Brief Report

Caregiver Self-Esteem as a Predictor of Patient Relationship Satisfaction: A Longitudinal Study

Emily L. Mroz, MS,1 Michael J. Poulin, PhD,2 Pei C. Grant, PhD,3 Rachel M. Depner, MS,3 Jennifer Breier, MSED, MS, CRC,3 David J. Byrwa, MS,3 and Scott T. Wright, MS4

Abstract

Objective: Longitudinal assessment of patient–caregiver relationships will determine whether caregiver self-esteem determines patient relationship satisfaction at end of life.

Background: Research on close relationships and caregiving supports the idea that informal caregivers’ self-esteem may influence their relationships with their terminally ill loved ones. However, this connection has not yet been investigated longitudinally, nor has it been applied specifically to care recipients’ relationship satisfaction.

Methods: A sample of 24 caregivers and 24 patients in a hospice home care program were recruited. Multiple patient and caregiver interviews were used to conduct a longitudinal study to measure fluctuations in patient health, changes in patient and caregiver relationship satisfaction, and self-esteem over a three-month period.

Results: An interaction between caregiver self-esteem and patient relationship satisfaction demonstrated the role that self-esteem plays between caregivers and patients enrolled in hospice care. Specifically, for patients with caregivers with low self-esteem, patient relationship satisfaction significantly decreased as the patient’s physical health decreased, whereas for patients whose caregivers had high self-esteem, patient relationship satisfaction marginally increased during poorer physical health.

Discussion: High self-esteem may allow caregivers to overcome feelings of burden and maladaptive anticipatory grief to remain satisfied in their relationship with the patient. Caregiver self-esteem appears to play a role in fostering patient relationship satisfaction at the end of life.

Keywords: caregiver burden; end-of-life; hospice

Introduction

Informal caregivers are an integral component of healthcare. An estimated 43.5 million adults in the United States served as an informal caregiver to an adult or child in 2015.1 Caregiving can induce stress over time2 when caregivers feel unable to successfully make their care recipient comfortable.3 This experience is especially common in home hospice care settings, where the patient’s functional decline is pronounced.4 The present study investigates whether caregiver self-esteem moderates the association between relationship satisfaction and patient health outcomes.

Informal care at end of life

When a loved one is ill or reaching end of life, family members often become informal, in-home caregivers.5 Indeed, these caregivers report feeling more equipped than healthcare professionals to emotionally support their loved ones.5 While caregivers may choose their roles voluntarily, many find it difficult to watch their care recipient’s health...
decline. This often leads to an increase in perceived burden that can harm the caregiver–care recipient relationship.

The hospice and palliative care philosophy emphasizes viewing the unit of care as the dying individual as well as the family, including informal caregivers. As such, informal caregivers are a critical group to study. Previous research demonstrates that caregivers may be able to rely on strong relationships with their care recipients to overcome caregiving burden in end-of-life settings.

One factor that may influence caregiver–care recipient relationship satisfaction over time is caregiver self-esteem.

**Current study: Self-esteem as a moderator of quality of care**

Previous research on close relationships indicates that higher self-esteem protects relationships from perceived threats. It is likely that a decline in patient health acts as a relationship threat in the context of a caregiver–care recipient relationship. Caregivers, then, would respond to this threat in different ways depending on their levels of self-esteem: caregivers with low self-esteem might draw away from the loved one in a self-preserving way, whereas caregivers with high self-esteem might draw closer to their loved one and increase support.

Prior research indicates that levels of caregiver self-esteem influence their feelings of burden, and ability to provide quality care. These studies, however, did not focus specifically on care recipient relationship satisfaction, nor did they investigate caregiver self-esteem as a moderator of the effects of care recipient decline over time. The present study was designed to address these issues. The hypotheses for the current study were: (1) over the course of care recipient decline, relationship satisfaction would increase for dying individuals that have caregivers with high self-esteem, and in comparison, (2) relationship quality and physical health would concurrently decrease among care recipients with caregivers that had low self-esteem.

**Participants**

This project was approved by the State University of New York at Buffalo Social and Behavioral Sciences Institutional Review Board. Study participants were hospice patients and their primary informal caregivers who were enrolled in a comprehensive home hospice care program, through Hospice Buffalo (Cheektowaga, NY) between January 2014 and May 2015. Twenty-four caregivers and 24 patients completed at least one, and up to five, follow-up sessions during this time period and were included in final analyses. Caregiver participants were all family or close friends of patients and 88% female (21 out of 24; M age = 62.33, standard deviation [SD] = 11.15). Patient participants were 33% female (8 out of 24; M age = 74.57, SD = 10.76). Twenty-one caregiver participants were Caucasian (88%), one was African American, one was American Indian, and one did not disclose their ethnicity. Patients were enrolled in hospice homecare due to the following illnesses: cancer (41%), chronic obstructive pulmonary disease (29%), congestive heart failure (4%), and other or undisclosed issues (25%).

**Procedure**

**Initial visit.** Potential study participant pairs were assessed initially for eligibility, including: enrollment in hospice homecare, having a primary caregiver at least 18 years of age, and having no barriers to communication. Patients with dementia, delirium, and thought disorders were not eligible. Interested pairs of patients and caregivers were scheduled for a home visit. Informed consent and measures of relationship quality and patient health were administered Caregivers also completed a self-esteem measure. Most caregiver–care recipient pairs were interviewed separately, but some chose to remain in the same room during the interviews.

**Follow-up surveys.** Follow-up surveys were collected over the phone every two weeks for up to three months. These surveys were collected in the home when telephonic survey administration presented a challenge (e.g., participant was hard of hearing).

**Materials**

**Self-esteem measure.** Self-esteem was measured by self-report at the baseline interview for each caregiving participant, using the Single-Item Self Esteem (SISE) Scale. The SISE is a concise scale used to assess self-esteem in a minimally burdensome way and has a high level of convergent validity with

**Table 1. Descriptive Statistics and Correlations for Caregiver, Patient, and Caregiving Variables (N=48)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Caregiver relationship satisfaction</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2 Patient relationship satisfaction</td>
<td>0.80***</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3 Patient social support rating</td>
<td>0.51*</td>
<td>0.64***</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4 Caregiver self-esteem</td>
<td>0.32</td>
<td>0.09</td>
<td>—0.27</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5 Patient physical health</td>
<td>-0.03</td>
<td>-0.08</td>
<td>-0.15</td>
<td>-0.22</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6 Patient functioning</td>
<td>0.16</td>
<td>0.32</td>
<td>-0.17</td>
<td>0.02</td>
<td>0.17</td>
<td>—</td>
</tr>
<tr>
<td>M</td>
<td>5.90</td>
<td>5.98</td>
<td>4.25</td>
<td>5.45</td>
<td>6.13</td>
<td>3.50</td>
</tr>
<tr>
<td>SD</td>
<td>1.27</td>
<td>0.99</td>
<td>0.71</td>
<td>1.10</td>
<td>8.18</td>
<td>9.25</td>
</tr>
<tr>
<td>Range</td>
<td>3.25–7.00</td>
<td>4.25–7.00</td>
<td>2.71–5.00</td>
<td>2.00–7.00</td>
<td>-10.00 to 20.00</td>
<td>-24.00 to 20.00</td>
</tr>
</tbody>
</table>

All variables, for caregiver and patient, are reported by the caregivers and patients themselves at baseline.

*p < 0.05, ***p < 0.001.

SD, standard deviation.
SELF-ESTEEM PREDICTS RELATIONSHIP SATISFACTION

Table 2. Random Effects Regression for Patient Relationship Satisfaction Over Time, Predicted by the Interaction of Patient Physical Health and Caregiver Self-Esteem (N=48)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient relationship satisfaction at baseline</td>
<td>0.71** [0.31 to 1.11]</td>
</tr>
<tr>
<td>Caregiver relationship satisfaction over time</td>
<td>0.07 [-0.07 to 0.22]</td>
</tr>
<tr>
<td>Caregiver self-esteem</td>
<td>0.13 [-0.21 to 0.48]</td>
</tr>
<tr>
<td>Patient physical health</td>
<td>0.08* [0.01 to 0.15]</td>
</tr>
<tr>
<td>Caregiver self-esteem x patient health</td>
<td>-0.01* [-0.02 to -0.002]</td>
</tr>
</tbody>
</table>

Unstandardized variables.

*p<0.05, **p<0.01.
CI, confidence interval.

The Rosenberg Self-esteem Scale in adult populations. Participants rated whether they had high self-esteem using a Likert scale ranging from 1 (not very true of me) to 5 (very true of me).

Relationship quality measures. The first of two relationship quality questionnaires focuses on the patient’s perspective that their caregiver is properly attending to them. Using a slightly modified version of the seven-item Social Support Questionnaire (SSQ),16 patients indicated how much they feel they are receiving support (i.e., index of social support, baseline z = 0.76).

The second measure targeted relationship satisfaction for both patients and caregivers. This four-item measure was modified from a relationship assessment scale developed by Murray, Holmes, and Griffin.10 The directions explicitly asked the patient or caregiver to answer based on their relationship with their loved one (i.e., index of relationship satisfaction, baseline caregiver z = 0.85; for patients, 0.74).

Patient health measure. Patient health was assessed with a subscale of the 15-item version of the Missoula-VITAS Quality of Life scale (MVQoL-15R) originally developed by Byock and Merriman.17 Patient physical health was assessed through items asking patients to indicate how much discomfort they were in.

Results

Analyses examined the associations between patient health and patient relationship quality during the follow-up time points, as moderated by caregiver baseline self-esteem. For this reason, analyses were conducted as random effects regressions with follow-up time points (1–6) nested within individuals. All analyses controlled for the patients’ and caregivers’ baseline levels of the relationship quality measures. Descriptive statistics and correlations for all study variables at baseline are reported in Table 1.

There were no significant interactions between caregiver self-esteem and patient physical health to predict patient perceptions of social support (ps > 0.63). However, patient physical health over time significantly interacted with caregiver self-esteem to predict patient relationship satisfaction (B = -0.01, 95% confidence interval [CI] -0.02 to -0.002; p = 0.02, Table 2). To interpret this interaction, self-esteem was recoded into two separate variables in which 0 fell at a low value (M - 1 SD) or a high value (M + 1 SD). Each of these variables was used as the moderator in a separate random effects regression, and simple slopes for physical health were examined. This procedure indicated that for patients with low self-esteem caregivers, better physical health predicted better patient relationship satisfaction (B = 0.02, 95% CI 0.002–0.04; p = 0.03). By contrast, for patients with high self-esteem caregivers, better physical health predicted marginally poorer patient relationship satisfaction (B = -0.01, 95% CI -0.02 to 0.0004; p = 0.06)—in other words, for patients with high self-esteem caregivers, poorer physical health predicted better relationship satisfaction (Fig. 1).

Discussion

As predicted, with declining patient health, low caregiver self-esteem related to worsening patient relationship satisfaction, whereas high caregiver self-esteem predicted increasing patient relationship satisfaction. The longitudinal nature of the current study extends previous work12,14 highlighting the effects that self-esteem can have on caregiver-care recipient relationship satisfaction by demonstrating the pattern over time. Similar to romantic relationship trajectories,11 caregivers with higher self-esteem may foster their relationships with their loved ones, despite the threat of end of life, whereas low self-esteem caregivers may be more likely to exhibit self-preserving behaviors.

FIG. 1. Mean differences in patient relationship satisfaction based on patient health levels and caregiver self-esteem.
Limitations and next steps

While this study was designed to efficiently test the hypotheses within certain time constraints, there were some limitations. As a single item, the SISE is not an ideal measure of a participant’s self-esteem. Future investigation may benefit from a more precise or reoccurring measure. Additionally, a larger sample size would have allowed for investigation of different relationship types (e.g., a child caregiver vs. a spousal caregiver). Investigators also found it difficult to maintain longitudinal participation from pairs who had more difficult relationships. Future research could seek out this population specifically (e.g., through caregiver support groups) and investigate methods of retaining those participants.

Conclusion

Patients have identified positive relationships with family and friends to be one of the most significant priorities for them as they approach death, discussing how satisfying relationships allow them to connect their current situation (i.e., end of life) meaningfully with a broader trajectory of the life course. Quality relationships between care recipients and caregivers, driven in part by caregiver self-esteem, may give more meaning to the end-of-life experience and support an environment where caregivers can provide higher quality care.

Acknowledgments

The authors would also like to extend their sincerest thanks and appreciation to the patients and families who generously shared their experiences, and research assistants and volunteers who helped in data collection, which made this research possible.

The authors are also grateful to Dr. Elmer and Mollie Milch Endowment Fund and the Mary and Antonio Napoli Endowment Fund for their continued support. This funding supports Palliative Care Buffalo as a whole, which in turn supported the present research.

Author Disclosure Statement

No competing financial interests exist.

References


Address correspondence to:
Michael J. Poulin, PhD
Department of Psychology
University at Buffalo
Park Hall 206
Buffalo, NY 14260
E-mail: mjpoulin@buffalo.edu