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African American Women's Beliefs About Mental Illness, Stigma, and Preferred Coping Behaviors

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Abstract

We examined African American women's representations/beliefs about mental illness, preferred coping behaviors if faced with mental illness, whether perceived stigma was associated with treatment-seeking, and if so, whether it was related to beliefs and coping preference, and whether these variables differed by age group. Participants were 185 community-dwelling African American women 25 to 85 years of age. Results indicated the women believed that mental illness is caused by several factors, including family-related stress and social stress due to racism, is cyclical, and has serious consequences but can be controlled by treatment. Participants endorsed low perceptions of stigma. Major preferred coping strategies included praying and seeking medical and mental health care. Age differences were found in all variables except stigma.

Keywords

African American women; beliefs about mental illness; attitudes about mental illness; stigma; coping behaviors

Approximately 7.5 million African Americans have a diagnosed mental illness, and up to 7.5 million more may be affected but are undiagnosed (Davis, 2005). Women may be over-represented in these populations given the reported 2:1 gender ratio of depression (Immerman & Mackey, 2003). Additionally, negative sociopolitical experiences including racism, discrimination, and sexism put African American women at risk for low-income jobs, multiple role strain, and health problems, all of which are associated with the onset of mental illness (Schneider, Hitlan, & Radhakrishnan, 2000). Older African American women may be at particularly high risk for developing mental illness due to disability from chronic medical conditions, caregiver strain, social isolation, bereavement, exposure to traumatic events (elder abuse, violence, living in crime ridden neighborhoods), and poor access to health care (Areán & Reynolds, 2005; Artinian, Washington, Flack, Hockman, & Jen, 2006).

Although African American women are burdened by mental illness, their use of mental health services is low (Matthews & Hughes, 2001; Neal-Barnett & Crowther, 2000). Stigma has been identified as the most significant barrier to seeking mental health services among African Americans (Thompson-Sanders, Bazile, & Akbar, 2004; U.S. Department of Health and Human Services (US DHHS) 2001), but very little attention has been given to examining stigma, the beliefs about mental illness that may be associated with stigma, and how these beliefs may affect the approach to coping. The purpose of this study was to examine African

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American women's beliefs about mental illness, perceived stigma related to mental illness and its treatment, and how they would cope if diagnosed with a mental illness. Because there have been changes in both treatment of and attitudes about mental illness in the last few decades, we also examined whether beliefs, coping behaviors, and stigma were different for young, middle-aged, and older African American women.

Beliefs about mental illness, including stigma related to mental illness, are prevalent in society whether or not an individual has direct experience with a mental illness. Thus, beliefs have the potential to affect how an individual responds to symptoms of a mental illness in one's self and in others. Does one seek care or not? Does one seek support or not? For this reason, it is important to understand generally held beliefs about mental illness and to examine how these beliefs affect how individuals might cope with mental health problems. Examining beliefs in African American women may be particularly important because of their increased risk of mental illness and low rates of treatment or treatment-seeking. In addition, although past researchers have reported attitudes about mental illness and treatment, in general, their studies have not been theoretically driven nor have they systematically assessed beliefs.

A theory that is useful in understanding beliefs about illness is the common sense model (CSM). The CSM, which postulates that individuals have common sense beliefs (representations) about illnesses that guide how they cope with health threats (Leventhal, Nerenz, & Steele, 1984; Petrie, Jago, & Devcich, 2007). A representation is a set of beliefs about the identity, cause, timeline, consequences, and control of the health threat. Representations influence the behaviors chosen to eliminate or control the health threat (i.e., coping responses). The CSM has been used to examine beliefs and coping with a number of illnesses, including hypertension, cancer, Alzheimer's disease, chronic fatigue syndrome, diabetes, and asthma. Researchers using the CSM have shown that beliefs about illness severity, symptoms, consequences, and chronicity (time-line) are related to treatment-seeking, adherence to treatment, symptom reporting, and other health-related behavior change (Frostholm et al., 2005; Petrie et al., 2007). Very few investigators have examined representations of mental illnesses, and to our knowledge, the CSM has not been used to examine beliefs about mental illness and coping among African Americans.

Attitudes (Beliefs) Toward Mental Illness, Coping, and Stigma

Most researchers focusing on African Americans and stigma related to mental illness have found a long history of negative attitude toward mental illness and a high degree of stigma associated with it (National Mental Health Association (NMHA), 1998; Silva de Crane & Spielberger, 1981; Thompson-Sanders et al., 2004; US DHHS, 2001). In an early study, Silva de Crane and Spielberger found that Blacks perceived persons hospitalized for mental illness as different and inferior to normal people and believed these patients should be restricted to protect society. In the 1990s, a public opinion poll showed that 63% of African Americans believed depression was a personal weakness, and only 31% believed depression was a health problem (NMHA). More recently, Thompson-Sanders et al. found that mental illness in the African American community was associated with shame and embarrassment, and both the affected individual and the family hid the illness. In sum, stigma continues to be a pervasive problem in the African American community, which is vividly conveyed by a participant in a recent qualitative study "I made the mistake of telling my best friend. He said, 'you're crazy? Oh my God, I can't believe it. Get away from me. You're dangerous'" Matthews, Corrigan, Smith, & Aranda, 2006, p. 261.

Although studies of attitudes and beliefs specific to African American women are scarce, a recent qualitative study of African American women's beliefs about depression found the women believed they were not susceptible to depression (Waite & Killian, 2008). They

believed that an individual develops depression due to having a “weak mind, poor health, a troubled spirit, and lack of self-love” (p. 189). These women also identified stigma as a significant barrier to seeking mental health services. Consistent with Waite and Killian, in two earlier studies focusing on African American women, stigma was prevalent and a barrier to help-seeking in African American, as well as Latina and White, women (Alvidrez, 1999; Van Hook, 1999).

Few researchers have focused on African American women's coping behaviors (Oakley, Song, & DeBose-McQuirter, 2005), however, the literature on mental health service use provide some insight into coping behaviors among African American. Use of mental health services by African American men and women across adulthood is low compared to Whites (US DHHS, 2001). Researchers at the California Black Women's Health Project (CABWHP, 2003) found only 7% of African American women with symptoms of a mental illness sought treatment. In one study, only 13% of African American women with panic disorder sought treatment (Neal-Barnett & Crowther, 2000), and in another, older African American women experiencing depression, compared to those under age 50, were less likely to be currently participating in therapy (Matthews & Hughes, 2001). When mental health services were utilized, African American women and men were more likely to report negative attitudes compared to Whites and were less likely to return to mental health agencies if their illness continued (Diala et al., 2000).

Although useful, the research described above does not provide much information about other coping behaviors such as use of primary care providers, medications, social services, pastors, informal support, or avoidance. In a recent study in which acceptability of depression treatment was examined, the results suggested that, compared to Whites, African Americans were less likely to find antidepressant medication and counseling acceptable (Cooper et al., 2003). More recent research on coping has focused on religious coping. Chatters, Taylor, Jackson, and Lincoln (2008) examined religious coping when dealing with stressful situations among African Americans, Caribbean Blacks, and non-Hispanic Whites. They found that African Americans (90.4%) and Caribbean Blacks (86.2%) reported higher use of religious coping compared to non-Hispanic Whites (66.7%). Although the two studies described above provide more information about modes of treatment less acceptable to African Americans (antidepressants and counseling), and one mode that is acceptable (religious coping), neither provided information about other coping strategies that may be more acceptable to this group. In addition, the data provided do not provide information specific to African American women. Research examining acceptable coping and modes of care could aide in developing interventions tailored to patients instead of trying to fit patients to usual care treatment (Oakley et al., 2005; Ryan & Lauver, 2002).

African American women's use of mental health services also may be influenced by barriers, including access (inaccessible location, transportation problems, lack of health insurance, and poverty), availability of services (few opportunities for group counseling and in-home services), social issues (lack of childcare), poor quality of care (limited access to culturally competent clinicians and case management), and cultural matching (few opportunities to work with racial and ethnic minority clinicians; Cristancho, Garces, Peters, & Mueller, 2008; Miranda et al., 2003; Tidwell, 2004). In addition, a sociopolitical history involving trauma and victimization of African Americans served to foster cultural mistrust toward the U.S. health care system (Whaley, 2001). Most of the barriers research has focused more on barriers external to the individual, such as access and poor quality care. Missing from the barriers literature are internal barriers, such as beliefs about cause, course, outcome, and treatment of mental illness. In a recent study Anglin, Alberti, Link, and Phelan (2008) examined beliefs about mental health treatment effectiveness and found that African Americans believed mental illness can remit without professional help, thus, fostering the belief that mental health treatment was

unnecessary. Their results underscore the need to examine beliefs more broadly, as emphasized in the CSM.

Beliefs About Mental Illness and the CSM

The CSM postulates that people construct lay theories, called representations, of health threats or illnesses based on ideas, attitudes, and beliefs which have been formed through experience, cultural traditions, formal education, and stories from family and friends. Thus, they may be informed by cultural background and age (Diefenbach & Leventhal, 1996; Ward, 1993).

Five key dimensions of illness representations have been identified: identity, cause, timeline, consequences, and cure or controllability of an illness. Moss-Morris et al. (2002) added two more dimensions, illness coherence and emotional representation. In the case of mental illness, Identity focuses on beliefs about the symptoms associated with the illness. Cause refers to beliefs about factors which can cause mental illness or are associated with the onset of mental illness. Timeline relates to beliefs about whether an illness is acute, chronic, or cyclic. Consequence refers to beliefs about the short- and long-term outcomes of an illness. Cure/control includes beliefs about the curability or controllability of an illness. Illness coherence refers to an individual's beliefs about their understanding of mental illness. Finally, Emotional representation refers to an individual's beliefs about their own emotional reaction/response to mental illness.

Representations may or may not be medically correct, however, they can have a significant influence on how individuals cope with health threats. In the context of the CSM, coping is defined as behavioral strategies implemented during times of stress (i.e., threat of an illness) that are consistent with the individual's representations/beliefs of the illness. For example, a Black woman who believes that living with psychological pain is part of her role as a "strong Black woman" may not perceive that pain as a health threat and may cope by enduring rather than seeking treatment (Thompson-Sanders et al., 2004), or an older African American woman may not seek treatment for a depressed mood because of her belief that "feeling blue" is a normal part of aging (Chapman & Perry, 2008).

Although the CSM has been used to study beliefs about numerous physical illnesses (Hagger & Orbell, 2003), it has only recently been applied to study beliefs about mental illnesses such as schizophrenia, depression, and eating disorders (Holliday, Wall, Treasure, & Weinman, 2005; Karasz, 2005; Lobban & Barrowclough, 2005). However, to our knowledge it has not been used in an African American population despite a call for its use with racial and ethnic minorities (Diefenbach & Leventhal, 1996). Due to African Americans' low use of mental health services and the stigma associated with mental illness in the African American community, we decided to examine beliefs and preferred coping with a sample of community-dwelling African American women rather than a clinical sample. To this end, we asked the following research questions:

1. What are African American women's representations (beliefs) regarding mental illness?
2. How do African American women believe they would cope if faced with mental illness?
3. Is perceived stigma associated with preferred approaches to coping with mental illness and beliefs about mental illness?
4. Are there age differences in representations, coping, and perceived stigma?

Method

Study Design and Sample

An exploratory, cross-sectional survey design was used, and data were collected in 2005–2006. African American women from three age groups were recruited: young (25–45 years), middle-aged (46–65 years), and old (66–85 years). Age groups were based on the conventional groupings in lifespan developmental research. An a priori power analysis determined that a sample size of 53 participants per age group would provide power of .80 to detect a medium effect size (.25) at an alpha of .05 in examining age group differences in representations, coping, and stigma. Women were eligible regardless of history of mental illness, as we were interested in participants' beliefs regardless of their experience with mental illness.

Although the expectation was to include data on history of mental illness as a major factor in a person's beliefs about mental illness and coping preferences, at the time this study was conducted, the local Institutional Review Board (IRB) would not approve asking participants whether or not they had a mental illness diagnosis. The IRB was concerned about loss of confidentiality, because the African American community in which the study was conducted is small, and there were fears that participants could theoretically be identifiable. As a result, the IRB considered our sample to be potentially vulnerable.

A total of 246 survey packets were distributed; 198 were completed, and 13 were unusable due to extensive missing data. The final sample consisted of 185 (response rate = 80%) women in three age groups: young ($M = 35$ years, $SD = 6.4$, $n = 69$), middle-aged ($M = 53$ years, $SD = 5.2$, $n = 64$), and old ($M = 74$ years, $SD = 5.7$, $n = 53$). The median level of education was 2 years of college or technical school. Annual household income ranged from \$0 to \$80,000, with a median of \$20,001–\$30,000. In addition, 64.6% reported an income lower than \$30,000, 24.9% reported incomes of \$30,001–\$60,000, and 10% reported $\geq \$60,001$. Over half of the participants described their socioeconomic status as working class (55%); 50% of the older women were retired. Twenty-six percent were married or living with a partner, 28% had never married, 20% were widowed, and 19% were divorced. The mean number of children was 2.9 ($SD = 2.5$). Demographic variables were examined for differences by age group. The only significant difference was that older women had significantly more children ($M = 4.4$, $SD = 3.2$) than young ($M = 2.1$, $SD = 1.9$) and middle-aged women ($M = 2.8$, $SD = 1.9$).

Measures

Demographic questionnaire—Year of birth, income (increments of \$10,000 from \$0 to \$80,000), marital status (married/living with partner, separated, divorced, widowed, never married), number of children, and level of education (elementary, completed 8th grade, high school diploma, 2-year college/technical college, bachelor's, master's, doctorate degree) were collected using the demographic questionnaire.

Representations of mental illness—Representations/beliefs about mental illness were measured using the *Illness Perception Questionnaire-Revised* (IPQ-R), which was developed based on the CSM (Moss-Morris et al., 2002). The IPQ-R consists of nine subscales: Identity, Cause, Time-line Cyclical, Timeline Acute/Chronic, Consequences, Treatment Cure/Control, Personal Cure/Control, Illness Coherence, and Emotional Representation. For this study, eight of the subscales (all except Identity) were used. The 16-item Cause subscale assesses beliefs about what factors may cause mental illness. The 4-item Timeline Cyclical subscale assesses the degree to which the respondent believes that mental illness is cyclical in nature. The 6-item Timeline Acute/Chronic subscale assesses the degree to which the respondent believes mental illness is chronic. The 6-item Consequences subscale measures the degree to which outcomes of mental illness for self and others are considered serious and negative. The 5-item Treatment

Cure/Control subscale assesses the degree to which the individual believes mental illness is curable or controllable through medical treatment, whereas the 6-item Personal Cure/Control subscale measures beliefs about whether the individual can control mental illness. The 5-item Illness Coherence subscale assesses the extent to which an individual perceives he/she has a good understanding of mental illness. Finally, the 6-item Emotional Representation subscale assesses the degree of negative emotional responses to mental illness. Each subscale utilizes a 5-point Likert-type response scale ranging from one (*strongly disagree*) to five (*strongly agree*).

We made minor changes to all IPQ-R subscale wording, consistent with the developers' suggestions for adapting the scale (Moss-Morris et al., 2002). For example, "My illness will last a long time" was changed to "Mental illness will last a long time."

In previous studies, the IPQ-R has shown good discriminant, known group, and predictive validity, as well as acceptable internal reliability, with subscale alphas ranging from .79 to .89 (Moss-Morris et al., 2002). Reliabilities in the present study ranged from .54 to .83. Two subscales, Timeline Acute/Chronic and Personal Cure/Control, had low reliabilities (<.70) of .55 and .54, respectively (discussed in the Limitations Section).

To assess identity/symptoms associated with mental illness, we used the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) rather than the Identity subscale of the IPQ-R. The latter was designed to assess individuals' beliefs about the symptoms associated with physical illnesses (e.g., nausea, stiff joints, sore eyes) and does not include symptoms associated with mental illnesses. The BSI includes 53 symptoms associated with mental illness and was designed to assess symptoms of mental illness in clinical patients. The 53 symptoms of mental illness on the BSI represent nine domains: anxiety, depression, obsessive compulsive, psychotic, hostility, paranoid ideation, phobic anxiety, interpersonal sensitivity, and somatization. We changed the directions for responding to the scale, so that for each symptom respondents were asked whether they believed it was related to mental illness. Response options were changed from a Likert-type scale to dichotomous responses of 1 (*yes*) or 0 (*no*) in order to reduce response burden for older participants. Scores were summed to give a total score. Recent research indicates evidence of construct validity of the BSI with African Americans (Hoe & Brekke, 2009). The BSI has good internal consistency with a reported alpha of .96 (Derogatis & Melisaratos), consistent with an alpha of .96 in the present study.

Coping—A 14-item coping scale was developed for this study. Most of the items were selected from the Professional Help Use (PHU) measure used in the National Survey of Black Americans (NSBA) study (Neighbors & Jackson, 1996). The PHU was reported to have good face validity established through focus groups, back-translation, and a panel of mental health experts, however, no reliability data were reported (Mays, Caldwell, & Jackson, 1996). For use in the present study, five items were added to the PHU pertaining to use of religious ($n = 3$) and informal coping ($n = 2$). The 14 items were grouped into 4 coping subscales measuring: (a) Treatment-seeking (6 items); (b) Informal Support Network (2 items); (c) Religiosity (3 items); and (d) Avoidance (3 items). The coping scale initially was administered to two older African American women (mean age 65) and a mental health professional to assess content validity. They indicated that the content of the measure matched definition of the coping used in the present study. The internal consistency alpha coefficient for the full coping scale was .80. Subscales reliabilities were: Treatment-seeking $\alpha = .78$, Informal Support Network $\alpha = .62$, Religiosity $\alpha = .68$, and Avoidance $\alpha = .72$. Sample items included: "If I had a mental illness I would... "See a doctor" (Treatment-Seeking),... "talk to my family" (Informal Support Network),... "pray" (Religiosity),... "ignore the problem" (Avoidance)." Participants responded on a 4-point Likert-type scale ranging from one (*definitely not do*) to four (*definitely*

do), with higher scores indicating greater likelihood of coping in that fashion if faced with a mental illness.

Stigma—Stigma associated with seeking treatment for mental illness was assessed using two items selected from the NSBA (Neighbors & Jackson, 1996): (a) “How comfortable would you feel talking about a mental health problem with a professional?” and (b) “How embarrassed would you be if your friends knew you were getting professional help for a mental health problem?” Respondents rated each item on a 4-point Likert scale ranging from one (*not at all comfortable/embarrassed*) to four (*very comfortable/not embarrassed*). The embarrassment item was reverse scored. Items were summed, and higher scores indicated less perceived stigma. The alpha coefficient was only .55, which we attributed to it being a 2-item scale. This scale was selected because of its prior use and validation in a national sample of African Americans (Caldwell, 1996; Neighbors & Jackson).

Procedure

Approval to conduct this study was obtained from the University IRB. Written informed consent was waived to protect anonymity, which is a special concern in the African American community (Bogner et al., 2004). Women received an information letter that contained the elements of informed consent, including risks and benefits.

Potential participants received a research packet containing the information letter, demographic questionnaire, the IPQ-R, BSI, coping scale, stigma scale, a \$10.00 gift card, and a self-addressed postage-paid-envelope. The research packets were distributed at churches, a local hair salon, the YWCA, and community events, and through local advertising in the African American community. In addition, a snowball or acquaintance sampling strategy was used to recruit by inviting women to tell friends and family members about the research opportunity. Although the snowball method can raise concerns about the representativeness of the sample, it is an effective method to recruit hard to reach populations (Karasz, 2005). Prospective participants were given the opportunity to complete the packets immediately (in person) or to return by mail. Participants over 65 years of age were visited in their homes and received assistance with reading or completing the research packet if requested.

Data Analysis

Representations were examined using descriptive statistics. Correlational analyses were conducted to examine relationships among representations, coping, and stigma. To examine age differences, general linear modeling (GLM) procedures and post hoc tests were conducted, as indicated.

Results

Before conducting the main analyses, correlations among the demographic variables (income, education), representations, coping behaviors, and perceptions of stigma were performed to determine if any demographic variables needed to be controlled in further analyses. There were significant correlations between education and treatment control ($r = .17, p < .05$) and emotional representations ($r = .18, p < .05$), and between income and acute timeline ($r = -.18, p < .05$), treatment control ($r = .24, p < .01$), emotional representation ($r = -.23, p < .01$), and formal coping ($r = -.16, p < .05$). Because income was more often associated with other important variables, and because there were also significant correlations between income and education ($r = .31, p < .01$) and age ($r = -.20, p < .01$), income was used as a control variable in the main analyses.

Representations/Beliefs About Mental Illness

To address the first research question which examined African American women's representations/beliefs regarding mental illness, each dimension of the CSM was examined separately. For the identity dimension (BSI scale), women endorsed an average of 35.3 symptoms as being associated with mental illness ($SD = 13.1$, range = 1–53). Eighty percent or more of the participants believed the following were symptoms of mental illness: thoughts of ending your life (86.8), suddenly scared for no reason (85.8), spells of terror or panic (84.4), having urges to beat, injure, or harm someone (82.5), having urges to break or smash things (80.7), and the idea that something is wrong with your mind (80.1). Hot and cold spells (30.0) and numbness or tingling in parts of the body (34.2) were least endorsed symptoms.

For Cause, an exploratory factor analysis of the 16-item Cause subscale was performed using maximum likelihood factor extraction with varimax rotation to identify groups of causal beliefs. The scree plot indicated four factors, which accounted for 60.5% of the variance. All items were retained because all loadings were above .40. Table 1 shows the factor eigenvalues, factor loadings for each item, and the mean, standard deviation, and alpha for each factor (subscale).

The first factor, labeled Family-Related Stress, included five items focusing on stress, family stress, and violence. The second factor, labeled Social Stress, included three items focusing on work, racism and discrimination, and aging. The third factor consisted of two items focusing on Alcohol and Other Drugs. The fourth factor, labeled Unlikely Causes, included 6 items that focused on other behaviors, viruses, punishment from God, and pollution. Unlikely causes were labeled in this manner to highlight the lower level of endorsement compared to the other factors.

Subscale scores were computed by averaging across items for each factor. Cause subscales from most to least often endorsed were: Family-Related Stress, Social Stress, Alcohol and Other Drugs, and Unlikely Causes. Subscale means suggest family-related stress (family-related stress and violence) and social stress (work-related stress, racism and discrimination, and aging) were considered causes of mental illness. Mean scores for Alcohol and Other Drugs were slightly above the midpoint of the scale, indicating some agreement, while Unlikely Causes (viruses, punishment from God, and pollution) were less likely to be considered causal factors (see Table 1).

Mean scores of the remaining IPQ-R subscales were: Timeline Cyclical ($M = 3.7$, $SD = .64$, range = 1.5–5.0), Consequences ($M = 4.2$, $SD = .53$, range = 2.3–5.0), Treatment Cure/Control ($M = 3.8$, $SD = .54$, range = 2.0–5.0), and Personal Cure/Control ($M = 3.7$, $SD = .57$, range = 1.0–5.0), indicating participants believed mental illness is cyclical and has serious consequences, but can be controlled by treatment and personal motivation. Mean scores for the Timeline Acute/Chronic ($M = 3.2$, $SD = .58$), Illness Coherence ($M = 3.1$, $SD = .86$), and Emotional Representation ($M = 2.7$, $SD = .81$) subscales were near the midpoint ($M = 3$) of the scale, indicating neither strong agreement nor disagreement that mental illness can be acute or chronic, about having an understanding of mental illness, and on whether they are emotionally affected by mental illness.

Preferred Coping Strategies

The second research question queried how African American women would cope if faced with mental illness. Mean scores on the coping subscales indicated the women would “definitely” use religion ($M = 3.5$, $SD = .59$, range = 1–4), “probably” use informal support networks ($M = 3.2$, $SD = .84$, range = 1–4), “probably” seek treatment ($M = 2.9$, $SD = .84$, range = 1–4), and “probably would not” use avoidance coping ($M = 1.9$, $SD = .82$, range = 1–4).

Perceived Stigma

The third research question was whether perceived stigma was associated with coping and representations. The mean score on the 2-item Stigma scale was 3.1 ($SD = .78$, range = 1–4) suggesting relatively low levels of perceived stigma. Eighty-three percent of the women reported feeling comfortable talking to a health care professional, and 60% would not be embarrassed if friends knew they were seeking professional help for a mental health problem.

Perceived stigma was significantly related to coping: treatment-seeking ($r = .24, p < .01$), informal ($r = .23, p < .05$), religious ($r = .17, p < .05$), and avoidance coping ($r = -.27, p < .01$). That is, when perceived stigma was low, individuals were more likely to endorse seeking treatment, use informal and religious coping, and less likely to endorse avoidance coping. Perceived stigma was also significantly related to two domains of representations/beliefs: identity (number of symptoms; $r = .17, p < .05$) and treatment control ($r = .19, p < .01$); thus, when perceived stigma was low, individuals were more likely to attribute symptoms to mental illness and believe treatment can be effective.

Differences by Age Group

The fourth question, investigating age group differences in representations, coping, and perceived stigma, was examined using General Linear Modeling (GLM) procedures. Post hoc least significant difference tests (LSD) were used to examine significant differences (see Table 2).

For Cause, the 4 (Cause subscales) $\times$ 3 (age group) multivariate test was significant, $F(8, 340) = 3.82, p < .001$. Post hoc tests indicated that both middle-aged and older women were significantly more likely to believe alcohol and other drugs caused mental illness compared to younger women. In addition, older women had significantly higher endorsement and younger women.

For Coping, the 4 (Coping subscale) $\times$ 3 (age group) multivariate test was significant, $F(8, 344) = 3.34, p < .001$. Post hoc tests indicated older women were significantly more likely to indicate they would use religious coping than younger women and middle-aged women. In addition, older women were significantly more likely to indicate they would seek treatment than both younger and middle-aged women and less likely to use avoidance coping than younger and middle-aged women. No significant age differences were found for perceived stigma.

Discussion

The primary aim of this study was to examine African American women's representations/beliefs about mental illness, their preferred coping behaviors if faced with mental illness, whether perceived stigma associated with treatment-seeking was related to beliefs and preferred coping behaviors, and whether these variables differed by age group. The findings suggest the women understood some causes of mental illness, accurately identified many symptoms associated with mental illness, were aware that mental illness can be cyclical and have serious consequences, and believed mental illness can be controlled with treatment and personal motivation. Although these women endorsed treatment-seeking, they also identified faith, prayer, and informal support from friends and family as important preferred coping mechanisms. In addition, older women were more likely to endorse positive coping strategies (treatment-seeking). Contrary to much previous research, these women, regardless of age, reported low levels of stigma associated with seeking treatment.

The results of this study suggest that the CSM is a useful model for examining lay theories of mental illness and is also valid (with some caveats discussed in the Limitations Section) for

use in African-American women. That is, African American women did describe beliefs related to each domain of the CSM. A number of these beliefs were related to stigma, and, in turn, stigma was associated with all aspects of coping, including treatment-seeking. Although stigma is not part of the original CSM, these findings suggest that it may be an important factor in understanding lay theories about mental illness.

Beliefs About Causal Factors

The women believed experiencing family-related stress and social stress were possible causes of mental illness. The family-related stressors, including trauma, family problems, and violence, are supported in the research literature. Davis, Ressler, Schwartz, Stephens, & Bradley (2008) found that African Americans in low-income, urban communities are at high risk for exposure to traumatic events, including having relatives murdered and their own experience with physical and sexual assaults, all of which are associated with the onset of post-traumatic stress syndrome and depression. There also is a growing body of research linking mental health problems to family stress over time, family stress among grandparents raising grandchildren, and caregiver stress in individuals caring for aging or ill parents (Kasper et al., 2008; Kelch-Oliver, 2008; Kim, Knight, & Flynn-Longmire, 2007).

Similar to our findings, work-related stress, racism and discrimination have been positively associated with depressive symptoms and psychological distress among minority populations, especially African Americans (Peters, 2004; Williams & Williams-Morris, 2000). Research conducted in the 1980s–1990s indicated African Americans were more likely to be over-represented in unskilled occupations, with low wages, poor working conditions, and job instability (Broman, 2001). More recent research specifically examining work-related stress among African Americans suggests work stress includes racism and discrimination, token stress, which involves self-doubts stemming from low expectations held by others, rejection from co-workers, and sexual harassment of women (Brayboy Jackson & Stewart, 2003; Buchanan & Fitzgerald, 2008; Din-Dzietham, Nembhard, Collins, & Davis, 2004). Although we did not examine these factors, it is possible that our sample endorsed work stress as a causal factor due to these issues.

The women in the present study believed aging was a causal factor for the onset of mental illness. Current research suggests that older African American women experience more chronic physical illnesses than older White women, and these chronic physical illnesses increase the risk for mental illness (Areán & Reynolds, 2005). In the present study we did not collect physical health data, so we are unable to determine whether these women's beliefs about aging were related to their physical health. However, in a recent study of age, gender, and racial group differences in images of aging, only 2% of African Americans reported old age was a happy time compared to 60% of Whites (Foos, Clark, & Terrell, 2006). In addition, more than 75% of the African American participants named health or health care as a top concern for older adults, followed by retirement. These findings suggest one explanation for our participants' belief that aging can lead to the onset of mental illness.

Beliefs About Symptoms and Consequences of Having a Mental Illness

The participants accurately identified many symptoms of mental illness. In addition, most believed that mental illness can be cyclical and have serious consequences. This finding is interesting in light of a national survey conducted by the NMHA (1998), which found that 63% of the African American participants believed depression is a personal weakness, 31% believed depression is a health problem, and only 25% recognized signs of depression. The difference in findings could be attributed to a number of factors including cohort effects, gender differences, and increased knowledge about mental illness in the last 11 years.

Preferred Coping Strategies

Women in this study expressed a strong belief in religious coping, consistent with a recent findings indicating that 43% of African American female participants used religion to cope with serious health problems in the past year, including depression, cancer, and heart disease (Dessio et al., 2004). Although research supports the positive impact of religious coping, negative outcomes are possible. For example, most clergy members are not trained to address mental illness, hence people relying solely on the clergy may not receive the necessary care or may delay seeking assistance from trained mental health providers. Because women in this study reported they would definitely use religious coping, but only probably use informal support or seek treatment, more research into the relationship between religious coping and treatment-seeking and mental illness outcomes is needed.

Perceived Stigma Associated With Seeking Treatment for Mental Illness

Contrary to previous research indicating high levels of stigma associated with seeking mental health services among African Americans (Diala et al., 2000; US DHHS, 2001), the women in the present study indicated they would be somewhat comfortable talking with a mental health professional if faced with a mental health problem, and would not be very embarrassed if friends knew they were getting professional help. This discrepancy may be attributed to educational level; the median level of education among our sample was 2 years of college or technical college. It may also reflect the high level (compared to many communities) of mental health services available in this community and a history of community-based mental health care. On the other hand, this discrepancy also may be a measurement issue. Although the stigma measure we used had acceptable reliability, it was only a 2-item measure and perhaps did not capture many important dimensions of stigma.

Perceived Stigma Associated With Beliefs About Mental Illness

Previous investigators have not systematically examined the relationship between stigma and beliefs about mental illness. In these women, low levels of stigma were related to more accurate beliefs about the symptoms that may indicate mental illness as well as more positive views about the effectiveness of treatment for mental illness. These results are promising. On the other hand, stigma was not related to other dimensions of the CSM, such as consequences. This may be because levels of stigma were generally low (a floor effect), yet these women did perceive the consequences as serious. Future research using more comprehensive measures of stigma should explore these relationships.

Age Differences in Coping Behaviors

Older women were more likely to endorse religious coping than younger women, consistent with other research identifying religion as a key source of support in their lives (Daniels, 2004). Older women were also more likely to endorse the use of treatment-seeking and less likely to endorse use of avoidance coping compared to young and middle-age women. Because older women are more likely to have chronic health problems, along with disability due to medical conditions, their greater experience with the need for and use of health care services may translate into more openness to treatment-seeking in general, compared to their younger counterparts.

Limitations

Several limitations should be considered, a number of which are due to measurement issues. First, two of the IPQ-R subscales (Timeline and Acute/Chronic and Personal Control) had low reliability, which may indicate they lack validity for use with an African American population. Second, the coping scale was developed specifically for this study using items from the PHU questionnaire. Although the PHU was reported to have good face validity, and had been used

in the NSBA (Neighbors & Jackson, 1996), no reliability data were available. In sum, although the coping scale exhibited acceptable reliability for a new measure, further research is necessary to assess its validity and reliability.

Third, the stigma scale consisted of only two items. This measure was chosen because it had been used in the NSBA (Neighbors & Jackson, 1996); however, further information regarding the validity or reliability of this measure was not available. It is evident that 2 items cannot capture all of the domains related to stigma and that a more comprehensive measure might have led to different results. On the other hand, it may be that the level of perceived stigma regarding mental illness in this particular sample was actually low, based on some of the reasons previously discussed.

Fourth, use of the BSI to assess perceived symptoms of mental illnesses may raise concerns about the validity of the measure for our study. For instance, we did not include *decoy* items, which would allow for assessment of participants' ability to distinguish symptoms from non-symptoms. Thus, the BSI may have overestimated participants' beliefs regarding symptoms. It is important to note that the BSI was used in this manner because our intent was not to determine the correctness or incorrectness of participants' beliefs, rather to learn about their beliefs, about symptoms as beliefs (representations) may not be in accord with medical facts but, nonetheless, influence coping behaviors.

Finally, because of restrictions placed on data collection by the local IRB, no data were collected from the participants regarding personal experience with mental illness, as discussed in the Methods Section. Thus, the lack of mental health history data affects the generalizability of our findings. It is quite possible that beliefs about mental illness, coping behaviors, and perceived stigma may differ among women with and without a history of mental illness.

Future Research

The findings suggest numerous avenues for future research. Using the CSM to examine beliefs about mental illness in diverse populations appears promising for gaining information about beliefs about mental illness that may be unfounded or problematic, and directing efforts toward education to change erroneous beliefs. Future researchers examining the mental illness-related factors that comprise beliefs or influence beliefs (such as stigma) need to further test and extend the model. Given the exploratory nature of this study, relationships between beliefs and coping were not examined, thus, future study of these relationships is needed, as they may suggest avenues for intervention. For instance, if beliefs are related to whether or not individuals seek treatment (a coping behavior), interventions aimed at changing those beliefs might result in increased positive outcomes. Replication of this study with women who actually have a history of mental illness is warranted and would add to the scarce research in this area with African American women.

Because this study was narrowly focused on an African American female sample, future research should be extended to include African American men as well as other racial/cultural groups to determine whether there are gender and cultural differences in representations and preferred coping. In addition to examining gender differences, research is needed to examine age differences in coping with mental illness so that interventions can be developed to target the specific needs and preferences of men and women of different ages with the goal of providing patient-centered, culturally sensitive health care. Because of the complex social and cultural context that shapes representations, coping behaviors, and treatment-seeking, an in-depth qualitative study would likely yield meaningful and useful results.

Conclusion

To our knowledge, this is the first study of African American women's representations of mental illness, preferred coping behaviors, and perceived stigma. The participants accurately identified symptoms associated with mental illness, recognized that mental illness can be cyclical and have serious consequences, and believed that mental illness can be controlled by seeking treatment and personal motivation. They strongly endorsed use of religion, family members, and friends as coping strategies, and perceived low levels of stigma associated with seeking mental health services. The findings can inform future research, with the long-term goal of providing culturally sensitive mental health care and eliminating disparities in mental health and mental health care.

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Table 1
Factor Loadings Based on Exploratory Factor Analysis and Descriptive Statistics for the IPQ-R Cause Subscale

Factors/Items	Eigenvalue	Factor Loadings	M	SD	Reliability (α)
Family-Related Stress	5.27		4.0	.74	.76
Stressful childhood		.80			
Family problems		.62			
Victim of violence		.59			
Stress		.57			
Hereditary		.47			
Social Stress	2.07		3.7	.86	.76
Stress related to work		.74			
Racism and discrimination		.62			
Aging		.42			
Alcohol and Other Drugs	1.28		3.3	.91	.56
Alcohol use		.85			
Drug use		.81			
Unlikely Causes	1.04		2.7	.75	.73
Diet/eating habits		.71			
Germes/virus		.63			
Smoking		.49			
Punishment from God		.46			
Own behavior		.43			
Pollution		.40			

Table 2
Significant Differences in Beliefs and Preferred Coping by Age Group

	Young Mean (SD)	Middle Mean (SD)	Older Mean (SD)	<i>p</i> -Value for Post Hoc Test
Causal factors				
Alcohol and other drugs	3.1 (.92) ^a	3.4 (.90) ^b	3.6 (.81) ^b	.001
Unlikely causes	2.6 (.63) ^a	2.6 (.81) ^a	3.0 (.60) ^b	.05
Coping				
Religious	3.4 (.64) ^a	3.5 (.54) ^a	3.7 (.44) ^b	.05
Treatment-seeking	2.8 (.60) ^a	2.9 (.61) ^a	3.2 (.57) ^b	.05
Avoidance	2.0 (.79) ^a	2.0 (.80) ^a	1.6 (.77) ^b	.05

Note: Means within the same row with differing superscripts (i.e., ^a,^b) are significantly different based on Least Significance Difference tests, (LSD).