# Comparisons of African American and White Women in the Parent Care Role

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Little is known about African American women's experiences providing care to impaired older relatives. This study investigated potential differences in depressive symptomatology, parent care stress and rewards, parent care mastery, and the quality of the parent care relationship between 261 White and 56 African American daughters and daughters-in-law who were providing care for an impaired parent or parent-in-law. Multivariate analysis of variance, controlling for significant background characteristics and interrelationships among caregiving experiences, revealed that African American women reported less stress and more rewards in the parent care role than White women did. Race did not have a significant effect on caregivers' depressive symptomatology, parent care mastery, or the quality of their relationship with the parent. However, this research demonstrates the importance of examining a broad range of caregiving experiences in order to detect both similarities and differences between African American and White caregivers.

Key Words: Caregiver, Race, Depression, Stress, Women

By the year 2050, it is estimated that the number of African Americans aged 65 and over will more than triple and their proportion of the total elderly population will increase from 8% to 10% (U.S. Bureau of the Census, 1996). Because African American elders frequently rely on their children for assistance with physical and psychological needs (see review by Wykle & Kaskel, 1991), the changing demographics among the aging population have significant implications for the number of African American adult children (especially daughters) who will assume the caregiving role. Yet, research on family care to elderly relatives historically has focused on samples exclusively or predominately composed of White caregivers. As a result, little is known about the caregiving experiences of African American families.

The studies of African American caregivers that have begun to appear indicate that there may be differences in the psychological well-being and experiences of family caregivers by race. The purpose of the present study is to extend knowledge about potential differences in well-being and caregiving experiences between African American and White daughters and daughters-in-law who are providing care for an impaired parent or parent-in-law. The study investigates caregivers' depressive symptomatology, parent care stress and rewards, parent care mastery, and the quality of their relationship with the impaired relative.

Prior research has shown that there is a relationship between providing care for an impaired elderly relative and depressive symptomatology. For instance, caregivers have been found to report significantly higher levels of depressive symptomatology than noncaregivers (Dura, Stukenberg, & Kiecolt-Glaser, 1991; Haley, Levine, Brown, Berry, & Hughes, 1987; Schulz, Tompkins, & Rau, 1988). In addition, much of the research comparing the effects of caregiving on African American and White caregivers' depressive symptomatology has found that African American caregivers report lower symptomatology than White caregivers (Haley et al., 1995; Lawton, Rajagopal, Brody, & Kleban, 1992; Miller, Campbell, Farran, Kaufman, & Davis, 1995; Mintzer & Macera, 1992). However, a study by Young and Kahana (1995) suggests that controlling for caregiving context variables—such as the age of the caregiver, impairment of the care recipient, and hours spent providing care-eliminates differences in depressive symptomatology between White and African American caregivers.

Although depression is the most commonly studied outcome in the caregiving literature, considerable research also has examined the impact of providing care on caregivers' subjective stress. Many studies have found that providing care for an aging relative can be stressful (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991; Townsend, Noelker, Deimling, &

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Bass, 1989; Zarit, Reever, & Bach-Peterson, 1980). Most research that focuses on African American caregivers suggests that levels of caregiving stress may vary by race (Aranda & Knight, 1997). For instance, African American caregivers report, on average, less subjective burden, lower levels of caregiver role strain, and less sense of intrusion on their lives from caregiving responsibilities than White caregivers (Hinrichsen & Ramirez, 1992; Lawton et al., 1992; Macera et al., 1992; Miller et al., 1995; Mui, 1992). Alternatively, three studies found no difference in stress or burden between African American and White caregivers (Cox, 1993; Morycz, Malloy, Bozich, & Martz, 1987; Wood & Parham, 1990).

Fewer studies recognize the potential benefits or rewards of the caregiving role than those that focus on the stresses associated with caregiving (Stephens & Townsend, 1997). Only two studies are known to have investigated the relationship between race and caregiving rewards. One is a study by Lawton and colleagues (1992), which revealed that African American caregivers expressed greater caregiving satisfaction (e.g., benefits from caregiving) than White caregivers did. The second study (Picot, Debanne, Namazi, & Wykle, 1997) also found that race was significantly related to perceived rewards, with African American caregivers reporting higher levels of rewards than White caregivers.

A growing interest in caregivers' sense of mastery is accruing. Global measures as well as role-specific measures of mastery have been used in the caregiving literature. Global measures of mastery assess individuals' feelings of control over forces affecting their lives generally (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995). Role-specific caregiving mastery has been defined as caregivers' beliefs in their ability to influence or control care-related events or to manage these events in a competent or effective manner (Lawton et al., 1992; Pearlin, Mullan, Semple, & Skaff, 1990). Research utilizing primarily White samples has consistently shown that greater caregiving mastery is significantly related to better psychological well-being of caregivers (Coppel, Burton, Becker, & Fiore, 1985; Haley, Bartolucci, Levine, & Brown, 1987; Pagel, Becker, & Coppel, 1985). Two studies are known to have examined the relationship between race and mastery. One concluded that African American caregivers espouse a greater sense of rolespecific mastery in caregiving than White caregivers (Lawton et al., 1992). The other study found no significant difference in African American and White caregivers' global sense of mastery or in their rolespecific caregiving mastery (Miller et al., 1995).

The quality of family relationships has been a relatively neglected topic in the caregiving literature, although the detrimental influence of negative ties and the beneficial influence of positive ties in the caregiving relationship have become increasingly evident with samples composed exclusively or primarily of White caregivers (Creasey, Myers, Epperson, & Taylor, 1990; Fiore, Becker, & Coppel, 1983; Townsend & Franks, 1995). To our knowledge, no study has investigated the association between caregivers' race and the quality of their relationship with care recipients. However, one study (Mui, 1992) has explored race as a moderator of the association between the quality of the caregiving relationship and caregivers' role strain. In that study, White daughters reported more caregiving role strain when their relationship with the impaired parent was poor, but the quality of the parent–daughter relationship was not a significant predictor of caregiving role strain for African American daughters.

A variety of explanations have been offered to explain why caregiving experiences differ by race. Some authors (e.g., Dilworth-Anderson & Anderson, 1994; Haley et al., 1996) suggest that racial and ethnic differences in values and beliefs about aging may account for the observed differences. Differences in role expectations and attitudes about providing care and filial support may also account for variations in caregiving experiences (Cox, 1993; Haley et al., 1996; Lawton et al., 1992). Another possible explanation is racial/ethnic differences in religiosity or coping mechanisms that may moderate caregiving experiences (e.g., Aranda & Knight, 1997; Picot et al., 1997; Segall & Wykle, 1988).

In addition to contributing to the literature on African American caregivers, the present study extends previous research on race and caregiving in six important ways. First, the sample of caregivers is homogeneous with respect to kin relationship, composed solely of daughters and daughters-in-law (both referred to hereafter as daughters). In prior research, a variety of kin and even non-kin relationships have been included. The present study chose to focus on a homogeneous sample of caregivers because previous research has shown that caregiving outcomes differ between adult children and spouses (George & Gwyther, 1986; Macera et al., 1992; Wood & Parham, 1990), and such variation may confound differences between race and kin relationship. Second, the research design also required that participants occupy three roles (mother, wife, and employee) in addition to that of primary caregiver. The relationship between multiple roles and caregiving experiences has not been taken into account in previous research on African American and White caregivers. Third, the present study focuses on positive aspects (rewards) as well as negative aspects (stresses) of caregiving. Prior research has devoted much more attention to stresses than rewards. Fourth, the experience of caregivers who provide care for an aging parent or parent-in-law (both referred to hereafter as parent) with various forms of impairment is examined. Most prior research has focused on the experiences of African American and White family members who provide care to relatives with Alzheimer's disease or some other form of dementia (e.g., Haley et al., 1996; Hinrichsen & Ramirez, 1992; Lawton et al., 1992). Therefore, the results of such studies may not be generalizable to family members with other forms of impairment (Ory, Hoffman, Yee, Tennstedt, & Schulz, 1999). Fifth, the present research focuses on a broader range of constructs than prior studies, including two constructs (role-specific caregiving mastery and quality of the relationship with the care recipient) that have received particularly limited attention in previous literature on race and caregiving. For relationship quality, both positive and negative dimensions were assessed, using multiple indicators, whereas prior research (Mui, 1992) used a single bipolar indicator. Lastly, the present analyses employed multivariate techniques that take into account the interrelationships among caregiving experiences. Prior research has typically investigated each construct (e.g., stress) separately.

The present study hypothesized that African American women would report fewer symptoms of depression, less stress related to parent care, more rewards from parent care, a greater sense of mastery in the parent care role, and a more positive relationship with their impaired parent than White women would report. In order to further investigate experiences in the parent care role, parent care centrality (i.e., the importance of the caregiving role to the participant) was also included. Role centrality reflects the degree to which a role functions as a source of identity, meaning, or behavioral guidance (Gurin, Veroff, & Feld, 1960; Stryker & Serpe, 1994; Thoits, 1992). Although centrality has received a fair amount of attention in the literature investigating such social roles as employee and mother, the relationship between role centrality and caregiving to an impaired parent is limited (Martire, Stephens, & Townsend, 1998). No a priori hypothesis was made about parent care centrality because no known research has investigated the relationship between race and caregiver role centrality.

### Methods

#### Design and Procedures

Data for the present study were obtained from the first wave of a larger study on the mental health of middle-generation caregiving women (Stephens & Townsend, 1997). To be eligible for the study, women were required to occupy four roles when the study began: primary caregiver to an impaired parent or parent-in-law; wife; mother to at least one child living at home; and employee. In order to participate, women must have occupied each of these four roles for at least 2 months prior to the interview.

Primary caregiver was defined as the person who spends the most time assisting the parent with at least one personal activity of daily living (PADL; e.g., eating) or instrumental activity of daily living (IADL; e.g., transportation) or with supervision. No restriction was placed on the underlying cause of the parent's need for assistance. Each participant had to be providing care to a parent who was living in the community, but who was not sharing a household with the participant. Restriction of the sample to participants who initially did not share a residence with the parent was based on research indicating differences in well-being between adult-child caregivers who live with the impaired parent and those who do not (e.g., Deimling, Bass, Townsend, & Noelker, 1989). Additionally, participants in the study had to be married and living with their spouse and had to have at least one child who was 25 years of age or younger (and no child over 25) living at home. The upper age limit of 25 was selected in order to account for an increasing tendency for young adults to remain at home for longer periods of time (U.S. Bureau of the Census, 1992). Finally, participants had to be employed either full time or part time.

Recruitment was conducted in northeastern Ohio and in two Pennsylvania counties bordering Ohio, through newspaper articles, radio and newspaper advertisements, brochures and posters, and notices published in newsletters for businesses and social organizations. Special efforts (e.g., contacts with African American women's organizations, announcements in minority-oriented media) were made to recruit African American women in proportion to their representation (13%) in the recruiting area (U.S. Bureau of the Census, 1992). Potential participants volunteered for the study by calling a toll-free number or returning a postage-paid card to the project office. Women who were eligible to participate in the study were interviewed in-person in their home or other preferred location. Interviews averaged one-and-a-half hours.

#### Sample

A total of 949 women were screened for eligibility. Of those women, 317 (34%) met the eligibility criteria and were willing to participate. Not providing care to a parent (22%), not being the primary caregiver (15%), and having children over the age of 25 or no children living at home (16%) were the three most common reasons for ineligibility. Because information about race was not obtained for women who were ineligible to participate, no data are available to compare the eligibility rates for African American and White women. The final sample (N = 317) consisted of 261 White women (82%) and 56 African American American women (18%).

#### Measures

Although the larger study collected data about each of the four roles (parent care, mother, wife, and employee), the present study will focus solely on the parent care role. Descriptive data and bivariate correlations for study measures are presented in Table 1.

Depression.—Depressive symptomatology was measured using the Center for Epidemiologic Studies–Depression scale (CES–D; Radloff, 1977). This scale consists of 20 items that assess how frequently individuals experienced depressive symptoms or feelings during the past week ( $\alpha$  = .90 for both African American and White participants). Total scores can range from 0 to 60, higher scores indicating greater symptomatology, and scores of 16 or above indicate a risk for clinically significant levels of depression. The CES–D has been widely used in prior studies on caregiver well-being (see review by Schulz, O'Brien, Bookwala, & Fleissner, 1995). On average, the sam-

Table 1. Correlations and Descriptive Data for Total Sample (N = 317)

Measures	1	2	3	4	5	6	7
1 CES–D							
2 Parent care stress	.29*	_					
3 Parent care rewards	15*	26*	_				
4 Parent care mastery	36*	39*	.35*				
5 Emotional support from parent	16*	35*	.48*	.40*			
6 Emotional undermining from parent	.14*	.43*	39*	35*	67*	_	
7 Parent care centrality	07*	06*	.51*	.14*	.27*	17*	
M	10.50	2.23	3.21	24.25	13.51	10.38	8.42
SD	10.11	0.54	0.72	4.13	4.28	4.17	1.98

*Note*: CES-D = Center for Epidemiologic Studies–Depression scale.

 $*p \le .05.$ 

ple reported a moderate level of depressive symptoms (Table 1). Approximately one third (30%) of the total sample scored at or above 16.

Parent Care Stress.—Fifteen items assessed stress in the parent care role in the past two months (Stephens) & Townsend, 1997). These items were adapted from previous caregiving stress research (Albert, 1991; Kinney & Stephens, 1989a; Vitaliano, Russo, Young, Becker, & Maiuro, 1991; Zarit & Zarit, 1983). Participants were asked to rate each item (e.g., "Dealing with [your] parent's memory problems") using a response scale ranging from 1<sup>'</sup> not at all stressful" to 4 "very much stressful." Participants were instructed to indicate any item that was not applicable. Parent care stress was operationalized by summing the ratings across all 15 items and dividing by the number of items that were endorsed as applicable ( $\alpha = .81$ for African American participants and  $\alpha$  = .80 for White participants). The potential range for parent care stress is 1 to 4, with higher scores indicating greater stress.

Parent Care Rewards.—A 6-item scale ( $\alpha$  = .84 for African American participants and  $\alpha$  = .81 for White participants) was used to assess rewards in the parent care role in the past 2 months (Stephens & Townsend, 1997). Participants evaluated each item (e.g., "How rewarding has it been doing things to help your [parent]") using response categories from 1 "not at all" to 4 "very much." Scores were calculated in the same manner as parent care stress (i.e., summing the ratings and dividing by the number of items that were endorsed as applicable). The potential range for rewards also is 1 to 4, with higher scores indicating greater rewards.

Parent Care Mastery.—A 7-item scale ( $\alpha$  = .62 for African American participants and  $\alpha$  = .68 for White participants) was used to assess mastery in the parent care role in the past 2 months (Christensen, Stephens, & Townsend, 1998). These items (e.g., "To what extent do you agree or disagree that you are usually certain about what to do in caring for your parent?") were developed based on previous research on global and caregiving mastery, self-efficacy, or control (e.g., Bandura, 1977; Lawton, Kleban, Moss, Rovine, & Glicksman, 1989; Pearlin, Lieberman, Menaghan, & Mullan, 1981; Rotter, 1966). Participants evaluated each item using response categories from 1 "strongly disagree" to 5 "strongly agree." The scores were summed for a possible range from 7 to 35; higher scores are indicative of greater mastery.

Quality of the Relationship With the Impaired Par*ent.*—Both positive qualities (i.e., emotional support) and negative qualities (i.e., emotional undermining) were assessed (Martire et al., 1998). Five items measured the frequency with which emotional support was received from the parent (e.g., "How often did your [parent] listen carefully to your concerns?") during the past 2 months ( $\alpha = .77$  for African American participants and  $\alpha$  = .85 for White participants). These items were based on previous research on positive caregiving interactions (e.g., Kinney & Stephens, 1989a; Lawton et al., 1989). The response scale ranged from 1 "rarely or none of the time" to 4 "most of the time." Scores were summed for a possible range from 5 to 20; higher scores are indicative of greater emotional support. Emotional undermining from the parent was defined as negative evaluation, negative affect, or conflict (Vinokur & Vinokur-Kaplan, 1990). Six items were used to assess the frequency with which the parent reportedly engaged in emotional undermining (e.g., "How often did your [parent] criticize you?") in the past 2 months ( $\alpha = .87$  for African American participants and  $\alpha = .81$  for White participants). These items were based on previous research on negative caregiving interactions (e.g., Kinney & Stephens, 1989a; Lawton et al., 1989; Townsend & Franks, 1995). Emotional undermining scores (possible range from 6 to 24) were calculated in the same manner as emotional support scores, higher scores indicating greater emotional undermining.

Parent Care Centrality.—This construct was assessed by a single item ("How important to you is being a caregiver to your [parent]?"). Scores could range from 1 "not at all important" to 10 "very important."

*Covariates.*—Prior to examining the study hypotheses, a total of 34 background characteristics were

considered as potential covariates, drawn from four domains: caregivers' optimism, demographic characteristics of caregivers and their families, demographic characteristics and impairment of the care recipient, and characteristics of the caregiving situation. The selection of potential covariates was based on previous research on predictors of caregiver well-being and stress. Optimism was included in order to assess women's role experiences net of their generalized expectancies for positive or negative outcomes in life (Stephens & Townsend, 1997). Optimism was assessed using the Life Orientation Test (LOT; Scheier & Carver, 1992). Higher scores are indicative of greater optimism.

Demographic characteristics of the participants included age (in years), kin relationship (0 = daughters-in-law, 1 = daughters), physical health (a 3-item index ranging from 3 = poorer health to 15 = better health), years of education, years married, hours worked per week, weeks worked in the past year, the participant's income (1 = less than \$5,000 to 10 = \$80,000 and over), and household income (same categories).

Children's characteristics included the number of children at home, age of the youngest child at home (in years), and an index assessing the number of 11 tasks with which the child(ren) at home required help. The husband's characteristics included age (in years), physical health (1 = poor to 5 = excellent), and years of education.

The characteristics of the parent included age (in years), gender (0 = male, 1 = female), number of sons and daughters, and physical health (1 = poor to

5 = excellent). Measures of the parent's impairment included a rating of an index of the frequency of six memory problems such as forgetting what day it is (6 = low to 24 = high impairment), an additive index of the frequency of five behavioral problems such as becoming angry or aggressive (5 = low to 20 = high impairment), the amount of supervision needed (1 = none of the time to 5 = most of the time), an index of the amount of help required with eight IADLs, such as transportation, meal preparation (8 = low to 24 = high impairment), and an index of the amount of help required with seven PADLs, such as bathing, toileting (7 = low to 21 = high impairment).

Characteristics of the caregiving situation included the number of years participants provided care to a parent, hours the participants assisted the parent on a typical weekday and on a typical weekend day, whether supervision of the parent was provided or arranged by the participant (0 = no, 1 = yes), the number of eight IADLs with which the participant helps, the number of seven PADLs with which the participant helps, and whether the participant receives help with caregiving (0 = no paid or unpaid help to 3 =help from family, friends/neighbors, paid agency).

### Results

#### **Background Characteristics**

In this section, we present background information about the sample as a whole, and the results of oneway analyses of variance (ANOVAs) testing differences by race in background characteristics.

	Total Sample		African Americ	White Women		
Measure	М	SD	М	SD	М	SD
Participant's Characteristics						
Age	43.40	6.37	38.28*	6.49	44.49*	5.79
Kin relationship <sup>a</sup>	0.86	1.36	0.87	0.33	0.86	0.35
Physical health <sup>b</sup>	11.25	2.36	11.09	2.03	11.29	2.43
Years of education	14.61	1.84	14.78	1.57	14.58	1.89
Years married	17.78	8.23	11.12*	7.82	19.21*	8.38
Hours worked per week	37.10	12.02	41.36*	6.14	35.89*	12.65
Weeks worked past year	48.96	7.55	50.12	4.88	48.63	8.12
Participant's income <sup>c</sup>	4.94	2.27	5.67*	1.73	4.79*	2.35
Total household income <sup>c</sup>	8.36	1.36	8.18	1.06	8.39	1.41
Children's Characteristics						
Number of children at home	2.11	1.04	2.33	1.07	2.07	1.04
Age of youngest child at home	12.32	6.62	8.75*	6.33	13.09*	6.44
Children's functional needs <sup>d</sup>	5.69	3.28	7.02*	3.69	5.41*	3.12
Husband's Characteristics						
Age	45.47	6.89	42.45*	8.06	46.46*	6.42
Physical health <sup>e</sup>	3.76	0.94	3.70	0.97	3.78	0.94
Years of education	14.42	2.10	14.11*	1.84	14.54*	2.16

Table 2. Demographic Characteristics of Participants and Their Families by Participant's Race

 $^{a}0 = daughter-in-law, 1 = daughter.$ 

<sup>b</sup>Sum of three health items: 3 = poorer health to 15 = better health.

 $^{\circ}$ 01 = less than \$5,000, 02 = \$5,000-\$9,999, 03 = \$10,000-\$14,999, 04 = \$15,000-\$19,999, 05 = \$20,000-\$24,999, 06 = \$25,000-\$29,999, 07 = \$30,000-\$39,999, 08 = \$40,000-\$59,999, 09 = \$60,000-\$79,999, 10 = \$80,000 and over.

<sup>d</sup>Number of 11 tasks with which child(ren) at home require(s) help.

 $e_1 = poor to 5 = excellent.$ 

\* $p \leq .05$ , significant difference by race.

*Optimism.*—On average, the total sample reported experiencing a moderate level of optimism (M = 29.23, SD = 4.92, range = 14–40). There was no difference by race (for African American women, M = 30.00, SD = 4.70, range = 16–40; for White women, M = 29.08, SD = 4.96, range = 14–40).

Demographic Characteristics of Participants and Their Families.—Table 2 shows the demographic characteristics of participants and their families for the total sample as well as significant differences by race. A total of eight differences by race were significant (Table 2). On average, the African American women were 6 years younger, F(1,316) = 50.69, p < .01, and they were married about 8 years less, F(1,316) =43.97, p < .01. African American women worked approximately five more hours per week, F(1,316) =11.08, p < .01, and the amount of income that they contributed to their households was greater than the amount contributed by White women, F(1,310) =6.75, p < .01. On average, African American women also differed from White women in that their youngest child at home was about 4 years younger, F(1,316) =21.04, p < .01, and their children at home required help with approximately two more functional needs, F(1,316) = 11.42, p < .01. Finally, the African American women in the study had husbands who were 4 years younger, F(1,316) = 16.36, p < .01, and slightly less well educated, F(1,316) = 4.37, p < .01than husbands of the White women.

Demographic Characteristics and Impairment of the Care Recipient.—Table 3 displays the demographic characteristics and impairment of the care recipient for the total sample along with significant differences by race. African American women differed significantly from White women only in providing care for parents who were approximately 7 years younger, F(1,316) = 44.82, p < .01. There were no differences by race for parents' impairment.

*Characteristics of the Caregiving Situation.*—Table 4 reports the characteristics of the caregiving situation for the total sample along with significant differences by race. A total of three significant differences by race were found. African American women provided almost one more hour of caregiving, on average, on a typical weekend day, F(1,316) = 11.93, p < .01; they helped with slightly more IADLs, F(1,316) = 4.45, p = .03, and slightly more PADLs, F(1,316) = 4.14, p = .04, than White women did.

In summary, African American and White caregivers differed on 12 background characteristics: participants' age, years of marriage, hours per week the participants worked, participants' individual income, age of youngest child at home, children's functional needs, husbands' age and years of education, care recipients' age, caregiving hours on weekends, and the number of IADL and PADL activities with which the participant helped. These variables were considered for inclusion as covariates in multivariate analysis.

#### Multivariate Analysis

To investigate differences by race in depression, stress, rewards, mastery, emotional support, emotional undermining, and centrality, a one-way betweensubjects multivariate analysis of variance (MANOVA) was performed (Tabachnick & Fidell, 1996). MANOVA was chosen because study measures were moderately intercorrelated (Table 1). The race of the caregiver (African American or White) was the sole predictor. Prior to MANOVA, Box's *M* was used to test

	Total Sample		African American Women		White Women	
Measure	M	SD	М	SD	M	SD
Parent's Characteristics						
Age	75.78	7.56	69.93*	8.24	76.92*	6.82
Gender <sup>a</sup>	0.77	0.42	0.77	0.42	0.77	0.43
Number of sons	1.42	1.41	1.61	1.41	1.38	1.41
Number of daughters	1.96	1.36	2.09	1.39	1.93	1.36
Parent's Impairment						
Physical health <sup>b</sup>	2.37	1.05	2.16	0.87	2.42	1.08
Memory impairment <sup><math>c</math></sup>	10.75	4.04	10.18	4.00	10.88	4.04
Behavioral impairment <sup>d</sup>	8.18	2.83	8.09	2.37	8.20	2.93
Supervision needed in typical week <sup>e</sup>	3.63	1.37	3.45	1.46	3.68	1.34
IADL impairment <sup>f</sup>	16.71	3.58	16.77	3.65	16.71	3.57
PADL impairment <sup>g</sup>	9.15	2.75	9.78	3.41	9.02	2.57

 Table 3. Demographic Characteristics and Impairment of the Parent by Participant's Race

Notes: IADL = instrumental activity of daily living; PADL = personal activity of daily living.

 $a^{a}0 = male, 1 = female.$ 

 $^{b}1 = poor to 5 = excellent.$ 

 $^{c}6 = low to 24 = high impairment.$ 

 $^{d}5 =$ low to 20 = high impairment.

 $e^{1}$  = none of the time to 5 = most of the time.

 $^{f}8 = low to 24 = high impairment.$  $^{g}7 = low to 21 = high impairment.$ 

\* $p \leq .05$ , significant difference by race.

p = .05, significant anterence by rat

Table 4. Characteristics of the Caregiving Situation by Participant's Race

	Total Sample		African American Women		White V	White Women	
Measure	М	SD	М	SD	M	SD	
Years caregiving	6.20	5.90	5.86	5.25	6.23	6.21	
Caregiving hours							
Typical weekday	2.74	2.83	2.23	1.90	2.85	2.98	
Typical weekend day	3.53	3.41	4.49*	4.20	3.23*	3.14	
Participant provides supervision <sup>a</sup>	0.99	0.06	1.00	0.00	0.99	0.06	
Number of 8 IADLs that participant helps with	1.58	1.71	6.09*	1.59	5.56*	1.73	
Number of 7 PADLs that participant helps with	1.38	1.85	2.03*	2.14	1.48*	1.77	
Help from other caregivers <sup>b</sup>	1.49	0.85	1.39	0.78	1.51	0.87	

Notes: IADLs = instrumental activities of daily living; PADLs = personal activities of daily living.

 $a_0 = no, 1 = yes.$ 

 ${}^{b}0$  = no paid or unpaid help to 3 = help from family, friends/neighbors and paid agency.

\* $p \leq .05$ , significant difference by race.

the assumption of homogeneity of variance–covariance matrices (Tabachnick & Fidell, 1996). This test revealed no significant difference between groups, Box's M = 27.35, F(28,34501) = 0.93, p = .57. Omnibus MANOVA results indicated that the parent care experiences of African American and White women were significantly different, Wilks's Lambda = .94, F(7,309) = 3.02, p < .001, effect size = .06.

In order to determine which outcomes contributed significantly to the difference between groups, Roy-Bargmann stepdown F tests were performed (Tabachnick & Fidell, 1996). To reduce the likelihood of Type I error for the stepdown tests, the probability level was adjusted using a correction procedure recommended by Stevens (1996): namely, a one-tailed probability level ( $\alpha = .10$ ), because of the study's directional hypotheses, was divided by the number of hypothesized differences (seven) to yield  $\alpha = .014$  as the criterion for the statistical significance of race on each of the stepdown tests. Stepdown F tests require prioritizing the outcomes, then conducting a univariate ANOVA to test between-group differences on the first outcome, followed by an analysis of covariance (ANCOVA) for each subsequent outcome (controlling for all prior outcomes). Thus, these stepdown tests use the correlations between outcomes to control in later analyses for shared variance already accounted for in earlier analyses (Tabachnick & Fidell, 1996). For the present study, outcomes were prioritized according to the number of previous studies pertaining to differences by race, resulting in the following order: depression, stress, rewards, mastery, emotional support, emotional undermining, and centrality.

To ensure that differences attributed to race were not due to other characteristics, the stepdown tests also included background covariates, chosen from the 12 characteristics on which significant race differences were found. A background characteristic was included as a covariate in the stepdown analysis for a particular outcome if it had a significant ( $p \le$ .05) bivariate correlation with that outcome. Depressive symptomatology was correlated with the participant's individual income (r = -.16, lower income being related to higher symptomatology) and the husband's education (r = -.11, lower spouse education being related to higher caregiver symptomatology). Greater parent care stress was correlated with the caregiver providing help with a greater number of IADLs (r = .14). Parent care rewards were not significantly correlated with any of the background characteristics. Greater parent care mastery was related to the caregiver's children needing less help (r = -.13). Emotional support from the parent was not significantly related to any of the covariates. Emotional undermining from the parent was correlated with the parent's age (r = -.11, more undermining being associated with younger parents) and the number of hours spent providing care on a typical weekend day (r = -.12), more undermining being associated with fewer hours). Greater parent care centrality was associated with fewer years of marriage (r = -.11) and more hours spent providing care on a typical weekend day (r = .14).

As shown in Table 5, the stepdown *F* tests revealed a significant difference by race ( $p \le .014$ ) on two of the seven study outcomes. As hypothesized, African American women reported not only a lower level of stress than White women did but also a higher level of rewards in the parent care role. The adjusted means (Table 5) and the effect sizes (Cohen, 1988) for stress (f = .15,  $\eta^2 = .02$ ) and rewards (f = .17,  $\eta^2 = .03$ ) indicated that these differences by race were of small magnitude. Albeit small, these differences by race are notable, because they were statistically significant even after controlling for depression and IADL assistance in the case of parent care stress in the case of parent care rewards.

Contrary to prior research, there was no significant difference by race for depressive symptomatology. Because of the discrepancy with prior results, a chisquare analysis was conducted to further explore the relationship between depressive symptomatology and race of the caregiver. For this analysis, CES–D scores were dichotomized using a score of 16 or greater to represent risk of clinically significant depression (Radloff, 1977). A quarter (25%) of the African American

#### Table 5. Results of Stepdown Tests

	African A	American Women	Wh	ite Women			
Measure	М	Cl	М	CI	F	df	p
Depression <sup>a</sup>	11.22	8.50–13.95	12.86	11.62–14.09	1.14	1,307	.286
Parent care stress <sup>b</sup>	2.07	1.93-2.20	2.27	2.21-2.33	7.17	1,313	.008
Parent care rewards <sup>c</sup>	3.38	3.20-3.57	3.07	2.99-3.16	9.13	1,313	.003
Parent care mastery <sup>d</sup>	24.26	23.29-25.22	24.25	23.81-24.68	0.00	1,311	.984
Emotional support <sup>e</sup>	13.68	12.72-14.63	13.48	13.04-13.91	0.14	1,311	.712
Emotional undermining <sup>f</sup>	10.77	9.91–11.64	10.30	9.93-10.67	0.93	1,308	.336
Parent care centrality <sup>g</sup>	8.32	7.83-8.81	8.44	8.23-8.65	0.17	1,307	.682

Notes: M = adjusted means; CI = confidence interval; F tests are shown for the main effect of race. Degrees of freedom (df) vary due to missing data.

<sup>a</sup>Covariates were caregiver's individual income, F(1,307) = 5.85, p = 0.16, and husband's education, F(1,307) = 3.34, p = .069. <sup>b</sup>Covariates were depression, F(1,313) = 25.34, p < .001, and number of IADL tasks with which caregiver assists, F(1,313) = 6.42, p = .012.

<sup>c</sup>Covariates were depression, F(1,313) = 1.59, p = .208, and parent care stress, F(1,313) = 14.20, p < .001.

<sup>d</sup>Covariates were depression, F(1,311) = 24.02, p < .001, parent care stress, F(1,311) = 23.28, p < .001, parent care rewards, F(1,311) = 22.45, p < .001, and children's functional needs, F(1,311) = 4.10, p = .044.

<sup>e</sup>Covariates were depression, F(1,311) = 0.24, p = .627, parent care stress, F(1,311) = 11.35, p < .001, parent care rewards, F(1,311) = 50.33, p < .001, and parent care mastery, F(1,311) = 15.05, p < .001.

<sup>1</sup>Covariates were depression, F(1,308) = 0.31, p = .578, parent care stress, F(1,308) = 23.76, p < .001, parent care rewards, F(1,308) = 1.89, p = .170, parent care mastery, F(1,308) = 0.22, p = .640, emotional support, F(1,308) = 131.53, p < .001, parent's age, F(1,308) = 1.56, p = .213, and caregiving hours on weekends, F(1,308) = 1.59, p = .208.

<sup>8</sup>Covariates were depression, F(1,307) = 0.22, p = .641, parent care stress, F(1,307) = 1.55, p = .214, parent care rewards, F(1,307) = 77.29, p < .001, parent care mastery, F(1,307) = 0.35, p = .551, emotional support, F(1,307) = 2.24, p = .135, emotional undermining, F(1,307) = 0.26, p = .613, caregiving hours on weekends, F(1,307) = 9.72, p = .002, and years married, F(1,307) = 1.76, p = .186.

caregivers and a third (33%) of the White caregivers scored above this cutoff. Although in the direction predicted by prior research, the difference was not statistically significant,  $\chi^2(1) = 1.74$ , p = .19.

Similarly, no significant difference by race was found for parent care mastery, emotional support, or emotional undermining from the parent, or parent care centrality. Each of these measures did show significant relationships with one or more of the other outcomes under consideration, however. Thus, caregiving experiences were substantially interrelated, but only stress and rewards varied by race.

#### Discussion

As predicted, African American women reported a lower level of parent care stress than White women reported. This finding is consistent with most of the previous research on family caregivers (Hinrichsen & Ramirez, 1992; Lawton et al., 1992; Macera et al., 1992; Miller et al., 1995; Mui, 1992). Both the present study and these previous studies found significant differences by race in caregiving stress even after controlling for a variety of background characteristics. Only three prior studies (Cox, 1993; Morycz et al., 1987; Wood & Parham, 1990) have not found a difference by race. Thus, differences between African American and White caregivers in caregiving stress appear to be robust.

The present study also found that African American women reported a higher level of parent care rewards than White women did. This is consistent with prior studies (Lawton et al., 1992; Picot et al., 1997). However, in the present study, the analysis of parent care rewards controlled for depression and parent care stress. These confounding experiences have not been taken into account in previous research. It is also important to note that the higher level of rewards African American women reported receiving from caregiving did not merely reflect a more positive outlook on life generally, because there was no difference by race on optimism.

Differences in values and beliefs about aging, role expectations, and religiosity may account for why African American caregivers report less parent care stress and more parent care rewards than White caregivers do. Dilworth-Anderson and Anderson (1994) theorize that African American caregivers tend to "normalize" the cognitive and/or behavioral problems of older adults and interpret their symptoms of impairment as an integral part of the aging process. African Americans also express more positive attitudes toward their elders, viewing aging as a source of dignity and something to be respected (Haley et al., 1996; Mutran, 1985).

Prior research has also shown that African American caregivers are more likely than White caregivers to report that caregiving is an expected experience and that caregiving responsibilities are less of an intrusion on their lives (Haley et al., 1996; Lawton et al., 1992). African American families generally accept that family members should care for an aging relative (Dilworth-Anderson & Anderson, 1994; Mc-Adoo, 1993), and being able to fulfill the caregiving role has been found to be a source of rewards for African American caregivers (Picot, 1994). For African American caregivers, prayer and faith may raise their threshold for the stresses of caregiving (Segall & Wykle, 1988; Wheaton, 1985), may act as a buffer when caregiving stresses arise, and may be associated with perceptions of caregiving rewards, such as being blessed by God for their caregiving efforts (Pi-cot et al., 1997).

Contrary to expectation, there was no significant difference by race for depressive symptomatology in our study, despite African American women reporting less stress and more rewards from parent care than White women reported. The present finding was surprising. With one exception (Young & Kahana, 1995), prior research has consistently shown that African American caregivers report significantly lower depressive symptomatology than White caregivers (Haley et al., 1995; Lawton et al., 1992; Miller et al., 1995; Mintzer & Macera, 1992).

One possible explanation for the discrepancy between the present study and prior studies is the nature of the samples. Most of the previous studies aggregated a variety of family (and sometimes nonfamily) caregivers, whereas the present study focused on a more homogenous sample of caregivers (adult daughters and daughters-in-law). The one study that also used a homogenous sample of caregivers but found a significant difference in depression by race examined spouse caregivers (Miller et al., 1995).

The care recipient's impairment might also account for the inconsistency in findings. All of the prior studies that found differences in depressive symptomatology sampled caregivers who were assisting care recipients suffering from some form of dementia (Haley, 1997; Haley et al., 1996; Hinrichsen & Ramirez, 1992; Lawton et al., 1992; Miller et al., 1995; Mintzer & Macera, 1992). In contrast, the present study and Young and Kahana (1995), both of which did not find a significant difference in depressive symptomatology by race, used samples that were not limited to dementia care recipients. The present study focused on care recipients with a broad range of impairment, physical and/or cognitive. Young and Kahana (1995) focused on caregivers to persons with heart disease. Thus, differences in caregivers' depressive symptomatology by race may only occur with specific forms of impairment such as dementia or when physical and/or cognitive impairment reaches some critical threshold.

Another possible explanation for the discrepancy in findings may be that caregivers' income was a significant predictor of depressive symptomatology in our analyses. This finding is consistent with other literature linking income and depressive symptomatology (e.g., Eaton & Kessler, 1981). It may be that earlier differences attributed to race may have been confounded with socioeconomic factors.

The present study also found no significant difference by race in parent care mastery, which was consistent with one prior study (Miller et al., 1995) and inconsistent with another (Lawton et al., 1992). Differences in operationalization of mastery and in care recipients' impairment are unlikely to account for the inconsistency in findings, given that the studies by Lawton and colleagues (1992) and Miller and associates (1995) closely resembled each other in those regards. A more plausible explanation is greater homogeneity of caregivers' kin relationship (i.e., daughters and daughters-in-law in the present study and spouses in Miller et al.,1995). In contrast, Lawton and colleagues (1992) aggregated a variety of caregivers (e.g., spouses, adult children, siblings), and the distributions across kinship categories differed by race.

We found no significant difference by race for emotional support or emotional undermining from the parent when controlling for factors that were related to these two measures. The association between caregivers' race and the quality of their relationship with care recipients has received limited attention in previous research. The present study also provided an exploratory analysis of the association between race and parent care centrality. To our knowledge, this is the first investigation of this topic. Parent care rewards and the number of hours spent caregiving on a typical weekend day predicted parent care centrality, but race did not.

# Limitations of the Study

There are several noteworthy limitations to the present study. The results may not generalize to other ethnic groups or to women with different sociodemographic characteristics. The median income for White families in the present study was considerably higher than the national median for White married dualearner couples (Bennett, 1995), and both the African American and White women in the present sample were substantially better educated than women nationally (Bennett, 1995). Also, the results of the present study are cross-sectional. Therefore, we do not know whether differences by race in parent care stress and rewards will persist or whether other caregiving experiences (i.e., depressive symptoms) will continue to be unrelated to race over time. The longitudinal design of our study will enable us to address these questions in future analyses. Measures that could explain why the observed differences by race occurred were not available for the present study. In order to assess caregivers' role expectations, religiosity, and attitudes about aging, it is recommended that future research make an effort to include such measures.

# Strengths of the Study

Despite these limitations, the present study contributes to research on caregiving and race in several important ways. Our study controlled for caregivers' kin relationship (daughters and daughters-in-law) as a means to limit potential confounds between race and kin relationship. Although research has shown that caregiving outcomes differ between adult child and spouse caregivers (e.g., George & Gwyther, 1986), prior studies investigating the caregiving experiences of African Americans and Whites have aggregated a variety of caregivers. Our research design also required participants to occupy three roles (mother, wife, and employee) in addition to that of primary caregiver. The relationship between multiple roles and caregiving experiences has not been taken into account in previous research on African American

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and White caregivers. The present study was able to control for the effect that other roles may have on the caregiving experience.

Many studies have investigated the experiences of caregivers to relatives with Alzheimer's disease or other forms of dementia (e.g., Haley, Clair, & Saulsberry, 1992; Lawton et al., 1992). Results from dementia samples may not be generalizable to individuals who provide care to relatives without cognitive impairment (Ory et al., 1999). The present study extends previous research by examining the experiences of African American and White caregivers who were providing care for aging parents with various forms of impairment.

Research on caregiving stress and race is limited, but even fewer studies have examined the positive aspects of caregiving by race. Similarly, research on the quality of social relationships has focused more often on social support than on social undermining (Rook, 1991). A considerable strength of the present study is that it examined potential differences by race in both negative and positive aspects of the caregiving experience. Constructs such as parent care mastery and parent care centrality have also received limited attention in prior research investigating caregiving experiences by race. Overall, this research demonstrated the importance of examining a broad range of caregiving experiences in order to detect both similarities and differences between African American and White caregivers.

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