

Dementia

Current Awareness Bulletin

April 2025

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Book a session today at https://forms.office.com/e/HyiSXfDaYV (these sessions will be held on a monthly basis)

Are dementia prevalence and incidence declining? Findings from a review of cohort studies The Mental Elf; 2025.

[Clarissa Giebel summarises a recent review global cohort studies, which asks the question - is dementia on the downturn, and are the risks the same in high-income or low to middle income countries?

Care for older adults living with dementia in the emergency department: a systematic review and meta-synthesis of care partner roles and perspectives.

Jelinski D. *Emergency Medicine Journal* 2025;42(3):154-163.

[Key care gaps and barriers to care included: gaps in primary care access and care planning, ED environment and organisational processes, deficits in communication regarding patient care, lack of care partner involvement in clinical decisions, and difficulties with discharge transitions and follow-up care. Key facilitators to care included: clinical information provided by care partners, care coordination, and care partner support and engagement.]

CoCare-CI: A Clinical Innovation to Address Behavioral Symptoms in Hospitalized Older Adults With Cognitive Impairment.

(English) By: Lynch DH; Houston ER; Andrews AL; Mournighan KJ; Butler WF; Batsis JA; Niznik JD; Leeman J; Hanson LC, Journal of the American Geriatrics Society [J Am Geriatr Soc], ISSN: 1532-5415, 2025 Apr 17; Publisher: Blackwell Science; PMID: 40243126;

Introduction: Behavioral symptoms in **hospitalized** older adults with cognitive impairment often lead to physical and chemical restraint use, despite associated harms. **Patient**-centered care models show promise in reducing restraint use but are rarely implemented in routine practice. This project implemented CoCare-CI, a clinical **innovation** to address behavioral symptoms in **hospitalized** older adults with cognitive impairment.

Methods: CoCare-CI was implemented on a 24-bed ACE unit in a 128-bed community **hospital** from January 2023 to August 2024 by a multidisciplinary team led by a geriatric nurse practitioner (GNP).

CoCare-CI emphasized (1) systematic screening and assessment of mentation, and (2) individualized management plans for delirium or dementia. Implementation followed a phased, cyclical approach with champions supporting process **improvement**. Baseline restraint data (January-August 2023) were compared to intervention data (September 2023-August 2024). Primary outcomes included physical and chemical restraint use; process measures included documentation rates of the Confusion Assessment Method (CAM), CAM-Severity (CAM-S), Six-Item Cognitive Impairment Test (6CIT), and 4Ms checklist.

Results: Among 949 patients (mean age 81.5 years, 59% female, 80.6% White), 34.1% had cognitive impairment at baseline, including 22.6% with dementia and 11.5% with a significant 6CIT score (\geq 8). Documentation rates improved for CAM (68%-86%), CAM-S (0%-79%), 6CIT (0%-89%), and 4Ms checklist (0%-96%). Physical restraint use decreased from 4.3% to 0.7%, and chemical restraint use dropped from 7.6% to 2.3%. Most restraint use (84.2%, 16/19) was deemed potentially avoidable, with root cause analysis revealing that 78.6% (11/14) of patients with restraint orders had moderate to severe dementia with behavioral symptoms.

Conclusions: CoCare-CI is associated with reductions in reduced physical and chemical restraint use, demonstrating potential for dissemination within routine clinical practice. Future research should assess sustainability, broader applicability, and integration of additional 4Ms components.

1. Developing a dementia care and support needs framework for Culturally and Linguistically Diverse populations: A whole-of-community co-design approach

Authors: Bala, Nina; Stanoevska, Biljana; Troiani, John Paul; Wang, Xinxia; Veerhuis, Nadine; Pitts, Leissa and Traynor, Victoria

Publication Date: 2025

Journal: Australasian Journal on Ageing 44(2), pp. e70031

Abstract: Objectives: Older individuals with dementia and their families from CALD backgrounds face a 'triple jeopardy' due to the combination of dementia, caregiving challenges and cultural stigma. Despite the growing need for culturally responsive dementia care, existing services do not adequately address the specific concerns of Culturally and Linguistically Diverse (CALD) communities. This study explored the experiences of two CALD communities to inform the development of a culturally tailored dementia care support framework.; Methods: This study employed a whole-of-community co-design approach, integrating community-based participatory research and human-centred design principles. A total of 36 participants, including nine individuals with dementia and 27 family caregivers from the Macedonian and Italian communities in the Illawarra Shoalhaven region of NSW, Australia, collaborated with ADHERe researchers and the Multicultural Health Service. Data were collected through co-designed focus groups and interviews and analysed using thematic analysis. Participant feedback was regularly incorporated to ensure the framework reflected their lived experiences and needs.; Results: Key barriers to dementia care included emotional and psychological strain contributing to caregiver burden, social isolation limiting peer support, language difficulties hindering communication with health-care providers and cultural misunderstanding impacting service uptake. Participants emphasised the importance of face-to-face interactions, culturally relevant educational programs and practical guidance from health-care professionals to improve dementia care and support.; Conclusion: This study highlighted the need for a culturally tailored, community-driven dementia care framework. Piloting a dementia education program with the Macedonian and Italian communities will provide valuable insights for expanding support to other CALD groups, promoting more inclusive and accessible dementia care. (© 2025 The Author(s). Australasian Journal on Ageing published by John Wiley & Sons Australia, Ltd on behalf of AJA Inc.)

2. Uncovering hidden subtypes in dementia: An unsupervised machine learning approach to dementia diagnosis and personalization of care

Authors: Campagner, Andrea; Marconi, Luca; Bianchi, Edoardo; Arosio, Beatrice; Rossi, Paolo; Annoni,

Giorgio;Lucchi, Tiziano Angelo;Montano, Nicola and Cabitza, Federico

Publication Date: 2025

Journal: Journal of Biomedical Informatics 165, pp. 104799

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.: Objective: Dementia represents a growing public health challenge. affecting an increasing number of individuals. It encompasses a broad spectrum of cognitive impairments, ranging from mild to severe stages, each of which demands varying levels of care. Current diagnostic approaches often treat dementia as a uniform condition, potentially overlooking clinically significant subtypes, which limits the effectiveness of treatment and care strategies. This study seeks to address the limitations of traditional diagnostic methods by applying unsupervised machine learning techniques to a large, multi-modal dataset of dementia patients (encompassing multiple data sources including clinical, demographic, gene expression and protein concentrations), with the aim of identifying distinct subtypes within the population. The primary focus is on differentiating between mild and severe stages of dementia to improve diagnostic accuracy and personalize treatment plans.; Methods: The dataset analyzed included 911 individuals, described by 157 multi-modal characteristics, encompassing clinical, genomic, proteomic and sociodemographic features. After handling missing data, the dataset was reduced to 561 rows and 135 columns. Various dimensionality reduction techniques were applied to improve the feature-to-patient ratio, and unsupervised clustering methods were employed to identify potential subtypes. The major novelty in our methodology regards the combination of different techniques, bridging high-dimensional statistical inference, multi-modal dimensionality reduction and clustering analysis, to appropriately model the multi-modal nature of the data and ensure clinical relevance.; Results: The analysis revealed distinct clusters within the dementia population, each characterized by specific clinical and demographic profiles. These profiles included variations in biomarkers, cognitive scores, and disability levels. The findings suggest the presence of previously unrecognized subgroups, distinguished by their genomic, proteomic, and clinical characteristics.; Conclusion: This study demonstrates that unsupervised machine learning can effectively identify clinically relevant subtypes of dementia, with important implications for diagnosis and personalized treatment. Further research is required to validate these findings and investigate their potential to improve patient outcomes. (Copyright © 2025 Elsevier Inc. All rights reserved.)

3. Association of Body Mass Index in Late Life, and Change from Midlife to Late Life, With Incident Dementia in the ARIC Study Participants

Authors: Cannon, Ethan J.;Windham, B. G.;Griswold, Michael;Palta, Priya;Knopman, David S.;Sedaghat, Sanaz and Lutsey, Pamela L.

Publication Date: 2025

Journal: Neurology 104(9), pp. e213534

Abstract: Background and Objectives: Midlife obesity is a risk factor of dementia, but late-life obesity has been associated with lower dementia risk. We investigated this paradox by exploring the relationship between late-life body mass index (BMI) category and dementia, with and without considering midlife to late-life BMI change.; Methods: This observational cohort study included participants of the community-based Atherosclerosis Risk in Communities (ARIC) study who were dementia-free at visit 5 (2011-2013). Dementia was ascertained by expert-adjudicated, algorithmic classification from an in-person neuropsychological battery, as well as telephone interviews and International Classification of Diseases codes from medical records. We first assessed the association of incident dementia with visit 5 BMI categories (normal weight, overweight, obese). Next, we used a cross-classification of visit 5 BMI categories with visit 4-visit 5 BMI change (decrease loss of $\geq 2 \text{ kg/m } 2$], increase gain of $\geq 2 \text{ kg/m } 2$], or stable loss or gain of < 2 kg/m 2]) occurring during the 15 years before baseline. Cox regression was used.; Results: A total of 5,129 participants were included in the study (59% female; 22% identified as Black; mean (standard deviation) age at visit 5 of 75 (5) years).

Over 8 years of follow-up, 20% of the sample developed dementia (n = 1,026). After covariate adjustment, participants with high late-life BMI had a lower risk of dementia; the hazard ratio (95% CI) was 0.86 (0.73-1.00) for overweight and 0.81 (0.68-0.96) for obesity. In stratified models, elevated dementia risk was observed only for participants of each late-life BMI category whose BMI had decreased from midlife to late life. Compared with normal-weight individuals who had maintained BMI from midlife to late life, the hazard ratio (95% CI) for those with BMI loss was 2.08 (1.62-2.67) for normal-weight individuals, 1.62 (1.25-2.10) for those with overweight, and 1.36 (1.00-1.85) for those with obesity.; Discussion: Our results provide insight into the dementia obesity paradox at older ages, tempering a causal interpretation of high late-life BMI as protective against dementia. Instead, they highlight the importance of considering weight loss from midlife to late life in conjunction with late-life BMI in dementia risk stratification.

4. Emergency Care for Persons Living with Dementia

Authors: Dresden, Scott M.; Dickens, John C. and Lo, Alexander X.

Publication Date: 2025

Journal: Emergency Medicine Clinics of North America 43(2), pp. 235–248

Abstract: Competing Interests: Disclosure Research reported in this publication received support from the National Institute on Aging, United States of the National Institutes of Health under Award Numbers R21/R33AG058926, R61/R33 AG069822. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.; Assessments are available which can help to identify emergency department (ED) patients who may have dementia. Persons living with dementia (PLWD) have unique emergency care needs such as difficulties with activities of daily living and behavioral and psychological symptoms of dementia. Multiple emergency care practices have shown improved outcomes for PLWD. Communication between clinicians and PLWD requires additional attention and should include care partners and other clinicians when possible. Transitions of care from the ED for PLWD are often problematic with poor outcomes. Interventions like community paramedicine follow up may improve the transition from the ED to the community. (Copyright © 2024 Elsevier Inc. All rights reserved.)

5. The effectiveness of educational interventions in enhancing health professionals' and students' pain assessment for people living with dementia: A systematic review

Authors: Kodagoda Gamage, Madushika,W.;Pu, Lihui;Moyle, Wendy;Barton, Matthew and Todorovic, Michael

Publication Date: 2025

Journal: Nurse Education Today 148, pp. 106606

Abstract: Competing Interests: Declaration of competing interest The authors declare no conflicts of interest.; Objectives: To evaluate the effectiveness of educational interventions in improving the knowledge, attitudes, beliefs, self-efficacy, and confidence of health professionals' and students' pain assessment in dementia.; Design: A systematic review was conducted and reported according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.; Data Sources: Eight English databases were searched: Medline, Psychological Information Database, Cochrane Library, PubMed, Cumulative Index of Nursing and Allied Health Literature, ProQuest, Scopus, and Web of Science.; Review Methods: Databases were searched without any time limit using synonyms for "health personnel", "health students", "pain assessment", "dementia", "educational intervention", "knowledge", "attitude", "beliefs", "self-efficacy", and "confidence". The review included studies published up to 26 March 2024. Reference lists and review papers were screened to identify additional papers. Data was synthesised according to the intervention designs and outcome measures and presented narratively.; Results: The seven studies retained involved 517 registered nurses, 17 physical therapists, eight occupational therapists, 17 physicians, 99 nursing students, and 161 medical students.

All seven studies evaluated the effectiveness of educational interventions on knowledge, three on attitudes, two on confidence, one on self-efficacy, and none on beliefs of pain assessment in dementia. Health professionals' and students' knowledge scores improved irrespective of the training delivery mode and duration. Their confidence scores improved irrespective of training duration. Health professionals' self-efficacy scores improved upon completion of online training. Overall attitude scores for most health professionals and students did not increase upon educational intervention completion, irrespective of the training delivery mode and duration. Educational interventions mainly focused on methods that assess pain in both communicative and non-communicative people with dementia.; Conclusions: Educational interventions enhance health professionals' and students' knowledge, self-efficacy, and confidence in pain assessment in dementia. Studies showed mixed findings related to attitudes, and there is a limited understanding of interventions' effectiveness in correcting erroneous beliefs. (Copyright © 2025 The Authors. Published by Elsevier Ltd.. All rights reserved.)

6. Beyond the eye: A relational model for early dementia detection using retinal OCTA images

Authors: Liu, Shouyue;Zhang, Ziyi;Gu, Yuanyuan;Hao, Jinkui;Liu, Yonghuai;Fu, Huazhu;Guo, Xinyu;Song, Hong;Zhang, Shuting and Zhao, Yitian

Publication Date: 2025

Journal: Medical Image Analysis 102, pp. 103513

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Early detection of dementia, such as Alzheimer's disease (AD) or mild cognitive impairment (MCI), is essential to enable timely intervention and potential treatment. Accurate detection of AD/MCI is challenging due to the high complexity, cost, and often invasive nature of current diagnostic techniques, which limit their suitability for large-scale population screening. Given the shared embryological origins and physiological characteristics of the retina and brain, retinal imaging is emerging as a potentially rapid and cost-effective alternative for the identification of individuals with or at high risk of AD. In this paper, we present a novel PolarNet+ that uses retinal optical coherence tomography angiography (OCTA) to discriminate early-onset AD (EOAD) and MCI subjects from controls. Our method first maps OCTA images from Cartesian coordinates to polar coordinates, allowing approximate sub-region calculation to implement the clinician-friendly early treatment of diabetic retinopathy study (ETDRS) grid analysis. We then introduce a multi-view module to serialize and analyze the images along three dimensions for comprehensive, clinically useful information extraction. Finally, we abstract the sequence embedding into a graph, transforming the detection task into a general graph classification problem. A regional relationship module is applied after the multi-view module to explore the relationship between the sub-regions. Such regional relationship analyses validate known eye-brain links and reveal new discriminative patterns. The proposed model is trained, tested, and validated on four retinal OCTA datasets, including 1,671 participants with AD, MCI, and healthy controls. Experimental results demonstrate the performance of our model in detecting AD and MCI with an AUC of 88.69% and 88.02%, respectively. Our results provide evidence that retinal OCTA imaging, coupled with artificial intelligence, may serve as a rapid and non-invasive approach for large-scale screening of AD and MCI. The code is available at https://github.com/iMED-Lab/PolarNet-Plus-PyTorch, and the dataset is also available upon request. (Copyright © 2025 Elsevier B.V. All rights reserved.)

7. Risk of suicide in people living with dementia and comorbid mental health conditions: A systematic review and meta-analysis

Authors: Medeisyte, Radvile;Nuzum, Eleanor;John, Amber;Tsipa, Anastasia;Fearn, Caroline;Charlesworth, Georgina;Crutch, Sebastian J.;El Baou, Céline;Stewart, Gavin R.;Kurana, Suman;Brotherhood, Emilie V.;Flanagan, Katie;Salmoiraghi, Alberto;Kerti, Amy;Stott, Joshua and Desai, Roopal

Publication Date: 2025

8. Music-based interventions for anxiety and depression in older adults with dementia: A systematic review of randomized controlled trials

Authors: Mei, Zhengyang;Zhang, Yuanzhuo;Zhao, Wen;Lam, Chifong;Luo, Shulai;Wang, Shaojie and Luo, Shi

Publication Date: 2025

Journal: Complementary Therapies in Clinical Practice 59, pp. 101951

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no competing interests to report.: Objective: The objective of this systematic review was to synthesize evidence from randomized controlled trials (RCTs) regarding the efficacy of music-based interventions (MBIs) in improving anxiety and depression in older adults with dementia.; Methods: Relevant RCTs were identified through searches in electronic databases, including PubMed, Embase, EBSCOhost, Scopus, Web of Science, APA PsycINFO, and Google. The Revised Cochrane risk-of-bias tool for randomized trials (RoB 2) was used to evaluate the risk of bias in the included trials. A narrative synthesis of the included trials was conducted.: Results: Nine RCTs involving 496 patients met the inclusion criteria; five trials evaluated the efficacy of MBIs for anxiety, and six trials evaluated their efficacy for depression in older adults with dementia. Of the nine trials, two reported significant improvements in anxiety in older adults with dementia following MBIs (Cohen's d = -1.71 to -2.48), while one trial reported significant improvements in depression (Cohen's d = -0.66).; Conclusions: Only a few trials support the efficacy of MBIs in alleviating negative emotions in older adults with dementia, as evidenced by three out of the nine trials. However, due to the small sample sizes and heterogeneity in dementia types, stages, and interventions, quantitative results were not pooled, making it challenging to draw reliable conclusions. Further validation and examination of the findings presented in this study are warranted to strengthen the evidence base for integrating MBIs into dementia care and treatment protocols. (Copyright © 2025 Elsevier Ltd. All rights reserved.)

9. Sweet Solutions: Unlocking the Diabetes-Dementia Connection for Better Outcomes

Authors: Posan, Emoke

Publication Date: 2025

Journal: Journal of Insurance Medicine (New York, N.Y.) 52(1), pp. 14-20

Abstract: Type 2 diabetes and Alzheimer's dementia represent important health challenges in our society today. Understanding the relationship between these conditions is crucial. This article explores the research on whether they share common risk factors or if they may influence each other's development, which could lead to more effective prevention and treatment strategies. (Copyright © 2025 Journal of Insurance Medicine.)

10. Prolonged loneliness and risk of incident cognitive decline and dementia: A two-cohort study

Authors: Ren, Ziyang;Luo, Yanan;Liu, Yunduo;Gao, Jiatong;Liu, Jufen and Zheng, Xiaoying

Publication Date: 2025

Journal: Journal of Affective Disorders 378, pp. 254–262

Abstract: Competing Interests: Declaration of competing interest None of the authors have any financial interest, patents, company holdings, or stock to disclose related to this paper.; Background:

Loneliness is prevalent currently and could result in increased dementia risks, whereas the associations of prolonged loneliness and its changes with cognitive decline and dementia remain less investigated.; Methods: Data were from the English Longitudinal Study of Ageing (ELSA) and Health and Retirement Study (HRS). Loneliness was assessed using the Revised UCLA Loneliness Scale. Health risk factors for dementia included unhealthy lifestyles, depressive symptoms, chronic diseases, and functional limitations. Cognitive function was assessed using validated tests in both cohorts, with cognitive decline defined as cognitive z-scores < -1.5. Dementia was identified through self- or proxyreported physician diagnoses. The Cox proportional hazard regression and Aalen's additive hazard regression were performed to calculate the relative and absolute risk for cognitive decline and dementia, respectively. Covariates including socio-demographic characteristics, social networks, and polygenic scores were adjusted.; Results: Of 6721 ELSA and 10,195 HRS participants aged ≥50y, 2129 (13.7 %) and 612 (3.6 %) developed incident cognitive decline and dementia in about 10 years, respectively. Participants with severe (versus no) cumulative loneliness had 42 % and 98 % higher cognitive decline and dementia risks after pooling, corresponding to 791.6 (477.4-1105.8) and 372.8 (223.6-522.0) excess incidence densities (/10 5 person-years). Additionally, those who recovered from frequent loneliness (versus persistent frequent) were 9 %-31 % less likely to develop unhealthy lifestyles, depressive symptoms, chronic diseases, and functional limitations, and were at 33 % lower risks of dementia, corresponding to -248.6 (-446.0 ~ -51.2) excess incidence density.; Conclusions: Prolonged loneliness could increase the risks of incident cognitive decline and ADRD, while alleviating loneliness may help. (Copyright © 2025 Elsevier B.V. All rights reserved.)

11. Underdiagnosis of dementia in residents of residential aged care services: A scoping review

Authors: Tewari, Reena; Piovezan, Ronaldo D.; Jadczak, Agathe Daria and Visvanathan, Renuka

Publication Date: 2025

Journal: Australasian Journal on Ageing 44(2), pp. e70030

Abstract: Objective: Dementia is a leading cause of disability, dependence and death worldwide. Timely diagnosis and management of dementia are essential in the community and residential aged care services (RACS) or nursing homes. Underdiagnosis of dementia in RACS may negatively impact the guality of care, resulting in adverse health outcomes. Hence the objective is to review estimates of the prevalence of dementia underdiagnosis, potential associated factors, consequences and evidence of interventions targeting to reduce this underdiagnosis.; Methods: Guided by Arksey and O'Malley's scoping review framework, this scoping review was conducted as per the PRISMA extension for Scoping Reviews (PRISMA-ScR). Databases were searched to 31 January 2024 for studies published in English since 2010 in Ovid®, including Scopus, MEDLINE, Embase, Emcare and PubMed Central, as well as CINHAL Ultimate, PsycINFO and ProQuest. After removing duplicates, 545 studies proceeded to title, abstract and full-text screening, resulting in four eligible studies. Two additional studies were identified through reference searching.; Results: A total of six studies were included. Most studies were conducted in the last 5 years. The prevalence of dementia underdiagnosis in RACS was 14%-70%. Different scales were applied to identify dementia. Findings from two studies suggested dementia underdiagnosis is more common among those with less severe disease. No studies investigated health outcomes or explored interventions to reduce dementia underdiagnosis.; Conclusions: Estimates of underdiagnosis in RACS are high and variable. More research is required to clarify factors associated with dementia underdiagnosis in RACS, its consequences and potential interventions to reduce its risk. (© 2025 The Author(s). Australasian Journal on Ageing published by John Wiley & Sons Australia, Ltd on behalf of AJA Inc.)

12. Towards a better diagnosis and treatment of dementia: Identifying common and distinct neuropathological mechanisms in Alzheimer's and vascular dementia

Authors: Vollhardt, Alisa; Frölich, Lutz; Stockbauer, Anna Christina; Danek, Adrian; Schmitz, Christoph and Wahl, Anna-Sophia

Publication Date: 2025

Journal: Neurobiology of Disease 208, pp. 106845

Abstract: Competing Interests: Declaration of competing interest The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Anna-Sophia Wahl reports financial support provided by The Branco Weiss Fellowship, the Dementia foundation, Switzerland (Synapsis Foundation), the Hurka Foundation Switzerland, the University of Zurich Foundation as well as an ERC Starting Grant (ARISE, Grant No. 101160935). If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Alzheimer's disease (AD) and vascular dementia (VaD) together contribute to almost 90 % of all dementia cases leading to major health challenges of our time with a substantial global socioeconomic burden. While in AD, the improved understanding of Amyloid beta (AB) mismetabolism and tau hyperphosphorylation as pathophysiological hallmarks has led to significant clinical breakthroughs, similar advances in VaD are lacking. After comparing the clinical presentation, including risk factors, disease patterns, course of diseases and further diagnostic parameters for both forms of dementia, we highlight the importance of shared pathomechanisms found in AD and VaD: Endothelial damage, blood brain barrier (BBB) breakdown and hypoperfusion inducing oxidative stress and inflammation and thus trophic uncoupling in the neurovascular unit. A dysfunctional endothelium and BBB lead to the accumulation of neurotoxic molecules and AB through impaired clearance, which in turn leads to neurodegeneration. In this context we discuss possible neuropathological parameters, which might serve as biomarkers and thus improve diagnostic accuracy or reveal targets for novel therapeutic strategies for both forms of dementia. (Copyright © 2025 The Authors. Published by Elsevier Inc. All rights reserved.)

13. Trajectories of depressive symptoms and the risk of cardiovascular, dementia, and pulmonary events in older adults: Evidence from the English Longitudinal Study of Ageing

Authors: Wu, Qian;Xu, Jing;Xu, Xiaofeng and Yang, Jiayin

Publication Date: 2025

Journal: General Hospital Psychiatry 94, pp. 199–205

Abstract: Competing Interests: Declaration of competing interest The authors declare that there is no conflict of interest.: Purpose: This research investigates the relationship between patterns of depressive symptoms over time and the likelihood of developing cardiovascular disease, dementia, and pulmonary conditions.; Methods: We examined 11,577 participants aged 50 and older. Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale-8 (CESD-8). Group-based trajectory modeling was employed to categorize patterns of depressive symptoms, while Cox proportional hazards models were used to estimate hazard ratios (HR) and 95 % confidence intervals (CI). Sensitivity analysis for missing data was conducted using multiple imputation and data deletion methods, and the model's timeliness and stability were evaluated through time sensitivity analysis.; Results: Five distinct trajectories of depressive symptoms were identified: consistently low (n = 3353), decreasing (n = 127), increasing (n = 128), fluctuating (n = 7674), and consistently high (n = 295). Compared to the consistently low group, individuals with consistently high depressive symptoms faced significantly elevated risks of cardiovascular disease (HR = 1.65, 95 % CI = 1.38-1.98, P = 0.00), dementia (HR = 2.09, 95 % CI = 1.16-3.79, P = 0.02), and pulmonary diseases (HR = 3.12, 95 % CI = 2.41-4.05, P = 0.00). Fluctuating and increasing trajectories were also associated with higher risks, while the decreasing trajectory correlated with a reduced risk of dementia (HR = 0.77, 95 % CI = 0.62-0.95, P = 0.01).; Conclusion: Long-term patterns of depressive symptoms are strongly linked to the development of cardiovascular disease, dementia, and pulmonary diseases. (Copyright © 2024. Published by Elsevier Inc.)

The following databases are used in the creation of this bulletin: Amed, British Nursing Index, Cinahl & Medline.

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