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Racial Differences in Social Support and Coping Among Family Caregivers of Patients with Prostate Cancer

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Abstract

More than 60 million Americans are informal caregivers to adults, which can negatively affect their health. Data from 126 White and 62 African American female caregivers in North Carolina were analyzed to describe social support and coping among family caregivers of patients with prostate cancer and to assess for racial differences. Social support amount and some coping methods differed by race. There was no racial difference in social support satisfaction. Borderline significant difference in social support by health status was found and this differed by race. These racial differences should be explored further to better understand the availability of caregiving resources and their health effects.

Keywords

family caregivers; prostate cancer; racial differences; psychosocial factors; social support; coping behavior

INTRODUCTION

Informal caregiving is a common practice in the United States. An estimated 61.8 million adult Americans provide unpaid care to another adult, with approximately 86% of all caregivers (including those caring for children) helping relatives (National Alliance for Caregiving [NAC] & AARP, 2009a). Seven percent of care recipients are estimated to be suffering from cancer (NAC & AARP, 2009a). In 2012, it is estimated that more than one million people will be diagnosed with cancer (American Cancer Society [ACS], 2012). Over a lifetime, about one out of every two American men and one out of every three American women will have cancer (ACS, 2012). As cancer treatments and medical advancements continue to improve, the provision of care in the home by family members will increase (Given & Sherwood, 2006; Golant & Haskins, 2008). As a result of this transition, changes in the family and social life of the primary caregiver may also change. Caregiving responsibilities can be complex, occur over a long period of time, and increase the family caregiver's burdens (Given & Sherwood, 2006; Golant & Haskins, 2008; NAC & AARP,

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2009a). Caregivers serve as the patient's companion, supporter, and information resource (Golant & Haskins, 2008; Mitschke, 2009). These roles take place for the caregiver while maintaining the household, employment, and daily routines for the family (Golant & Haskins, 2008; Mitschke, 2009). Caregivers may be inadequately prepared to take on this role and have insufficient resources (McCorkle & Pasacreta, 2001).

Caregiving can take a toll on caregivers' personal lives. More than 50% of caregivers have reported that caregiving has made it difficult for them to maintain their personal routines, friendships, career, and finances (Golant & Haskins, 2008). Serving as a caregiver can also negatively affect one's physical and mental health, especially for older individuals caring for spouses (Ostwald, 2009). Reports have shown that family caregivers experience more depression, anxiety, and distress than patients while receiving less social support (Cliff & MacDonagh, 2000; Eton, Lepore, & Helgeson, 2005; Kornblith, Herr, Ofman, Scher, & Holland, 1994; Northouse et al, 2007; Northouse, Mood, Templin, Mellon, & George, 2000; Rees et al., 2005; Soloway, Soloway, Kim, & Kava, 2005). Female caregivers of patients with prostate cancer report high prevalences of depression, anxiety, pain, sleep disturbance, and fatigue that negatively affect their functional status and quality of life (Fletcher et al, 2008). Research has determined that social support and coping may moderate the effects of caregiving stress on health outcomes (Ostwald, 2009).

Studying the psychosocial resources of caregivers is as important as studying the psychosocial status of patients with cancer. Caregivers utilize a narrower range of coping mechanisms and utilize them less than patients (Lavery & Clarke, 1999). Spouses of patients with prostate cancer report using less positive coping methods than their husbands (Eton et al., 2005). There also is some evidence that the responsibilities of caregiving may constrain caregivers from using their usual coping mechanisms (Gray, Fitch, Phillips, Labrecque, & Fergus, 2000). One source of coping that has been shown to be effective for the patient with prostate cancer and the spouse is problem solving, a cognitive reframing process that occurs within the context of finding solutions to the problem (Mishel et al., 2002; Yoshimoto et al., 2006). Interventions that include problem solving have been shown to reduce depression, improve adjustment to cancer, and lower anxiety and fatigue (Yoshimoto et al., 2006). Cancer diagnosis and treatment cause stress for not only the patient, but also the spouse or significant other and the relationship. Problem solving has been shown to improve the quality of the patient's life and the quality of marital relationships (Yoshimoto et al., 2006). Yoshimoto et al. (2006) found that wives who engage in religious coping along with their husband were better able to go through a problem-solving process in comparison to those where only the spouse engaged in religious coping. Therefore, caregivers/spouses may benefit from informed resources that can help them use healthy coping mechanisms during their caregiving experience.

Studies have shown the experiences and outcomes related to caregiving vary across racial groups (Dilworth-Anderson, Williams, & Gibson, 2002). Although African Americans and Whites likely have a similar number of informal supports (friends, family, neighbors), African Americans have a more diverse social network and may use formal supports less often (Dilworth-Anderson et al., 2002; Pinquart & Sörenson, 2005). On the other hand, Whites tend to be less satisfied with their social support (Dilworth-Anderson et al., 2002).

There are also important racial differences in the how people cope with stressful events. African Americans use more emotional (doing things to regulate the emotional effects of events, venting emotions) and avoidance (participating in other activities to avoid addressing events) coping than Whites (Pinquart & Sörenson, 2005; Taylor, 1998). Coping methods that involve emotional expression (e.g., denial, self-punishment) and avoidance of the issue (e.g., withdrawal) are thought to be maladaptive (Brougham, Zail, Mendoza, & Miller, 2009; Taylor, 1998). African Americans are more likely than Whites to use prayer and rely on religion and their faith in God (Dilworth-Anderson et al., 2002; Haley et al., 2004). African Americans also report that God is as much of an informal support resource as friends and family (Dilworth-Anderson et al., 2002). Minority caregivers also report worse physical health than Whites, but racial differences in mental health show mixed results (Dilworth-Anderson et al., 2002; Pinquart & Sörenson, 2005). Some studies have found that African Americans experience less depression and caregiver burden as compared to Whites; however, other studies have reported no difference (Dilworth-Anderson et al., 2002; Pinquart & Sörenson, 2005).

Prostate cancer is the leading cause of new cases of cancer among men aside from skin cancer and has a 5-year survival rate approaching 100% (ACS, 2012). For men who choose treatment for the prostate cancer, many may require the support of a loved one serving as a caregiver to help manage the recovery period (i.e., functional limitations, psychological issues related to illness, and medication adherence). Although there have been published reports on the racial differences that exist among caregivers (Dilworth-Anderson et al., 2002; Janevic & Connell, 2001; Pinquart & Sörenson, 2005; Siefert, Williams, Dowd, Chappel-Aiken, & McCorkle, 2008), there has been limited investigation specific to the racial differences among family caregivers of patients with prostate cancer (Mitschke, 2009). It is important to consider caregivers of patients with prostate cancer separately because caregiving experiences can differ by condition of the patient and even differ by cancer type (Clipp & George, 1993; Kim, Wellisch, Spillers, & Crammer, 2007). Further, mortality from prostate cancer among African American men in comparison to Whites is profound; the mortality rate for African American men is more than twice the rate of White men (ACS, 2012). Examining the psychosocial resources among prostate cancer caregivers may inform our understanding of the type of interventions needed to curtail the poorer disease prognosis among men.

Using data from the Managing Uncertainty in Stage B Prostate Cancer (MUIC-P) study (1-R01-NR03782) conducted by the School of Nursing at the University of North Carolina at Chapel Hill, the goal of this article is to explore the psychosocial resources of primary family care providers of patients with prostate cancer by describing the amount of and satisfaction with social support received and coping methods used by family caregivers of patients with prostate cancer overall and by race. We also assess for racial differences in the association between social support availability and perceived health status.

METHOD

Study Population

The MUIC-P Study, a longitudinal randomized experimental intervention study, recruited 239 African American and White men with stage A or stage B prostate cancer and their primary caregivers from tertiary care centers, urology clinics, or private practices in North Carolina from 1993 to 1998. This staging utilizes the Whitmore-Jewett staging system: stage A and B prostate cancers are localized to the prostate, stage C represents tumors that have spread outside of the prostate but have not spread to other bodily areas, and stage D tumors have invaded lymph nodes or other areas (National Cancer Institute, 2009). Informed consent was obtained from the patient and the caregiver. Additional information on the parent study is reported elsewhere (Mishel et al., 2002). Data collected from the caregiver included self-reported health beliefs, cancer knowledge, self-care, uncertainty, coping, problem solving, social support, family relationships, quality of life, doctor-patient communication, treatment satisfaction, and psychological adjustment. However, we focused our analysis on the social support and coping data.

Among the 239 men recruited into the intervention study, 223 female family caregivers provided baseline data for the MUIC-P study. For this analysis, participants were ineligible if they were missing data for any of the variables included in this report ($n = 35$). This resulted in a total of 188 women available for analysis of baseline data: 126 Whites and 62 African Americans. The mean age in years (SD) was 59.7 (8.4) and 55.5 (11.3) for Whites and African Americans, respectively. Educational attainment was 13.8 (2.6) years for Whites and 12.6 (2.8) years for African Americans.

Social Support and Coping Measures

Perceived social support was assessed with the six-item version of Sarason's Social Support Questionnaire (SSQ) (Sarason, Sarason, Shearin, & Pierce, 1987). For each item, the respondent was asked to list up to nine people who they can turn to in certain situations and then their satisfaction with the support received on a scale ranging from 1 (*very dissatisfied*) to 6 (*very satisfied*). The total number of social supports was calculated by summing the number of people that the participant reported available for each individual question (possible range of 0–54). The total satisfaction score was the mean of individual-item satisfaction scores (possible range of 1–6). The internal reliability for social support number and satisfaction is above 0.95, and the measures correlate well with individual difference measures of social supportive behaviors, perceived social support, anxiety, depression, and parental bonding (Sarason et al., 1987).

The Family Crisis-Oriented Personal Evaluation Scales (F-COPES) by McCubbin, Olsen, and Larsen (1994; McCubbin & Thompson, 1991) was used to measure different problem solving and behavioral strategies used by an individual's family during crises (internal consistency of 0.86, 4-week test-retest correlation of 0.81) (McCubbin et al., 1994). In the study questionnaire, 20 items from the F-COPES were scaled from 1 (*strongly agree*) to 5 (*strongly disagree*). Positive coping techniques were reversed coded to correspond with the original scale so that a larger score would indicate more positive coping use. All but three

coping variables—(1) knowing that luck plays a big part (2) feeling they would have trouble handling problems regardless of preparation and (3) believing a problem will go away with waiting—were considered positive coping variables. The F-COPES total score was a sum of the individual-item coping utilization scores (possible range of 20–100). An underlying model of the F-COPES is the circumplex model, a family theory model that focuses on the three central dimensions of marital and family systems: cohesion, flexibility, and communication. Its major hypothesis is that balanced couples and family systems tend to be more functional than unbalanced systems. The circumplex model is dynamic; assuming that changes can and do occur in couple and family types over time and during periods of stress, such as illness (Olson, 1999).

Both measures have been used in previous research with caregivers and family members of cancer patients and in samples including African Americans (Clay, Roth, Wadley, & Haley, 2008; Dilworth-Anderson et al., 2002; Martin, Wolters, Klaas, Perez, & Wood, 2004; Mitschke, 2009; Redinbaugh, Baum, Tarbell, & Arnold, 2003).

Health Status

General perceived health was assessed with a single item included in the Psychological Adjustment to Illness Scale, a 46-item multidimensional scale that assesses seven psychological areas (Derogatis, 1986). The participants were asked “In general would you say your health is: (5) excellent, (4) very good, (3) good, (2) fair, (1) poor.” In the analysis, health status was dichotomized to excellent/very good/good and fair/poor.

Data Analysis

Data analysis was conducted using SAS software version 9.1.3. We performed *t* tests to determine differences in the means of social support and coping variables by race. Means, standard deviations, and *p* values to assess differences between African Americans and Whites for overall and individual-item scores are reported. A chi-squared test was used to determine the association between race and general health status. We also examined the association between social support number and health status along with the differences in this association by race through *t* test comparisons.

RESULTS

Table 1 reports the amount of social support, social support satisfaction, and coping strategies for White and African American family caregivers of patients with prostate cancer. Whites reported higher levels of overall and type-specific social support amount than African Americans. Both groups reported that the greatest amount of received support came from people they could depend on when they needed help. There were no significant racial differences in satisfaction with the overall or type-specific social support received, and both groups were highly satisfied with their levels of social support. African Americans were slightly more satisfied with their support than Whites.

Overall family coping score did not differ between Whites and African Americans. However, the groups significantly differed in their utilization of a number of coping strategies. African Americans were more likely to rely on faith-based coping (attending

church services, participation in church activities, seeking advice from a pastor, and having faith in God). They were also more likely to seek assistance in the community. Whites were more likely to share problems with friends/family, accept help from neighbors, and accept help from friends/family. They were more likely to report that their family faces problems by knowing they have the power to solve big problems and facing problems head-on. Whites were also less likely to report that they would have problems handling problems regardless of how prepared they were and believed a problem would go away if they waited (these items are coded so that a higher number indicates less utilization).

There was a strong association between general health status and race ($\chi^2 = 9.85$, p value = .0017). Whites were more likely to report excellent, very good, or good health when compared to African Americans. Because there was also a strong difference in social support availability by race, we examined the means of social support number by general health and also stratified by race. There was a borderline significant difference in overall social support number and general health when both racial groups were combined; individuals with excellent, very good, or good health reported more social support than those with fair or poor health ($p = .05$). This was similar among Whites ($p = .05$). However, among African Americans, those with fair or poor health reported having more social support than those with excellent, very good, or good health ($p = .29$). Means of social support number are presented in Table 2.

DISCUSSION

This study found some racial differences in social support and coping among female family caregivers of patients with prostate cancer. White caregivers reported more social support than African American caregivers. This finding is consistent with a review that concluded that the widely-held belief that minority caregivers receive more social support from their family and friends than White caregivers was not supported over a number of studies (Dilworth-Anderson et al., 2002). However, the review's conclusion that White caregivers are less satisfied with support received than African American caregivers (Dilworth-Anderson et al., 2002) is not in accordance with our finding of no racial difference in social support satisfaction. It is interesting that though Whites reported receiving more support than African Americans that they report similar satisfaction. There may be racial differences in what people consider to be sufficient support due to variation in the social, economic, and environmental contexts. Also, reporting the number of supports one has does not take into account how much they are relying on the different individuals. It may be possible that African Americans get more support per individual support source than Whites.

We found that African American and White caregivers differed in their use of certain coping strategies. African Americans were particularly more likely to rely on their faith and church resources. This corresponds with the 20-year review on caregiving and other studies that reported that African Americans view God as an important part of their support system and use their faith as a special form of coping (Dilworth-Anderson et al., 2002; Haley et al., 2004; NAC & AARP, 2009b). We found that African Americans seek more assistance in the community to cope than Whites; previous research has found that African Americans demonstrate a greater need for formal supports but may actually use them less (Dilworth-

Anderson et al., 2002). There is evidence that African Americans may be more likely to employ maladaptive avoidant coping techniques (Taylor, 1998); this corresponds with our finding that African Americans are more likely to report that they believe a problem will go away if they wait. Whites were more likely to share problems with friends and family and accept help from neighbors and their friends and family. This is a surprising finding given that previous research indicates no difference in the social support that African Americans and Whites receive from friends and family (Dilworth-Anderson et al., 2002).

When a family experiences a life change, the family must adjust to the new status quo, and the family system must adapt and change the way it functions (Olson & Gorall, 2003). The circumplex model also assumes that couples and families need to alter their system as their individual needs and preferences change (Olson, 1999). To adequately cope with changes affecting the system, it is important to be able to articulate and negotiate these changes on cohesion and adaptability (Olson, 1999). The factors included on the F-COPES are behaviors that may influence the functionality of the family system. For example, sharing problems with family/friends (a factor more common among Whites than African Americans), may improve communication and promote family cohesion. The circumplex model is sensitive to ethnic and cultural diversity (Olson, 1999). Unbalanced systems are not necessarily dysfunctional, particularly if a family belongs to a particular ethnic group or religious group that has normative expectations that support behaviors extreme of cohesion, flexibility, and communication (Olson, 1999). Race/ethnicity is a core trait of families that needs to be seriously considered when assessing family dynamics (Olson, 1999).

We found racial differences in general health status and how social support availability differs by health status. Siefert et al. (2008) found no difference in physical health by race among cancer family caregivers. However, Pinquart and Sörenson (2005) found worse physical health among African American family caregivers. Research has indicated that social support can have beneficial effects on cardiovascular, endocrine, and immune systems (Uchino, Cacioppo, & Kiecolt-Glaser, 1996), however, there has not been much investigation on the racial differences in the association between social support and health. It is unknown the reason why more social support was associated with better health among Whites and instead worse health among African Americans.

The limitations of this study should be considered when interpreting the findings. First, baseline data were used for this cross-sectional analysis that included female family caregivers of patients prostate cancer who had within 2 weeks of enrollment completed either surgical or radiation therapy. It is possible that the findings could differ further into the caregiving experience. The sample size of this study was limited; therefore, the power to perform more sophisticated analyses was not feasible. We were unable to control for potential factors related to race, social support, and health status or investigate effect measure modification. Factors to be considered include age, socioeconomic status, and marital status. Third, there was little variation in some of the study measures. Most of the women reported high levels of satisfaction with their support and high utilization of coping techniques. This hindered the ability to detect significant associations.

However, there are strengths to this study, as well. Investigations into racial differences of the caregiving experience, including social support and coping strategies, are limited. This study provides insight into these differences. Another strength of the study was the use of established, reliable, and valid scales to measure study factors (McCubbin & Thompson, 1991; Sarason et al., 1987).

Research into the mental, social, and physical health of informal caregivers is an important task. Informal caregiving is a self-sacrificing act that requires substantial energy and effort that disrupts the life of caregivers and can negatively affect their health and overall quality of life. Previous literature has indicated that the quality of life of caregivers affects the quality of life of those they care for (Ko et al., 2005; Mellon, Northouse, & Weiss, 2006). Therefore, intervening to promote the well-being of caregivers can provide benefits for caregiver and patient. Social support and coping are potentially important factors in supporting the health of cancer caregivers. Haley (2003) determined that the negative effects of caregiving could be mitigated by psychological support and assistance in problem solving. Considering the large number of people that become diagnosed with cancer and the frequency of informal caregiving (ACS, 2012; NAC & AARP, 2009b), there is potential to contribute to better health of a considerable proportion of the public.

IMPLICATIONS FOR CLINICAL PRACTICE

The amount of social support in this study varied by race with Whites receiving a greater amount of support than African American female caregivers/spouses. This is an important finding in that it is consistent with a review article by Dilworth-Anderson et al. (2002) that reported insubstantial findings to support the common claim that African Americans have more social support due to large family and friend networks. There is also a clinical implication in the management of psychosocial responses to cancer related to the racial difference in the amount of social support received. Although both race groups expressed similar levels of satisfaction with the amount of social support received, clinical staff must consider the family context and socioeconomic conditions of the caregiver and those available to provide support. Understanding culture and how it may or may not provide additional buffering from the negative aspects/strains of caregiving, especially among African American caregivers. This is evident from the finding that showed African American female caregivers having fewer sources of emotional-related support (e.g., help you relax, help you feel better, and console you when upset) compared to White caregivers.

We also found that the amount of social support received by female caregivers has implications on health status. Among Whites, having more received support was significant, although borderline, with at least good health. On the contrary, the direct benefit of receipt of social support on health status among African Americans is less clear. Attention to the mental and physical health status of caregivers and the buffers of social support and coping should be investigated over the course of the caregiving experience.

These findings with corroboration from other research, can help medical professionals, those involved in support services, and public health researchers understand how people are likely

to deal with illness, what their support needs are, and assist them in serving as better resources.

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Mean Racial Differences in the Amount and Satisfaction with Received Social Support and Family Coping Methods, Managing Uncertainty in Prostate Cancer Baseline Study, 1993–1998 (N = 188)

TABLE 1

Measure	Whites (n = 126)		African Americans (n = 62)		Difference p value
	M	SD	M	SD	
Social Support, Number					
Overall	4.0	2.3	2.2	1.3	<.0001
Dependable when need help	5.6	2.7	3.4	2.5	<.0001
Help you relax	3.6	2.6	1.9	1.5	<.0001
Accepts you totally	3.9	2.8	2.1	1.6	<.0001
Care about you	4.4	2.8	2.0	1.6	<.0001
Help you feel better	3.4	2.7	1.8	1.4	<.0001
Console you when upset	3.5	2.8	1.7	1.4	<.0001
Social Support, Satisfaction					
Overall	5.8	0.4	5.9	0.4	0.4102
Dependable when need help	5.8	0.4	5.9	0.4	0.6330
Help you relax	5.7	0.7	5.8	0.5	0.4564
Accepts you totally	5.8	0.7	5.9	0.4	0.1452
Care about you	5.8	0.4	5.9	0.4	0.6439
Help you feel better	5.8	0.5	5.9	0.7	0.6329
Console you when upset	5.8	0.4	5.9	0.7	0.7619
Family Crisis-Oriented Personal Evaluation Scales					
Overall	78.9	9.9	76.2	10.3	0.0865
Share problems with family/friends	4.3	0.9	3.8	1.1	0.0037
Seek help from friends/neighbors	3.6	1.1	3.3	1.3	0.0540
Know we have the power	3.9	0.9	3.6	0.9	0.0262
Seek advice from relative/friends	3.7	1.1	3.5	1.1	0.2859
Seek assistance in community	2.9	1.2	3.4	1.2	0.0254
Know we have strength within family	4.0	0.8	3.8	1.1	0.0777
Accept help from neighbors	4.0	1.0	3.3	1.2	<.0001

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Measure	Whites (n = 126)		African Americans (n = 62)		Difference p value
	M	SD	M	SD	
Seek info/advice from doctor	4.3	0.9	4.0	0.9	0.0906
Face problems "head-on"	4.4	0.7	4.1	0.9	0.0188
Attend church services	3.8	1.3	4.2	0.9	0.0485
Accept problems a part of life	4.3	0.7	4.2	0.7	0.3793
Accept help friends/family	4.3	0.8	3.9	0.9	0.0057
Know luck plays a big part	3.5	1.1	3.4	1.3	0.5705
Doing things with relatives/friends	4.1	1.0	4.0	0.9	0.4368
Participate in church activities	3.5	1.3	4.1	0.9	0.0011
Look at problem in positive way	4.3	0.6	4.2	0.8	0.0836
Trouble handling problems regardless of preparation	3.8	1.1	3.0	1.2	<.0001
Seek advice from pastor	3.4	1.2	3.9	0.9	0.0029
Believe problem will go away if wait	4.4	0.9	4.1	1.0	0.0184
Have faith in God	4.3	1.1	4.6	0.9	0.0417

TABLE 2

Mean Overall and by Race in the Amount of Social Support by General Health Status, Managing Uncertainty in Prostate Cancer Baseline Study, 1993–1998 ($n = 188$)

General Health Status	<i>n</i>	Social Support Mean	Standard Deviation	<i>p</i> Value
Overall				0.05
Poor/fair	27	2.64	1.75	
Good/very good/excellent	161	3.54	2.28	
Whites				0.05
Poor/Fair	11	2.73	1.49	
Good/very good/excellent	115	4.16	2.36	
African Americans				0.29
Poor/fair	16	3.61	1.95	
Good/very good/excellent	46	2.32	1.05	

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