

ONLINE SUPPLEMENTARY DOCUMENT

Title: Family participation to enhance care and tackle health worker shortages in resource-limited hospitals: A systematic review

Authors: Jim J Determeijer, Stije J Leopold, René Spijker, Charles Agyemang & Michèle van Vugt

Supplement 1

Full search queries performed in Medline, Embase, CINAHL and the Global Health Library on 30-07-2020 and updated on 07-04-2022.

Medline

Keyword	Sub-components	Syntax
Resource-limited setting		
	Developing Countries.sh,kf.	OR
	(Africa or Asia or Caribbean or West Indies or South America or Latin America or Central America).hw,kf,ti,ab,cp.	OR
	(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldovia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia).hw,kf,ti,ab,cp.	OR
	((developing or (less* adj developed) or under-developed or underdeveloped or middle-income or (low* adj income) or underserved or under-served or deprived or poor*) adj (countr* or nation? or population? or world)).ti,ab.	OR
	((developing or less* developed or under developed or underdeveloped or middle income or low* income) adj (economy or economies)).ti,ab.	OR
	(low* adj (gdp or gnp or gross domestic or gross national)).ti,ab.	OR
	(low adj3 middle adj3 countr*).ti,ab.	OR
	(lmic or Imics or third world or lami countr*).ti,ab.	OR
	transitional countr*.ti,ab.	OR
Hospital-like environments		AND
	exp "Hospitals"/ or exp "Home Care Services, Hospital-Based"/ or exp "Tertiary Care Centers"/ or exp "Secondary Care Centers"/ or exp Hospices/ or exp "Hospital Departments"/	OR

	(hospital or ICU or in-hospital or hospice or inpatient* or emergency-department or in-patient or ward or hospice* or ((tertiary or secondary) adj (health or instit* or hospital or center or centre))).ti,ab,kf.	OR
Family		AND
	(exp Family/ or (family or relative* or parent* or child* or informal or lay).ti,ab.	
Caregiver		AND
	(exp Caregivers/ or (caregiver or caregiving or caretaker or caretaking or care-giver or care-giving or care-taker or care-taking).ti,ab.) or ((family adj2 (participation or engagement or involvement or integrated-care or Delivered-Care)) or ((patient or family) adj2 (centred-care or centered-care)) or PFCC or FCC).ti,ab.	
Exclusion criteria		NOT
	(review or letter or case reports).pt.	

Embase

1	Developing Country.sh.
2	(Africa or Asia or Caribbean or West Indies or South America or Latin America or Central America).hw,ti,ab,cp.
3	(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadzkhikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togoese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia).hw,ti,ab,cp.
4	((developing or less* developed or under developed or underdeveloped or middle income or low* income or underserved or under served or deprived or poor*) adj (countr* or nation? or population? or world)).ti,ab.
5	((developing or less* developed or under developed or underdeveloped or middle income or low* income) adj (economy or economies)).ti,ab.
6	(low* adj (gdp or gnp or gross domestic or gross national)).ti,ab.
7	(low adj3 middle adj3 countr*).ti,ab.
8	(lmic or lmic3 or third world or lami countr*).ti,ab.
9	transitional countr*.ti,ab.
10	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11	cancer center/ or hospice/ or exp hospital/ or mental health center/ or rehabilitation center/ or secondary care center/ or tertiary care center/
12	(hospital or ICU or in-hospital or hospice or inpatient* or emergency-department or in-patient or ward or hospice* or ((tertiary or secondary) adj (health or instit* or hospital or center or centre))).ti,ab,kw.
13	11 or 12
14	((family/ or exp aunt/ or exp cousin/ or extended family/ or exp family relation/ or exp grandchild/ or exp grandparent/ or nephew/ or niece/ or exp stepfamily/ or exp uncle/ or (family or relative* or parent* or child* or informal or lay).ti,ab.) and (Caregiver/ or (caregiver or caregiving or caretaker or caretaking or care-giver or care-giving or care-taker or care-taking).ti,ab.) or ((family adj2 (participation or engagement or involvement or integrated-care or Delivered-Care)) or ((patient or family) adj2 (centred-care or centered-care)) or PFCC or FCC).ti,ab.
15	10 and 13 and 14
16	exp "review"/
17	exp case report/
18	exp letter/
19	16 or 17 or 18
20	15 not 19
21	limit 20 to embase

CINAHL

1	<p>TI(transitional countr*) OR AB(transitional countr*) OR TI(lmic or lmic or third world or lami countr*) OR AB(lmic or lmic or third world or lami countr*) OR TI(low N3 middle N3 countr*) OR AB(low N3 middle N3 countr*) OR TI((low* N1 (gdp or gnp or gross domestic or gross national)) OR AB((low* N1 (gdp or gnp or gross domestic or gross national)) OR TI((developing or less* developed or under developed or underdeveloped or middle income or low* income) N1 (economy or economies)) OR AB((developing or less* developed or under developed or underdeveloped or middle income or low* income) N1 (economy or economies)) OR TI((developing or (less* N1 developed) or under-developed or underdeveloped or middle-income or (low* N1 income) or underserved or under-served or deprived or poor*) N1 (countr* or nation? or population? or world)) OR AB((developing or (less* N1 developed) or under-developed or underdeveloped or middle-income or (low* N1 income) or underserved or under-served or deprived 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	Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or 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OR KW(Africa or Asia or Caribbean or West Indies or South America or Latin America or Central America)
2	KW(hospital or ICU or in-hospital or hospice or inpatient* or emergency-department or in-patient or ward or hospice* or ((tertiary or secondary) adj (health or instit* or hospital or center or centre))) OR AB(hospital or ICU or in-hospital or hospice or inpatient* or emergency-department or in-patient or ward or hospice* or ((tertiary or secondary) N1 (health or instit* or hospital or center or centre))) OR TI(hospital or ICU or in-hospital or hospice or inpatient* or emergency-department or in-patient or ward or hospice* or ((tertiary or secondary) N1 (health or instit* or hospital or center or centre))) OR (MH "Hospitals+") OR (MH "Academic Medical Centers") OR (MH "Alternative Health Facilities") OR (MH "Health Facility Departments+") OR (MH "Rehabilitation Centers+") OR (MH "Rural Health Centers")
3	(AB(family or relative* or parent* or child* or informal or lay) OR TI(family or relative* or parent* or child* or informal or lay) OR (MH "Family+"))AND (AB(caregiver* or caregiving or caretaker* or caretaking or care-giver* or care-giving or care-taker* or care-taking) OR TI(caregiver or caregiving or caretaker or caretaking or care-giver or care-giving or care-taker or care-taking) OR (MH "Caregivers"))
4	AB((family N2 (participation or engagement or involvement or integrated-care or Delivered-Care)) or ((patient or family) N2 (centred-care or centered-care)) or PFCC or FCC) OR TI(((family N2 (participation or engagement or involvement or integrated-care or Delivered-Care)) or ((patient or family) N2 (centred-care or centered-care)) or PFCC or FCC)
5	S3 OR S4
6	S1 AND S2 AND S5

The Global Health Library

(ab:((family OR relative* OR informal OR lay-people or lay-individuals) AND (caregiver* OR caregiving OR caretaker* OR caretaking OR care-giver* OR care-giving OR care-taker* OR care-taking) AND (hospital OR in-hospital OR hospice OR inpatient* OR emergency-department OR in-patient OR ward OR hospice*))) OR (ti:((family OR relative* OR informal OR lay-people or lay-individuals) AND (caregiver* OR caregiving OR caretaker* OR caretaking OR care-giver* OR care-giving OR care-taker* OR care-taking) AND (hospital OR in-hospital OR hospice OR inpatient* OR emergency-department OR in-patient OR ward OR hospice*)))

Supplement 2

List of excluded studies during full-text screening including reasons.

Author	Publication year	Title	Exclusion reason
Afaf Mahmoud, F.	2005	Dementia: nursing intervention for family care givers	No full-text
Akkuzu, G.	2009	Evaluation by patients and caregivers of the effectiveness of a brochure developed to prevent pressure ulcers	No family participation intervention
Alibeigi, N.	2018	The effectiveness of family-based intervention on symptom severity, expressed emotion and coping styles of bipolar patients	No family participation intervention
Al Mutairi, A.	2020	Hospital-acquired pressure ulcer incident rates among hospitals that implement an education program for staff, patients, and family caregivers inclusive of an afterdischarge follow-up program in Saudi Arabia	Not in a LMIC
Anh, N.	2021	Feasibility of establishing a rehabilitation programme in a Vietnamese intensive care unit	No patient outcome
Bahrami, M.	2014	The effect of a supportive educational program based on COPE model on caring burden and quality of life in family caregivers of women with breast cancer	No patient outcome
Budiono, W.	2021	Psychoeducation Improved Illness Perception and Expressed Emotion of Family Caregivers of Patients with Schizophrenia	No family participation intervention
Chen, Y.	2017	Family Caregiver Contribution to Self-care of Heart Failure: An Application of the Information-Motivation-Behavioral Skills Model	No family participation intervention
Cheng, L.	2005	Psychoeducation program for Chinese family carers of members with schizophrenia	Not in a LMIC
Cho, B.	2011	Effects of Video-guided Education for Primary Family-caregivers of Stroke Patients	No English, French or Dutch
Cho, K.	2007	Effects of an Information Protocol on Anxiety and Nursing Satisfaction for Family Caregivers of Cerebrovascular Accident Patients in the ICU	No English, French or Dutch
Chu, K.	2020	Feasibility of a Nurse-Trained, Family Member-Delivered Rehabilitation Model for Disabled Stroke Patients in Rural Chongqing, China	No participation in a hospital-like environment
Deek, H.	2017	An evaluation of involving family caregivers in the self-care of heart failure patients on hospital readmission: Randomised controlled trial (the FAMILY study)	No participation in a hospital-like environment
Deek, H.	2020	A single educational intervention on heart failure self-care: Extended follow-up from a multisite randomized controlled trial	No participation in a hospital-like environment
Deyhoul, N.	2018	The Effect of Educational Intervention on Family Caregivers' Perceived Threat of the Risk of Dependence Among Patients with Stroke: A Randomized Clinical Trial	No participation in a hospital-like environment
Ebrahimi, H.	2018	Effect of Family-Based Education on the Quality of Life of Persons with Type 2 Diabetes: A Randomized Clinical Trial	No participation in a hospital-like environment
Eskes, A.	2019	Developing an evidence-based and theory informed intervention to involve families in patients care after surgery: A quality improvement project	No family participation intervention
Etemadifar, S.	2014	The effectiveness of a supportive educative group intervention on family caregiver burden of patients with heart failure	No patient outcome
Fathani, M.	2016	Evaluation of the effect of designated educational intervention on the improvement of quality of life in caregivers of patients with chronic heart failure	No English, French or Dutch
Flores, Y.	2010	Teaching the caregiver the art of caring: an educational care program with multiple trauma patient caregivers	No English, French or Dutch
García-Cardoza, I.	2018	Efectos de la terapia cognitivo-conductual en la sobrecarga del cuidador primario de adultos mayores	No English, French or Dutch
Gonçalves, J.	2010	Assistence to family caregivers of patients suffering from mental disorder	No English, French or Dutch
Hekmatpou, D.	2019	The effect of patient care education on burden of care and the quality of life of caregivers of stroke patients	No patient outcome
Hong, S.	2017	Effect of a caregiver's education program on stroke rehabilitation	Not in a LMIC
Ildarabadi, E.	2019	Comparison of face-to-face education of caregivers and hospitalized elderlies with copd and its impact on the elderlies' self-care	No participation in a hospital-like environment
Ip, S.	2004	Short-stay in-patient rehabilitation of elderly patients with chronic obstructive pulmonary disease: Prospective study	Not in a LMIC
Jahangiri, M.	2016	Effect of family centered care on patient's family satisfaction in intensive care unit	No family participation intervention

Jinglian, C.	2019	Effect of transitional care based on IMB model in hematological neoplasms caregivers	No full-text
Kang, K.	2005	Evaluation of a Self-efficacy-based Basic Life Support Program for High-risk Patients' Family Caregivers	No English, French or Dutch
Kang, Y.	2017	South Korean family caregiver: Involvement in delirium care a qualitative descriptive study	Not in a LMIC
Kang, Y.	2017	An educational programme to improve acute care nurses' knowledge, attitudes and family caregiver involvement in care of people with cognitive impairment	Not in a LMIC
Kim, B.	2000	The Effect of Support Group Intervention on Various Adaptations of Primary Family Caregivers Caring for Cerebro-Vascular Accident Patients	No English, French or Dutch
Kim, E.	2010	Hands-on Training for Caregivers of Post-Stroke Inpatients	No English, French or Dutch
Kim, H.	2016	The effect of patient-centered CPR education for family caregivers of patients with cardiovascular diseases	Not in a LMIC
Koohi, M.	2017	Effect of family participation in primary care provision to reduce pain anxiety among burn ICU patients	No English, French or Dutch
Madhanraj, K.	2019	Impact of self-instruction manual-based training of family caregivers of neurosurgery patients on their knowledge and care practices - A randomized controlled trial	No patient outcome
Michael, N.	2015	A mixed method feasibility study of a patient- and family-centred advance care planning intervention for cancer patients	No family participation intervention
Moieni, M.	2014	Investigating the effect of family-focused nursing intervention on caregiver burden of the family members of the patients undergoing coronary bypass surgery in Isfahan Shahid Chamran Hospital during 2012	No patient outcome
Mudzi, W.	2012	Effect of carer education on functional abilities of patients with stroke	No participation in a hospital-like environment
Nattala, P.	2010	Family member involvement in relapse prevention improves alcohol dependence outcomes: A prospective study at an addiction treatment facility in India	No family participation intervention
Nkhoma, K.	2013	An educational intervention to reduce pain and improve pain management for Malawian people living with HIV/AIDS and their family carers: Study protocol for a randomised controlled trial	Wrong study type
Oupra, R.	2010	Effectiveness of Supportive Educative Learning programme on the level of strain experienced by caregivers of stroke patients in Thailand	No patient outcome
Ozkan, B.	2013	Effect of psychoeducation and telepsychiatric follow up given to the caregiver of the schizophrenic patient on family burden, depression and expression of emotion	No patient outcome
Pandian, J.	2015	FAMILY-LED REHABILITATION AFTER STROKE IN INDIA: THE ATTEND PILOT STUDY	No patient outcome
Qingrong, Q.	2019	Effects of family caregivers' cognitive behavioral intervention on nutritional status of postoperative gastric cancer patients during chemotherapy	No full-text
Roy, M.	2019	Effectiveness of Structured Teaching Programme on the Knowledge about Rehabilitation of Stroke Patients among Caregivers in a Selected Hospital, Kolkata, India	No patient outcome
Rwashana, S.	1994	Toward a more friendly social environment for the patient: the role of the resident hospital relative	No full-text
Santos, N.	2020	Development and validation a nursing care protocol with educational interventions for family caregivers of elderly people after stroke	No family participation intervention
Senanarong, V.	2004	A counseling intervention for caregivers: Effect on neuropsychiatric symptoms	No participation in a hospital-like environment
Shamsaei, F.	2018	The effect of training interventions of stigma associated with mental illness on family caregivers: A quasi-experimental study 11 Medical and Health Sciences 1117 Public Health and Health Services	No family participation intervention
Souaibi, L.	2016	Therapeutic education of families of patients with schizophrenia: The Lebanese Hôtel-Dieu de France model	No participation in a hospital-like environment
Thimmajja, S.	2019	Effectiveness of psycho-education on knowledge regarding schizophrenia and caregivers' burden among caregivers of patients with schizophrenia – A randomized controlled trial	No patient outcome
Tzeng, H.	2007	Using Family Visitors, Sitters, or Volunteers to Prevent Inpatient Falls	No family participation intervention
Worakul, P.	2007	Effects of psycho-educational program on knowledge and attitude upon schizophrenia of schizophrenic patients' caregivers	No patient outcome
Xiaoli, W.	2017	Application of WeChat public platform on continuous nursing for patients with high risk of pressure ulcers	No full-text

Xin, L.	2016	Evaluation of the intervention from wound expert on the primary caregivers' behavior of caring ;patients with pressure ulcers	No full-text
Xiong, W.	1994	Family-based intervention for schizophrenic patients in China. A randomised controlled trial	No participation in a hospital-like environment
Xu, Z.	2018	The effects of family empowerment program on comprehensive care ability and care preparedness for main caregivers of patients with initial stroke	No full-text
Yan, L.	2016	A randomized controlled trial on rehabilitation through caregiver-delivered nurse-organized service programs for disabled stroke patients in rural china (the RECOVER trial): design and rationale	Wrong study type
Yanqing, T.	2017	Observation on the application of family nursing model based on the timing theory in acute myocardial infarction	No full-text
Yoo, E.	2007	The effects of a support group intervention on the burden of primary family caregivers of stroke patients	No English, French or Dutch
Yu, Y.	2020	Assessing a WeChat-based integrative family intervention (WIFI) for schizophrenia: protocol for a stepped-wedge cluster randomized trial (Preprint)	Wrong study type
Yulin, X.	2021	Influence of empowerment intervention mode of family caregivers on discharge preparation and quality of life of lung cancer patients undergoing chemotherapy	No full-text

Supplement 3

Overview of the reported predefined data items within the included studies							
	Lindley et al.	Zhou et al.	Wang et al.	Kristanti et al.	Alupo et al.	Wong et al.	Total
Patient outcomes							
Mortality	X		X				2
Adverse events	X					X	2
Length of stay	X	X	X				3
Readmission	X						1
Disability and dependence	X	X					2
Effect on symptoms	X	X	X	X	X		5
Quality of life	X	X		X			3
Family outcomes							
Incentives							0
Facilitators	X	X			X	X	4
Burden	X	X					2
Barriers		X				X	2
Staff outcomes							
Staff perception		X				X	2
Staff burden		X			X	X	3
Health service outcomes							
Cost of intervention					X		1
Hospital resources		X	X				2

Supplement 4

Risk of Bias: ROB2 results visualised with the ROBVIS tool

		Risk of bias domains					Overall
		D1	D2	D3	D4	D5	
Study	Lindley et al.						
	Zhou et al.						
	Wang et al.						

Domains:
 D1: Bias arising from the randomization process.
 D2: Bias due to deviations from intended intervention.
 D3: Bias due to missing outcome data.
 D4: Bias in measurement of the outcome.
 D5: Bias in selection of the reported result.

Judgement
 Low

Risk of Bias: ROBINS-I results visualised with the ROBVIS tool

		Risk of bias domains							Overall
		D1	D2	D3	D4	D5	D6	D7	
Study	Kristanti et al.								
	Alupo et al.								
	Wong et al.								

Domains:
 D1: Bias due to confounding.
 D2: Bias due to selection of participants.
 D3: Bias in classification of interventions.
 D4: Bias due to deviations from intended interventions.
 D5: Bias due to missing data.
 D6: Bias in measurement of outcomes.
 D7: Bias in selection of the reported result.

Judgement
 Critical
 Serious
 Moderate
 Low
 No information