

Supplement 2. Quantitative Observational Research Evidence: In-depth list of factors affecting different types of mental health outcome

Factors relating to Caregiver Quality of Life (QoL)

1: Patient condition

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'patient condition'			
Patient condition			
Other conditions			
Patients with heart failure <i>Malik et al 2013</i>			1
<i>(patients with heart failure were compared with patients with lung cancer)</i>			
Cancer			
Primary brain cancer <i>Aoun et al 2015</i>		1	
<i>(patients with primary brain cancer were compared with patients other cancers)</i>			
Type of cancer <i>Ito & Tadaka 2017</i>			1 (1)
<i>(lung, colon, liver, brain, prostate, stomach, pancreatic)</i>			
Patients with rare cancers <i>Loggers & Prigerson 2014</i>		1 (1)	
<i>(patients with rare cancer were compared with patients with common cancers)</i>			
Tumour histology in patients with high-grade glioma <i>Boele et al 2012</i>			1

Factors relating to Caregiver Quality of Life (QoL)

1: Patient condition (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'patient condition'			
Patient disease burden			
Physical functioning			
Greater functional impairment:			
<i>Patient ECOG 3*</i> <i>Duimering et al 2019</i>		1 (1)	
<i>*An ECOG score of 3 refers to a person who is capable of only limited self-care and is confined to bed or a chair for more than 50% of waking hours</i>			
<i>Patient functional status</i> <i>Ito & Tadaka 2017</i>			1 (1)
<i>(measured by amount of assistance for Activities of Daily Living using Katz Index)</i>			
<i>Functional impairment of patient</i> <i>Owensworth et al 2010</i>		1	
<i>Patient functional status</i> <i>Wasner et al 2013</i>			1 (1)
<i>(measured by Patient Kamofsky Performance Status Scale)</i>			
<i>Patient comorbidity*</i> <i>Wadhwa et al 2013</i>			1
<i>*patient has two or more medical conditions at the same time</i>			
<i>Patient needing night time care</i> <i>Ito & Tadaka 2017</i>			1 (1)
Cognitive functioning			
<i>Greater cognitive impairment *</i> <i>Wasner et al 2013</i>			1 (1)
<i>(measured by Mini-Mental State Evaluation (MMSE))</i> <i>*cognitive impairment is a temporary or permanent loss of mental functions, causing forgetfulness, lack of concentration, learning difficulties, and other reductions in effective thinking</i>			

Factors relating to Caregiver Quality of Life (QoL)

1: Patient condition (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'patient condition'			
Patient Quality of Life (QoL)			
Patient overall QOL <i>Janda et al 2017</i> <i>McIlfatrick et al 2018</i> <i>Wadhwa et al 2013</i> <i>Wasner et al 2013</i>	3 (1)		1 (1)
Patient psychological QOL (psychological wellbeing) <i>Boele et al 2012</i>	1		
Patient stage of disease			
Time <i>Butow et al 2014</i>			1
<i>(period 12 months to 1 month prior to death of patient with ovarian cancer)</i>			
Time taken for a patient with Amyotrophic Lateral Sclerosis (ALS*) to show a measurable decline** in functioning <i>Stutzki et al 2014</i>		1 (1)	
*ALS is a similar condition to multiple sclerosis **a decline of 5 points on the Amyotrophic Lateral Sclerosis Functional Rating Scale (ALSFRS) – this was not longer than 15 months from baseline measures			
Change over time <i>Grant et al 2013</i>		1	
<i>(7, 12, 18 and 24 weeks after QoL was first measured in caregivers of patients with lung cancer)</i>			

Factors relating to Caregiver Quality of Life (QoL)

1: Patient condition (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'patient condition'			
Patient symptoms			
Patient overall symptoms:			
Patient symptoms <i>Ito & Tadaka 2017</i>			1 (1)
Patient physical symptoms:			
Greater symptom burden related to appetite <i>Wadhwa et al 2013</i>			1
Greater symptom burden related to drowsiness <i>Wadhwa et al 2013</i>		1	
Greater symptom burden related to dyspnea <i>Wadhwa et al 2013</i>			1
<i>*dyspnoea is shortness of breath/breathing difficulty</i>			
Greater symptom burden related to fatigue <i>Wadhwa et al 2013</i>		1	
Greater symptom burden related to nausea <i>Wadhwa et al 2013</i>			1
Greater symptom burden related to pain <i>Wadhwa et al 2013</i>		1	
Patients increased problems with communication <i>Boele et al 2012</i>		1	
<i>(measured using Brain Cancer Module (BN20), which assesses patient's neurological functioning as perceived by caregiver)</i>			
Patient psychological symptoms:			
Patient anxiety <i>McIlpatrick et al 2018</i>		1	
Patient depression <i>Huang & McMillan 2019</i> <i>McIlpatrick et al 2018</i>		1	1
Greater symptom burden related to anxiety <i>Wadhwa et al 2013</i>		1	
Greater symptom burden related to depression <i>Wadhwa et al 2013</i>		1	
Greater symptom burden related to reduced sense of wellbeing <i>Wadhwa et al 2013</i>			1

Factors relating to Caregiver Quality of Life (QoL)

1: Patient condition (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'patient condition'			
Patient treatment			
Patient admitted to hospital or long term care within previous 7 days <i>Duimering et al 2019</i>		1 (1)	
Patient awaiting new line of treatment <i>Wadhwa et al 2013</i>			1
Patient receiving no cancer therapy <i>Wadhwa et al 2013</i>		1	
Medical care provided <i>Ito & Tadaka 2017</i>			1 (1)

2: Impact of caring responsibilities

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'impact of caring responsibilities'			
Caregiver workload			
<i>Caring for the patient</i>			
Caregiver burden measures:			
<i>Zarit Burden Inventory 12 (ZBI-12) - measures subjective burden Malik et al 2013</i>		1 (1)	
<i>Burden Scale for Family Caregivers (BSFC) - measures burden of care Wasner et al 2013</i>		1	
Caregiver assists with activities of daily living (ADL*) <i>Duimering et al 2019</i>		1 (1)	
<i>*ADLs are the essential tasks that each person needs to perform, on a regular basis, to sustain basic survival and well-being.</i>			
Caregiver assists with medical tasks <i>Duimering et al 2019</i>		1 (1)	
Number of days spent on caregiving tasks <i>Wadhwa et al 2013</i>		1	
Physical strain <i>Hoefman et al 2015</i>		1	
<i>Support for others</i>			
Additional caring responsibilities:			
<i>Caring for others Wadhwa et al 2013</i>			1
<i>Other demands on time</i>			
Other demands on time <i>Hoefman et al 2015</i>		1	
<i>Length of caring</i>			
Duration of care			
<i>Duration of care Flechl et al 2013</i>			1 (1)
<i>Period of home care (months) Ito & Tadaka 2017</i>			1 (1)
Caregiver sleeping hours			
Caregiver sleeping hours <i>Ito & Tadaka 2017</i>			1 (1)

Factors relating to Caregiver Quality of Life (QoL)

3: Relationships

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Relationships'			
Family dynamics			
Cohesion (the level of commitment and support in the family)			
Supportiveness of family relationships <i>Nissen et al 2016</i>	1		
acceptanceCohesion (the level of commitment and support in the relationship)			
Caregiver gets on with the patient <i>Hoefman et al 2015</i>			1

4: Finances

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Finances'			
Financial situation			
Caregiver income (US dollars) <i>Wadhwa et al 2013</i>			1
Financial difficulties due to patients' disease <i>Flechl et al 2013</i>		1 (1)	
Financial strain related to providing informal care <i>Hoefman et al 2015</i>		1	
Sufficient family budget <i>Ito & Tadaka 2017</i>	1 (1)		
Impact on work			
Change in work situation <i>Ito & Tadaka 2017</i>		1	
includes: less hours worked, quit job, on leave, changed job, lost job			

Factors relating to Caregiver Quality of Life (QoL)

5: Carer internal processes

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Carer internal processes'			
Control over the care situation			
Control over the care situation <i>Hoefman et al 2015</i>			1
Self-efficacy			
Self efficacy* <i>Ito & Tadaka 2017</i>	1 (1)		
*confidence in one's ability to carry out a task			
Positive aspects of caregiving			
Fulfilment from caring <i>Hoefman et al 2015</i>			1
Happy to care <i>Hoefman et al 2015</i>			1
Preparedness for caregiving			
Preparedness for caregiving <i>McIlfatrick et al 2018</i>	1 (1)		
Time for respite			
Activities outside caring <i>Hoefman et al 2015</i>			1
Enough time for self <i>Hoefman et al 2015</i>	1		

Factors relating to Caregiver Quality of Life (QoL)

6: Support

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Caregiver support'			
Accessible information			
Accessible information for carers <i>Ito & Tadaka 2017</i>	1 (1)		
Accessible information for patients <i>Ito & Tadaka 2017</i>	1 (1)		
Caregiver support			
Formal support			
Previously received formal support:			
<i>caregiver previously accessed support services</i> <i>Duimering et al 2019</i>			1 (1)
Currently receiving formal support:			
<i>caregiver receiving support services</i> <i>Ito & Tadaka 2017</i>	1 (1)		
<i>caregiver accessing professional psychological help</i> <i>Janda et al 2017</i>			1 (1)
<i>institutional support - assistance from organisations and the government</i> <i>Hoefman et al 2015</i>			1
<i>caregiver receiving formal help</i> <i>Wadhwa et al 2013</i>			1
Interested in receiving support:			
<i>caregiver interested in accessing future support services</i> <i>Duimering et al 2019</i>		1 (1)	
<i>caregiver requesting home care for patient</i> <i>Ito & Tadaka 2017</i>	1 (1)		
Type of formal support service used and frequency <i>Ito & Tadaka 2017</i>			1 (1)

Factors relating to Caregiver Quality of Life (QoL)

6: Support (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Caregiver support'			
Informal support			
Currently receiving informal support:			
<i>social support : from family and friends</i> <i>Hoefman et al 2015</i>	1		
<i>instrumental support : presence of a sub caregiver</i> <i>Ito & Tadaka 2017</i>	1 (1)		
<i>caregiver receiving informal help</i> <i>Wadhwa et al 2013</i>			1
Communication with care professionals			
Faster dialogue pace** <i>Wittenberg-Lyles et al (2013)</i>		1 (1)	
Language complexity** <i>Wittenberg-Lyles et al (2013)</i>			1 (1)
Length of interaction (in minutes)** <i>Wittenberg-Lyles et al (2013)</i>			1 (1)
Team taking turns to speak** <i>Wittenberg-Lyles et al (2013)</i>			1 (1)
** in care planning sessions between informal caregivers and hospice team members			
Quality of Care			
Caregiver satisfaction with care <i>Hannon et al 2013</i>	1 (1)		
Caregiver satisfaction with home care <i>Ito & Tadaka 2017</i>	1 (1)		
Patient satisfaction with care <i>Hannon et al 2013</i>	1 (1)		
Instrumental support services received considered necessary by caregiver <i>Ito & Tadaka 2017</i>			1 (1)

Factors relating to Caregiver Quality of Life (QoL)

7: Contextual factors

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Contextual factors'			
Caregiver age			
Caregiver age – increasing age <i>Flechl et al 2013</i> <i>Ito & Tadaka 2017</i> <i>Janda et al 2017</i> <i>Wadhwa et al 2013</i>	2 (1)		2 (2)
Carer age >=75 <i>McIlfratrick et al 2018</i>	1 (1)		
Caregiver education			
Caregiver education <i>Janda et al 2017</i> <i>Wadhwa et al 2013</i>			2 (1)
Caregiver employment status			
Unemployed			
Unemployed <i>Wadhwa et al 2013</i>		1	
Employed			
Employed <i>Ito & Tadaka 2017</i>			1
Employed – on leave <i>Duimering et al 2019</i>		1 (1)	
Retired			
Retired <i>Duimering et al 2019</i> <i>Wadhwa et al 2013</i>	2 (1)		
Caregiver ethnicity			
Non-European			
Non-European ethnicity <i>Wadhwa et al 2013</i>			1
Caregiver gender			
Female caregiver <i>Butow et al 2014</i> <i>Duimering et al 2019</i> <i>Ito & Tadaka 2017</i> <i>Janda et al 2017</i> <i>Wadhwa et al 2013</i>		1	4 (3)

Factors relating to Caregiver Quality of Life (QoL)

7: Contextual factors (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Contextual factors'			
Caregiver health status			
Poor physical health			
Caregiver disability or chronic illness <i>Wadhwa et al 2013</i>			1
Caregiver chronic disease <i>Ito & Tadaka 2017</i>			1 (1)
Caregiver socio-economic status			
Higher socioeconomic status (SES)* <i>Duimering et al 2019</i>	1 (1)		
*SES is a combined measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education, and occupation.			
Composition of household			
Composition of household members who live with caregiver <i>Ito & Tadaka 2017</i>			1 (1)
Patient age			
Patient age <i>Flechl et al 2013</i> <i>Ito & Tadaka 2017</i> <i>Wadhwa et al 2013</i>	1 (1)		2 (2)
Patient gender			
Patient gender <i>Ito & Tadaka 2017</i> <i>Wadhwa et al 2013</i>			2 (2)
Patient lives with caregiver			
Patient lives with caregiver <i>Duimering et al 2019</i> <i>Wadhwa et al 2013</i>		1 (1)	1

Factors relating to Caregiver Quality of Life (QoL)

7: Contextual factors (continued)

Factor (Overall theme)	Impact on Quality of Life (QoL)		
	Better QoL	Worse QoL	No change
Individual factor/s contributing to 'Contextual factors'			
Relationship to patient			
Spouse/partner			
Spouse <i>Wadhwa et al 2013</i>	1		
Spouse or partner <i>Janda et al 2017</i>			1 (1)
Relationship to patient <i>Butow et al 2014</i> <i>Ito & Tadaka 2017</i>			2 (1)
Child			
Child <i>Duimering et al 2019</i>	1 (1)		
Rural location			
Living in a rural area <i>Duimering et al 2019</i> <i>Butow et al 2014</i>			2 (1)

Factors relating to Caregiver Depression

1: Patient condition

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Patient condition'			
Patient condition			
Other conditions			
Patients with heart failure <i>Malik et al 2013</i>			1
(patients with heart failure were compared with patients with lung cancer)			
Cancer			
Patient cancer diagnosis <i>Rivera et al 2010</i>			1
(types of cancer were studied: prostate, lung, breast, colorectal, pancreatic)			
Patients with lung cancer <i>Govina et al 2019</i>		1	
(patients with lung cancer were compared with patients with breast, urogenital and other cancers)			
Patient diagnosis			
Shorter time since diagnosis (months) in palliative cancer patients <i>Fasse et al 2015</i>		1	
Patient disease burden			
Physical functioning			
Greater functional impairment:			
<i>patient functional status (measured using Palliative performance scale and Activities of Daily Living Index)</i> <i>Rivera et al 2010</i>			1
<i>patient activities of daily living impairment</i> <i>Burton et al 2012</i>			1
<i>patient Karnofsky Performance Status Scale</i> <i>Wasner et al 2013</i>			1
Cognitive functioning			
Cognitive impairment <i>Wasner et al 2013</i>			1
Patient disease severity			
Patient disease severity <i>Burton et al 2012</i>			1

Factors relating to Caregiver Depression

1: Patient condition (continued)

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Patient condition'			
Patient stage of disease			
Caregivers perceived stage of the patient's cancer (PSOC)* at 4 different time points prior to patient dying <i>Burridge et al 2009</i>			1
* caregivers were asked the following question: 'How advanced is the patient's disease at present?'			
Patient symptoms			
Patient overall symptoms			
Caregiver finds the patient's difficult/troubling emotional, psychological and physical symptoms stressful <i>Wilkes et al 2018</i>		1	
Patient psychological symptoms			
Patient anxiety <i>Jacobs et al 2017</i> <i>McIlfratrick et al 2018</i>		2	
Patient depression <i>Gotze et al 2014</i> <i>Huang & McMillan 2019</i> <i>Jacobs et al 2017</i> <i>Janda et al 2017</i> <i>McIlfratrick et al 2018</i> <i>Rivera et al 2010</i> <i>Siminoff et al 2010</i>		6	1
Patient exhibits psychological or psychiatric symptoms <i>Kobayakawa et al 2017</i>		1	
Patient symptom global distress* <i>Rivera et al 2010</i>		1	
*measures the distress a patient with cancer experiences in response to the severity and frequency of symptoms			

Factors relating to Caregiver Depression

1: Patient condition (continued)

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Patient condition'			
Patient quality of life (QoL)			
Patient overall quality of life <i>McIlfatrick et al 2018</i> <i>Rivera et al 2010</i> <i>Wasner et al 2013</i>	1	1**	1
**study reports a positive relationship between QoL and depression but does not state if a higher score on the QoL measure relates to a lower QOL			
Patient treatment			
No past surgery <i>Govina et al 2019</i>			1
Past chemotherapy <i>Govina et al 2019</i>			1
Patient frequently visited emergency outpatient clinic <i>Kobayakawa et al 2017</i>			1

Factors relating to Caregiver Depression

2: Impact of caring responsibilities

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Impact of caring responsibilities'			
Caregiver workload			
Caring for the patient			
Caregiver burden measures:			
<i>Bakas Caregiving Outcomes Scale (BCOS*) score – changes have worsened.</i> <i>Buscemi et al 2010</i> <i>Govina et al 2019</i>		2	
*BCOS measures carers' perception of changes in their lives as a result of providing care and covers social functioning, physical health and subjective wellbeing.			
<i>Oberst Caregiving Burden Score - D (OCBS-D*) score - tasks of greater difficulty.</i> <i>Govina et al 2019</i>		1	
*OCBS-D measures difficulty of caregiving tasks			
<i>Oberst Caregiving Burden Score -T (OCBS-T*) score -more time spent on caregiving tasks</i> <i>Govina et al 2019</i>		1	
*OCBS-T measures time spent on caregiving tasks			
<i>Burden Scale for Family Caregivers (BSFC) - measures burden of care</i> <i>Wasner et al 2013</i>		1	
<i>Zarit Burden Inventory 12 (ZBI-12) - measures subjective burden</i> <i>Malik et al 2013</i>		1	
Demands* on caregiver <i>Thielemann & Conner 2009</i>		1	
*caregiving demands include acknowledged tasks such as activities of daily living; preparing and administering medication; maintaining nutritional care; transporting; giving emotional support; conducting family business; and, less recognized, acting as a source of data about the patient to professional healthcare providers.			
Impact on caregiver's schedule <i>Hudson et al 2011</i>		1	
(measured by Carer Reaction Assessment (CRA))			
Number of hours per week providing care <i>Thielemann & Conner 2009</i>			1

Factors relating to Caregiver Depression

2: Impact of caring responsibilities (continued)

Factor (Overall theme)	Impact on Depression		
Individual factor contributing to 'Impact of caring responsibilities'	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Caregiver workload			
Support for others:			
Additional caring responsibilities:			
<i>Children of minor age</i> <i>Govina et al 2019</i>			1
Length of caring			
Number of months of caregiving <i>Thielemann & Conner 2009</i>			1

Factors relating to Caregiver Depression

3: Relationships

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Relationships'			
Family dynamics			
Coherence (ability of family members to successfully cope with family stressors)			
Family sense of coherence* perceived by caregiver is high <i>Mollerberg et al 2019</i>	1		
(measured by Family Sense of Coherence Scale) *family sense of coherence relates to the ability of family members to successfully cope with family stressors			
Cohesion (the level of commitment and support in the family)			
Family cohesion* perceived by caregiver is low <i>Siminoff et al 2010</i>		1	
(measured by family environment scale) *family cohesion relates to the degree of commitment, help and support family members provide one another			
Family cohesion* perceived by patient is low <i>Siminoff et al 2010</i>		1	
(measured by family environment scale) *family cohesion relates to the degree of commitment, help and support family members provide one another			
Communication			
Family expressiveness* perceived by caregiver is low <i>Siminoff et al 2010</i>		1	
(measured by family environment scale) *family expressiveness is the extent to which family members are encouraged to express feelings directly			
Family expressiveness* perceived by patient is low <i>Siminoff et al 2010</i>		1	
(measured by family environment scale) *family expressiveness is the extent to which family members are encouraged to express feelings directly			

Factors relating to Caregiver Depression

3: Relationships (continued)

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Relationships'			
Family dynamics			
Conflict			
Family conflict* perceived by caregiver is high <i>Siminoff et al 2010</i>		1	
(measured by family environment scale) *family conflict relates to the amount of openly expressed anger and conflict among family members			
Family conflict* perceived by patient is high <i>Siminoff et al 2010</i>		1	
(measured by family environment scale) *family conflict relates to the amount of openly expressed anger and conflict among family members			
Quality of patient-caregiver relationship			
Caregiver attachment style			
Caregiver has an insecure-anxious attachment style* <i>Fasse et al 2015</i>		1	
*attachment style relates to the different ways of interacting and behaving in relationships			
Caregiver has an insecure-avoidant attachment style <i>Fasse et al 2015</i>			1
*attachment style relates to the different ways of interacting and behaving in relationships			
Communication			
Caregiver communication with patient about both their illness and approaching death is high <i>Bachner & Carmel 2009a</i>	1		
Conflict			
Number of unresolved family conflicts perceived by family member <i>Exline et al 2012</i>		1	
Number of unresolved family conflicts perceived by patient <i>Exline et al 2012</i>		1	

Factors relating to Caregiver Depression

4: Finances

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Finances'			
Financial situation			
Annual income during care (US dollars) <i>Kobayakawa et al 2017</i>			1
Caregiver mode of transport			
Means of transport (private car) <i>Govina et al 2019</i>			1

Factors relating to Caregiver Depression

5: Carer internal processes

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Carer internal processes'			
Acceptance of patient condition			
Difficult for caregiver to emotionally accept that the patient's condition was rapidly worsening <i>Kobayakawa et al 2017</i>		1	
Caregiver coping patterns			
Positive impact			
Optimistic <i>Hudson et al 2011</i>	1		
Secular* caregivers. *non-religious <i>Bachner et al 2011</i>	1		
Negative impact			
Suppression of competing activities* <i>Fasse et al 2015</i>		1	
(measured using COPE Inventory) * coping style which is based on solving problems, such as concentrating efforts on doing something about a problem or thinking about what steps to take for solving a problem			
Seeking for emotional social support <i>Fasse et al 2015</i>		1	
(measured using COPE Inventory)			
Disengagement through substance use <i>Fasse et al 2015</i>		1	
(measured using COPE Inventory)			
Venting of emotions <i>Fasse et al 2015</i>		1	
(measured using COPE Inventory)			

Factors relating to Caregiver Depression

5: Carer internal processes(continued)

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Carer internal processes'			
Caregiver coping patterns			
No impact			
Active coping* <i>Fasse et al 2015</i>			1
(measured using COPE Inventory) * coping style which is based on solving problems, such as concentrating efforts on doing something about a problem or thinking about what steps to take for solving a problem			
Humour <i>Fasse et al 2015</i>			1
(measured using COPE Inventory)			
Fighting spirit coping style <i>Burton et al 2012</i>			1
(measured using Mini -Mental Adjustment to Coping Scale)			
Seeking for information support <i>Fasse et al 2015</i>			1
(measured using COPE Inventory)			
Religious coping <i>Fasse et al 2015</i>			1
(measured using COPE Inventory)			
Denial <i>Fasse et al 2015</i>			1
(measured using COPE Inventory)			

Factors relating to Caregiver Depression

5: Carer internal processes (continued)

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Carer internal processes'			
Caregiver coping patterns (continued)			
No impact (continued)			
Cognitive avoidance* coping style <i>Burton et al 2012</i>			1
(measured using Mini -Mental Adjustment to Coping Scale) *cognitive avoidance relates to avoiding feeling or thinking about events or experiences such as unpleasant or distressing thoughts or memories			
Mental disengagement* <i>Fasse et al 2015</i>			1
(measured using COPE Inventory) * coping style in which a person turns to other activities (including daydreaming, sleep, work or other substitute activities like watching TV) when they experience a stressful event			
Control over the care situation			
Caregiver feels helpless or guilty because they could do nothing for the patient <i>Kobayakawa et al 2017</i>		1	
Self-esteem			
Esteem <i>Hudson et al 2011</i>		1**	
** author's confirmed higher scores on caregiver esteem were unexpectedly related to higher scores on depression".			
Pre-loss grief			
Pre-loss grief <i>Nielsen et al 2017</i>		1	
Preparedness for caregiving			
Preparedness for caregiving <i>Henriksson & Arestedt 2013</i>			1
Previous experience of informal caregiving			
Provided care to a loved one in the past <i>Govina et al 2019</i>		1	

Factors relating to Caregiver Depression

6: Support

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Support'			
Caregiver support			
Formal support			
Caregiver accessed professional psychological help <i>Janda et al 2017</i>			1
Home-visit physicians and nurses provide no help in symptom management <i>Kobayakawa et al 2017</i>		1	
Informal support			
Availability of someone who could stay with patient <i>Kobayakawa et al 2017</i>			1
Caregiver working in pairs <i>Wittenberg-Lyles et al 2014</i>			1
Social support (from family and friends) <i>Thielemann & Conner 2009</i>	1		
Perceived support			
Caregiver perceived support <i>Burton et al 2012</i>			1
Satisfaction with social support			
Caregiver support satisfaction (physical, emotional, informational) <i>Rivera et al 2010</i>	1		
Health professionals understanding of patient needs			
Because symptoms are not severe in daytime, physicians or nurses do not understand their severity <i>Kobayakawa et al 2017</i>			1
Unmet needs in caregiver			
Total number of unmet needs (psychological, social and physical needs) <i>Buscemi et al 2010</i>		1	

Factors relating to Caregiver Depression

7: Contextual factors

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Contextual factors'			
Caregiver age			
Caregiver age – increasing age <i>Burton et al 2012</i> <i>Govina et al 2019</i> <i>Janda et al 2017</i> <i>Rivera et al 2010</i> <i>Thielemann & Conner 2009</i>	1		4
Caregiver education			
Number of years of education completed <i>Thielemann & Conner 2009</i>			1
Caregiver educational level <i>Govina et al 2019</i> <i>Janda et al 2017</i> <i>Kobayakawa et al 2017</i>			3
Caregiver employment status			
Employed			
Caregiver employment <i>Burton et al 2012</i> <i>Govina et al 2019</i>			2
Caregiver ethnicity			
White			
Caregiver ethnicity (white) <i>Rivera et al 2010</i> <i>Thielemann & Conner 2009</i>	1		1
Caregiver gender			
Female caregiver <i>Burton et al 2012</i> <i>Fasse et al 2015</i> <i>Govina et al 2019</i> <i>Janda et al 2017</i> <i>Kobayakawa et al 2017</i> <i>Rivera et al 2010</i> <i>Thielemann & Conner 2009</i>		2	5
Wife caregiver <i>Rivera et al 2010</i>		1	
Husband caregiver <i>Rivera et al 2010</i>			1
Caregiver health status			
Poor physical health			
Physical health condition of carer – poor <i>Kobayakawa et al 2017</i>		1	

Factors relating to Caregiver Depression

7: Contextual factors (continued)

Factor (Overall theme)	Impact on Depression		
	Better mental health (lower depression)	Worse mental health (higher depression)	No change
Individual factor contributing to 'Contextual factors'			
Caregiver health status <i>continued</i>			
Overall health			
Overall health status <i>Rivera et al 2010</i>			1
Caregiver marital status			
Caregiver marital status <i>Burton et al 2012</i> <i>Govina et al 2019</i>			2
Length of patient-caregiver relationship			
Date of marriage <i>Thielemann & Conner 2009</i>			1
Patient educational level			
Patient educational level <i>Govina et al 2019</i>			1
Patient gender			
Male patient <i>Govina et al 2019</i>		1	
Patient lives with caregiver			
Patient lives with caregiver <i>Govina et al 2019</i>			1
Relationship to patient			
Spouse/partner			
Spouse/partner <i>Janda et al 2017</i> <i>Kobayakawa et al 2017</i>			2
Child			
Daughter <i>Rivera et al 2010</i>			1
Other relationship			
Caregiver other than wife, husband or daughter <i>Rivera et al 2010</i>	1		
Nature of relationship <i>Govina et al 2019</i>			1

Factors relating to Caregiver Anxiety

1: Patient condition

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Patient condition'			
Patient condition			
Other conditions			
Patients with heart failure <i>Malik et al 2013</i>			1
(patients with heart failure were compared with patients with lung cancer)			
Cancer			
Patients with lung cancer <i>Govina et al 2019</i>		1	
(patients with lung cancer were compared with patients with breast, urogenital and other cancers)			
Patient disease burden			
Physical functioning			
Greater functional impairment:			
<i>patient lower functional capacity (measured using Barthel Index)</i> <i>Perez-Ordonez et al 2016</i>		1	
<i>patient activities of daily living impairment</i> <i>Burton et al 2012</i>			1
<i>patient Karnofsky Performance Status Scale</i> <i>Wasner et al 2013</i>			1
Cognitive functioning			
Greater cognitive impairment <i>Wasner et al 2013</i>			1
Patient disease severity			
Patient disease severity <i>Burton et al 2012</i>			1
Patient quality of life (QoL)			
Patient overall quality of life <i>McIlpatrick 2017</i> <i>Wasner et al 2013</i>	1		1

Factors relating to Caregiver Anxiety

1: Patient condition (continued)

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Patient condition'			
Patient stage of disease			
Caregivers perceived stage of patient's cancer <i>Burridge et al 2009</i>			1
(PSOC)*at 4 different time points prior to patient dying * caregivers were asked the following question: 'How advanced is the patient's disease at present?'			
Patient symptoms			
Patient psychological symptoms			
Patient anxiety <i>Gotze et al 2014</i> <i>Jacobs et al 2017</i> <i>Janda et al 2017</i> <i>McIlfatrick et al 2018</i>		4	
Patient depression <i>Jacobs et al 2017</i> <i>McIlfatrick 2017</i>		2	
Patient treatment			
No past surgery <i>Govina et al 2019</i>		1	
Past chemotherapy <i>Govina et al 2019</i>			1

Factors relating to Caregiver Anxiety

2: Impact of caring responsibilities

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Impact of caring responsibilities'			
Caregiver workload			
Caring for the patient			
Caregiver burden measures:			
<i>Bakas Caregiving Outcomes Scale (BCOS*) score – changes have worsened</i> <i>Buscemi et al 2010</i> <i>Govina et al 2019</i>		2	
*BCOS measures carers' perception of changes in their lives as a result of providing care and covers social functioning, physical health and subjective wellbeing.			
<i>Oberst Caregiving Burden Score - D (OCBS-D*) score – tasks of greater difficulty</i> <i>Govina et al 2019</i>		1	
*OCBS-D measures difficulty of caregiving tasks			
<i>Oberst Caregiving Burden Score - T (OCBS-T*) score – more time spent on caregiving tasks</i> <i>Govina et al 2019</i>		1	
*OCBS-D measures difficulty of caregiving tasks			
<i>Perceived burden (measured by Caregiver Strain Index)</i> <i>Perez-Ordonez et al 2016</i>		1	
<i>Burden Scale for Family Caregivers (BSFC) – measures burden of care</i> <i>Wasner et al 2013</i>		1	
<i>Zarit Burden Inventory 12 (ZBI-12) – measures subjective burden</i> <i>Malik et al 2013</i>		1	
Support for others			
Additional caring responsibilities			
- <i>children of minor age</i> <i>Govina et al 2019</i>			1
Caregiver sleep problems			
Caregiver has sleep problems* <i>Washington et al 2018a</i>		1	
*family caregivers were asked how often in the prior 2 weeks they had experienced having 'trouble falling or staying asleep or sleeping too much'			

Factors relating to Caregiver Anxiety

3: Relationships

Factor (Overall theme)	Impact on Anxiety		
Individual factor contributing to 'Relationships'	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Family dynamics			
Coherence (ability of family members to successfully cope with family stressors)			
Family sense of coherence* <i>Mollerberg et al 2019</i>	1		
* family sense of coherence relates to the ability of family members to successfully cope with family stressors			

4: Finances

Factor (Overall theme)	Impact on Anxiety		
Individual factor contributing to 'Finances'	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Caregiver mode of transport			
Means of transport (private car) <i>Govina et al 2019</i>		1	

Factors relating to Caregiver Anxiety

5: Carer internal processes

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Carer internal processes'			
Caregiver coping patterns			
Negative impact			
Dysfunctional* coping strategies <i>Perez-Ordonez et al 2016</i>		1	
(measured using Brief COPE) *coping style which is based on not accepting a problem or not wanting to think about it, such as avoiding dealing with the problem or not accepting that the situation has happened			
No impact			
Emotion-focused* coping strategies <i>Perez-Ordonez et al 2016</i>			1
(measured using Brief COPE) *coping strategies which aim to reduce or eliminate negative feelings such as accepting the reality or trying to see the situation positively			
Problem focused* coping strategies <i>Perez-Ordonez et al 2016</i>			1
(measured using Brief COPE) *coping strategies which aim to solve problems, such as concentrating efforts on doing something about a problem or thinking about what steps to take for solving a problem			
Fighting spirit coping style <i>Burton et al 2012</i>			1
(measured using Mini -Mental Adjustment to Coping Scale)			
Cognitive avoidance* coping style* <i>Burton et al 2012</i>			1
(measured using Mini -Mental Adjustment to Coping Scale) *cognitive avoidance relates to avoiding feeling or thinking about events or experiences such as unpleasant or distressing thoughts or memories			

Factors relating to Caregiver Anxiety

5: Carer internal processes (continued)

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Carer internal processes'			
Self-efficacy			
Caregiver has greater confidence in caring for themselves <i>Hampton & Newcomb 2018</i>	1		
(measured using the Caregiver Inventory as a measure of their self-efficacy*) *confidence in one's ability to carry out a task			
Caregiver has greater confidence in managing caregiving demands <i>Hampton & Newcomb 2018</i>	1		
(measured using the Caregiver Inventory as a measure of their self-efficacy*) *confidence in one's ability to carry out a task			
Preparedness for caregiving			
Preparedness for caregiving <i>Henriksson & Arestedt 2013</i>	1		
Previous experience of informal caregiving			
Provided care to loved one in past <i>Govina et al 2019</i>		1	

Factors relating to Caregiver Anxiety

6: Support

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Support'			
Caregiver support			
Formal support			
Caregiver accessed professional psychological help <i>Janda et al 2017</i>		1	
Informal support			
Caregiver working in pairs <i>Wittenberg-Lyles et al 2013</i>			1
Perceived support			
Caregiver perceived support <i>Burton et al 2012</i>			1
Communication with care professionals			
Faster dialogue pace** <i>Wittenberg-Lyles et al 2013</i>			1
Language complexity** <i>Wittenberg-Lyles et al 2013</i>			1
Length of interaction (in minutes)** <i>Wittenberg-Lyles et al 2013</i>			1
Team taking turns to speak** <i>Wittenberg-Lyles et al 2013</i>			1
<i>** in care planning sessions between informal caregivers and hospice team members</i>			
Unmet needs in caregiver			
Total number of unmet needs <i>Buscemi et al 2010</i>		1	
(psychological, social and physical needs)			

Factors relating to Caregiver Anxiety

7: Contextual factors

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Contextual factors'			
Caregiver age			
Caregiver age - increasing age <i>Burton et al 2012</i> <i>Govina et al 2019</i> <i>Janda et al 2017</i>	2		1
Caregiver education			
Caregiver education <i>Govina et al 2019</i> <i>Janda et al 2017</i>			2
Caregiver employment status			
Employed			
Caregiver employment <i>Burton et al 2012</i> <i>Govina et al 2019</i>			2
Caregiver gender			
Female caregiver <i>Burton et al 2012</i> <i>Govina et al 2019</i> <i>Janda et al 2017</i> <i>Wasner et al 2013</i>		2	2
Caregiver marital status			
Caregiver marital status <i>Burton et al 2012</i> <i>Govina et al 2019</i>			2

Factors relating to Caregiver Anxiety

7: Contextual factors (continued)

Factor (Overall theme)	Impact on Anxiety		
	Better mental health (lower anxiety)	Worse mental health (higher anxiety)	No change
Individual factor contributing to 'Contextual factors'			
Patient educational level			
Patient educational level <i>Govina et al 2019</i>			1
Patient gender			
Male patient <i>Govina et al 2019</i>		1	
Patient lives with caregiver			
Patient lives with caregiver <i>Govina et al 2019</i>		1	
Relationship to patient			
Spouse/partner			
Spouse/partner <i>Janda et al 2017</i>			1
Other relationship			
Nature of relationship <i>Govina et al 2019</i>			1

Factors relating to Caregiver Distress

1: Patient condition

Factor (Overall theme)	Impact on Distress		
	Better mental health (lower distress)	Worse mental health (higher distress)	No change
Individual factor contributing to 'Patient condition'			
Patient condition			
Other conditions			
Patient with chronic obstructive pulmonary disease (COPD) <i>Janssen et al 2012</i>		1	
(patients with COPD were compared with patients with chronic heart failure and patients with chronic renal failure)			
Cancer			
Patient with rare cancers <i>Loggers & Prigerson 2014</i>			1
(patients with rare cancers were compared with patients with common cancers)			
Type of cancer <i>Kershaw et al 2015</i>			1
(4 types of cancer were studied: prostate, lung, breast, colorectal)			
Patient disease burden			
Physical functioning			
Patient does not have a comorbid condition <i>Kershaw et al 2015</i>			1
Patient Quality of Life			
Patient QOL <i>O'Hara et al 2010</i>	1		
Patient stage of disease			
Change over time			1
(7, 12, 18 and 24 weeks after distress was first measured in caregivers of patients with lung cancer) <i>Grant et al 2013</i>			
Time		1	
(period 12 months to 1 month prior to death of patient with ovarian cancer) <i>Butow et al 2014</i>			

Factors relating to Caregiver Distress

1: Patient condition (continued)

Factor (Overall theme)	Impact on Distress		
	Better mental health (lower distress)	Worse mental health (higher distress)	No change
Individual factor contributing to 'Patient condition'			
Patient symptoms			
Patient overall symptoms			
Patient symptom burden <i>O'Hara et al 2010</i>		1	
Patient psychological symptoms			
Patient depression <i>O'Hara et al 2010</i>			1
Patient treatment			
Patient follow up method <i>Catt et al 2012</i>			1
(oncologist*-led follow-up compared with multidisciplinary group follow-up) *oncologist is a doctor who specializes in diagnosing and treating people who have cancer			
Patient receiving Specialized Palliative Care (SPC) <i>Seekatz et al 2017</i>			1
*According to National Institute of Clinical Excellence (NICE), Specialist palliative care encompasses hospice care (including inpatient hospice, day hospice, hospice at home) as well as a range of other specialist advice, support and care such as that provided by hospital palliative care teams.			

Factors relating to Caregiver Distress

2: Impact of caring responsibilities

Factor (Overall theme)	Impact on Distress		
	Better mental health (lower distress)	Worse mental health (higher distress)	No change
Individual factor contributing to 'Impact of caring responsibilities'			
Caregiver workload			
Caring for the patient			
Caregiver burden measures:			
<i>Bakas Caregiving Outcomes Scale (BCOS*) score – changes have worsened.</i> <i>Buscemi et al 2010</i>		1	
*BCOS measures carers' perception of changes in their lives as a result of providing care and covers social functioning, physical health and subjective wellbeing.			
Support for others			
Additional caring responsibilities:		1	
- <i>caregiver with childcare responsibilities</i> <i>Catt et al 2012</i>		1	
Caregiver lifestyle adjustments			
Caregiver has made greater lifestyle adjustments to accommodate the caregiver role <i>Catt et al 2012</i>		1	

3: Relationships

Factor (Overall theme)	Impact on Distress		
	Better mental health (lower distress)	Worse mental health (higher distress)	No change
Individual factor contributing to 'Relationships'			
Quality of patient-caregiver relationship			
Conflict			
Caregiver dissatisfaction with caregiver-patient partnership <i>Gotze et al 2014</i>		1	

4: Finances

No factors identified

Factors relating to Caregiver Distress

5: Carer internal processes

No factors identified

6: Support

Factor (Overall theme)	Impact on Distress		
	Better mental health (lower distress)	Worse mental health (higher distress)	No change
Individual factor contributing to 'Support'			
Quality of care			
Carer reports of quality of care: more problems in patient emotional and spiritual support <i>O'Hara et al 2010</i>	1		
Carer reports of quality of care: more problems with patient unmet needs <i>O'Hara et al 2010</i>		1	
Unmet needs in caregiver			
Number of important unmet needs by health professionals <i>Areia et al 2019</i>		1	
Total number of unmet needs <i>Buscemi et al 2010</i>		1	
(psychological, social and physical needs)			

Factors relating to Caregiver Distress

7: Contextual factors

Factor (Overall theme)	Impact on Distress		
	Better mental health (lower distress)	Worse mental health (higher distress)	No change
Individual factor contributing to 'Contextual factors'			
Caregiver age			
Caregiver age - increasing age <i>Catt et al 2012</i> <i>Kershaw et al 2015</i>	1		1
Caregiver education			
Caregiver education <i>Catt et al 2012</i>			1
Caregiver employment status			
<i>Employed</i>			
Caregiver employment <i>Catt et al 2012</i>			1
Caregiver gender			
Female caregiver <i>Catt et al 2012</i> <i>Butow et al 2014</i> <i>Kershaw et al 2015</i>		1	2
Caregiver health status			
Caregiver comorbidity* <i>Kershaw et al 2015</i>			1
*comorbidity is the presence of two or more medical conditions at the same time			
Relationship to patient			
<i>Spouse/partner</i>			
Relationship to patient <i>Butow et al 2014</i>			1
<i>Other relationship</i>			
Not a spouse/partner of the patient <i>Catt et al 2012</i> <i>Kershaw et al 2015</i>		1	1
Rural location			
Living in a rural area <i>Butow et al 2014</i>			1