

# Relationship quality and burden among caregivers for late-stage cancer patients

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Presentation at the  
American Public Health Association Meetings

Wednesday, November 11, 2009

**Objective:** This study explores how caregiver relationship quality with family, patient and patient's health care provider (HCP) is associated with subjective caregiver burden during the early treatment phase for late-stage cancer. **Method:** Burden and relationship quality were assessed in telephone interviews with family caregivers (FCGs) of advanced cancer patients. The five subscales of the Caregiver Reaction Assessment (CRA) measured burden, while relationships were measured with the Family Relationship Index (FRI), the Family Inventory of Needs (FIN) subscale of met needs, and a scale assessing family discord in cancer communication. **Results:** Multiple linear regression analyses in SPSS (v16) of 420 FCGs showed that higher quality relationship with family was associated with lower burden in FCG abandonment, health, scheduling ( $p < .001$ ) and finances ( $p < .01$ ). Higher quality relationship with patients' health care providers was associated with lower burden in FCG abandonment ( $p < .05$ ), health and finances ( $p < .001$ ). More discordant communication in patient relationship was associated with lower financial burden ( $p < .05$ ). Relationship quality was not associated with caregiver self-esteem. **Conclusions:** Findings demonstrate that caregiver relationship quality with family and with patient's health care provider are important factors in understanding caregiver burden during the early treatment phase of late-stage cancer care.

## Acknowledgements:

The authors would like to gratefully acknowledge the funding sources for this project: National Cancer Institute, R01-CA10282; VA HSR&D Merit, IIR-03-255; American Cancer Society, ROG-04-090-01.

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## Measures

### 1) *Measure of Caregiver Burden: Caregiver Reaction Assessment (CRA) [9].*

24 items across 5 subscales, 5-point scale from “strongly agree” to “strongly disagree.” Scores were summed and higher scores indicated greater impact on the caregiver. For Caregiver’s Esteem this impact was positive, the others negative. The CRA has been widely used in the advanced cancer caregiving literature, and is well-validated [9].

- Subscales: Family Abandonment (5 items,  $\alpha=.85$ ), caregiver’s sense of having been left by other family members to provide all caregiving to the care recipient.
- Impact on Health (4 items,  $\alpha=.90$ ), caregiver’s perception that his or her health has suffered as a result of the obligations of caregiving.
- The Impact on Schedule subscale (5 items,  $\alpha=.82$ ), perceived effort and difficulty of obtaining health care needs and making care-related arrangements.
- Impact on Finances (3 items,  $\alpha=.81$ ), economic costs and losses of caregiving.
- Caregiver’s Esteem (7 items,  $\alpha=.90$ ), perceived positive aspects of caregiving.

### 2) *Measures of Caregiver Relationship Quality.*

*Caregiver-family relationship: Family Relationship Index (FRI) [11].* 12-item scale derived from the Family Environment Scale (FES) [14] using items from three subscales: cohesion, expressiveness and conflict. The FRI was developed for use with family caregivers of advanced cancer patients and effectively identifies families at risk of maladaptive bereavement adjustment [11]. Items were coded to index more positive family relationships. The alpha coefficient for the FRI is .89 [15], and it is well-validated [15].

*Caregiver-Patient’s Health Care Provider relationship: subscale of the Family Inventory of Needs in advanced cancer care (FIN) [12].* 21-item FIN Need Fulfillment Subscale measures how well the family member perceived each of their provider needs as being met by the patient’s health care provider(s). Scored 0-2 (Unmet, Partially Met, Met); scores were summed and divided by the number of responses. A high rating of met needs was considered indicative of a good relationship. Reliability for this scale is .83 [12].

*Caregiver-Patient relationship: 5-item measure of patient-family discord in cancer communication [10].* The 5 items were drawn from the total group of 30 as showing only the caregiver or patient perspective, without requiring both [10]. Items report cancer communication difficulties between caregiver and patient. The scale utilizes a six point Likert scale with responses ranging from 1 to 6 (1=all of the time, 3=half of the time, 6=never), and shows a reliability coefficient of .63.

### 3) *Caregiver background characteristics: age (years), gender, education (years), race (African American vs. other), annual income (1= \$0-\$9,999 to 7= \$50,000 or more), whether or not the caregiver lived with the patient, and religiosity (0=not at all religious to 5=very religious).*

## Description of Sample (N=420)

**Table 1: Background Variables**

FCG Characteristics	Median (Range) Or N (%)
Gender	
-Female	328 (78.3%)
-Male	87 (20.8%)
Age	51 yrs (18-88)
Education	12 yrs (5-23)
Income	
-\$0-9,999	34 (8.1%)
-\$10,000-14,999	49 (11.7%)
-\$15,000-19,999	31 (7.4%)
-\$20,000-29,999	76 (18.1%)
-\$30,000-39,999	55 (3.1%)
-\$40,000-49,999	33 (7.9%)
-\$50K or more	112 (26.7%)
Employed	
-Yes	199 (47.5%)
-No	215 (51.3%)
Religious	
-Not at all	14 (3.0%)
-Not very	30 (7.4%)
-Somewhat	130 (31.0%)
-Religious	115 (26.8%)
-Very religious	121 (29.7%)
Race	
-African American	29.8%
-Non African American	69.5%
Live together	141 (42.0%)
-No	176 (57.5%)
-Yes	
Attends MD Visits	
-Never	31 (7.4%)
-Rarely	24 (5.7%)
-Sometimes	80 (19.1%)
-Usually	108 (25.8%)
-Always	174 (41.5%)

**Table 2: Independent Variables**

Relationship Quality	Range	Mean (SD)
Family Relationship	(0-12)	8.6 (2.3)
HCP Relationship	(0-40)	30.2 (8.8)
Patient Relationship	(5-30)	12.0 (4.9)

**Table 3: Outcome Variables**

Caregiver Burden	Range	Mean (SD)
Family Abandonment	(5-25)	10.7 (4.3)
Financial Burden	(3-15)	7.9 (2.9)
Scheduling Burden	(5-25)	14.2 (4.6)
Health Burden	(4-20)	8.2 (2.6)
Caregiver Self-Esteem	(7-35)	30.2 (3.4)

**Table 4: Regression Coefficients for Caregiver Burden**

	Abandonment		Health		Schedule		Finances		Care S-E	
	B (S)	$\beta$	B (S)	$\beta$	B (S)	$\beta$	B (S)	$\beta$	B (S)	$\beta$
<b>Age</b>	-.009 (.016)	-.032	.006 (.010)	-.031	<b>-.052**</b> (.017)	-.205	.000 (.011)	.010	<b>-.039*</b> (.014)	-.178
<b>Female</b>	.219 (.518)	.021	<b>.924**</b> (.302)	.134	-.207 (.539)	-.028	-.002 (.338)	-.026	.127 (.437)	.016
<b>Black</b>	.001 (.484)	.000	.025 (.275)	-.040	-.207 (.492)	-.060	.451 (.308)	.055	-.454 (.413)	-.061
<b>Income</b>	<b>-.278*</b> (.133)	-.130	.025 (.074)	.037	-.101 (.133)	.008	<b>-.531***</b> (.083)	-.391	-.018 (.113)	-.011
<b>Religiosity</b>	.084 (.209)	.021	.017 (.124)	.005	<b>.455*</b> (.223)	.120	.071 (.141)	.031	<b>.390*</b> (.177)	.126
<b>Education</b>	.005 (.518)	.003	-.019 (.057)	-.013	.100 (.102)	.056	.115 (.064)	.088	.119 (.384)	-.114
<b>Live togethr</b>	.114 (.455)	.013	<b>.982***</b> (.259)	.187	<b>2.321***</b> (.463)	.284	.395 (.290)	.047	<b>.773*</b> (.357)	.114
<b>Employed</b>	.423 (.500)	.048	-.201 (.287)	-.062	-.524 (.514)	-.095	.558 (.321)	.087	-.059 (.425)	-.009
<b>Family RQ</b>	<b>-.747***</b> (.097)	-.403	<b>-.319***</b> (.057)	-.311	<b>-.353***</b> (.102)	-.208	<b>-.193**</b> (.063)	-.152	.102 (.082)	.072
<b>HCP RQ</b>	<b>-.057*</b> (.027)	-.109	<b>-.060***</b> (.015)	-.192	-.038 (.028)	-.068	<b>-.056***</b> (.017)	-.180	.030 (.023)	.076
<b>FCG-PT Discord</b>	.016 (.047)	.018	-.024 (.028)	-.086	.044 (.049)	.038	<b>-.069*</b> (.033)	-.117	-.064 (.040)	-.095

**Table 5: Variation for each outcome before and after relationship quality added**

Model	Abandonment		Health		Schedule		Finances		Care S-E	
	R <sup>2</sup>	F	R <sup>2</sup>	F	R <sup>2</sup>	F	R <sup>2</sup>	F	R <sup>2</sup>	F
<b>1. Background Characteristics</b>	.04**	2.52	.04**	3.05	.07***	4.39	.13***	6.67	.04**	2.45
<b>2. Relationship Quality</b>	.22***	8.79	.16***	7.05	.12***	5.28	.17***	7.20	.06***	2.81

\*=p<.05    \*\*=p<.01    \*\*\*=p<.001

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