



The effectiveness and economic evidence of organizational and management interventions to promote mental wellbeing and resilience in elderly care workers and informal caregivers – a systematic review

Vartiainen Anna-Kaisa ¹, Daniel Adrian Lungu, Rissanen Elisa, Luca Pirrotta, Luca Scapis, Tanja Schroeder, Maren Sogstad, Kristian R. Odberg, Arne Hole, Juana María Delgado Saborit, Louise Ellis, Siri Wiig, Kankaanpää Eila

¹ University of Eastern Finland, Department of Health and Social Management

Support **4**
Resilience



Funded by
the European Union



#EHMA2025



The project is funded by the European Union. However, the views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or the European Health & Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Background

- Elderly care plays a vital role in healthcare systems around the world, highlighting the increasing number of older adults in the population.
- It increases the complexity of care needs and places greater demands on both formal and informal caregiving systems.
- Many countries face resource limitations, workforce shortages, and systemic inefficiencies.
- Elderly care workers and informal caregivers are on the front lines of care delivery and are exposed to high levels of stress and emotional labour.
- The need for effective interventions to promote wellbeing is crucial. Improving **mental wellbeing** and **resilience** among caregivers is not only a health priority but also an economic imperative.

Objective

This systematic review aimed to evaluate the effectiveness and economic evidence of organizational and management interventions designed to promote mental wellbeing and resilience among elderly care workers, leaders, and informal caregivers. The review investigates a wide range of potential interventions, including training programmes, support groups, policy changes, and technological innovations.

Methods

Systematic literature review, Protocol in: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42024551372

Study followed Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) statement

Inclusion criteria using PICO:

Population: Elderly care workers and leaders, informal caregivers

Intervention: Organizational or management interventions, promoting mental wellbeing/mental health and resilience (defined as positive concepts of mental health such as quality of life, general wellbeing, psychological wellbeing)

Comparator: Intervention has (any reported) comparison group

Outcome: For effectiveness studies; at least one measure of mental health, mental wellbeing or resilience (such as QALY, CD-RISC, general wellbeing), and for economic evaluation; any reported outcome (i.e. incremental cost-effectiveness ratio (ICER), cost-benefit ratio, benefit-cost ratio, net present value)

Study design: Effectiveness studies and economic evaluations: cost-effectiveness analysis, cost-utility analysis, cost-benefit analysis and cost-minimization analysis and cost-consequence analysis. Accepted study designs are experimental (RCT, cRCT) and observational studies. Modelling studies are included if they rely on empirical effectiveness data

Other: Published in a peer-reviewed journal, published since 2000, language is English

Methods

Search strategy

Databases: CINAHL, PsycINFO, Scopus, Web of Science, and PubMed

Search string: The mental wellbeing, resilience, intervention, elderly care, management and organizational, effectiveness and economic evaluation -related words was combined to conduct the search.

Data extraction

The extracted data consisted of: details about the study and study setting; details of the intervention and control conditions; the study population, participant demographics, baseline characteristics, recruitment and study completion rates; the study methodology; primary effectiveness outcome and secondary outcomes, times of measurement, and effectiveness results; costs (if economic evaluation), the year of the costs, the perspective of the analysis and the discount rate; the primary outcomes of economic evaluation; the methods and results of sensitivity analysis and the authors' conclusion about the results of effectiveness and economic evaluation.

Methods

Study selection and quality assessments

Covidence software was used in screening.

Done independently by two reviewers. Conflicts were handled through discussion to reach agreement.

Tools for quality assessments: Cochrane Rob 2.0 tool for the RCT studies, Risk Of Bias In Non-Randomized Studies (ROBINS-I) for observational studies, and the Consensus on Health Economic Criteria (CHEC) list for economic evaluation studies.

Data synthesis

Originally, different outcome measures were planned to be transformed into standardized effectiveness measures such as Cohen's d. However, we were not able to complete this due to the number of different outcomes used in the studies. Thus, extracted data was summarized and described to answer the review question using narrative and numeric manners.

Elderly care workers and informal caregivers are separately reported.

Results

Identification

Studies from databases/registers (**n = 5700**)
Scopus (n = 1626)
Web of Science (n = 1288)
PubMed (n = 1196)
EBSCO (n = 1590)

References removed (**n = 3245**)
Duplicates identified manually (n = 37)
Duplicates identified by Covidence (n = 3208)
Marked as ineligible by automation tools (n = 0)
Other reasons (n =)

Screening

Studies screened (**n = 2455**)

Studies excluded (**n = 2409**)

Studies sought for retrieval (**n = 46**)

Studies assessed for eligibility (**n = 46**)

Studies excluded (**n = 29**)
Commentary (n = 1)
Not available (n = 1)
Wrong outcomes (n = 4)
Wrong intervention (n = 1)
Wrong study design (n = 13)
No comparison group (n = 3)
Protocol publication (n = 1)
Non-english publication (n = 2)
Wrong patient population (n = 3)

Included

Studies included in review (**n = 17**)

Results, elderly care workers

- 7 articles, Years 2019–2023
- USA (2), Canada (2), Italy, the Netherlands, UK
- 2 RCT, 3 experimental/quasi-experimental, 1 mixed methods, 1 feasibility study

DeGraves et al. 2023, Canada	Workforce resilience supporting staff in managing stress: A coherent breathing intervention for the long-term care workforce
Hansell et al. 2023, USA	Stress reduction for paid home care nurses: A feasibility study of mindfulness meditation and Tai Chi interventions
Kloos et al. 2019, The Netherlands	Online positive psychology intervention for nursing home staff: A cluster-randomized controlled feasibility trial of effectiveness and acceptability
McGilton et al. 2023, Canada	Nurse practitioner led implementation of huddles for staff in long term care homes during the COVID-19 pandemic
O'Brien et al. 2019, USA	Group-Based Acceptance and Commitment Therapy for Nurses and Nurse Aides Working in Long-Term Care Residential Settings
Riello et al. 2021, Italy	Effectiveness of self-help plus (SH+) in reducing anxiety and post-traumatic symptomatology among care home workers during the COVID-19 pandemic: a randomized controlled trial
Schoultz et al. 2022, UK	Uptake and effects of psychological first aid training for healthcare workers' wellbeing in nursing homes: A UK national survey

Results, informal caregivers

- 8 articles (2 studies from the same intervention), Years 2005–2018
- USA (3), Canada, India, Portugal, UK
- 7 RCT, 1 quasi-experimental

Araújo et al. 2018, Portugal	Training informal caregivers to care for older people after stroke : A quasi-experimental study
Dias et al. 2008, India	The Effectiveness of a Home Care Program for Supporting Caregivers of Persons with Dementia in Developing Countries: A Randomised Controlled Trial from Goa, India
Ducharme et al. 2005a & 2005b, Canada	' Taking Care of Myself ' Efficacy of an intervention programme for caregivers of a relative with dementia living in a long-term care setting
Duncan Davis et al. 2011, USA	A telephone-delivered psychosocial intervention improves dementia caregiver adjustment following nursing home placement
Haley et al. 2008, USA	Long-Term Effects of Bereavement and Caregiver Intervention on Dementia Caregiver Depressive Symptoms
Livingston et al. 2014, UK	START (STrategies for RelaTives) study: a pragmatic randomised controlled trial to determine the clinical effectiveness and cost-effectiveness of a manual-based coping strategy programme in promoting the mental health of carers of people with dementia
Montgomery et al. 2011, USA	Effects of the TCARE® intervention on caregiver burden and depressive symptoms: preliminary findings from a randomized controlled study

Results

Elderly care workers

Only few (3/7 of health care worker interventions, and 2 was unclear/mixed results) found some positive effect to promote mental wellbeing among elderly care workers.

Mindfulness, breathing (Note: lack of “no-intervention” comparator!) and **Acceptance and Commitment Therapy**.

Informal caregivers

Stronger evidence for effective interventions for informal carers (5/8 of informal care worker interventions, and 2 was unclear/mixed results)

Support and counselling (e.g. practical skills, improving awareness and knowledge), **individual therapy** (coping), **computer-assisted care management protocol**

Conclusion

- It seems that there are individual level interventions to promote wellbeing in elderly care, but system-level interventions are lacking (or at least intervention research is scarce).
- We found only one organizational intervention study. In addition, leader's role not studied.
- Vast number of different outcomes and most of the outcomes was negative (like stress, anxiety/depression, burden etc.). Only 2 studies used resilience measures!
- Maybe this should be developed more into wellbeing side (which was our focus).
- Only one economic evaluation found!
- Pointing out problems in the caregiving field is easy, but finding solutions (evidence-based) is hard.
- **Further research is needed about organizational and management interventions to promote working conditions and mental wellbeing of elderly care workers and informal caregivers.**



THANK YOU

Support4
Resilience



**Funded by
the European Union**



www.support4resilience.com

Anna-Kaisa Vartiainen, MSc (health economics), PhD student
University of Eastern Finland, Department of Health and Social Management
anna-kaisa.vartiainen@uef.fi