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Development and Validation of a Preliminary Measure of African American Women's Gender Role Beliefs

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Abstract

Gender role beliefs of African American women differ from those of women in other ethnic/racial groups and a culturally valid measure of their gender role beliefs is needed. Three studies were conducted to develop a preliminary measure. In Study 1, focus groups were conducted with a community and college sample of 44 African American women. Transcripts reviewed resulted in an initial pool of 40 items. These items were reviewed by an expert panel and 18 items were retained. In Study 2, an exploratory factor analysis was computed with data from 94 African American female college students. The 18 items were included along with measures to assess convergent and discriminant validity. Nine items were retained. These nine items comprised two subscales labeled Agency and Caretaking. The scales demonstrated good internal consistency and convergent and discriminant validity. In Study 3, a confirmatory factor analysis was computed with a different sample of 184 African American female college students. The confirmatory factor analysis showed acceptable fit for the two-factor structure of Agency and Caretaking.

Keywords

gender roles; sex roles; African American women

Gender role beliefs reflect ideas or attitudes regarding gender-specific idealized roles, activities, traits, and responsibilities (McHugh & Frieze, 1997). These beliefs influence multiple indices of health and well-being including self-concept (Frome, Alfeld, Eccles, & Barber, 2006), mental health (Beauboeuf-Lafontant, 2007; Broman, 1991), sexual attitudes and behaviors (Amaro, Raj, & Reed, 2001; Nguyen et al., 2010), and other health-related decisions (Kerrigan et al., 2007). Gender role beliefs guide our interpersonal and intimate interactions and relationships (Allison & Risman, 2013; Gottman, 1993). They inform decisions across several domains including family planning (Kaplan, Erickson, & Juarez-

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Reyes, 2002), childrearing (Hoffman & Kloska, 1995; Thompson & Walker, 1989), career and vocational aspirations, and decisions (Bielby & Bielby, 1992; Eccles, 1987; 2011).

African American women face inequities in several domains influenced by gender role beliefs including health, education, and employment. A valid and culturally appropriate way of assessing gender role beliefs of African American women has important implications for understanding and subsequently improving their well-being. Although there is some convergence among women in the United States, the gender role beliefs of African American women may differ from those of women from other racial/ethnic groups due to cultural socialization and sociohistorical influences (Harris, 1994). Because of these differences, existing measures of gender role beliefs, attitudes, and orientations may not be culturally appropriate for African American women (Harris, 1994; Nguyen et al., 2010). A measure is culturally valid if the values, beliefs, and orientations of the targeted cultural group are considered in its development (Matsumoto & Juang, 2012). The purpose of this article is to present a preliminary measure of gender role beliefs for African American women based on their conceptualization of gender roles. We next provide a brief discussion of gender role beliefs of African American women and how these beliefs differ from those of women in other racial/ethnic groups.

Gender Role Beliefs of African American Women

Literature suggests that African American women are reared to assume both traditionally feminine traits (e.g., nurturing and caring) and traditionally masculine traits (e.g., self-reliant and assertive; Littlefield, 2003). These ideologies are likely shaped during childhood and adolescence as African American girls are socialized by mothers and other elders to be strong and refrain from showing weakness (Beauboeuf-Lafontant, 2007). According to Wallace (2007), African American girls have been socialized to be equally instrumental and expressive—caring and nurturing providers as well as self-sufficient, strong, and assertive protectors. Kerrigan et al. (2007) found that adolescent girls believed that maintaining emotional strength and caretaking were part of being an African American woman. However, these adolescents also ascribed other instrumental characteristics to African American women, which included economic productivity and independence.

Common themes found within the self-concept of African American women are strength and resilience. Strength has been identified as a key component of African American women's gender role beliefs by several scholars (Abrams, Maxwell, Pope, & Belgrave, 2014; Beauboeuf-Lafontant, 2003, 2007, 2009; Black & Woods-Giscombé, 2012; Collins, 2005; Hamilton-Mason, Hall, & Everette, 2009; Jones & Shorter-Gooden, 2003; Woods-Giscombé, 2010). At the same time African American women view themselves as caretakers, responsible for the well-being of others and share with all women a communal and relational orientation (Miller, 1986). Communal and relational orientations are expressed through prioritization of relationships, sensitivity to and concern about others, and nurturing and care-taking activities (Miller, 1986). African American women's gendered ideologies of strength, resilience, independence, and caretaking are rooted in sociohistorical experiences in the United States, dating back to enslavement and enduring to present day (Woods-Giscombé, 2010). Many women believe that it is these gender role beliefs that have

ensured personal, familial, and community survival (Ashcraft & Belgrave, 2005; Woods-Giscombé, 2010).

Racial/Ethnic Differences in Gender Role Beliefs

As mentioned above, gender role ideologies of African American women often underscore independence, strength, resilience, and caregiving (Davis, 1981; Zinn & Dill, 1996). This diverges from traditional feminine gender ideologies that underscore submissiveness, sensitivity, and dependence (Stockard & Johnson, 1980; Thomas, 1986), and may explain why the gender role beliefs of African American women differ from those of women from other racial/ethnic groups (Collins, 2000; Davis, 1981; Hayes & Swim, 2013; Zinn & Dill, 1996).

De Leon (1993) found that African American women scored similarly to women from other ethnic/racial groups on the Bem Sex Role Inventory (BSRI) femininity scale, but higher than women from other racial/ethnic groups on the BSRI masculine scale. Binion (1990) examined the sex role attitudes of African American and White women. Results revealed that the majority of African American women reported androgynous gender identities. At the same time, they reported traditional beliefs about the role of a woman in the family. The majority of White women identified as undifferentiated and had more liberal gender role attitudes than African American women. All participants were heavily invested in the mothering role and shared similar beliefs about women being strong and men being weak.

As noted previously, gender role beliefs may differ for African American women because their social and cultural context are unique due to experiences of discrimination and other biases associated with ethnicity and gender (Ashcraft & Belgrave, 2005; Nguyen et al., 2010).

Another possible reason for difference in gender role beliefs of African American women, especially, when compared with White women may be cultural differences in cognitive style. People of African descent may be comfortable with duality of gender roles (i.e., being androgynous) because of a cultural way of thinking that emphasizes a holistic orientation, acknowledging duality rather than a cognitive style that is analytical and dichotomous (Brevard & Belgrave, 2013; Shade, 1991). Individuals from collective cultures such as those found in Africa and Asia have a holistic cognitive style, which often produces people who do not see themselves as distinct individuals, but rather as pieces of a much larger and interconnected whole (Nisbett, Peng, Choi, & Norenzayan, 2001; Varnum, Grossmann, Kitayama, & Nisbett, 2010). People from these cultures engage in less dichotomous thinking, tolerate different perspectives, and accept that two things can be right at the same time. Thus, intergenerational transmission of African-centered values may contribute to people of African descent in the United States having a cognitive style that accepts and internalizes the duality of roles and perspectives.

Conceptualization and Measurement of Gender Role Beliefs of African American Women

Most of the research on gender role and related beliefs of women in the United States have used the BSRI (Bem, 1974), Personal Attributes Questionnaire (PAQ; Spence, Helmreich, & Stapp, 1974), Attitudes Toward Women Scale (AWS; Spence & Hemreich, 1972), or Gender Roles Beliefs Scale (GRBS; Kerr & Holden, 1996). However, these measures were developed mostly with White women (Bem, 1974; Kerr & Holden, 1996; Spence et al., 1974) and may have limited validity, including cultural validity, for African American women (Cooper, Guthrie, Brown, & Metzger, 2011; Nguyen et al., 2010). For example, Harris (1994) found that the BSRI was less valid as a measure of masculinity/femininity among African American than White participants.

Nguyen et al. (2010) used items from the BSRI and the PAQ to reconceptualize gender role beliefs among African American women. Participants were 398 African American women recruited from university and community settings. Items from these two scales were included in a factor analysis. Three dimensions that corresponded to gender role domains emerged from this factor analysis. These included a caretaking/mindful domain (e.g., very helpful to others), an interpersonal sensitivity domain (e.g., feelings easily hurt), and a persistent/active domain (e.g., never gives up easily). Although items from the BSRI and the PAQ were used, the findings from this study suggested that the more traditional way of conceptualizing gender roles as “masculine” and “feminine” may not be relevant for African American women since three factors emerged that captured African American women’s gender roles.

Current Study

In the current study, we developed and evaluated a preliminary measure of gender role beliefs of African American women by following conventions in scale development outlined in three basic phases: (a) item development, (b) scale development, and (c) scale evaluation (DeVellis, 2003; Hinkin, 1995; Schwab, 1980). As such, three studies were conducted. Study 1 was a qualitative study that involved item generation and preliminary evaluation of items. Study 2 was a quantitative study that used exploratory factor analysis (EFA) to determine a factor structure and inform decisions about items to be retained and eliminated. Study 3 was another quantitative study that utilized confirmatory factor analysis (CFA) with a different sample.

Study 1: Construction and Evaluation of Initial Item Pool

Study 1 was used to generate potential items for the Belgrave Gender Role Inventory (BGRI), develop a preliminary scale, and evaluate the appropriateness of items. In following inductive strategies for item generation (Hinkin, 1995), items were generated via analysis of data from focus group discussions about gender role beliefs of African American women.

Method

Participants.—Eight focus groups comprising 44 African American women were conducted. Women were diverse in age, religion, and socioeconomic status. Participants ranged in age from 18 to 91 years ($M = 44.23$, $SD = 19.63$). Thirteen women were college students and 31 women were community members. Of the community members, four also identified as college students. Women were recruited from a community-based organization that serves low-income African Americans ($n = 16$), the psychology department's subject/participant pool at a large urban university ($n = 9$), a Muslim community in an urban metropolis ($n = 6$), a faith-based senior citizen program ($n = 6$), and via flyers and word of mouth ($n = 7$).

The majority of participants (88%, $n = 39$) reported having at least a high school diploma or equivalent. Thirty-two percent ($n = 14$) had some college, 11% ($n = 5$) had an associate's degree, 16% ($n = 7$) had a bachelor's degree, and 11% ($n = 5$) attended graduate or professional school. Most (63%, $n = 28$) were mothers. The majority of women were employed, either part-time ($n = 14$) or full-time ($n = 10$). Forty-five percent of participants ($n = 20$) were single and never married. Divorced women were 20% ($n = 9$) of the sample and married women comprised 18% of the sample ($n = 8$).

Procedure.—Eight focus groups were conducted in order to generate items for the BGRI following an inductive approach (Hinkin, 1995). Focus group discussions lasted between 30 and 90 minutes and ranged in size from three to eight participants. Focus groups were organized based on similarities in age (in years; 18–24, 25–39, 40–54, 55 and older). This approach was employed to group women with analogous life experiences (Kitzinger & Barbour, 1999). All focus groups with community residents were facilitated by the first author (a middle-aged African American woman). Focus groups with college students were facilitated by a trained interviewer (third author, a young African American woman). Each session was audio recorded and an observer took detailed field notes. Focus groups sessions were conducted in private rooms at a local university or at the site from which participants were recruited. Participants were offered light refreshments prior to the session starting.

Prior to beginning each group discussion, confidentiality and anonymity were discussed. Next, participants completed consent and demographic data forms. Written and verbal permission to record group discussions was obtained from all participants. Women were asked to identify themselves every time they spoke and given the option to use only their first name, initials, or a pseudonym. This strategy assisted with ensuring accurate identification of participants when recording responses.

Focus group questions.—Focus group questions were developed to obtain women's thoughts about attributes, characteristics, and traits of men and women in general and African American women specifically. Several openended questions were asked. Questions relevant to this study include (a) When you think of women, what comes to mind? (b) What do you think (if anything) makes African American women different from women in other racial/ethnic groups? (c) In your opinion, what would an ideal Black woman be like? (d) What do you think are some of the roles and responsibilities of Black women? (e) How

would you define “masculine”? (f) How would you define “feminine”? and (g) “What does it mean to be a ‘Strong’ Black Woman?”

The interviewers, who encouraged all group members to contribute, guided discussion among participants. Though participant comments were not equal in amount, each participant made a contribution to group discussions. The interviewer used clarification by reaffirming responses, asking clarifying questions, and encouraging participants to elaborate on unclear remarks to ensure a valid understanding of participant remarks. The interviewer asked participants if they had any additional questions or comments they would like to share at the conclusion of each group discussion. Participants were thanked, college students were given extra course credit, and community participants were provided an incentive of $20.00.

Generation of Item Pool

Focus group data were transcribed and NVivo 8, a qualitative data analysis software program, was used to code transcribed focus group data. The focus group transcriptions comprised the data from which items for Study 1 were generated. Subsequent analysis of focus group data revealed several themes and subthemes about gender role beliefs of African American women including (a) Dedication to Care of Others, (b) Having Multiple Roles, (c) Perceived Social Inferiority, and (d) Displaying Strength (see Abrams, 2012, for a fuller discussion of these themes).

Several steps were involved in generating the item pool. The first author’s research team each read four of the eight transcripts. The eight-member team consisted of African American female graduate students ($n = 4$), an Asian American female graduate student ($n = 1$), African American female under-graduate students ($n = 2$), and an African American male graduate student ($n = 1$). All graduate students were in doctoral programs in psychology and all had interests in African American women’s health and well-being. Four of the research team members; three African American women and the first author read all eight transcripts.

The team was instructed to read each transcript and list all themes and ideas that came to mind while reviewing the transcripts. They were told to write down any ideas or themes that seemed salient and not to worry if there was redundancy. Following this, a session was held in which each person shared the topics, themes, and ideas that they had come up with. This resulted in about 40 separate concepts and ideas.

These 40 concepts and items were reviewed by a smaller expert group that consisted of the first author, two African American graduate students, and one Asian American graduate student to establish content validity (Hinkin, 1995). All members of this group were interested in the intersection of race, gender, and identity and had published on the topic (Belgrave, 2009; Nguyen et al., 2010). Items that had been generated that captured opposite meaning (e.g., dependence/independence) and concepts that could be conveyed with bipolar adjectives were of interest. Items were reviewed and revised to ensure language appropriateness and readability. Inappropriate bipolar item pairs that included biases or assumptions (e.g., “a disciplinarian/a nondisciplinarian” and “supports women’s independence/does not care about women’s independence”) were eliminated. During this review, 22 items were eliminated. Eighteen items were selected to be included on the BGRI.

Sample item pairs include “strong/weak,” “independent/dependent,” “nurturing/not nurturing,” and “caregiver/not a caregiver.”

A 5-point semantic differential rating scale (Crocker & Algina, 2008) was used, similar to the response format in the PAQ. Semantic differentials allow for respondents to make meaningful distinctions in concepts through the use of contrasting adjective pairs (Osgood, 1964; Osgood, Suci, & Tannebaum, 1957) and may aid in increasing content validity and adequacy (Hinkin, 1995). Instructions are:

> The items below ask about what kind of person you are. Please indicate your degree of agreement or disagreement to these items by circling the letter that best corresponds to your opinion. Each item consists of a PAIR of characteristics, with the letters A-E in between. The letters form a scale with two extremes. Choose a letter which describes where YOU fall on the scale.

Instructions also included an example and additional information about how to record responses.

Study 2: Full Administration and Exploratory Factor Analysis

The purpose of Study 2 was scale development. We administered the BGRI to a sample of African American women and conducted an EFA to inform the number of factors to be retained, determine the factor structure, and gather reliability and validity estimates as recommended in scale development (Netemeyer, Bearden, & Sharma, 2003).

Method

Participants.—Participants were 94 African American female college students who ranged in age from 18 to 57 years ($M = 20.68$, $SD = 5.38$). In terms of sexual orientation, 82 (87.2%) identified as straight/heterosexual, 10 (10.6%) identified as bisexual, 1 (1.1%) identified as gay/lesbian, and 1 identified as unsure. The majority of women were not married (97.9%). Forty women (42.6%) identified as Christian-Protestant, 20 (21.3%) identified as other, 8 (8.5%) identified as not religious, 12 (12.8%) were Christian-Catholic, 3 (3.2%) were Agnostic, 1 (1.1%) was Muslim, and 10 participants (10.6%) did not indicate a religious affiliation.

Measures.—In addition to items generated for the BGRI, several scales were administered to assess convergent and discriminant validity. Convergent validity is the degree to which measures that should be theoretically related are related, whereas discriminant validity is the extent to which two measures that should theoretically be unrelated are unrelated (John & Benet-Martinez, 2000). The BSRI and the PAQ were included as potential measures to assess convergent validity. The Need for Cognition Scale (NCS) and demographic items were used to assess discriminant validity.

The Bem Sex Role Inventory.—The BSRI (Bem, 1974) is a 60-item measure that assesses the degree to which individuals endorse various traits. Responses are rated on a 7-point scale, ranging from *never or almost never true* to *always or almost always true*. Items are based on traditional/stereotypical conceptualizations of gender roles. For example, 20

items are considered to be feminine (e.g., sensitive to other's needs, affectionate), 20 are considered to be masculine (e.g., self-reliant, athletic), and the last 20 are considered to be gender neutral (e.g., truthful, conceited). The BSRI has high internal consistency (Bem, 1974; Holt & Ellis, 1998). In the current sample, the BSRI demonstrated high internal consistency. Alpha coefficients for the Feminine and Masculine subscales were .79 and .91, respectively.

Personal Attributes Questionnaire.—The PAQ (Spence et al., 1974) was developed to assess feminine and masculine personality traits. The PAQ consists of 24 items with three subscales containing eight items each; Masculine (*Instrumentality*), Feminine (*Expressiveness*), and Masculine-Feminine (*Androgynous*). Responses are rated on a 5-point Likert-type scale between two adjectives representing opposite constructs (e.g., A = *very submissive* to E = *very dominant*). The PAQ demonstrated fair to poor internal consistency in the current sample with alpha coefficients of .73, .66, and .10 for the Feminine subscale, Masculine subscale, and Masculine-Feminine subscale, respectively.

Need for Cognition Scale.—The NCS-short scale (Cacioppo, Petty, & Kao, 1984) is composed of 18 items, which assess an individual's cognitive motivation to participate in and enjoy effortful thinking. The short form version was derived from the original version, which initially included 34 items. Responses are rated on a 5-point Likert-type scale, ranging from *extremely uncharacteristic* to *extremely characteristic*. Sample items include "the notion of thinking abstractly is appealing to me" and "thinking is not my idea of fun." The theta internal consistency coefficient for the NCS-short scale is .90. In the current sample, the NCS-short scale demonstrated adequate internal consistency, with an alpha coefficient of .74.

Demographic items.—Participants were asked to report demographic information. Questions include the following: How old are you? (years); What best describes your year in school? (freshman, sophomore, junior, senior, other); How would you describe your current relationship status? (committed relationship, casual relationship, dating someone, seeing someone, involved with someone, single and looking, single and not looking, not involved with any-one, other); Are you currently married? (yes, no); How would you describe yourself? (straight/heterosexual, bisexual, gay/lesbian, unsure, other); and What is your religious affiliation? (Christian-Protestant, Christian-Catholic, Hindu, Buddhist, Muslim, Jewish, atheist, other).

Procedure.—Participants were recruited from a large urban university via the psychology department's subject pool. Questionnaires were administered online. Prior to taking the online survey, participants were presented with a consent form that explained the study's purpose and procedures as well as the rights of participants. After electronically consenting, the web-based questionnaire, including the 18-item BGRI, was administered to participants. On completion of the questionnaire, a debriefing statement was provided to participants that included the researcher contact information if participants had questions. Participants received extra course credit for their participation.

Results

Analyses were conducted in SPSS. Scores on all 18 items of the initial administration of the BGRI were analyzed using EFA with an orthogonal (varimax) rotation. The Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity were computed to determine if the sample size was appropriate for conducting an EFA. Results indicated that the Kaiser-Meyer-Olkin measure of sampling adequacy (.821) and Bartlett's test of sphericity ($p < .001$) for the sample were acceptable (Field, 2005).

Based on the Kaiser criterion (retaining factors with eigenvalues ≥1; Kaiser, 1960) and meaningfulness of that data, we determined that a two-factor solution was most appropriate for the data. Next, Cattell's (1966) scree test was used to verify the ideal number of factors to represent the underlying structure of the BGRI. This procedure verified that a two-factor solution could be extracted. This two-factor solution reflects two dimensions of gender role beliefs for African American women that we labeled: Agency and Caretaking. The two-factor model accounted for approximately 62% of the total variance. Factor I (6 items; labeled Agency) accounted for 48.32% of the common variance. Factor II (3 items; labeled Caretaking) accounted for 13.69% of the common variance.

After identifying the factor structure, we used results of the EFA to determine the number of items to be retained. The following criteria were used for retaining items: (a) items with factor loadings of .40 or higher and (b) items that loaded .15 higher on their primary factor than on their next highest factor loading. Items that cross-loaded (i.e., loaded .32 on more than one factor) were dropped from subsequent analyses (Tabachnick & Fidell, 2001).

Based on results of the initial EFA, 12 of the initial 18 items were retained (see Table 1). Six items were dropped from subsequent analyses; four of these items loaded on multiple factors; two loaded onto single item factors. Since at least three items are needed for a factor to be stable (Costello & Osborne, 2005), items that loaded onto single item factors were eliminated. A second EFA with a varimax rotation was conducted with the remaining 12 items. From these analyses, three additional items were eliminated. One item cross-loaded on multiple factors and two items loaded onto single item factors. Thus, nine items were retained for the scale.

A third and final EFA with a varimax rotation was conducted with the remaining nine items. There were no cross-loading items and all items loaded at or above .40 on one of the two factors. Based on results of the EFA, a total of nine items were eliminated from the BGRI. The remaining nine items represented the most robust indicators of gender role beliefs of African American women. Table 1 reports means, standard deviations, factor loadings, and communalities of each of the nine items of the BGRI.

Internal Consistency and Subscale Intercorrelation.—The coefficient alphas for the BGRI subscales were .74 for Agency and .81 for Caretaking. To determine the subscale intercorrelation, a Pearson correlation coefficient was calculated. Agency was significantly correlated with Caretaking, $r(92) = .23$, $p = .026$. Higher endorsement of Agency was associated with higher endorsement of Caretaking.

Discriminant Validity.—Discriminant validity was assessed by correlating the BGRI with demographic items and the NCS. Pearson correlation coefficients were used to examine the relationship of the BGRI subscales with participant's collegiate classification (year in college). Agency and Caretaking were not correlated with classification, $r(92) = .05$, $p = .61$; $r(94) = .00$, $p = .98$, respectively.

An independent sample t test was conducted to determine if differences in relationship status were related to gender role beliefs. There was not a significant difference in Caretaking scores for women in relationships ($M = 3.75$, $SD = 1.61$) and women not in relationships ($M = 3.73$, $SD = 1.78$); $t(90) = .058$, $p = .954$. Similarly, there was not a significant difference in Agency scores for women in relationships ($M = 13.67$, $SD = 1.52$) and women not in relationships ($M = 13.97$, $SD = 1.30$); $t(88) = -.996$, $p = .322$. Discriminant validity was further demonstrated by two Pearson correlations that revealed Agency and Caretaking to be uncorrelated with scores on the NCS, $r(94) = -.082$, $p = .434$; $r(92) = -.190$, $p = .069$, respectively.

Convergent Validity.—To examine convergent validity for the Caretaking subscale, a Pearson correlation was conducted to assess the relationship between Caretaking and Femininity (as measured by the BSRI Femininity subscale). Caretaking was significantly related to Femininity, $r(92) = -.534$, $p < .001$. The negative correlation reflects that low scores on Caretaking reflect high caregiving gender role beliefs and high scores on the BSRI reflect high feminine gender role beliefs. Another correlation was computed between the BSRI masculinity scale and the Agency subscale. The BSRI Masculinity subscale was uncorrelated with the BGRI Agency subscale, $r(94) = -.151$, $p = .171$.

Discussion

We identified a two-factor scale in an EFA. This scale consisting of only nine items should be a useful measure when a brief assessment of gender role beliefs among African American women is needed. The scale showed good discriminant validity through nonsignificant correlations with demographic items and psychological measures it should be theoretically unrelated to. The scale showed good convergent validity with a significant relationship between the BSRI Femininity subscale and the BGRI Caretaking subscale.

Study 3: Confirmatory Factor Analysis

The purpose of Study 3 was to aid scale evaluation by replicating the factor structure obtained from Study 2 in a second sample of African American women to assess the fit of the BGRI scale.

Participants

A total of 184 African American women ($M = 19.19$ years, $SD = 1.91$ years) attending a university located in the Southeast participated in this study for course credit. In terms of sexual orientation, 172 (92.5%) identified as straight/heterosexual, 3 (3.2%) identified as bisexual, 5 (2.7%) identified as gay/lesbian, and 1 identified as unsure. The majority of African American women were not married (96.2%). One hundred twenty-six women

(67.7%) identified as Christian-Baptist, 31 (16.7%) identified as Christian-Other, 11 (5.9%) identified as Christian-Methodist, 4 (2.2%) identified as not religious, 4 (2.2%) identified as participating in a religion not listed, and 2 participants (1.1%) did not indicate a religious affiliation.

For a CFA, the target sample size was determined by the subject to variable ratio. General rule for CFA is a subject to variable ratio of at least 10:1 or 10 participants for each item in the instrument being used (Arrindell & van der Ende, 1985; Velicer & Fava, 1998). Thus, for analyses with a measure consisting of nine items, a minimum sample size to detect a small to medium effect with an α =.05 and β =.2 is 90 participants. Therefore, a total of 184 participants is a sufficient sample.

Procedure

This study was approved by the university's institutional review board. The same procedures outlined in Study 2 were also used in Study 3, including completion of data collection online. Participants completed all measures described in Study 2. However, only the nine items from the BGRI that represented the gender role factors were used in Study 3.

Results

To replicate the two-factor model of the BGRI gender role measure, CFA was conducted using Amos 21 (Arbuckle, 2012). Latent variables were created for the Agency and the Caretaking subscales. The data were screened for missing values, outliers, and other disturbances. Four cases were excluded from analysis due to improper responses. Normality and linearity were also assessed. Model fit was evaluated with multiple fit indices: χ^2, the comparative fit index (CFI > .90), the incremental fit index (IFI > .90), the normative fit index (NFI > .90), and the root mean square error of approximation (RMSEA < .08).

The two-factor model had acceptable fit, $\chi^2(26) = 45.45$, $p < .01$; CFI = .94; IFI = .94, NFI = .87; RMSEA = .06. Although the NFI was outside the acceptable range, the other fit indices indicated that this model had adequate fit.

Discussion

We used a CFA to evaluate the stability of the two-factor model of the BGRI in an independent sample of African American women. We found good to acceptable fit for the two-factor structure on three out of four fit indices. The results of the CFA supported the two-factor structure of African American women's gender role beliefs, reflecting two dimensions, Agency and Caretaking. In sum, these results provide preliminary support for the use of the two-factor gender role belief scale for African American women.

General Discussion

Gender role beliefs of African American women differ from that of women in other ethnic/racial groups and a culturally valid measure for assessing their gender role beliefs is needed. Three studies were conducted to develop a preliminary measure of gender role beliefs for African American women. In the first study, focus groups were conducted with 44 African

American women. A research team interested in African American women's gender roles, identity, and related issues reviewed transcripts. An initial item pool of 40 items was generated. These items were reviewed for appropriateness by an expert panel and 18 items (formatted as semantic differential) were retained. In the second study, data were collected from African American female college students. EFA was conducted with these 18 items and nine items were retained. These nine items comprised two subscales labeled Agency and Caretaking. The two scales demonstrated good internal consistency and convergent and discriminant validity. In study 3, a CFA was computed using a different sample of African American female college students. These students attended a university in another geographical region of the country. The CFA showed acceptable fit for the two-factor structure of Agency and Caretaking.

The two scales of the BGRI demonstrated good internal consistency with satisfactory alpha coefficients. Evidence of discriminant validity was shown in nonsignificant correlations between the two subscales and demographic items and a psychological measure of NCS. A significant correlation with the Femininity subscale of the BSRI provided support for convergent validity. The Agency subscale was not significantly correlated with the Masculinity subscale of the BSRI suggesting that these are conceptually different constructs. Finally, the Agency and the Caretaking subscales were significantly correlated with each other with higher Caretaking gender role beliefs associated with higher Agency beliefs and vice versa. This finding suggest that African American women can be high (or low) on both Agency and Caretaking at the same time and is consistent with androgynous gender role beliefs (Littlefield, 2003; Wallace, 2007).

The subscale labeled Agency reflects the belief that one can do what is required and needed (see Table 1). Items comprising this scale capture different dimensions of beliefs including valence (e.g., weak, strong), behavioral dispositions (e.g., independent, dependent), and self-cognitions (e.g., resilient, gives up easily). The Agency subscale is similar to the notion of self-efficacy (Bandura, 1986) and related constructs such as hardiness (Kobasa, 1979) and mental toughness (Loehr, 1986). Self-efficacy is the belief in one's capabilities to achieve a goal or an outcome (Bandura, 1986). Individuals with high self-efficacy are able to endure and continue working toward their goals even in the face of adversity. A similarly related construct, hardiness, also is embodied in the Agency subscale in that it encompasses a strong belief in one's self, confidence in one's ability to implement effective solutions to challenges that arise, and a strong sense of perseverance through any challenges that one may encounter (Soderstrom, Dolbier, Leiferman, & Steinhardt, 2000). Made up of three components: challenge, commitment, and control, hardy individuals are able to rise to the challenges of their environment and turn stressful life events into opportunities for personal growth and benefit (Lambert, Lambert, & Yamase, 2003). Hardiness has also been closely related to mental toughness. Although the term mental toughness is mostly used to refer to athletes, it is often referred to as a person's ability to cope with the demands of the situation with increased determination, focus, and confidence—all while maintaining control under pressure (Nicholls, Polman, Levy, & Backhouse, 2008). Similar to Agency, each of these constructs deal with strength, resiliency, and persevering through adversity. These words and themes have been used to describe African American women (Abrams et al., 2014; Kerrigan et al., 2007; Wallace, 2007; Woods-Giscombé, 2010).

The subscale labeled Caretaking reflects the perceived and assumed responsibilities for taking care of and providing for the well-being of others. This dimension has also been identified by others (Abrams et al., 2014; Jones & Shorter-Gooden, 2003; Nguyen et al., 2010). The three items in this scale reflect an orientation toward a behavioral disposition that is characteristic of supporting and caring for others (e.g., a caregiver, keeps family connected). These dimensions have also been identified in previous work as characteristic of African American women (Beauboeuf-Lafontant, 2007; Binion, 1990; Broman, 1991; Nguyen et al., 2010; Woods-Giscombé, 2010).

Several steps were taken in the development of the BGRI to ensure the cultural validity and integrity of the measure. Initial focus groups were convened to generate topics and ideas from the perspective of a diverse sample of African American women. This was followed by review of transcripts by a team comprised mostly of African American women. Following this, experts comprised of African American and ethnic minority women selected and formatted the final 18 items. African American women comprised the samples for the CFA and the EFA. The low and unsatisfactory internal consistency reliability of the PAQ in this sample provides further evidence that it may not be a good measure to use when assessing gender role beliefs of African American women. While the reliability of the BSRI was high among our sample, the lack of inclusion of African American women in its normative sample remains problematic. A previous study by Konrad and Harris (2002) found high reliability with the BSRI among samples of White and African American men and women. However, findings of their study indicated that in comparison with White respondents, African American respondents had higher overall desirability ratings on masculine items, while also demonstrating higher desirability of feminine traits for women than for men. However, high reliability does not mean high construct validity (Crocker & Algina, 2008) and the findings highlight the duality of masculine and feminine traits that are desired by and ascribed to African American women.

The development of the BGRI continues the work of Nguyen et al. (2010). Two factors identified in this study were similar to two of the three factors found in the Nguyen et al. (2010) study. Nguyen et al. retained items mostly from the PAQ to reconceptualize gender roles among African American women. A factor analysis of items revealed three factors. Items from Factor 1 were related to qualities of nurturance and warmth, so it was named the “caretaking/mindful of others” factor, which is similar to the Caretaking factor in the current study. Factor 2 had items that were related to dependency and emotional instability and was named the “interpersonal sensitivity” domain. This domain did not emerge in this study. Factor 3 had items that were related to perseverance and positive coping and was named the “persistent/active coping” domain. This factor is similar to the Agency factor found in the current study.

As discussed previously, gender role beliefs are important to consider in relation to a variety of attitudes, behaviors, and decisions. Having an adequate and culturally valid measure of gender role beliefs for African American women can help us better understand how gender role beliefs may influence health behaviors and other important behaviors and decisions. For example, Nguyen et al. (2010) found that the domains identified in the reconceptualization of gender roles predicted HIV risky and protective behaviors better than other traditional

measures of gender roles among African American women. Ultimately, this measure may be useful in assisting researchers in understanding the influence of gender roles on a variety of indicators of African American women's health and well-being, leading to better interpretation of findings, and more culturally tailored programming. Despite the contribution of the current study, a few limitations must be addressed.

Limitations

Although the relatively small number of items in the BGRI is considered a positive feature, a measure with more items may have captured other dimensions given the complexity of African American women's gender role beliefs. We originally hoped to retain about 20 items. However, only 40 items were generated and with the semantic differential rating format, that number was reduced to 18 items before the initial factor analysis began. It is possible that more items would have resulted in a different factor structure.

A second limitation is that the expert panel who selected items for the final scale to be tested was not an independent group, but a subgroup of the individuals who generated the larger item pool. However, all of the women comprising the expert panel had been involved in previous research on African American women and gender roles. A final limitation is that a community sample was not used for the EFA and the CFA although data from a community sample were used to generate items tested in these analyses. Thus, the sample used in the EFA and the CFA was an age-restricted sample comprised mostly of relatively educated African American women.

Future Studies

The BGRI has much potential. However, additional research needs to be done before this measure can be widely used. Additional studies of construct, concurrent, convergent, and divergent validity are needed. As suggested above, future research should test the utility of this measure with a diverse community sample of women. It would also be of interest to see if the factor structure holds with men and women from other racial/ethnic minority groups. In addition, future research may wish to expand the BGRI and include additional items. Doing so may assist with providing a more complete conceptualization of gender role beliefs of African American women.

Conclusion

The BGRI is a preliminary gender role measure that is culturally appropriate for measuring gender roles among African American females and provides a culturally valid assessment of their gender role beliefs.

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Table 1.

Items, Factor Loadings, Means, Standard Deviations, and Communalities for the Belgrave Gender Role Inventory.

	Factor loadings				
Item	**Agency**	**Caretaking**	***M***	***SD***	h^2
1. Independent/Dependent	**.828**		1.93	0.92	.475
2. Trustworthy/Not Trustworthy	**.667**	.385	1.63	0.80	.649
3. Weak/Strong	**.652**	.223	1.49	0.77	.863
4. Irresponsible/Responsible	**−.602**	−.268	1.80	1.00	.393
5. Resilient/Cannot Bounce Back Easily	**.519**	.228	1.86	0.80	.272
6. An Advisor/Does Not Advise Others	**.504**		1.34	0.70	.593
7. Supportive of Others/Not Supportive of Others	.414	**.832**	1.76	0.81	.717
8. A Caregiver/Not a Caregiver	.265	**.761**	1.98	0.83	.321
9. Keeps Family Connected/Not Involved in Family Activities		**.610**	**4.37**	**0.88**	**.434**

Note. Values in bold font are factor loadings at or above the criteria for selection. The exploratory factor analysis is for the nine items retained after eliminating nine items from the initial item pool to be tested for the Belgrave Gender Role Inventory. Each item is rated on a 5-point scale, allowing respondents to indicate the degree to which they endorse one of the item pairs (bipolar adjectives).