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## Regular Research Article

# Influence of Positive and Negative Dimensions of Dementia Caregiving on Caregiver Well-Being and Satisfaction With Life: Findings From the IDEAL Study

**Catherine Quinn, Ph.D., Sharon M. Nelis, Ph.D., Anthony Martyr, Ph.D., Christina Victor, Ph.D., Robin G. Morris, Ph.D., Linda Clare, Sc.D.; on behalf of the IDEAL study team**

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## ABSTRACT

**Objective:** The aim of this study was to identify the potential impact of positive and negative dimensions of caregiving on caregiver well-being and satisfaction with life (SwL). **Methods:** This study used time-point one data from the Improving the Experience of Dementia and Enhancing Active Life (also known as IDEAL) cohort study that involved 1,283 informal caregivers of people in the mild-to-moderate stages of dementia recruited from 29 sites within Great Britain. Multivariate linear regression modeling was used to investigate the associations between positive dimensions of caregiving (measured by caregiving competence and perceptions of positive aspects of caregiving), negative dimensions of caregiving (measured by caregiving stress and role captivity), and caregiver well-being and SwL. **Results:** Lower well-being was associated with low caregiving competence ( $-13.77$ ; 95% confidence interval [CI]:  $-16.67, -10.87$ ), perceiving fewer positive aspects of caregiving ( $-7.67$ ; 95% CI:  $-10.26, -5.07$ ), high caregiving stress ( $-24.45$ ; 95% CI:  $-26.94, -21.96$ ), and high role captivity ( $-15.61$ ; 95% CI:  $-18.33, -12.89$ ). Lower SwL was associated with low caregiving competence ( $-4.61$ ; 95% CI:  $-5.57, -3.66$ ), perceiving fewer positive aspects of caregiving ( $-3.09$ ; 95% CI:  $-3.94, -2.25$ ), high caregiving stress ( $-7.88$ ; 95% CI:  $-8.71, -7.06$ ), and high role captivity ( $-6.41$ ; 95% CI:  $-7.27, -5.54$ ). When

From the Centre of Applied Dementia Studies (CQ), University of Bradford, Faculty of Health Studies, Bradford, United Kingdom; Centre for Research in Ageing and Cognitive Health (REACH) (CQ, SMN, AM, LC), University of Exeter Medical School and College of Life and Environmental Sciences, St Luke's Campus, Exeter, United Kingdom; Department of Clinical Sciences (CV), College of Health and Life Sciences, Brunel University London, Uxbridge, United Kingdom; and the King's College London Institute of Psychiatry, Psychology and Neuroscience (RGM), London. Send correspondence and reprint requests to Catherine Quinn, Ph.D., Centre of Applied Dementia Studies, Faculty of Health Studies, University of Bradford, Bradford, United Kingdom, BD7 1DP. e-mail: [c.quinn1@bradford.ac.uk](mailto:c.quinn1@bradford.ac.uk)

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*these four measures were combined within the same model, only positive aspects of caregiving and caregiving stress retained independent associations with well-being and SwL. **Conclusion:** Both positive and negative dimensions of caregiving were associated with caregiver well-being and SwL. Psychological therapies and interventions need to consider not only the negative aspects of caregiving but also positive caregiving experiences and their implications for caregiver well-being and SwL. (Am J Geriatr Psychiatry 2019; ■■■:■■■–■■■)*

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## INTRODUCTION

There is an increasing recognition, in both policy and practice, of the need for better support for informal caregivers of people with dementia.<sup>1,2</sup> Understanding the factors that can influence the well-being of caregivers is important for the development of effective support. Caregiving can be both a rewarding and a stressful experience, yet caregiving research has tended to focus on the negative outcomes of caregiving. It is well recognized that caregiving can have a detrimental impact on caregivers' health and well-being;<sup>3</sup> however, caregivers can also experience positive aspects of providing care, which may have a beneficial influence on their well-being.<sup>4</sup> Research exploring the influences of positive and negative dimensions of caregiving on caregiver well-being has been guided by conceptual models, such as the Stress Process Model,<sup>5</sup> which identify specific outcomes of caregiving such as depression or anxiety. Therefore, the majority of research on dementia caregiving has focused on specific domains of well-being, such as depression or burden, rather than using a more global measure of well-being.<sup>6</sup> There are benefits of using global measures of well-being as outcomes in caregiving research. They allow for the simultaneous exploration of multiple dimensions of well-being and can provide valuable insight into caregivers' overall well-being, allowing for comparisons with other groups of caregivers and noncaregivers.<sup>7</sup> Well-being is a multi-dimensional concept containing both cognitive and psychological components. It has been proposed that a related concept, satisfaction with life (SwL), relates to the cognitive evaluative aspects of well-being.<sup>8</sup> This article will explore how positive and negative dimensions of caregiving are linked to both caregiver well-being and SwL.

Many factors are thought to influence the well-being of caregivers.<sup>5</sup> Research on stress and adaptation

indicates that specifically in challenging circumstances both positive and negative psychological states can co-occur; thus, positive emotions can have a role in how people respond and adjust to such experiences.<sup>9</sup> In caregiving, it is proposed that the positive dimensions of caregiving can encompass identifying positive aspects of providing care, and also the experience of caregiving self-efficacy or feelings of competence in their role.<sup>10</sup> Identifying positive aspects of caregiving can have a positive influence on the caregiving experience.<sup>11,12</sup> Several theoretical models have been developed that incorporate both positive or negative responses to a stressful event, for example, the revised stress and coping model.<sup>9</sup> Based on two-factor theories of psychological well-being, two-factor models of caregiving propose that positive and negative dimensions of well-being can have different predictors.<sup>13</sup> The two-factor model conceived by Kramer<sup>4</sup> proposed that appraisals of role gain results in positive outcomes and appraisals of role strain results in negative outcomes. Similarly, a two-factor model developed by Lawton et al.<sup>13</sup> indicated that for spousal caregivers burden was only associated with depression, and conversely satisfaction was only associated with positive affect. However, this association was not apparent for adult-child caregivers. These findings provide preliminary evidence that, when considered together, positive and negative dimensions of caregiving may have differential influences on the caregiving experience.

Relatively few studies have explored the associations of positive and negative dimensions of caregiving with caregiver well-being and SwL. Those studies that have been conducted have tended to focus on caregiver burden, with few exploring other negative aspects of the caregiving experience, in particular, caregiving stress and role captivity. Caregiving stress encompasses both the psychological and emotional reactions to the demands of caregiving,<sup>14</sup> whereas role captivity concerns caregivers' feelings of being

trapped in the caregiving role.<sup>5</sup> Limited studies have explored the association of caregiver stress with SwL and well-being, indicating that higher stress is associated with lower SwL<sup>15</sup> and lower well-being.<sup>8</sup> In terms of the positive dimensions of caregiving, some studies suggest that higher perceived positive aspects of caregiving are associated with better SwL<sup>16,17</sup> and well-being,<sup>18,19</sup> although others did not find these associations.<sup>20,21</sup> To our knowledge, no study has explored the associations of caregiver competence or role captivity with well-being and SwL.

Building on the findings of the two-factor models, this study seeks to explore the association between positive and negative dimensions of caregiving on caregiver well-being and SwL. Although there is preliminary evidence that both positive and negative dimensions of caregiving can influence caregiver well-being and SwL, there is little evidence regarding the combined influence of these factors when considered together. The aim of this study is to identify the potential impact of positive and negative dimensions of caregiving on the well-being and SwL of caregivers of people with mild-to-moderate dementia.

## METHODS

### Design

This study used data from the Improving the Experience of Dementia and Enhancing Active Life (IDEAL) longitudinal cohort study.<sup>22</sup> The participants in the IDEAL study at baseline are people with mild-to-moderate dementia and their informal caregivers, when available. This study uses data from time-point one of the IDEAL study collected between July 2014 and August 2016. The IDEAL study was approved by the Wales 5 National Health Service Research Ethics Committee (reference 13/WA/0405) and the Ethics Committee of the School of Psychology, Bangor University (reference 2014–11684). The IDEAL study is registered with UKCRN, registration number 16593.

### Participants

Informal caregivers of people with dementia were approached to participate in the study if the person they cared for with dementia consented to participate. 'Informal caregiver' was defined as the primary person

who provides practical or emotional unpaid support, usually a family member. To enter the study, people with dementia had to be residing in the community, have a diagnosis of dementia (any sub-type), and have a Mini-Mental State Examination<sup>23</sup> score of 15 or above, indicating that they were in the mild-to-moderate stages of dementia. The exclusion criteria for people with dementia were a comorbid terminal illness, inability to provide informed consent, and any potential risks to researchers conducting home visits. There were no additional exclusion criteria for caregivers.

### Measures

To address the aims of the study, a specific sub-set of measures from the IDEAL study was used. Details of the measures included in the IDEAL study are reported in the protocol.<sup>22</sup>

#### *Background information*

Data were collected on caregivers' age, gender, kin-relationship to the person with dementia, and hours spent caregiving per week. For the person with dementia, we collected information on age, gender, and dementia diagnosis, and the Mini-Mental State Examination score was recorded.

#### *Positive dimensions of caregiving*

Caregiving competence was measured using the 3-item Caregiving Competence scale<sup>24</sup> (example item: How often do you feel confident that you are meeting the needs of your relative/friend?). Items are rated on a 4-point Likert scale ranging from one (never) to four (all of the time), with higher scores indicating greater competence in their role.

Perceptions of positive aspects of caregiving were measured using the 9-item Positive Aspects of Caregiving scale<sup>25</sup> (example item: Providing help to my relative/friend has made me feel strong and confident). Items are rated on a 5-point Likert scale ranging from one (disagree a lot) to five (agree a lot), with a higher score indicating more positive appraisals of caregiving.

#### *Negative dimensions of caregiving*

Caregiving stress was measured using the Relative Stress scale<sup>14</sup> (example item: Do you ever feel

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that you can no longer cope with the situation?). The 15-items are rated on a 5-point Likert scale ranging from zero (not at all) to four (always/considerably), with a higher score indicating greater stress.

Role captivity was measured using the 3-item Role Captivity scale<sup>5</sup> (example item: How much do you wish you could just run away?). Items are rated on a 4-point Likert scale ranging from one (never) to four (all of the time), with higher scores indicating greater role captivity.

*Outcome measures*

Well-being was measured using the 5-item World Health Organization-Five Well-Being Index<sup>26</sup> (example item: I have felt cheerful and in good spirits). Items are rated on a 6-point scale from zero (at no time) to five (all of the time), which are then summed and transformed into a percentage score. Higher scores indicate better well-being. The measure has demonstrated good reliability in a sample of caregivers.<sup>27</sup>

SwL was measured using the 5-item Satisfaction with Life scale<sup>28</sup> (example item: In most ways my life is close to my ideal). Items are rated on a 7-point scale from one (strongly disagree) to seven (strongly agree), with a higher score indicating better SwL. The scale has demonstrated good reliability in a sample of caregivers of people with dementia.<sup>29</sup>

**Procedure**

Researchers from clinical research networks were responsible for participant recruitment and assessment. Participants were identified from 29 National Health Service sites within Great Britain. Participants were recruited from a variety of sources including memory services and other specialist clinics. Participants were also recruited from Join Dementia Research (a United Kingdom based online service that enables volunteers, including people with dementia, to register their interest in taking part in research). Potential participants were contacted regarding the study, and a researcher then visited those who expressed interest in participating. The researcher completed the eligibility checks and obtained informed consent. The caregivers self-completed their assessments but could seek help from the researcher if necessary. All the time-point one assessments were completed during three visits.

**Analyses**

The measures of caregiving competence, perceptions of positive aspects of caregiving, caregiving stress, and role captivity were skewed and when the distributions deviated from normality it was decided that, for the purposes of the analysis, these measures should be converted into tertiles. By converting the measures into tertiles, this allowed for comparison between those with high, moderate, and low scores on all of the caregiver measures. Correlations were conducted to explore the associations between well-being and SwL. Multivariate linear regression modeling was used to investigate differences in well-being and SwL through a series of steps. First, individual models were tested for each of the measures to explore whether the measures had individual associations with well-being and SwL. Second, these models were then adjusted for caregivers' age, gender, kin-relationship, hours per week providing care, and specific diagnosis of the person with dementia. Third, as the results indicated that the measures had independent associations with well-being and SwL, additional multivariate models were applied to investigate whether the measures retained these independent associations when the measures were considered together. As the measures were grouped under positive and negative dimensions of caregiving, the associations of each group of measures with well-being and SwL were explored first. The measures of positive dimensions of caregiving (caregiving competence and positive aspects of caregiving) were included together in one adjusted model, with the measures of negative dimensions of caregiving (caregiving stress and role captivity) included in a separate adjusted model. Finally, all the measures were included in a single combined model. This study used the IDEAL time-point one dataset (v2). For each model, we also conducted the Wald test, which examined whether the whole measure (rather than individual tertials) were associated with well-being and SwL. Analyses were conducted in StataSE 15 (Stata-Corp, College Station, Tex, United States).

**RESULTS**

Demographic information regarding the participants in the study is provided in [Table 1](#), and

**TABLE 1. Characteristics of the Caregivers and the Participants With Dementia**

Demographic Information	N (%)
Caregivers	N=1,283
Gender (female)	881 (68.7%)
Age (years): <65	369 (28.8%)
65–69	208 (16.2%)
70–74	267 (20.8%)
75–79	223 (17.4%)
80+	216 (16.8%)
Kin-relationship: Spouse/partner	1,039 (81%)
Other family/friend	244 (19%)
Education: <sup>a</sup> No qualification	265 (21.5%)
School leaving certificate at age 16	274 (22.2%)
School leaving certificate at age 18	374 (30.4%)
University/College	319 (25.9%)
Hours of care: <sup>b</sup> < 1 hour	232 (18.8%)
1–10 hours	499 (40.4%)
10+ hours	415 (33.6%)
Other responses	89 (7.2%)
Person with dementia	N=1,283
Gender (female)	528 (41.2%)
Age (years): <65	103 (8%)
65–69	160 (12.5%)
70–74	232 (18.1%)
75–79	306 (23.9%)
80+	482 (37.6%)
Diagnosis: Alzheimer disease	715 (55.7%)
Mixed Alzheimer's and vascular dementia	263 (20.5%)
Vascular dementia	142 (11.1%)
Frontotemporal dementia	45 (3.5%)
Parkinson disease dementia	43 (3.4%)
Dementia with Lewy bodies	43 (3.4%)
Unspecified/other dementia	32 (2.5%)

*Notes.* Hours of care are the hours of care provided on an average day.

<sup>a</sup> Missing data for 51 participants.

<sup>b</sup> Missing data for 48 participants.

descriptive information regarding the measures is presented in [Table 2](#). Just over two-thirds of the caregivers were women, and the majority were spouses or partners of the participants with dementia. Just over one-half of the people with dementia had a diagnosis of Alzheimer disease.

Correlations between the outcome measures indicate that well-being was strongly correlated with SwL ( $r = 0.56$ ;  $n = 1,228$ ;  $p < 0.01$ ). [Table 3](#) reports the unadjusted and adjusted associations of the measures with well-being and SwL. Decreasing trends from high to low categories of caregiving competence and positive aspects of caregiving were apparent for well-being and SwL. Conversely, the increasing trends from low to high categories of caregiving stress and role captivity were

evident for both well-being and SwL. The observed effect sizes were reduced after the inclusion of covariates; however, the trends were still apparent. Lower well-being was associated with low competence ( $-13.77$ ; 95% confidence interval [CI]:  $-16.67$ ,  $-10.87$ ), perceiving fewer positive aspects of caregiving ( $-7.67$ ; 95% CI:  $-10.26$ ,  $-5.01$ ), high caregiving stress ( $-24.45$ ; 95% CI:  $-26.94$ ,  $-21.96$ ), and high role captivity ( $15.61$ ; 95% CI:  $-18.33$ ,  $-12.89$ ). Lower SwL was associated with low competence ( $-4.62$ ; 95% CI:  $-5.57$ ,  $-3.66$ ), perceiving fewer positive aspects of caregiving ( $-3.09$ ; 95% CI:  $-3.94$ ,  $-2.25$ ), high caregiving stress ( $-7.88$ ; 95% CI:  $-8.71$ ,  $-7.06$ ), and high role captivity ( $-6.41$ ; 95% CI:  $-7.28$ ,  $-5.54$ ).

All measures had independent associations with well-being and SwL. The next stage of the analysis was to explore whether these independent associations remained when the measures were considered together. [Table 4](#) reports two adjusted models with caregiving competence and positive aspects of caregiving included in one model, and caregiving stress and role captivity included in another model. The inclusion of both caregiving competence and positive aspects of caregiving into one model resulted in a decrease in effect sizes, but both variables still retained independent associations with well-being and SwL. For the model containing caregiving stress and role captivity, the effect sizes for caregiving stress slightly decreased, but caregiving stress retained an independent association with well-being and SwL. However, the effect sizes for role captivity were considerably attenuated, which suggests that caregiving stress partially explains the association of role captivity with well-being and SwL.

[Table 5](#) reports the adjusted model with caregiving competence, positive aspects of caregiving, caregiving stress, and role captivity included together. The effect sizes for role captivity were reduced further, whereas the effect sizes for caregiving competence were considerably attenuated, suggesting that caregiving stress also partially explains the association between caregiving competence and well-being and SwL. The effect sizes for positive aspects of caregiving were reduced, but still demonstrated an independent association with well-being and SwL. There was little change in the effect size for caregiving stress; thus, caregiving stress retained an independent association with well-being and SwL.

*Positive and Negative Dimensions of Caregiving***TABLE 2. Caregivers' Scores on the Study Measures**

Variables	N (%)	M (SD)	Possible Range	Observed Range	Cronbach's Alpha
Competence	1,238	9.15 (1.68)	3–12	3–12	0.88
Low	297 (24.0)				
Moderate	574 (46.4)				
High	367 (28.6)				
Positive aspects of caregiving	1,234	28.24 (7.38)	9–45	9–45	0.91
Low	562 (45.5)				
Moderate	313 (25.4)				
High	359 (29.1)				
Stress	1,198	19.16 (9.83)	0–60	0–56	0.89
Low	427 (35.6)				
Moderate	373 (31.1)				
High	398 (33.2)				
Role captivity	1,233	5.54 (2.26)	3–12	3–12	0.84
Low	453 (36.7)				
Moderate	440 (35.7)				
High	340 (26.75)				
WHO-5	1,247	55.26 (19.78)	0–100	0–100	0.86
SwLS	1,240	23.77 (6.5)	5–35	5–35	0.88

SD: standard deviation; SwLS: Satisfaction with Life Scale; WHO-5: World Health Organization-Five Well-Being Index.

## DISCUSSION

To our knowledge, this was the first study to explore the influence of caregiving competence, positive aspects of caregiving, caregiving stress, and role captivity on caregiver well-being and SwL. In this study, we explored both the individual and combined associations of the measures with well-being and SwL. When examined individually, these measures all had independent associations with well-being and SwL. When all the measures were brought together in the same model, only caregiving stress and positive aspects of caregiving retained independent associations with well-being and SwL. When caregiving stress was added into the models that included caregiving competence and role captivity, this resulted in a decrease in effect sizes for caregiving competence and role captivity. Overall, these findings provide evidence that both positive and negative dimensions of caregiving are important for caregivers' well-being and SwL.

Theoretically, there is some debate as to whether the positive and negative dimensions of caregiving are distinct concepts or exist at opposite ends of a continuum. Although there is growing evidence for an association between positive aspects of caregiving and burden,<sup>30,31</sup> only one study has explored the association between positive aspects of caregiving

and caregiving stress.<sup>32</sup> The current findings indicate that both these factors have independent associations with well-being and SwL. This finding is similar to the structure of the two-factor models by Kramer<sup>4</sup> and Lawton et al.<sup>13</sup> However, both of these models posit that positive and negative dimensions of caregiving will have different associations with specific measures of well-being; for example, positive aspects of caregiving would not be associated with negative affect. In the present study, we found that when a global measure of well-being and SwL were used, both are associated with positive and negative dimensions of caregiving.

When all measures were considered together, only caregiving stress and perceptions of positive aspects of caregiving retained independent associations with well-being and SwL. In addition, the findings indicate that caregiving stress appears to partially explain the association of caregiving competence and role captivity with well-being and SwL. The effect sizes for role captivity were particularly attenuated by caregiving stress. The association between caregiving stress and role captivity is to be expected because these measures reflect different but related negative dimensions of the caregiving experience. The measure of caregiving stress used in this study encompasses emotional distress, social distress, and negative feelings about the role,<sup>33</sup> whereas role captivity concerns feelings

**TABLE 3. Unadjusted and Adjusted Models Showing Individual Associations Between Competence, Positive Aspects of Caregiving, Stress, and Role Captivity With Well-Being and SwL**

Unadjusted		WHO-5		SwLS		Wald Test <sup>d</sup>
		Unstandardized Coefficient <sup>b</sup> (95%CI)	t <sup>c</sup>	Unstandardized Coefficient <sup>b</sup> (95% CI)	t <sup>c</sup>	
Competence	High	–	–	–	–	F(4,1,209)= 34.73 <sup>a</sup>
	Moderate	–6.35 (–8.68, –3.84)	–4.97 <sup>a</sup>	–2.48 (–3.30, –1.66)	–5.93 <sup>a</sup>	
	Low	–14.69 (–17.63, –11.76)	–9.83 <sup>a</sup>	–5.21 (–6.17, –4.25)	–10.64 <sup>a</sup>	
Positive aspects of caregiving	High	–	–	–	–	F(4,1,206)= 18.07 <sup>a</sup>
	Moderate	–6.29 (–9.25, –3.32)	–4.16 <sup>a</sup>	–2.34 (–3.30, –1.37)	–4.76 <sup>a</sup>	
	Low	–8.82 (–11.42, –6.22)	–6.65 <sup>a</sup>	–3.44 (–4.29, –2.60)	–8.00 <sup>a</sup>	
Stress	Low	–	–	–	–	F(4, 1,174)= 173.94 <sup>a</sup>
	Moderate	–12.94 (–15.26, –10.61)	–10.92 <sup>a</sup>	–3.75 (–4.52, –2.98)	–9.59 <sup>a</sup>	
	High	–25.59 (–27.86, –23.30)	–22.03 <sup>a</sup>	–8.32 (–9.07, –7.57)	–21.71 <sup>a</sup>	
Role captivity	Low	–	–	–	–	F(4, 1,207)= 80.42 <sup>a</sup>
	Moderate	–9.05 (–11.49, –6.61)	–7.29 <sup>a</sup>	–3.26 (–4.04, –2.50)	–8.27 <sup>a</sup>	
	High	–17.96 (–20.57, –15.34)	–13.48 <sup>a</sup>	–7.12 (–7.95, –6.29)	–16.82 <sup>a</sup>	
Adjusted for Caregiver Gender, Caregiver Age, Kin-Relationship, Hours Per Week Spent Providing Care, and Dementia Diagnosis						
Competence	High	–	–	–	–	F(4, 1,151)= 30.03 <sup>a</sup>
	Moderate	–5.76 (–8.25, –3.26)	–4.52 <sup>a</sup>	–2.24 (–3.07, –1.42)	–5.34 <sup>a</sup>	
	Low	–13.77 (–16.67, –10.87)	–9.31 <sup>a</sup>	–4.62 (–5.57, –3.66)	–9.47 <sup>a</sup>	
Positive aspects of caregiving	High	–	–	–	–	F(4, 1,149)= 14.71 <sup>a</sup>
	Moderate	–5.42 (–8.34, –2.50)	–3.64 <sup>a</sup>	–2.09 (–3.04, –1.14)	–4.31 <sup>a</sup>	
	Low	–7.67 (–10.26, –5.07)	–5.80 <sup>a</sup>	–3.09 (–3.94, –2.25)	–7.19 <sup>a</sup>	
Stress	Low	–	–	–	–	F(4,1,121)=134.16 <sup>a</sup>
	Moderate	–12.73 (–15.14, –10.32)	–10.36 <sup>a</sup>	–3.67 (–4.46, –2.87)	–9.03 <sup>a</sup>	
	High	–24.45 (–26.94, –21.96)	–19.27 <sup>a</sup>	–7.88 (–8.71, –7.06)	–18.80 <sup>a</sup>	
Role captivity	Low	–	–	–	–	F(4, 1,150)=59.58 <sup>a</sup>
	Moderate	–7.74 (–10.24, –5.24)	–6.08 <sup>a</sup>	–2.84 (–3.64, –2.04)	–7.01 <sup>a</sup>	
	High	–15.61 (–18.33, –12.89)	–11.26 <sup>a</sup>	–6.41 (–7.28, –5.54)	–14.49 <sup>a</sup>	

Notes. SwLS: Satisfaction with Life Scale; WHO-5: World Health Organization-Five Well-Being Index.

<sup>a</sup>p<0.001.

<sup>b</sup>Unstandardized coefficients derived from multivariate linear regression modeling.

<sup>c</sup>Test statistic.

<sup>d</sup>The Wald test was used to explore whether the measures as a whole were associated with WHO-5 and SwLS.

about being trapped in the caregiving role. Although there is little evidence on the link between caregiving stress and role captivity, role captivity is a strong predictor of burden.<sup>34</sup> Both role captivity and lack of caregiving competence are classed as secondary intrapsychic strains in the Stress Process Model, which explores the caregiving stress process.<sup>5</sup> However, caregiving competence, in particular, has tended to be treated more as a mediator in relation to caregiving stress; for instance, it mediates the association between burden and depression.<sup>35</sup> The findings of the current study indicate that in relation to caregiving competence, caregiving stress seems to influence the relationship of caregiving competence with well-being and SwL. Therefore, these findings suggest that to increase caregivers' feelings of caregiving

competence it may also be important to reduce their levels of stress.

The strengths and limitations of this study need to be considered. The study involved a large cohort of caregivers caring for community-dwelling people with mild-to-moderate stages of dementia. The sample included caregivers from a range of socioeconomic backgrounds and with different kin-relationships to the person with dementia. However, caregivers were primarily the spouses or partners of the person with dementia. The sample was predominantly white British people; future research could explore these associations in a more culturally diverse sample of caregivers. For example, studies have identified differences in the experience of self-efficacy in caregivers from different cultural backgrounds.<sup>36</sup>

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TABLE 4. Fully Adjusted Models Showing Associations of Measures of Positive and Negative Dimensions of Caregiving With Well-Being and SwL

		WHO-5		SwLS		Wald Test <sup>e</sup>
		Unstandardized Coefficient <sup>c</sup> (95% CI)	t <sup>d</sup>	Unstandardized Coefficient <sup>c</sup> (95% CI)	t <sup>d</sup>	
Adjusted for Caregiver Gender, Caregiver Age, Kin-Relationship, Hours Per Week Spent Providing Care, and Dementia Diagnosis						
Model 1						
Competence	High	–		–		
	Moderate	–4.98 (–7.51, –2.46)	–3.87 <sup>b</sup>	–1.92 (–2.75, –1.09)	–2.22 <sup>b</sup>	F (4, 1,140) = 22.23 <sup>b</sup>
	Low	–12.33 (–15.31, –9.34)	–8.11 <sup>b</sup>	–3.97 (–4.94, –2.99)	–3.96 <sup>b</sup>	
Positive aspects of caregiving		–		–		
Stress	High	–		–		F (4, 1,140) = 7.77 <sup>b</sup>
	Moderate	–3.27 (–6.16, –0.38)	–4.56 <sup>a</sup>	–1.37 (–2.31, –0.42)	–2.83 <sup>a</sup>	
Role captivity	Low	–5.21 (–7.79, –2.63)	–7.97 <sup>b</sup>	–2.29 (–3.14, –1.45)	–5.32 <sup>b</sup>	
	Low	–		–		F(4, 1,113) = 68.17 <sup>b</sup>
	Moderate	–12.16 (–14.82, –9.51)	–8.98 <sup>b</sup>	–2.92 (–3.79, –2.05)	–6.60 <sup>b</sup>	
High	–23.35 (–26.47, –20.22)	–14.66 <sup>b</sup>	–6.37 (–7.39, –5.35)	–12.24 <sup>b</sup>		
Role captivity	Low	–		–		F(4, 1,113) = 6.48 <sup>b</sup>
	Moderate	–0.86 (–3.40, 1.68)	–0.66	–1.08 (–1.91, –0.25)	–2.55 <sup>a</sup>	
	High	–1.58 (–4.72, 1.55)	–0.99	–2.61 (–3.63, –1.58)	–4.99 <sup>b</sup>	

Notes. SwLS: Satisfaction with Life Scale; WHO-5: World Health Organization-Five Well-Being Index.

<sup>a</sup> p<0.05.

<sup>b</sup> p<0.001.

<sup>c</sup> Unstandardized coefficients derived from multivariate linear regression modeling.

<sup>d</sup> Test statistic.

<sup>e</sup> The Wald test was used to explore whether the measures as a whole were associated with WHO-5 and SwLS.

TABLE 5. Fully Adjusted Model Showing Associations of Competence, Positive Aspects of Caregiving, Stress, and Role Captivity With Well-Being and SwL

		WHO-5		SwLS		Wald Test <sup>e</sup>
		Unstandardized Coefficient <sup>c</sup> (95% CI)	t <sup>d</sup>	Unstandardized Coefficient <sup>c</sup> (95% CI)	t <sup>d</sup>	
Adjusted for Caregiver Gender, Caregiver Age, Kin-Relationship, Spent Providing Care, and Dementia Diagnosis						
Competence						
Competence	High	–		–		F(4, 1,005) = 3.45 <sup>a</sup>
	Moderate	–1.83 (–4.19, 0.53)	–1.52	–0.76 (–1.53, 0.01)	–1.95	
	Low	–4.84 (–7.72, –1.95)	–3.29 <sup>a</sup>	–1.19 (–2.12, –0.25)	–2.48 <sup>a</sup>	
Positive aspects of caregiving		–		–		F(4, 1,105) = 4.77 <sup>b</sup>
Stress	High	–		–		
	Moderate	–2.92 (–5.55, –0.29)	–2.18 <sup>a</sup>	–1.30 (–2.16, –0.45)	–2.99 <sup>a</sup>	
Role captivity	Low	–3.07 (–5.44, –0.70)	–2.54 <sup>a</sup>	–1.58 (–2.36, –0.81)	–4.02 <sup>b</sup>	
	Low	–		–		F(4, 1,105) = 59.40 <sup>b</sup>
	Moderate	–11.44 (–14.11, –8.78)	–8.43 <sup>b</sup>	–2.74 (–3.61, –1.87)	–6.20 <sup>b</sup>	
High	–22.01 (–25.19, –18.83)	–13.58 <sup>b</sup>	–6.02 (–7.05, –4.98)	–11.41 <sup>b</sup>		
Role captivity	Low	–		–		F(4, 1,105) = 4.72 <sup>b</sup>
	Moderate	–0.07 (–2.65, 2.51)	–0.05	–0.71 (–1.55, 0.13)	–1.65	
	High	–0.53 (–3.7, 2.64)	–0.33	–2.14 (–3.17, –1.11)	–4.07	

Notes. SwLS: Satisfaction with Life Scale; WHO-5: World Health Organization-Five Well-Being Index.

<sup>a</sup> p<0.05.

<sup>b</sup> p<0.001.

<sup>c</sup> Unstandardized coefficients derived from multivariate linear regression modeling.

<sup>d</sup> Test statistic, df = 1,274.

<sup>e</sup> The Wald test was used to explore whether the measures as a whole were associated with WHO-5 and SwLS.



This was a cross-sectional study using time-point one-data from the IDEAL study; however, as IDEAL is a longitudinal study, there is scope in the future to explore the longitudinal influences of these factors on caregiver well-being and SwL.

Both positive and negative dimensions of caregiving contribute to caregiver well-being and SwL. This implies that psychological therapies or interventions aimed at improving caregiver well-being and SwL need to consider the influence of both the positive and negative dimensions of caregiving. Interventions have typically focused on addressing caregiving burden.<sup>37</sup> Fewer studies have used caregiving competence, positive aspects of caregiving, caregiving stress, or role captivity as outcomes for interventions.<sup>37</sup> Interestingly, interventions typically have nonsignificant effects on decreasing caregiver burden,<sup>38</sup> which may be because caregiver burden is the result of multiple nonmodifiable factors, and thus, less amenable to change. Therefore, it may be more feasible for caregiving interventions to target factors that may be more modifiable such as changing caregivers' beliefs about competency in the role or their appraisals of positive aspects of caregiving.

Recognition of the need to address both the positive and negative dimensions of caregiving is growing. Understanding the role of positive aspects of care may help healthcare professionals to appropriately validate caregivers' feelings and experiences.<sup>4</sup> A focus on positive aspects of caregiving would also enable a 'strengths perspective' or capabilities approach, recognizing the capacity of the caregiver for continued growth. The development of interventions that aim to simultaneously increase appraisals of positive aspects of caregiving and decrease appraisals of negative aspects of caregiving may be the most beneficial for caregiver well-being and SwL. There is a reciprocal relationship between positive and negative emotional states, and it has been suggested that interventions that cultivate positive emotions can then tackle negative emotions as well as build resilience.<sup>39</sup> Some interventions developed specifically for caregivers of people with dementia have focused on both positive and negative dimensions of caregiving, but the results are inconsistent. For example, caregivers taking part in an educational and skills-based training intervention had postintervention decreases in role captivity, but no significant differences in self-efficacy.<sup>40</sup> Conversely, a

problem-solving intervention produced improvements in caregiving competence, but not role captivity.<sup>41</sup> Interventions that tackle caregivers' underlying appraisals of their role may be more effective. Based on the stress and coping model, which concerns the appraisals a person makes in response to a stressor, an intervention that targeted caregiving appraisals was successful in increasing positive aspects of caregiving and decreasing caregiver strain.<sup>42</sup> However, the follow-ups were only conducted 30 days postintervention, and further work is needed to explore the long-term benefits of such interventions.

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## CONCLUSION

To our knowledge, this is the first study to indicate that caregiving competence, positive aspects of caregiving, caregiving stress, and role captivity can influence caregiver well-being and SwL. The findings indicate that support services and interventions need to consider the influence of positive and negative dimensions of caregiving on caregiver well-being and SwL. The findings highlight the importance of exploring both the positive and negative dimensions of the caregiving experience.

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