures, participated in a focus group about their perceptions about contributors to depression for African American women, listened to an educational presentation about depression and African American women, and completed an evaluation survey. Each research participant received a $25 incentive and a local mental health and wellness community resource guide.

Data Analysis Plan

Data analyses were carried out through the use of the SPSS.[21] Basic descriptive statistics such as mean, standard deviation, standard error of the mean, range, proportion, and 95% confidence intervals were used to describe continuous and/or nominal or categorical variables and to address research question 1. Pearson product moment analyses were used to determine significant relationships between depressive symptoms and sociocultural, biological, and psychological variables of interest and to address research question 1. To address research question 2, analysis of variance (ANOVA) was employed to examine differences and similarities on variables of interest relative to the 3 subsamples of African American women. Regarding research question 3, Cronbach α reliability analyses were used to address the usefulness of the selected assessment tools with the study population.

RESULTS

Study Population and Demographics

The total study sample included 63 African American women from 3 distinct populations: professional/academic, (n = 25, 39.7%), clinic, (n = 23, 36.5%), and community, (n = 15, 23.8%). All of the women identified their ethnicity as African American, and their ages ranged between 22 and 64 years, with a mean age of 45 years (SD = 12.05). Additional demographic findings from the 3 subsamples are indicated in Tables 1 and 2.

History of Diagnosed Illness

Health problems were reported by many of the women in the total sample. In particular, 44% (n = 28) of the women reported being previously diagnosed with hypertension, followed by reports of depression (n = 18, 28.6%), diabetes (n = 12, 19%), sexually transmitted infection (n = 11, 17.5%), anxiety (n = 9, 14.3%), asthma (n = 8, 12.7%), and chronic pain (n = 7, 11.1%). Only a few women indicated health problems such as arthritis (n = 5, 8%), stroke (n = 2, 3%), cancer (n = 4, 6%), substance abuse (n = 4, 6%), reproductive problems/infertility (n = 4, 6%), human immunodeficiency virus (HIV)/AIDS (n = 1, 1%), and heart attack (n = 1, 1%). None of the women reported a diagnosis of lupus; however, 5 women (8%) reported other chronic health conditions that they had experienced.

Assessment Measures

Reliability of assessment measures—Cronbach α reliability analyses were conducted for each assessment measure to determine their reliability when applied to a sample of African American women. The Beck Depression Inventory, Second Edition; Rosenberg Self-esteem Scale; Automatic Thoughts Questionnaire; Stressful Life Events Scale; Social Support Appraisals Scale; Connor-Davidson Resilience Scale; Spiritual Well-being Scale; and Depression Stigma Scale were found to be extremely reliable among this sample (α's = 0.91, 0.88, 0.91, 0.84, 0.91, 0.92, 0.85, and 0.78, respectively). These findings imply that these measures are appropriate instruments to use in future studies with samples of African American women.

Frequencies, Means and Standard Deviations

Depressive symptoms—The overall percentages for mild, moderate, and severe symptoms of depression based on frequency analysis were conducted for the total sample and 3 subsamples. On the Beck Depression Inventory, Second Edition, cutoff scores and interpretative labels of depressive symptoms indicate that a score of 9 to 17 is considered mild, 18 to 28 is regarded as moderate, and a score of 29 and above is reflective of severe depressive symptoms. Among the total sample of women, 65% of the women scored in the mild range, 23% in the moderate range, and 12% in the severe range of depressive symptoms. Relative to the professional sample, 87% of the women scored in the mild range and 13% scored in the moderate range of depressive symptoms. Concerning the clinic sample, 61% scored in the mild range, 22% in the moderate range, and 17% in the severe range of depressive symptoms. Among women in the community sample, 40% scored in the mild range, 40% scored in the moderate range, and 20% scored in the severe range of depressive symptoms.

It was important to look more closely at the specific depressive symptoms that were endorsed by the total sample of women; and thus, the frequency of reported symptoms of the Beck Depression Inventory, Second Edition was examined. Findings indicated the following perspective for the period during the 2 weeks prior to the study's assessment concerning specific constructs, including:

- sadness: 35% of the women (n = 22) reported feeling sad much of time;

- pessimism: 62% of the women (n = 39) indicated being discouraged about their future;

- past failure: 27% of women (n = 17) reported that they failed more than they should have;

- loss of pleasure: 30% of women (n = 19) indicated that they did not enjoy things as much as they used to;

- guilty feelings: 51% of women (n = 32) reported that they felt guilty over many things that they have done or should have done;

- punishment feelings: 25% of women (n = 16) reported that they felt they may be punished;

- self-dislike: 21% of women (n = 13) reported that they have lost confidence in themselves;

- self-criticalness: 33% of women indicated that they were more critical of themselves than they used to be;

- suicidal thoughts: 18% of women (n = 11) reported that they have thought about killing themselves;

- crying: 18% of women (n = 11) reported that they cried more than they used to;

- agitation: 46% of women (n = 29) indicated that they felt more restless or wound up than usual;

- loss of interest: 32% of women (n = 20) indicated that they were less interested in other people or things than before;

- indecisiveness: 35% of the women (n = 22) reported that they found it more difficult to make decisions than usual;

- worthlessness: 24% of women (n = 5) indicated that they did not feel as worthwhile and useful as they used to;

- loss of energy: 62% of women (n = 39) reported that they had less energy than they used to;

- irritability: 41% of women (n = 26) indicated that they were more irritable than usual;

- changes in sleep patterns: 47% of women (n = 29) reported that they slept more or less than usual;

- concentration difficulty: 28% of women (n = 17) indicated that they couldn't concentrate as well as usual;

- loss of interest in sex: 34% of women (n = 21) reported that they were less interested in sex than they used to be;

- changes in appetite: 25% of women (n = 15) reported that their appetite was somewhat greater/less than usual; and

- tiredness/fatigue: 46% of women (n = 28) indicated that they got more tired or fatigued more easily than usual.

Table 3 displays the mean, standard deviation, and ANOVA for all assessment measures across the total sample (N = 63) and for each of the subsamples. The mean Beck Depression

Inventory, Second Edition score reported for the total sample shows that overall, participants reported mild symptoms of depression (m = 14.59, SD = 10.56), as scores could range from 0 (no depressive symptoms) to 63 (high depressive symptoms). Mean scores reported within the clinic and community sample were slightly higher than the mean of the total sample but were still considered to be within the mild depressive symptom range (m_{clinic} = 16.65, SD = 11.93; $m_{community}$ = 18.60, SD = 11.00, respectively); and the mean score reported in the professional/academic sample (m_{prof} = 9.91, SD = 6.82) was slightly lower than the total sample's average.

Self-esteem

Self-esteem scores were within the normal range, with mean scores for the total sample at 18.25 (SD = 5.89) out of a possible total score of 40 (high self-esteem), with 10 indicating low self-esteem as measured by the Rosenberg self-esteem scale. The professional/academic sample reported the lowest average self-esteem score of 15.84 (SD = 3.44), while the community sample scores were the highest (m = 20.73, SD = 7.20). These results and findings from the 3 subsamples are indicated in Table 3.

Negative and Ruminative Thinking

The mean score of the Automatic Thoughts Questionnaire for the total sample was 27.06 (SD = 9.26). Participants in the clinic subsample reported slightly higher scores with an average of 30.41 (SD = 11.90), and the women in the community sample reported a mean score of 28.00 (SD = 7.65). On this measure, total scores ranged from 15 to 75, and higher scores indicate greater frequency and degree of belief negative and ruminative thinking. These results and findings from the 3 subsamples are indicated in Table 3.

Stressful Life Events

On the Stressful Life Events scale, scores can range from 0 to 45, with higher scores indicating endorsement of more stressful life events. Within the total sample, the mean stressful life events score was reported at 17.21 (SD = 10.73), suggesting a moderate degree of stress; and the lowest mean scores reported were within the professional/academic subsample (m = 13.32, SD = 9.15), suggesting a low-moderate degree of stress. The highest endorsement of stressful life events was reported from the community sample (m = 21.87, SD = 14.07), suggesting high-moderate degree of stressful life events. These results and findings from the 3 subsamples are indicated in Table 3.

Social Support

The family and friends subscales of the social support appraisals scale was used to assess social support. Scores can range from 15 to 60, with higher scores suggesting greater support. Mean social support appraisal scores were highest among the clinic sample (m = 31.52, SD = 9.35), with scores just above the average of 27.43 (SD = 8.65) for the total sample. These results and findings from the 3 subsamples are indicated in Table 3.

Spiritual Well-being

On the Spiritual Well-Being Scale, total scores can range from 20 to 120, where a higher score suggests greater spiritual well-being or quality of life with specific reference to the spiritual dimension of the self. Results indicated that spiritual well-being scores reported were similar among the total sample (m = 42.16, SD = 14.13), professional/academic sample (m = 37.46, SD = 12.06), and community sample (m = 42.86, SD = 12.95). However, among the clinic sample mean scores were slightly higher (m = 46.65, SD = 15.74), suggesting a greater sense of spiritual well-being among this group of women. These results and findings from the 3 subsamples are indicated in Table 3.

Resiliency

Resiliency was assessed by the Connor-Davidson Resilience Scale and scores can range from 0 to 100, with higher scores reflecting greater resiliency. Among the women in the 3 subsamples, resiliency was relatively high, as indicated by mean score of 69.58 (SD = 14.61) for the total group. Among professional women, the mean score was 74.92 (SD = 12.28); for the clinic sample, the mean score was 66.83 (SD = 17.22); and for the community sample the mean score was 65.27 (SD = 11.64). These results and findings from the 3 subsamples are indicated in Table 3.

Stigma Concerning Depression

On the Depression Stigma Scale, total scale scores can range from 0 to 36, with higher scores indicating greater stigma associated with depression. Depression stigma scores were relatively high and similar across the 3 sub-samples of women, with average scores ranging from 31.04 (SD = 10.37) in the professional/academic sample, 31.60 (SD = 8.61) in the community sample, and 31.87 (SD = 9.60) in the clinic sample. The mean score for the total sample was 31.48 (SD = 9.55). These results and findings from the 3 subsamples are indicated in Table 3.

Diagnosed Health Condition

The average number of reported lifetime diagnosed illnesses for the total sample was approximately 2 (m = 1.88, SD = 1.62), and participants within the clinic sample reported slightly more lifetime diagnosed illnesses (m = 2.22, SD = 1.65). These results and findings from the 3 subsamples are indicated in Table 3.

Analysis of Variance (Similarities and Differences)

ANOVA showed significant differences amnog the 3 subsamples on measures of depressive symptoms, self-esteem, automatic thoughts, stressful life events, social support appraisal, and spiritual well-being (p 0.020, .020, .034, .038, .002, and .022, respectively). Findings indicate that depressive symptoms were statistically significantly higher among the community women (m = 18.60, SD = 11.00) vs the professional/academic women (m = 9.91, SD = 6.82); interestingly, self-esteem was statistically significantly higher among the community sample (m = 20.27, SD = 7.20) vs the professional sample. Negative and ruminative thinking was statistically significantly higher among the clinic sample (m = 30.41, SD = 11.91) vs the academic/professional sample (m = 23.56, SD = 5.99). Stressful life events were statistically significantly higher among the sample of community women (m = 21.87, SD = 14.07) vs the professional sample of women (m = 13.32, SD = 9.15). Social support was statistically significantly higher among the clinic sample of women (m = 31.52, SD = 9.35) vs the professional/academic sample of women (m = 23.16, SD = 6.96). Spiritual well-being was reportedly statistically significantly higher among the community sample of women (m = 46.65, SD = 15.74) vs the professional sample of women (m = 37.46, SD = 12.06). No significant differences were observed among the 3 samples of women concerning resiliency, stigma associated with depressive symptoms, or lifetime diagnosed illness/chronic disease (Table 3).

Pearson Product-Moment Correlation Analyses (Relationships)

Total sample of women—Depressive symptoms scores were found to be significant and positively associated with negative and ruminative thinking/automatic thoughts ($r = 0.79$, $p < .01$), low self-esteem ($r = 0.58$, $p < .01$), high stressful life events ($r = 0.43$, $p < .05$), low social support ($r = 0.46$, $p < .01$), and depression stigma ($r = 0.36$, $p < 01$). Depressive symptoms were found to be significant and negatively associated with resiliency scores ($r = -.48$, $p < .01$) and spiritual well-being ($r = -.47$, $p < .01$). These findings suggest that a

strong association exists between these women's maladaptive styles of thinking (ie, negative inner speech and internal dialogue) and depressive symptoms; lower self-esteem is associated with depressive symptoms; high stressful life events are associated with depressive symptoms; poor social support is associated with depressive symptoms, and stigma about depression is correlated with depressive symptoms. Conversely, higher levels of resiliency and spiritual well-being are negatively associated with depressive symptoms, and may serve as a buffer against depression.

Analyses including all assessment measures and demographic variables indicated several statistically significant correlations among the variables (Table 4). Concerning depressive symptoms and demographic/background variables, low negative correlations were indicated for women with health insurance ($r = -.35$, $p < .01$), high income levels ($r = -.38$, $p < .01$), being married ($r = -0.29$, $p < .05$), and older age ($r = -0.28$, $p < .05$). This suggests that women in these categories may be at a lower risk for depressive symptoms. Depressive symptoms were positively associated with the diagnosis of any illness/chronic disease ($r = 0.34$, $p < .01$), suggesting that women who experience challenges associated with a problematic health condition may be related to experiences of depressive symptoms.

Professional/academic sample of women—There were several statistically significant correlations among all of the assessment measures concerning professional women. Concerning depressive symptoms, positive relationships were indicated with negative and ruminative thinking ($r = 0.77$, $p < .01$), low self-esteem ($r = 0.55$, $p < .01$), high stressful life events ($r = 0.48$, $p < .05$), and depression stigma ($r = 0.62$, $p < .01$).

Clinic sample of women—There were several statistically significant correlations among all of the assessment measures concerning professional women. Concerning depressive symptoms, strong positive correlations were indicated with negative and ruminative thinking ($r = 0.83$, $p < .01$), low self-esteem ($r = 0.73$, $p < .01$); moderately positive relationships were indicated with high stressful life events ($r = 0.42$, $p < .05$) and low social support ($r = 0.44$, $p < .05$). A negative relationship was found between depressive symptoms and resiliency ($r = -0.55$, $p < .01$) for this group.

Community sample of women—There were several statistically significant correlations among all of the assessment measures concerning women from the community. Concerning depressive symptoms, strong positive relationships were indicated with negative and ruminative thinking ($r = 0.83$, $p < .01$), low self-esteem ($r = 0.73$, $p < .01$); moderately positive relationships were indicated with high stressful life events ($r = 0.42$, $p < .05$) and low social support ($r = 0.46$, $p < .05$). A negative relationship was found between depressive symptoms and resiliency ($r = -0.55$, $p < .01$).

DISCUSSION

The purpose of this study was to foster greater understanding about depressive symptoms among groups of African American women generated from clinic, community, and professional/academic settings. Findings are intended to provide greater insight into some of the experiences of these women as well as to highlight selected biological, psychological, and sociocultural constructs that may be important considerations for discerning depressive symptoms among this population.

The African American women that participated in the study were diverse regarding age, employment status, educational levels, household income, professions/fields of work, health care insurance status, and history of diagnosed illnesses. The study discerned similarities and differences among research participants generated from a local community, a busy

primary care clinic, and a professional/academic site in order to ascertain a better breadth of knowledge about these women's views, perceptions, and experiences relative to depressive symptoms; and it supports the notion of heterogeneity and cultural diversity among African American women.

Symptoms of depression were in the mild range for the professional, clinic, and community subsamples of women; however, they may be at risk for future progression toward moderate and severe depressive symptoms. Close examination of these women's endorsement of specific depressive symptoms indicated that many of these women experienced distress, particularly regarding feelings of pessimism; guilt; self-criticalness; agitation; indecisiveness; loss of energy; irritability; chronic tiredness and fatigue; difficulty concentrating; and somatic symptoms, including problems sleeping and changes in their appetite. The professional/academic women indicated the lowest levels of depressive symptoms compared to the community and clinic samples. This may in part be due to their greater sense of stability relative to employment, higher levels of formal education attained, higher incomes, more coverage of health insurance, and they were more likely to be married than the other 2 groups, yet professional women reported more experiences of high blood pressure, diagnoses of cancer, lower self-esteem, and lower social support than the women from the clinic and community subsamples. Interestingly, although depressive symptoms were reported highest among the community group based on the Beck Depression Inventory, Second Edition assessment measure, it was the clinic sample of women that most reported being formally diagnosed with depression. This may in part be due to their accessibility to a primary care provider that may inquire about their mental health status and refer them more frequently to a mental and/or behavioral health care specialist. Additionally, these women indicated moderate levels of social support, which may in part come from clinic providers and staff in the primary care setting. Nevertheless, the women from the clinic setting also reported the highest levels of negative and ruminative dysfunctional thinking, which was found to have the strongest relationship with depressive symptoms. However, the community sample of women reported the highest levels of stressful life events, which may suggest their greater exposure to social and environmental problems (ie, neighborhood violence, poor community resources) more so than the other 2 groups of women.

There were no statistically significant differences among the 3 groups relative to resiliency, spiritual well-being, and stigma about depression. It is suggested that resiliency and spirituality/religiosity are deeply rooted in African American culture, and thus these concepts may represent a salient existence for many African American women, regardless of their individual backgrounds and experiences. Furthermore, African American women, as a group, have historically been perceived as strong, spiritually grounded, and able to cope simultaneously with a myriad of difficult circumstances that engenders these constructs. Stigma about mental illness and depression is a pervasive and problematic issue in the African American community and, thus, it was no surprise that these women reported relatively high degrees of stigma about depression and the beliefs that individuals in their social networks have negative views about depression and how it impacts individuals and families. There is a need for greater emphasis on community education about depression in the African American community, particularly concerning prevention, early recognition, treatment strategies, and coping mechanisms.

There were many significant relationships that emerged with the biological, psychological, and sociocultural variables that correlated with each other in addition to a link with depressive symptoms. This supports the ideology that the selected constructs and instruments used to assess them may be important considerations to understanding depressive symptoms among diverse African American women. In particular, the strong positive association between these women's maladaptive styles of thinking (ie, negative

inner speech and internal dialogue) and depressive symptoms was determined. This suggests that negative cognitions may contribute to the production of depressive states and, conversely, depressive states can amplify the likelihood of stimulating unconstructive thinking patterns, which may further sustain symptoms of depression. Concerning self-esteem, lower self-esteem was found to be associated with depressive symptoms. Thus, individuals that have poor self-perceptions and dissenting views regarding their self-worth/value may intensify pessimistic experiences and symptoms of depressive symptoms. Prevention and intervention approaches that use a cognitive-behavioral therapeutic framework may be useful for African American women since the cognitive-behavioral therapeutic approach assists individuals with defining problems cognitively as well as behaviorally, and it promotes cognitive, emotional, and observable behavioral change and relapse prevention. The cognitive-behavior viewpoint stresses the role of cognitions (thoughts), conceptions of the self, control beliefs, self-regulation, and stress on the development of maladaptive attitudes and behaviors. Thus, approaches that offer strategies to address cognitive distortions that can help to modify negative perceptions of self, pessimistic inner speech/self-talk, and dissenting views of life experiences may be useful with this population.

High stressful and negative life events were also found to be associated with depressive symptoms. Some of these events included the death of a loved one, divorce, loss of a job and financial concerns, serious legal problems, personal crises, physical attack/assault/injury, and presence of a serious illness. Stress associated with these types of problems issues can exacerbate symptoms of depression and contribute to difficulty handling challenging life circumstances. Stress is one of the most consistent findings in the research literature, suggesting that it can increase risk and vulnerability for various health and mental health problems.

Poor social support was associated with depressive symptoms, and this suggests that for African American women it is particularly important to have family and friends as a network to aid in sustainability of mental health and wellness. The presence of any diagnosed illness was associated with depressive symptoms, which is not surprising, since any negative change in health status may cause a person to worry excessively and thus elevate their risk and vulnerability for depressive symptoms. Several research studies have indicated the link between depressive symptoms and several chronic diseases which support the current study's findings.

Study Limitations

Limitations to the present study must be acknowledged. First, use of a relatively small convenience sample vs a larger random sample limits the external validity of the investigation. The selected groups of women represent only a small segment of African American women in the Atlanta area. Future studies utilizing larger and random samples of African American women may shed greater insight into this area of research. Second, all of the assessments utilized in the study were self-report measures. Despite the wide utility of self-report instruments, the possibility of inaccurate reporting, social desirability, and misinterpretation of survey items exists.

Implications

Despite study limitations, our study had several significant implications. In particular, this research adds to the dearth of empirical data concerning depressive symptoms and its correlates for a diverse sample of African American women. We were also able to validate the feasibility of using selected well-known self-report assessment instruments for the detection of constructs of interest that will be useful in a larger scale study that will test a

conceptual biopsychosocial model for evaluating the risks and protective factors that may increase susceptibility for depressive symptoms among diverse African American women. Such findings may be used to develop culturally relevant strategies (ie, curriculum-based wellness tool kit) for the prevention of depression and the promotion of mental health and wellness for diverse African American women.

Women of color in general and African American women in particular are faced with many challenges throughout their lives relative to their historical, cultural, and social structural position in the United States. These issues, in addition to individual, familial, and community responsibilities, heighten this population's vulnerability for depressive symptoms. Therefore, it is imperative that researchers, clinicians, and public health professionals carefully examine mental and behavioral health conditions, especially depressive symptoms, from holistic, multidimensional, culturally responsive, and contextual perspectives. This will aid in the ability to appropriately discern the complexities associated with improving psychological well-being for African American women.

Acknowledgments

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Table 1

Participant Demographic Information Among Total and Subsamples of African American Women

Demographic Variable	Total M	Total SD	Professional M	Professional SD	Clinic M	Clinic SD	Community M	Community SD
Age	44.73	12.04	45.88	10.97	45.65	13.44	41.40	11.66
	N	%	N	%	N	%	N	%
	63	100	25	39.7	23	36.5	15	23.8
Marital status								
Single	20	35.7	5	20.8	9	47.4	6	50.0
Married	20	35.7	12	50.0	5	26.3	2	16.7
Divorced	15	26.8	7	29.2	4	21.1	4	33.3
Cohabitating	1	1.8	0	0	1	4.3	0	0
No. of children								
0	13	24.1	4	19.0	7	35.0	2	16.7
1	14	25.9	8	38.1	4	20.0	1	8.3
2	15	25.9	5	23.8	5	25.0	4	33.3
3	9	16.7	3	14.3	3	15.0	3	25.0
4	4	7.4	1	4.8	1	4.3	2	16.7
Employment status								
Unemployed	16	26.7	1	4.2	10	45.5	5	38.5
Part-time	2	3.3	0	0	1	4.5	1	7.7
Full-time	30	50.0	22	91.7	3	13.6	4	30.8
Temporary	1	1.7	1	4.2	0	0	0	0
Retired	5	7.9	0	0	5	22.7	0	0
Disabled	2	3.3	0	0	1	4.5	1	7.7
Student	2	3.3	0	0	1	4.5	1	7.7
Homemaker	2	3.3	0	0	1	4.5	1	7.7
Highest level of education								
Some high school	3	4.8	0	0	1	4.3	2	15.4
High school	3	8.1	1	4.0	3	13.0	1	7.7
Technical or vocational	7	11.3	1	4.0	4	17.4	2	15.4

Demographic Variable	Total M	Total SD	Professional M	Professional SD	Clinic M	Clinic SD	Community M	Community SD
Some college	27	43.5	9	36.0	12	52.2	6	46.2
College	13	21.0	8	32.0	3	13.0	1	7.7
Postgraduate/profession	7	11.3	6	24.0	0	0	1	7.7
Total household income								
<$5000	14	23.3	1	4.2	10	47.6	3	21.4
$5000–$9999	2	3.3	0	0	1	4.8	1	7.1
$10000–$14999	6	10.0	0	0	3	14.3	3	214
$15000–$24999	5	8.3	1	4.2	3	14.3	1	7.1
$25000–$34999	7	11.7	4	16.7	2	9.5	1	7.1
$35000–$49999	12	20.0	6	25.0	2	9.5	4	28.6
$50000–$74999	6	10.0	5	20.8	0	0	0	0
$75000–$99999	5	8.3	5	20.8	0	0	0	0
$100000–$149999	2	3.3	1	4.2	0	0	1	7.1
$150000–$199999	0	0	0	0	0	0	0	0
$200000–$249999	1	1.6	1	4.2	0	0	0	0
$250000	0	0	0	0	0	0	0	0

Table 2

Other Participant Demographic Information Reported by Total and Subsamples of African American Women

Demographic Variables	Total N	Total %	Professional N	Professional %	Clinic N	Clinic %	Community N	Community %
Household income level								
Low (<$5000–$34999)	34	56.7	6	25.0	19	90.5	9	60.0
Middle ($35000–$74999)	18	30.0	11	45.8	2	9.5	5	33.3
High ($75000–$249999)	8	13.3	7	29.2	0	0	1	6.7
Health insurance coverage								
Uninsured	17	27.9	0	0	12	54.5	5	35.7
Fee for service/private insurance	2	3.3	1	4.2	1	4.5	0	0
HMO	11	18.0	6	25.0	0	0	5	35.7
PPO	18	29.5	16	66.7	0	0	1	7.1
Medicaid	3	4.9	1	4.2	1	4.5	1	7.1
Medicare	2	3.3	0	0	1	4.5	1	7.1
Other	8	13.1	0	0	7	31.8	1	7.1
Profession/field of work								
Business/finance	3	5.3	1	4.2	2	10.0	0	0
Education	4	7.0	2	8.3	0	0	2	16.7
Health care	11	19.3	3	12.5	4	20.0	4	33.3
Administrative	17	29.8	13	52.0	1	5.0	2	16.7
Entertainment/arts	2	3.5	0	0	2	10.0	0	0
Communications	2	3.5	2	8.3	0	0	0	0
Childcare	0	0	0	0	0	0	0	0
Government	2	3.5	0	0	1	5.0	1	8.3
Computer technology	1	1.8	0	0	1	5.0	0	0
Construction	0	0	0	0	0	0	0	0
Retail	1	1.8	0	0	1	5.0	0	0
Food service	1	1.8	0	0	1	5.0	0	0
Project management	1	1.8	1	4.2	0	0	0	0
Other	12	21.1	2	8.3	7	35.0	2	14.3

Table 3

Psychological, Sociocultural and Biological Variables of Interest

Assessment Measures	Total Sample Mean (SD)	Professional/Academic Mean (SD)	Clinic Mean (SD)	Community Mean (SD)	F	p^a
Age	44.73 (12.04)	45.88 (10.97)	45.65 (13.44)	41.40 (11.66)	0.749	.477
Beck Depression Inventory–2nd Ed	14.59 (10.56)	9.91 (6.82)	16.65 (11.93)	18.60 (11.00)	4.174	.020
Self-esteem Scale	18.25 (5.89)	15.84 (3.44)	19.26 (6.32)	20.73 (7.20)	4.153	.020
Automatic Thoughts Questionnaire	27.06 (9.26)	23.56 (5.99)	30.41 (11.91)	28.00 (7.65)	3.584	.034
Stressful Life Events Scale	17.21 (10.73)	13.32 (9.15)	18.39 (8.57)	21.87 (14.07)	3.450	.038
Social Support Appraisals Scale	27.43 (8.65)	23.16 (6.96)	31.52(9.35)	28.27 (7.09)	6.746	.002
Connor-Davidson Resilience Scale	69.58(14.61)	74.92(12.28)	66.83(17.22)	65.27(11.64)	2.822	.068
Spiritual Well-being Scale	42.16(14.13)	37.46(12.06)	46.65(15.74)	42.86(12.95)	2.646	.079
Depression Stigma Scale	31.48(9.55)	31.04(10.37)	31.87(9.60)	31.60(8.61)	.045	.956
Diagnosed health condition	1.89(1.62)	1.60(1.22)	2.22(1.65)	1.87(2.10)	.871	.424

[a] Bold items statistically significant at p .05 level.

Table 4

Correlation Coefficients for Sample Demographic Information and Psychological, Sociocultural, and Biological Measures

Measures	Beck Depression Inventory, Second Edition	Automatic Thoughts Questionnaire	Self-esteem Scale	Stressful Life Events Scale	Connor-Davidson Resilience Scale	Spiritual Well-being Scale	Depression Stigma Scale	Social Support Appraisals Scale	Diagnosed Health Condition	Insurance	Children	Income	Education	Marital Status	Employment	Age
Beck Depression Inventory-2nd Ed	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Automatic Thoughts Questionnaire	0.796[b]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Self-esteem Scale	0.584[b]	0.534[b]	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Stressful Life Events Scale	0.432[b]	0.409[b]	0.271[a]	–	–	–	–	–	–	–	–	–	–	–	–	–
Connor-Davidson Resilience Scale	-0.487[b]	-0.472[b]	-0.479[b]	-0.237	–	–	–	–	–	–	–	–	–	–	–	–
Spiritual Well-being Scale	-0.487[b]	0.511[b]	-0.442[b]	0.324[a]	-0.576[a]	–	–	–	–	–	–	–	–	–	–	–
Depression Stigma Scale	0.367[b]	0.394[b]	0.152	0.212	-0.063	0.251	–	–	–	–	–	–	–	–	–	–
Social Support Appraisals Scale	0.465[b]	-427[b]	0.507[b]	0.209	0.564[b]	0.015	0.124	–	–	–	–	–	–	–	–	–
Diagnosed health condition	0.341[b]	0.300[a]	0.320[a]	0.108	-0.230	-0.170	-0.008	-0.084	–	–	–	–	–	–	–	–
Insurance	-0.352[b]	-0.278[a]	-0.248	-0032	0.191	-0.079	-0.110	-0.197	-0.084	–	–	–	–	–	–	–
Child	-0.003	0.040	0.020	-0.031	0.088	-0.038	-0.153	-0.249	-0.026	-0.096	–	–	–	–	–	–
Income	-0.385[b]	-0.266[a]	-0.359[b]	-0.229	0.404[b]	0.048	-0.065	-0.579[b]	-0.344[b]	0.391[b]	0.298[a]	–	–	–	–	–
Education	-0.126	-0.152	-263	-0.178	0.192	0.106	0.125	-0.039	-0.037	0.054	-0.047	-0.149	–	–	–	–
Marital status	-0.297[a]	-0.089	-0.259	-0.071	0.157	-0.122	-0.203	-0.536[b]	-0.047	0.330[a]	0.1790	0.622[b]	-0.223	–	–	–
Employment	-0.244	-0.133	-0.229	-0.342[b]	0.077	0.270[a]	0.072	-0.358[b]	-0.347[b]	0.452[b]	0.125	0.556[b]	0.015	0.191	–	–
Age	-0.282[a]	-0.287[a]	-0.264[a]	-0.187	0.164	0.019	-0.254[a]	0.008	0.363[b]	0.146	0.209	00.076	0.007	-0.030	-0.203	–

[a] Statistically significant at *p* .05.

[b] Statistically significant at *p* .01, N = 63.