Healthy Ageing Current Awareness Update

October 2023

Welcome to the monthly Healthy Ageing Current Awareness Update (HACAU), produced by UKHSA Knowledge and Library Services. The purpose of this update is to provide you with the latest, best evidence about healthy ageing and dementia risk reduction, to help you make informed decisions.

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COVID-19 and ageing

Micro‒Global Positioning Systems for Identifying Nightly Opportunities for Marburg Virus Spillover to Humans by Egyptian Rousette Bats
B. R. Amman et al.

Increasing Lyme Disease Spurs Research
This Medical News article discusses Lyme disease epidemiology, post-treatment Lyme disease syndrome, and innovative research to prevent the tickborne infection.

How Climate Change Is Already Affecting Health
This Medical News article is an interview with Vanessa Kerry, MD, MSc, the World Health Organization's first-ever Special Envoy for Climate Change and Health.
Some People Still Have Long COVID Symptoms After 2 Years

Although many symptoms of post–COVID-19 condition, or long COVID, resolve or improve with time, some people continue to experience symptoms after 2 years, according to a large study of US health care databases. Moreover, patients who were hospitalized with COVID-19 are more likely to have symptoms beyond year 2.

Patient Information: RSV Infection in Older Adults

This JAMA Patient Page describes respiratory syncytial virus (RSV) and its symptoms, risk factors, and preventive measures.

Covid-19: Florida governor tells under 65s to shun boosters against national guidance

Florida governor Ron DeSantis has recommended that the state’s residents under 65 shun the new coronavirus boosters, against the advice of federal health authorities. During an online panel on 13 September, Florida surgeon general Joseph Ladapo, a DeSantis ally who has often drawn criticism for misleading statements about covid, said, “What I have directed our department to do is to provide

Serotype Distribution and Disease Severity in Adults Hospitalized with Streptococcus pneumoniae Infection, Bristol and Bath, UK, 2006–2022

C. Hyams et al.

Reemergence of Cosmopolitan Genotype Dengue Virus Serotype 2, Southern Vietnam

V. T. Tran et al.

Treponema pallidum Detection at Asymptomatic Oral, Anal, and Vaginal Sites in Adults Reporting Sexual Contact with Persons with Syphilis

E. T. Aung et al.

Genomic Sequencing Surveillance to Identify Respiratory Syncytial Virus Mutations, Arizona, USA

L. A. Holland et al.

To Worry or to Believe

In this narrative medicine essay, a current associate program director who entered medicine-pediatrics residency the year work-hours were capped and heard worried remarks about the quality of training residents would receive now hears the same worries expressed after residents voted to unionize at her hospital.

Will the Updated COVID Vaccines Protect Against the New Variant?

This Medical News article discusses EG.5, the Omicron descendant that could soon dominate globally.

Outbreak of Sexually Transmitted Nongroupable Neisseria meningitidis–Associated Urethritis, Vietnam

H. Nguyen et al.


R. E. Harrison et al.

Large Language Models Answer Medical Questions Accurately, but Can’t Match Clinicians’ Knowledge

This Medical News article discusses new research on artificial intelligence systems such as ChatGPT and Med-PaLM.

Carbapenem-Resistant Klebsiella pneumoniae in Large Public Acute-Care Healthcare System, New York, New York, USA, 2016–2022

J. Lee et al.

Bacillus subtilis Bacteremia from Gastrointestinal Perforation after Natto Ingestion, Japan

T. Hashimoto et al.
Healthy lifestyle and dementia prevention

Being present and meaningful engagement for aged care residents living with dementia: A mixed-methods evaluation of Australian care worker's experiences

BACKGROUND AND OBJECTIVES: Meaningful engagement is essential for aged care residents living with dementia. Our knowledge pertaining to caring presence for residents living with dementia is limited. This study aims to understand care workers' experiences of providing care to residents, the challenges they face in being present with residents and support that enable them to be more present and engaged.

Data-driven lifestyle patterns and risk of dementia in older Australian women

INTRODUCTION: Many lifestyle factors have been associated with dementia, but there is limited evidence of how these group together. The aim of this study was to examine the clustering of lifestyle behaviors and associations with dementia.

Mobility outcomes and associated factors of acute geriatric care in hospitalized older patients: results from the PAGER study

CONCLUSION: AGC improves distinct mobility outcomes in hospitalized older patients. Frailty was consistently found to be an independent negative predictor of all mobility outcomes. Frailty assessment in AGC may be important to identify patients at risk for decreased treatment gains in mobility. Early PA promotion in AGC seems to be beneficial in improving patients' locomotor capacity.

The role of smoking, obesity and physical inactivity in cognitive performance and decline: a multi-cohort study

CONCLUSIONS: We confirmed the beneficial impact of healthy lifestyles in preventing cognitive decline and promoting healthy aging. Urgent measures are needed to identify and encourage healthy lifestyles, such as strengthening tobacco control, developing policy on physical activity promotion, and preventing underweight, to minimize worldwide levels of cognitive decline.

ApoE4-dependent lysosomal cholesterol accumulation impairs mitochondrial homeostasis and oxidative phosphorylation in human astrocytes

Recent developments in genome sequencing have expanded the knowledge of genetic factors associated with late-onset Alzheimer's disease (AD). Among them, genetic variant ε4 of the APOE gene (APOE4) confers the greatest disease risk. Dysregulated glucose metabolism is an early pathological feature of AD.

Cilostazol for the management of moyamoya disease: a systematic review of the early evidence, efficacy, safety, and future directions

Surgical revascularization remains the standard treatment for symptomatic moyamoya disease (MMD). As with any major surgical treatment, revascularization is associated with risks and limitations, denoting the need for noninvasive treatments to improve ischemic symptoms and prevent strokes.

A common low dimensional structure of cognitive impairment in stroke and brain tumors

CONCLUSIONS: A similar low dimensional set of behavioral impairments was found both in stroke and brain tumors, even though each pathology caused some specific deficits in different domains. The lesion distribution was different for stroke and tumors and correlated with behavioral impairment only in stroke.

Testing the moderative role of automatic-reflective affect divergence in predicting physical activity
Dual process theories postulate that behaviour is the product of two distinct cognitive systems, the automatic and reflective, and that congruence/divergence between the two types of cognitions can influence the predictive strength of either system on behaviour. However, the congruence/divergence hypothesis is yet to experience strong empirical support.

Adopting a child perspective for exposome research on mental health and cognitive development - Conceptualisation and opportunities

Mental disorders among children and adolescents pose a significant global challenge. The exposome framework covering the totality of internal, social and physical exposures over a lifetime provides opportunities to better understand the causes of and processes related to mental health, and cognitive functioning.

Unravelling the Liver-Brain Connection: A Two-Sample Mendelian Randomization Study Investigating the Causal Relationship between NAFLD and Cortical Structure

BACKGROUND: Non-alcoholic fatty liver disease (NAFLD) has been linked to cognitive decline and neuropsychiatric conditions, implying a potential connection between NAFLD and brain health. However, the causal association between NAFLD and cortical changes remains uncertain.

Exosomes in multiple sclerosis and Alzheimer's disease - adversary and ally

Neuroinflammation and the resulting neurodegeneration is a big challenge for the healthcare system, especially with the aging population. Neuroinflammation can result from a variety of insults to the central nervous system leading to an interplay between immune and brain cells that sustains chronic inflammation and injures neural cells. One facilitator of this toxic interplay are exosomes.

Association between stress-related disorders and the risk of dementia using the Korean National Sample Cohort: a matched cohort study

Post-traumatic stress disorder (PTSD) is associated with the development of dementia; however, the association of dementia risk with overall stress-related disorders is less known. This study investigated the association between stress-related disorders and the risk of dementia in a Korean nationwide sample cohort.

Trametinib activates endogenous neurogenesis and recovers neuropathology in a model of Alzheimer's disease

Enhancing adult neurogenesis in the brain has been suggested as a potential therapeutic strategy for AD. We developed a screening platform, ATRIVIEW®(®), for molecules that activate neuronal differentiation of adult mouse NSCs. The most potent hit from an FDA-approved drug library was SNR1611 (trametinib), a selective MEK1/2 inhibitor.

Natural products for the treatment of neurodegenerative diseases

BACKGROUND: Neurodegenerative diseases are among the most common diseases in older adults worldwide. Alzheimer's disease (AD) and Parkinson's disease (PD) are two of the most common neurodegenerative diseases, and are accompanied by cerebral cortical atrophy, neuronal loss, protein accumulation, and excessive accumulation of metal ions.

"What we talk about is creating a probability": Exploring the interaction between the anticipation and decision-making processes of professional bowlers and batters in Twenty20 cricket

Expert performers in time constrained sports use a range of information sources to facilitate anticipatory and decision-making processes. However, research has often focused on responders such as batters, goalkeepers, defenders, and returners of serve, and failed to capture the complex interaction between opponents, where responders can also manipulate probabilities in their favour.

APOE-genotype and Insulin Modulate Estimated Effect of Dietary Macronutrients on Cognitive Performance: Panel Analyses in Non-Diabetic Older Adults at Risk for Dementia
CONCLUSIONS: APOE-based precision nutrition appears conceptually promising but replications in wider samples are warranted, as well as support from trials. Both relative hyper- and hypo-insulinemia might modulate the effect of diet on cognition.

Novel Risk Locus Influences Risk to Clinical Progression to Alzheimer’s Disease-type Dementia: A Step Toward the Disentanglement of Heterogeneity in Progression

Cognitive Deficits in Executive and Language Functions Predict Postoperative Delirium

CONCLUSIONS: Impairment in the cognitive domains of executive function and language skills associated with memory, inhibition, and access speed seem to be particularly associated with the development of delirium after surgery in adults ≥65 years of age without apparent preoperative neurocognitive impairment.

Cognitive Complaints and Their Impact on Daily Life in Patients with Degenerative Cerebellar Disorders

Cognitive and affective sequelae of cerebellar disease are receiving increased attention, but their actual rate of occurrence remains unclear. Complaints may have a significant impact on patients, affecting social behavior and psychological well-being. This study aims to explore the extent of subjective cognitive and affective symptoms in patients with degenerative ataxias in the Netherlands.

Neurocognitive and self-reported psychosocial and behavioral functioning in siblings of individuals with neurodevelopmental conditions: a study using remote self-administered testing

CONCLUSIONS: Neurocognitive difficulties were associated with transdiagnostic vulnerability to poorer wellbeing in NDC siblings. These findings demonstrate the feasibility of remote online cognitive testing and highlight the importance of individualized prevention and intervention for NDC siblings.

Stress, depression, and risk of dementia - a cohort study in the total population between 18 and 65 years old in Region Stockholm

CONCLUSIONS: Documented chronic stress increased the risk of mild cognitive impairment and Alzheimer disease. The same was seen with depression. The novel finding is the potential additive effect of chronic stress to depression, on risk of MCI and AD.

Dentists’ Approaches to Treatment Decision-Making for People with Dementia: A Qualitative Study

CONCLUSIONS: Dentists acknowledge the complexity in treatment decision-making for PLwD yet focused heavily on biomedical considerations, with an underemphasis on individuals’ preferences and autonomy. Considering psychosocial aspects of care alongside biomedical factors is essential to support holistic person-centered care for this growing patient cohort.

Prevalence and associated factors of cognitive frailty in community-dwelling older adults: Results from the Korean longitudinal study of aging

CONCLUSIONS: Cognitive frailty is prevalent among community-dwelling older adults in Korea. The findings provide primary care providers with insights about effective strategies for identifying at-risk individuals and will guide the development of population-level interventions to prevent or delay the onset of physical frailty and cognitive impairment in older adults.

Comparison of network structures between autistic and non-autistic adults, and autism subgroups: A focus on demographic, psychological, and lifestyle factors

There are large differences in the level of demographic, psychological, and lifestyle characteristics between autistic and non-autistic adults but also among autistic people. Our goal was to test whether these differences correspond to differences in underlying...
relationships between these characteristics—also referred to as network structure—to determine which characteristics (and relationships

**Objective sleep was longitudinally associated with brain amyloid burden in mild cognitive impairment**

**OBJECTIVE:** Understanding the longitudinal association of objective sleep and physical activity with brain amyloid burden and cortical glucose metabolism has critical clinical and public health implications for dementia prevention in later life.

**Identification Of Dementia In Medicare Claims Compared To Rigorous Clinical Assessments In African Americans**

**CONCLUSION:** Among African Americans, preliminary data indicate the healthcare system most rapidly identifies dementia in older individuals, with worse cognitive and physical health. The healthcare system may miss opportunities for early support of African Americans with dementia, and caregivers.

**Study design and methods:** U.S. study to protect brain health through lifestyle intervention to reduce risk (U.S. POINTER)

**INTRODUCTION:** The U.S. study to protect brain health through lifestyle intervention to reduce risk (U.S. POINTER) is conducted to confirm and expand the results of the Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) in Americans.

Abnormal grey matter structural changes in patients with end-stage kidney disease and mild cognitive impairment: correlations with clinical features

End-stage kidney disease and mild cognitive impairment (ESKD-MCI) affect the quality of life and long-term treatment outcomes of patients affected by these diseases. Clarifying the morphological changes from brain injuries in ESKD-MCI and their relationship with clinical features is helpful for the early identification and intervention of MCI before it progresses to irreversible dementia.

**Intrathecal autologous thrombin-activated condensed platelet cytokines in chronic neurodegenerative disease: A hypothesis for anti-inflammatory and regenerative response**

Choroid plexus insufficiency or glymphatic stasis are often classified as prequels to harmful accretion of toxic proteins in neurodegenerative disease. Cognitive decline and disordered neuronal signaling subsequently become cardinal features of Alzheimer's disease (AD), typically progressing with amyloid-β and tau protein accumulation.

**The use of Acceptance and Commitment Therapy (ACT) in informal caregivers of people with dementia and other long-term or chronic conditions: A systematic review and conceptual integration**

Informal caregivers are the primary source of support for adults with chronic conditions and disabilities. Empirical research highlights chronic stress and other risks of adverse outcomes of caregiving.

**Executive function is associated with balance and falls in older cancer survivors treated with chemotherapy: A cross-sectional study**

**INTRODUCTION:** Balance decrements and increased fall risk in older cancer survivors have been attributed to chemotherapy-induced peripheral neuropathy (CIPN). Cognition is also affected by chemotherapy and may be an additional contributing factor to poor balance through changes in executive functioning.

5-HT6 receptors control GABAergic transmission and CA1 pyramidal cell output of dorsal hippocampus

The blockade of 5-HT(6) receptors represents an experimental approach that might ameliorate the memory deficits associated with brain disorders, including Alzheimer's disease and schizophrenia. However, the synaptic mechanism by which 5-HT(6) receptors control the GABAergic and glutamatergic synaptic transmission is barely understood.

**HIF-1A regulates cognitive deficits of post-stroke depressive rats**
Post-stroke depression (PSD) is a serious neuropsychiatric complication post stroke and leads to cognitive deficits. This study was conducted to explore the molecular mechanism of hypoxia-inducible factor-1α (HIF-1A) in cognitive dysfunction in rats with PSD.

Three-Year Prognosis of Late-Life Depression in an Outpatient Geriatric Psychiatry Clinic: Medical Comorbidities Worsen Outcomes
Depression is one of the most important reasons for psychiatric referrals in elderly patients. Geriatric depression can be chronic and is associated with an increased risk of dementia. We aimed to determine the prognosis of major depression patients and associated risk factors regarding persistence of depression.

Association between napping and cognitive impairment: A systematic review and meta-analysis
CONCLUSIONS: This meta-analysis indicated associations between long napping durations and cognitive impairment or dementia, suggesting that longer napping might be a potential risk factor of adverse cognitive outcomes.

Reduced stuttering for school-age children: A systematic review
CONCLUSIONS: Operant methods warrant investigation in future clinical trial research, as do variants of speech restructuring. Hybrid approaches showed encouraging results, including speech restructuring variants combined with operant methods or with cognitive behaviour therapy. However, evidence is preliminary only at Phase I and II trials.

Deep learning analysis of UPLC-MS/MS-based metabolomics data to predict Alzheimer's disease
CONCLUSIONS: This study identified a new set of diagnostic metabolomic biomarkers for developing DL tools to predict AD. These biomarkers may help with early diagnosis, prognostic risk stratification, and/or early treatment interventions for patients at risk for AD.

Dementia care behind prison walls: A descriptive study understanding nurse's knowledge and educational needs
CONCLUSION: Although participants appeared to have a reasonable dementia knowledge base the study highlights the need for specific dementia education and support focussed on the correctional setting and collaborative partnerships with dementia experts in the community.

Risk of Incident Atrial Fibrillation and Subsequent Use of Oral Anticoagulants in Patients with Dementia
CONCLUSIONS: In this nationwide cohort, the risk of incident AF was higher in patients with dementia. For patients with dementia who experienced incident AF, NOAC use was associated with better clinical outcomes compared to non-OAC. Patients with dementia require a holistic approach to their care and management, including the use of NOACs to reduce risks of clinical events.

Predicting Instability Risk Following Hemiarthroplasty for Femoral Neck Hip Fractures in Geriatric Patients
CONCLUSION: Morphological factors related to hip dysplasia and a shallow acetabulum, which can be assessed with a radiograph alone, were found to be predictors of instability following HA in the elderly. Hemiarthroplasty implant design and manufacturer, and also acetabular version did not contribute to instability risk.

Acoustic stimulation during sleep improves cognition and ameliorates Alzheimer's disease pathology in APP/PS1 mice
Nonpharmacological therapies for Alzheimer's disease (AD) have become a popular research topic, and acoustic stimulation during sleep is one such promising strategy for the clinical treatment of AD. Some animal experiments have illustrated that acoustic stimulation at a specific frequency can ameliorate AD-related pathology or improve cognition in mice, but these studies did not explore the

The effect of poor glycemic control on cognitive function in children and adolescents with type 1 diabetes mellitus: A single-center cross-sectional study (2019-2020)
CONCLUSION: Regardless of disease onset, exposure to glycemic variability subjects children and adolescents to subtle and measurable cognitive dysfunction resulting in significant morbidity.

Momentary within-subject associations of affective states and physical behavior are moderated by weather conditions in real life: an ambulatory assessment study

CONCLUSIONS: Temperature alterations appeared to have an impact on subsequent physical activity. Furthermore, temperature alterations moderated the influence of affective states on conducted physical activity. This might offer the opportunity for just-in-time adaptive interventions to intervene in individually appropriate environmental conditions for promoting physical activity.

The relationship between working status in old age and cause-specific disability in Japanese community-dwelling older adults with or without frailty: A 3.6-year prospective study

CONCLUSIONS: The incidence of disability in older adults was influenced by working and frailty status. Engaging in full-time work thus prevents disabilities in older adults, regardless of their frailty status. Meanwhile, nonfrail older adults are able to avoid disabilities even when engaging in part-time work. Geriatr Gerontol Int 2023; ••: ••••.

The Role of Trait and State Mindfulness in Cognitive Performance of Male Adolescents

CONCLUSION: Both state and trait aspects of mindfulness ability influence cognitive performance. Those with higher trait mindfulness ability are better able to enter state mindfulness and thus had better cognitive reflection scores. However, where it is possible to induce state mindfulness into those with low trait mindfulness, CRT scores were also higher although not significantly so.

Time-course analysis of frontal gene expression profiles in the rat model of posttraumatic stress disorder and a comparison with the conditioned fear model

Posttraumatic stress disorder (PTSD) is a complex disorder that involves physiological, emotional, and cognitive dysregulation that may occur after exposure to a life-threatening event. In contrast with the condition of learned fear with resilience to extinction, abnormal fear with impaired fear extinction and exaggeration are considered crucial factors for the pathological development of PTSD.

The 1926 novel, "One, no one, one hundred thousand", metaphorizes the potential danger when the immune system is exposed to a repetitive antigen stimulation

In the worldwide scenario of infection prevention and control, the vaccine strategies are destined to increase rapidly. The availability of numerous vaccination options allows you to plan individually on how to boost your immune system. The immune system is a highly plastic cognitive dynamic network and performs its function by recognition of the uniqueness of the organism defined as self.

Factors influencing spiritual wellbeing among pancreatic ductal adenocarcinoma patients receiving chemotherapy

CONCLUSION: Individualized spiritual support is needed for PDAC patients. Health, daily functioning, emotional, cognitive, and social function status should be taken into account to promote implementation of spirituality in nursing practice.

Glucagon-like peptide 1 (GLP-1) receptor agonists in experimental Alzheimer's disease models: a systematic review and meta-analysis of preclinical studies

Alzheimer's disease (AD) is a degenerative disease of the nervous system. Glucagon-like peptide-1 receptor agonists (GLP-1 RAs), a drug used to treat type 2 diabetes, have been shown to have neuroprotective effects. This systematic review and meta-analysis evaluated the effects and potential mechanisms of GLP-1 RAs in AD animal models.
Effects of cognitive and stress management training in middle-aged and older industrial workers in different socioeconomic settings: a randomized controlled study

INTRODUCTION: The demographic change requires longer working lifetime. However, fear of job loss may lead to chronic stress whereas aging and unchallenging work may accelerate cognitive decline and early retirement. Long-time repetitive work led to impairments of cognitive functions in middle-aged and older employees, as demonstrated in a previous study conducted in a large car manufacturer.

Role of Cognitive Control in Psychotherapy: An Integrated Review

BACKGROUND: Cognitive control (CC), including shifting, updating, and inhibiting functions, may play an integral role in various aspects of psychotherapy; however, research on this is limited. This review aims to link the disparate lines of evidence on CC as they relate to psychotherapy processes, techniques, and outcomes.

An internet-based behavioral intervention for adults with autism spectrum disorder - A randomized controlled trial and feasibility study

CONCLUSIONS: This internet-based intervention showed feasibility regarding adherence and participant satisfaction. However, no significant effects on quality of life, sense of coherence or psychiatric symptoms were found, likely due to limitations in the design and methodology of this specific trial in combination to the heterogeneity of the group.

Cognitive-Behavioral Play Therapy and COVID-19 Pandemic Trauma in Preschool Children

Traumatic life events, such as the ongoing COVID-19 pandemic, can be a challenging health emergency, among others. The pandemic can also affect young preschoolers. They can experience negative emotions and behavioral and social difficulties. It can be hard for children to understand on their own what is going on, as well as for their families.

Ginkgolide B promotes spontaneous recovery and enhances endogenous netrin-1 after neonatal hypoxic-ischemic brain damage

CONCLUSION: Our findings suggest that GB promotes neuroplasticity and enhances spontaneous recovery in newborns affected by HIE. The observed upregulation of netrin-1 may be crucial in mediating these effects. These results highlight the promising potential of GB as a post-HIE therapy, particularly in enhancing spontaneous recovery and improving long-term outcomes.

Disrupted Salience and Cingulo-Opercular Network Connectivity During Impaired Rapid Instructed Task Learning in Schizophrenia

Rapid instructed task learning (RITL) is the uniquely human ability to transform task information into goal-directed behavior without relying on trial-and-error learning. RITL is a core cognitive process supported by functional brain networks. In patients with schizophrenia, RITL ability is impaired, but the role of functional network connectivity in these RITL deficits is unknown.

Altered intestinal barrier contributes to cognitive impairment in old mice with constipation after sevoflurane anesthesia

CONCLUSION: Aged STC mice were more vulnerable to sevoflurane anesthesia and consequently developed POCD-like behavioral changes. Our data suggest that gastrointestinal disorders including constipation may contribute to the development of POCD.

Social skills deficits and self-appraisal biases in children with social anxiety disorder

Social Anxiety Disorder is highly prevalent among children and leads to poor long-term outcomes if left untreated. Theoretical models of anxiety differ in whether children with Social Anxiety Disorder experience objective social skills deficits, negative self-interpretation biases, or some combination of the two. This pilot study evaluated evidence in support of the "deficit" and "bias" models.

Relationship between the structure, function and endothelial damage, and vascular ageing and the biopsychological situation in adults
diagnosed with persistent COVID (BioICOPER study). A research protocol of a cross-sectional study

Background: SARS-CoV-2 infection affects the vascular endothelium, which mediates the inflammatory and thrombotic cascade. Moreover, alterations in the endothelium are related to arterial stiffness, which has been established as a marker of cardiovascular disease.

The effects of family environment cognition and its difference perceived by adolescents and their parents on the treatment effect of non-suicidal self-injury behaviors in adolescents: a 1-year prospective cohort study

INTRODUCTION: Family environment is the primary environment for adolescent growth and development, which is believed to have an important impact on the occurrence of non-suicidal self-injury (NSSI) behavior in adolescents.

Effect of atorvastatin on subclinical atherosclerosis in virally-suppressed HIV-infected patients with CMV seropositivity: a randomized double-blind placebo-controlled trial

Background: Persistent immune activation and inflammation in HIV-infection are linked to excess cardiovascular risk and other non-communicable diseases. Periodic asymptomatic CMV-reactivity in HIV infected patients over a lifetime may contribute to non-AIDS defining morbidity.

My 28 Days - a global digital women's health initiative for evaluation and management of secondary amenorrhea: case report and literature review

There is a need to close the gap between knowledge and action in health care. Effective care requires a convenient and reliable distribution process. As global internet and mobile communication increase capacity, innovative approaches to digital health education platforms and care delivery are feasible. We report the case of a young African woman who developed acute secondary amenorrhea at age 18.

Cognitive Ergonomics: A Review of Interventions for Outpatient Practice

Doctoring is difficult mental work, involving many cognitively demanding processes such as diagnosing, decision-making, parallel processing, communicating, and managing the emotions of others. According to cognitive load theory (CLT), working memory is a limited cognitive resource that can support a finite amount of cognitive load.

Identification of genetic variants associated with a wide spectrum of phenotypes clinically diagnosed as Sanfilippo and Morquio syndromes using whole genome sequencing

Mucopolysaccharidoses (MPSs) are inherited lysosomal storage disorders (LSDs). MPSs are caused by excessive accumulation of mucopolysaccharides due to missing or deficiency of enzymes required for the degradation of specific macromolecules. MPS I-IV, MPS VI, MPS VII, and MPS IX are sub-types of mucopolysaccharidoses

Increased Frequency of Self-Reported Obsessive-Compulsive Symptoms in Patients with Functional Movement Disorders

CONCLUSIONS: FMD patients reported higher rates of OCS compared to controls, along with higher rates of non-motor symptoms and lower quality of life. This finding may have clinical implications and raises the possibility of shared risk factors and common pathophysiological mechanisms in FMD and OCD.

Continuous Subcutaneous Infusion Delivery of Apomorphine in Parkinson's Disease: A Systematic Review

CONCLUSION: There is consistent agreement on the benefits of CSAI in reducing OFF periods and improving ON periods without troublesome dyskinesia and specific motor and non-motor symptoms. Although there is a paucity of RCTs, current data from almost 30 years of use suggests CSAI to be beneficial in advanced cases of PD.

Late Presentation of Chronic Traumatic Encephalopathy in a Former Association Football Player
CONCLUSIONS: While the contemporaneous onset of parkinsonism and cognitive symptoms in the context of possible neuroleptic sensitivity is suggestive of DLB, the additional symptoms of aggressive behavior, depression and suicidality in a former football player are consistent with the neuropathological diagnosis of CTE.

Social inequality in cancer survivorship: Educational differences in health-related quality of life among 27,857 cancer survivors in Denmark

CONCLUSIONS: Cancer survivors with short education are at greater risk of impaired HRQoL than survivors with long education 2-12 years after diagnosis. This underscores the need for systematic screening and symptom management in cancer aftercare, in order to reach all cancer survivors, also cancer survivors with short education.

Sleep duration and brain MRI measures: Results from the SOL-INCA MRI study

INTRODUCTION: Sleep duration has been associated with dementia and stroke. Few studies have evaluated sleep pattern-related outcomes of brain disease in diverse Hispanics/Latinos.

Trajectories of care and outcomes of Veterans receiving home-based primary care

CONCLUSIONS: HBPC patients experience highly variable care trajectories but on average have reductions in acute care use and spend a majority of time in non-institutional settings. These data allow for a nuanced understanding of HBPC, providing a platform for monitoring, evaluating, and improving program function.

Predator-prey systems as models for integrative research in biology: the value of a non-consumptive effects framework

Predator-prey interactions are a cornerstone of many ecological and evolutionary processes that influence various levels of biological organization, from individuals to ecosystems. Predators play a crucial role in shaping ecosystems through the consumption of prey species and non-consumptive effects.

Dissecting the chain of information processing and its interplay with neurochemicals and fluid intelligence across development

Previous research has highlighted the role of glutamate and gamma-aminobutyric acid (GABA) in perceptual, cognitive, and motor tasks. However, the exact involvement of these neurochemical mechanisms in the chain of information processing, and across human development, is unclear.

An online, public health framework supporting behaviour change to reduce dementia risk: interim results from the ISLAND study linking ageing and neurodegenerative disease

CONCLUSIONS: The ISLAND framework and interventions, a personalised DRP report and the four-week PDMOOC, work independently and synergistically to increase dementia risk knowledge and stimulate health behaviour change for dementia risk reduction. ISLAND offers a feasible and scalable public health approach for redressing the rising prevalence of dementia.

The role of Lactobacillus in inflammatory bowel disease: from actualities to prospects

Inflammatory Bowel Disease (IBD), a chronic nonspecific intestinal inflammatory disease, is comprised of Ulcerative Colitis (UC) and Crohn's Disease (CD). IBD is closely related to a systemic inflammatory reaction and affects the progression of many intestinal and extraintestinal diseases.

Environmental scan of current strategies to decrease sedative-hypnotic drug use and promote sleep in hospital patients

CONCLUSION: Many resources were available to patients and healthcare providers to reduce inappropriate or ineffective use of sedative-hypnotic drugs and promote better sleep. Specific resources for the hospital setting were infrequent and recommended that clinicians stop hospital-initiated sedatives when patients are discharged.
Dysfunctional serotonergic neuron-astrocyte signaling in depressive-like states
Astrocytes play crucial roles in brain homeostasis and are regulatory elements of neuronal and synaptic physiology. Astrocytic alterations have been found in Major Depressive Disorder (MDD) patients; however, the consequences of astrocyte Ca^{2+} signaling in MDD are poorly understood.

Frontotemporal-spectrum disorders and functional independence in non-demented ALS patients
BACKGROUND: The present study aimed at determining whether, net of motor confounders, neuropsychological features affect functional independence (FI) in activities of daily living (ADLs) in non-demented amyotrophic lateral sclerosis (ALS) patients.

Effect of Comprehensive Nursing Based on Risk Factors in Liver Cancer Patients Accepted Intervention Therapy On Quality of Life and Prognosis
CONCLUSION: Comprehensive nursing measures based on prognostic factors in patients undergoing interventional therapy for hepatocellular carcinoma can more effectively enhance patient recovery.

Global trends and future prospects of COVID-19 and physical activity: Bibliometric analysis
CONCLUSIONS: An important gap in the study area is research on effect of changing lifestyle due to pandemic on individuals and the society during the Post COVID-19 period. If benefits of PA will not be limited to only physical benefits and psychological emotional, cognitive and social benefits are also taken into consideration, it is important that researchers conduct long-term and widescale

Resource allocation decisions under pandemic conditions: A cross-sectional survey of Ontario physicians
The COVID-19 pandemic has forced physicians to confront difficult choices regarding the allocation of scarce resources, such as ventilators and critical care beds. Developing policies to guide the allocation of such resources has proven challenging. An understanding of physicians' attitudes and beliefs surrounding resource allocation could help inform policymaking

A Multidisciplinary Rehabilitation Approach to Chronic Pain Patients in the Post-COVID-19 Era
CONCLUSIONS: Treatment goals for the postviral syndrome of long COVID are multifaceted. In addition to pain control, patients may have functional deficits, cognitive issues, mental health issues, and reduced quality of life. Thus, a structured interdisciplinary rehabilitation model seems most appropriate to manage long COVID.

Effect of Analgesic Low-Dose Ketamine Infusions on the Cardiovascular Response: A Retrospective Analysis
CONCLUSIONS: LDKI (0.1 mg/kg/h) was not associated with significant changes in baseline BP or HR. Our results suggest that as an adjuvant in multimodal analgesia for surgical and nonsurgical acute pain, LDKI has a low impact on the cardiovascular response.

A systematic review of quantitative studies exploring staff views on antipsychotic use in residents with dementia in care homes
CONCLUSION: The positive attitudes toward antipsychotics, the identified barriers to deprescribing and the existing tools not addressing all components of the TPB provide the impetus for further research.

Chronic hyperpalatable diet induces impairment of hippocampal-dependent memories and alters glutamatergic and fractalkine axis signaling
Chronic consumption of hyperpalatable and hypercaloric foods has been pointed out as a factor associated with cognitive decline and memory impairment in obesity. In this context,
the integration between peripheral and central inflammation may play a significant role in the negative effects of an obesogenic environment on memory

**Medication and Road Test Performance Among Cognitively Healthy Older Adults**

**CONCLUSIONS AND RELEVANCE:** In this prospective cohort study, specific medication classes were associated with an increase in risk of poor road test performance over time. Clinicians should consider this information and counsel patients accordingly when prescribing these medications.

**Attention, response inhibition, and hoarding: A neuropsychological examination**

**BACKGROUND AND AIMS:** The prominent cognitive-behavioral model of hoarding posits that information processing deficits contribute to hoarding disorder. Although individuals with hoarding symptoms consistently self-report attentional and impulsivity difficulties, neuropsychological tests have inconsistently identified impairments.

**Bridging the ICT Revolution and Communication Inequality: Lessons for Cancer Survivors**

The rapid development of information and communication technologies (ICTs) offers new opportunities for providing health information to patients. In this study, we examined the contrasting effects that communication innovation through ICTs can bring in the care of patients with chronic diseases and the health promotion of medical consumers.

**Frailty and mortality: Utility of Frail-VIG index in ED short-stay units for older adults**

**CONCLUSIONS:** There was a strong correlation between frailty degree and mortality at 1, 6, and 12 months. FI-VIG is fast and easy-to-use in this setting. It is routine implementation in ED-SSUs could enable early risk stratification.

**Human microglial state dynamics in Alzheimer's disease progression**

Altered microglial states affect neuroinflammation, neurodegeneration, and disease but remain poorly understood. Here, we report 194,000 single-nucleus microglial transcriptomes and epigenomes across 443 human subjects and diverse Alzheimer's disease (AD) pathological phenotypes.

**Effects of Sleep Deprivation on Sleep and Sleep Electroencephalogram in Secretin-receptor Knockout Mice**

Recent studies have consistently demonstrated a relationship between secretin and autism-like behavior in mice. Therefore, secretin-receptor knockout (SCTR-KO) mice are used to study autism. However, with respect to humans, some studies have reported that secretin administration could improve autistic symptoms in contrast to other studies.

**Hermit crabs as model species for investigating the behavioural responses to pollution**

Human impacts on the environment affect organisms at all levels of biological organisation and ultimately can change their phenotype. Over time, phenotypic change may arise due to selection but individual phenotypes are also subject to change via genotype × environment interactions.

**Gut-muscle-brain axis: Molecular mechanisms in neurodegenerative disorders and potential therapeutic efficacy of probiotic supplementation coupled with exercise**

Increased longevity is often associated with age-related conditions. The most common neurodegenerative disorders in the older population are Alzheimer's disease (AD) and Parkinson's disease (PD), associated with progressive neuronal loss leading to functional and cognitive impairments. Although symptomatic treatments are available, there is currently no cure for these conditions.

**Efficacy of memantine in preventing neurocognitive dysfunction induced by radiation therapy in patients with brain metastases: A systematic review of clinical trials**
CONCLUSION: This review embraces the comprehensive evidence that the use of memantine therapy in patients with brain metastases to prevent radiation-induced neurocognitive dysfunction has a modest and statistically significant beneficial impact in improving quality of life and preserving some neurocognitive function without any complications

Non-pharmacological interventions for smoking cessation: analysis of systematic reviews and meta-analyses

CONCLUSIONS: The abstinence effect of cognitive behaviour education and money incentive intervention has advantages, and non-nicotine e-cigarettes appear to help some smokers transition to less harmful replacement tools. However, the methodological shortcomings of SRs/MAs should be considered.

The association of long-term exposure to criteria air pollutants, fine particulate matter components, and airborne trace metals with late-life brain amyloid burden in the Atherosclerosis Risk in Communities (ARIC) study

CONCLUSIONS: Air pollution may impact cognition and dementia independent of amyloid accumulation, though whether air pollution influences AD pathogenesis later in the disease course or at higher exposure levels deserves further consideration.

Why and when do you look away when trying to remember? Gaze aversion as a marker of the attentional switch to the internal world during memory retrieval

It is common to look away while trying to remember specific information, for example during autobiographical memory retrieval, a behavior referred to as gaze aversion. Given the competition between internal and external attention, gaze aversion is assumed to play a role in visual decoupling, i.e., suppressing environmental distractors during internal tasks.

Longitudinal associations between higher self-reported energy, gait speed and cognition in older adults with fatigue

CONCLUSION: Asking about older adults’ energy levels as well as fatigue may identify a subgroup of older adults protected against physical and cognitive decline, even among those with fatigue.

Tobacco withdrawal-induced changes in sensorimotor filtering as a predictor of smoking lapse in trauma-exposed individuals

Prepulse inhibition (PPI) is a measure of sensorimotor filtering thought to shield the processing of initial weaker auditory stimuli from interruption by a later startle response. Previous studies have shown smoking withdrawal to have a negative impact on sensorimotor filtering, particularly in individuals with psychopathology.

Dopaminergic dysfunction: Role for genetic & epigenetic testing in the new psychiatry

Reward Deficiency Syndrome (RDS), particularly linked to addictive disorders, costs billions of dollars globally and has resulted in over one million deaths in the United States (US). Illicit substance use has been steadily rising and in 2021 approximately 21.9% (61.2 million) of individuals living in the US aged 12 or older had used illicit drugs in the past year. However, only 1.5% (4

Intensive systolic blood pressure treatment remodels brain perivascular spaces: A secondary analysis of the Systolic Pressure Intervention Trial (SPRINT)

CONCLUSIONS: PVS enlargement was partially reversed in the intensive SBP treatment group. The association with CCB use suggests that improved vascular compliance may be partly responsible. Improved vascular health may facilitate glymphatic clearance.

Clinicaltrials.gov: NCT01206062.

Menopause age, reproductive span and hormone therapy duration predict the volume of medial temporal lobe brain structures in postmenopausal women
Medial temporal lobe (MTL) atrophy is correlated with risk and severity of Alzheimer disease (AD) pathology and cognitive decline. Increasing evidence suggest that oestrogens affect the aging of MTL structures.

**Epigenomic dissection of Alzheimer's disease pinpoints causal variants and reveals epigenome erosion**

Recent work has identified dozens of non-coding loci for Alzheimer's disease (AD) risk, but their mechanisms and AD transcriptional regulatory circuitry are poorly understood. Here, we profile epigenomic and transcriptomic landscapes of 850,000 nuclei from prefrontal cortices of 92 individuals with and without AD to build a map of the brain regulome, including epigenomic profiles, transcriptional.

**Caspase-3 cleaved tau impairs mitochondrial function through the opening of the mitochondrial permeability transition pore**

Mitochondrial dysfunction is a significant factor in the development of Alzheimer's disease (AD). Previous studies have demonstrated that the expression of tau cleaved at Asp421 by caspase-3 leads to mitochondrial abnormalities and bioenergetic impairment. However, the underlying mechanism behind these alterations and their impact on neuronal function remains unknown.

**Carriers of autosomal recessive conditions: are they really 'unaffected'?**

Mendel's Law of Dominance suggests that recessive disease expression requires the inheritance of two mutated alleles as the dominant, wildtype allele suppresses disease presentation leading to the expression of physiological normal phenotypes. However, there is existing evidence that challenges this school of thought.

**Telepharmacy Model of Care**

PURPOSE: This study assessed the feasibility of the Telepharmacy Model of Care, a medication review and deprescribing model for use in older adults, with innovations in cognitive and functional evaluation, in telemedicine delivery, and in the use of a pharmacy technician.

**Low tongue pressure and depression using Kihon Checklist for assessing frailty status among community-dwelling Japanese older adults: A pilot study**

CONCLUSION: Low tongue pressure may be associated with sociopsychological factors in older adults.

**Efficacy of a Cognitive Behavioral Intervention for the Prevention of Depression in Nonprofessional Caregivers Administered through a Smartphone App: A Randomized Controlled Trial**

Due to the limited availability of in-person interventions for caregivers, the development of effective programs that use new technologies to prevent depression is needed. The goal of this research was to assess the efficacy of a cognitive behavioral intervention for the prevention of depression, administered to nonprofessional caregivers through a smartphone application (app).

**Lifestyles, Left Atrial Structure and Function, and Cognitive Decline in Adults with Metabolic Syndrome**

Evidence supports associations of lifestyle (including diet and physical activity) and weight with cognitive functioning, but the pathways responsible for these associations have not been fully elucidated.

**Pharmacogenetics of Long-Term Outcomes of Schizophrenia Spectrum Disorders: The Functional Role of CYP2D6 and CYP2C19**

Schizophrenia spectrum disorders (SSD) are complex mental disorders, and while treatment with antipsychotics is important, many patients do not respond or develop serious side effects. Genetic variation has been shown to play a considerable role in determining an individual's response to antipsychotic medication.

**New Community and Sociohealth Challenges Arising from the Early Diagnosis of Mild Cognitive Impairment (MCI)**


Population aging increases the risk of developing neurodegenerative diseases that cause cognitive impairment. Advances in clinical practice and greater social awareness of the importance of cognitive impairment have led to an increase in the number of people with early diagnosis, predementia.

**Fighting Cardiac Thromboembolism during Transcatheter Procedures: An Update on the Use of Cerebral Protection Devices in Cath Labs and EP Labs**

Intraprocedural stroke is a well-documented and feared potential risk of cardiovascular transcatheter procedures (TPs). Moreover, subclinical neurological events or covert central nervous system infarctions are concerns related to the development of dementia, future stroke, cognitive decline, and increased risk of mortality.

**Particular Anatomy of the Hyperopic Eye and Potential Clinical Implications**

Background and Objectives: Hyperopia is a refractive error which affects cognitive and social development if uncorrected and raises the risk of primary angle-closure glaucoma (PACG).

Materials and Methods: The study included only the right eye-40 hyperopic eyes in the study group (spherical equivalent (SE) under pharmacological cycloplegia over 0.

**Altered Gut Microbiota Composition Is Associated with Difficulty in Explicit Emotion Regulation in Young Children**

Executive function (EF) consists of explicit emotion regulation (EER) and cognitive control (CC). Childhood EER in particular predicts mental and physical health in adulthood. Identifying factors affecting EER development has implications for lifelong physical and mental health.

**Urolithins: A Prospective Alternative against Brain Aging**

The impact of host-microbiome interactions on cognitive health and disease has received increasing attention. Microbial-derived metabolites produced in the gut are one of crucial mechanisms of the gut-brain axis interaction, showing attractive perspectives.

**Mental Health Variables Impact Weight Loss, Especially in Patients with Obesity and Binge Eating: A Mediation Model on the Role of Eating Disorder Pathology**

BACKGROUND: Various mental health and eating behavior variables have been independently associated with predicting weight loss in individuals with obesity. This study aims to investigate a mediation model that assesses the distinct contributions of these variables in predicting weight changes in patients with obesity following an outpatient behavioral weight loss intervention (BWLI).

**A Diet Pattern Characterized by Sugar-Sweetened Beverages Is Associated with Lower Decision-Making Performance in the Iowa Gambling Task, Elevated Stress Exposure, and Altered Autonomic Nervous System Reactivity in Men and Women**

The executive brain mediates and facilitates a set of cognitive functions, such as decision making, planning, self-regulation, emotional regulation, and attention. Executive dysfunction and related diseases are a rising public health concern.

**Causal Link between Gut Microbiota, Neurophysiological States, and Bone Diseases: A Comprehensive Mendelian Randomization Study**

Increasing evidence highlights a robust correlation between the gut microbiota and bone diseases; however, the existence of a causal relationship between them remains unclear. In this study, we thoroughly examined the correlation between gut microbiota and skeletal diseases using genome-wide association studies.

**Higher Adherence to the AMED, DASH, and CHFP Dietary Patterns Is Associated with Better Cognition among Chinese Middle-Aged and Elderly Adults**

The available evidence regarding the association between adherence to the Alternate Mediterranean Diet (AMED) and Dietary Approaches to Stop Hypertension (DASH) dietary
patterns and cognitive performance exhibits inconsistency, and its applicability within the Asian population remains uncertain.

**A Window to the Brain: The Retina to Monitor the Progression and Efficacy of Saffron Repron® Pre-Treatment in an LPS Model of Neuroinflammation and Memory Impairment**

A mechanism shared by most neurodegenerative diseases, like Alzheimer's disease (AD) and Parkinson's disease (PD), is neuroinflammation. It has been shown to have a link between cognitive impairment and retinal function under neuroinflammatory conditions, confirming the essential role of the retina as a window to the brain.

**A Neurophysiological Evaluation of Cognitive Load during Augmented Reality Interactions in Various Industrial Maintenance and Assembly Tasks**

Augmented reality (AR) has been shown to improve productivity in industry, but its adverse effects (e.g., headaches, eye strain, nausea, and mental workload) on users warrant further investigation. The objective of this study is to investigate the effects of different instruction methods (i.e., Cognitve Task Domain Influences Cognitive-Motor Interference during Large-Magnitude Treadmill Stance Perturbations)

Reactive balance is postulated to be attentionally demanding, although it has been underexamined in dual-tasking (DT) conditions. Further, DT studies have mainly included only one cognitive task, leaving it unknown how different cognitive domains contribute to reactive balance.

**Enabling Remote Elderly Care: Design and Implementation of a Smart Energy Data System with Activity Recognition**

Seniors face many challenges as they age, such as dementia, cognitive and memory disorders, vision and hearing impairment, among others. Although most of them would like to stay in their own homes, as they feel comfortable and safe, in some cases, older people are taken to special institutions, such as nursing homes.

**Seven Epidemic Waves of COVID-19 in a Hospital in Madrid: Analysis of Severity and Associated Factors**

(1) Background: COVID-19 has evolved during seven epidemic waves in Spain. Our objective was to describe changes in mortality and severity in our hospitalized patients. (2) Method: This study employed a descriptive, retrospective approach for COVID-19 patients admitted to the Hospital de Fuenlabrada (Madrid, Spain) until 31 December 2022.

**A language of episodic thought?**

We propose that episodic thought (i.e., episodic memory and imagination) is a domain where the language-of-thought hypothesis (LoTH) could be fruitfully applied. On the one hand, LoTH could explain the structure of what is encoded into and retrieved from long-term memory.

**Identification and characterization of screen use trajectories from late childhood to adolescence in a US-population based cohort study**

Screen use is a known risk factor for adverse physical and mental health outcomes during childhood and adolescence. Moreover, racial/ethnic disparity in screen use persists among adolescents. However, limited studies have characterized the population sharing similar longitudinal patterns of screen use from childhood to adolescence.

**Eye movements dataset for objective-based assessment of object-oriented programming knowledge**

The Eye Movements dataset for Objective Assessment contains eye gaze data and learners' scores in an objective-based object-oriented programming assessment. The learners' knowledge was assessed for various programming concepts like object initialisation, variable declaration, constructors etc.

**Knowledge of schoolteachers on learning disabilities in urban Vellore - A cross-sectional study**

- A language of episodic thought?
- Identification and characterization of screen use trajectories from late childhood to adolescence in a US-population based cohort study
- Eye movements dataset for objective-based assessment of object-oriented programming knowledge
- Knowledge of schoolteachers on learning disabilities in urban Vellore - A cross-sectional study
CONCLUSIONS: Among 80 teachers, 70% (56) of them had adequate general knowledge regarding LDs. When analyzed separately, 82.5% (33) of government/aided teachers and only 57.5% (23) teachers were having adequate general knowledge regarding LDs.

Retrospective observational study of a novel smartphone app on the management of patients with mild cognitive impairment or mild dementia

INTRODUCTION: In this study, we aimed to evaluate the feasibility, utility, and potential effects of LQ-M/D App, a smartphone application developed by Life Quest Inc., Tokyo, Japan, for patients with mild cognitive impairment (MCI) and mild dementia.

Personalized clinical managements through exploring circulating neural cells and electroencephalography

CONCLUSION: We highlighted application of the single CNCs and correlated Ratio based between Brain channels by providing the 5xP personalized clinical management model for an early detection and therapy of the patients with AD and their targeted/predisposed relatives.

Subjective Cognitive Decline and Frailty Trajectories and Influencing Factors in Japanese Community-Dwelling Older Adults: A Longitudinal Study

We studied frailty and subjective cognitive decline (SCD) trajectories in older Japanese adults and evaluated the influence of various factors on these trajectories. We analyzed data from 1157 non-demented adults aged 70 and above from 2013 to 2019. Frailty was assessed using the self-administered Kihon Checklist (KCL), a Japanese frailty index.

The Impact of Non-Pharmacological Interventions on Delirium in Neurological Intensive Care Unit Patients: A Single-Center Interrupted Time Series Trial

Background: Delirium is a pathobiological brain process that is frequently observed in Intensive Care Unit (ICU) patients, and is associated with longer hospitalization as well as long-term cognitive impairment. In neurological ICU patients, delirium may be more treatment-resistant due to the initial brain injury.

Effects of Mobilization within 72 h of ICU Admission in Critically Ill Patients: An Updated Systematic Review and Meta-Analysis of Randomized Controlled Trials

Previous systematic review and meta-analysis indicates that rehabilitation within a week of intensive care unit (ICU) admission benefits physical function in critically ill patients. This updated systematic review and meta-analysis aim to clarify effects of initiating rehabilitation within 72 h of ICU admission on long-term physical, cognitive, and mental health.

The Relationship of Cognitive Dysfunction with Inflammatory Markers and Carotid Intima Media Thickness in Schizophrenia

CONCLUSIONS: This is the first study to show the relationship between cognitive impairment and CIMT in schizophrenia. In this study, NLR, MLR, PLR, SII, CRP, and ESR markers were higher in schizophrenia compared to HC, indicating inflammation. Our finding of elevated CIMT in schizophrenia suggests that there may be an atherosclerotic process along with the inflammatory process.

Paving the Way for Predicting the Progression of Cognitive Decline: The Potential Role of Machine Learning Algorithms in the Clinical Management of Neurodegenerative Disorders

CONCLUSION: This method may support clinicians to provide a second opinion concerning high prognostic power in the progression of cognitive impairment. The MLM used in this study is based on big data that were confirmed in enrolled patients and given a credibility about the presence of determinant risk factors also supported by a cognitive test score.

Relationship between Cognitive Impairment and Depressive Symptoms with Somatosensory Functions in Diabetic and Non-Diabetic Older Adults and Its Impact on Quality of Life
Aging is an inevitable process that impacts the peripheral and central nervous systems and is considered one of the strongest risk factors for neurodegenerative diseases. In addition, when it also presents with diabetes mellitus, the risk of neurological damage may be further increased.

Dignity as a Central Issue in Treating Patients with Dementia Associated with COVID-19 Infection

COVID-19 was initially considered a primary respiratory disorder associated with various short- and long-term complications, affecting many patients and imposing a significant burden. Patients who have dementia are especially vulnerable to the SARS-CoV2 infection, which is associated with an increased risk for neuropsychiatric complications.

The Impact of COVID-19 Pandemic on Weight Loss, Eating Behaviour and Quality of Life after Roux-en-Y Gastric Bypass

Background and Objectives: The global pandemic of coronavirus disease (COVID-19), declared on 11 March 2020, had an extensive impact on bariatric patients. The aim of this study was to evaluate short-term weight loss outcomes, changes in eating behaviour, and health-related quality of life (HRQoL) among patients who had Roux-en-Y gastric bypass (RYGB) before and during the COVID-19 pandemic.

New Biotinylated GHK and Related Copper(II) Complex: Antioxidant and Antiglycant Properties In Vitro against Neurodegenerative Disorders

Neurodegenerative diseases affect millions of people worldwide. The failure of the enzymatic degradation, the oxidative stress, the dyshomeostasis of metal ions, among many other biochemical events, might trigger the pathological route, but the onset of these pathologies is unknown. Multi-target and multifunctional molecules could address several biomolecular issues of the pathologies.

Investigating the Therapeutic Potential of Plants and Plant-Based Medicines: Relevance to Antioxidant and Neuroprotective Effects

Oxidative stress is a common characteristic of psychiatric, neurological, and neurodegenerative disorders. Therefore, compounds that are neuroprotective and reduce oxidative stress may be of interest as novel therapeutics.

Biological Properties and Antimicrobial Potential of Cocoa and Its Effects on Systemic and Oral Health

Cocoa is considered a functional food because it is a natural source of macro- and micronutrients. Thus, cocoa is rich in vitamins, minerals, fiber, fatty acids, methylxanthines and flavonoids. In addition to favoring the metabolism of lipids and carbohydrates, the bioactive components of cocoa can have an antioxidant, anti-inflammatory and antimicrobial effect, providing numerous benefits for.

Key Nutrients for Optimal Blood Glucose Control and Mental Health in Individuals with Diabetes: A Review of the Evidence

Diabetes is associated with an increased risk of mental disorders, including depression, anxiety, and cognitive decline. Mental disorders can also contribute to the development of diabetes through various mechanisms including increased stress, poor self-care behaviors, and adverse effects on glucose metabolism.

Efficacy of Kan Jang® in Patients with Mild COVID-19: A Randomized, Quadruple-Blind, Placebo-Controlled Trial


Neuroprotective Effect of Nosustrophine in a 3xTg Mouse Model of Alzheimer's Disease

Neurodegeneration, characterized by the progressive deterioration of neurons and glial cells, is a feature of Alzheimer's disease (AD). The present study aims to demonstrate that the onset and early progression of neurodegenerative processes in transgenic mice models of.
AD can be delayed by a cocktail of neurotrophic factors and derived peptides named Nosustrophine, a nootropic supplement made by Retinoic Acid Receptor Is a Novel Therapeutic Target for Postoperative Cognitive Dysfunction

Postoperative cognitive dysfunction (POCD) is a clinical syndrome characterizing by cognitive impairments in the elderly after surgery. There is limited effective treatment available or clear pathological mechanisms known for this syndrome

Pentaclethra eetveldeana Leaves from Four Congo-Brazzaville Regions: Antioxidant Capacity, Anti-Inflammatory Activity and Proportional Accumulation of Phytochemicals

Oxidative stress and inflammation play a key role in the occurrence of neurodegenerative diseases. Traditionally, Pentaclethra eetveldeana leaves are used in dementia treatment. Therefore, this study aimed to evaluate the antioxidant and anti-inflammatory activities as well as the phytochemical composition of Pentaclethra eetveldeana leaves from four Congo-Brazzaville regions. The 1


The aim of this systematic review was to identify the correlations between spectrum sensing, clustering algorithms, and energy-harvesting technology for cognitive-radio-based internet of things (IoT) networks in terms of deep-learning-based, nonorthogonal, multiple-access techniques

Intention, Motivation, and Empowerment: Factors Associated with Seasonal Influenza Vaccination among Healthcare Workers (HCWs)

CONCLUSION: Vaccination uptake is simultaneously affected by logical cognitive processes (intention), together with factors related to motivation and empowerment in distinct self-regulatory domains such as value, impact, knowledge, and autonomy. Interventions focused on these identified predictors may be used as a guide to increase HCWs' vaccination rates.

Socioeconomic inequalities in early child development in children aged under 36 months in South Asia: A systematic review

CONCLUSION: This review reveals the scarcity of evidence exploring associations between household SEP and ECD in children under 36 months in South Asia, especially outside of India. Enhancing evidence for associations between ECD and SEP is needed for evidence-based policy making to reduce developmental delays associated with a disadvantaged SEP in the South Asian region.

Cognitive dysfunction in post-COVID-19 condition: Mechanisms, management, and rehabilitation

The long-term effects of COVID-19 on cognitive function have become an area of increasing concern. This paper provides an overview of characteristics, risk factors, possible mechanisms, and management strategies for cognitive dysfunction in post-COVID-19 condition (PCC)

Middle aged CAMKII-Cre:CBSfl/fl mice: a new model for studying perioperative neurocognitive disorders

Postoperative complications, such as perioperative neurocognitive disorders (PND), have become a major issue affecting surgical outcomes. However, the mechanism of PND remains unclear, and stable animal models of middle-aged PND are lacking

Putting relating at the core of language-of-thought

Propositional representations are units of information with a relational content. Their relational nature allows for the six distinctive properties of language-of-thought representations. Putting relating at the core of language-of-thought also fits well with the idea that thinking and reasoning are instances of relational behavior

Role of Acorus calamus in preventing depression, anxiety, and oxidative stress in long-term socially isolated rats
CONCLUSION: Acorus calamus treatment improved the antidepressant and antioxidant potential against SIS in rat brain tissue. Moreover, we proved that AC can effectively reverse the neurotoxicity induced by SIS in animal models.

Editorial: Neuroinflammation in the interaction between aging and chronic brain injury
No abstract

PDE5 inhibitor drugs for use in dementia
Alzheimer’s disease and related dementias (ADRD) remain a major health-care challenge with few licensed medications. Repurposing existing drugs may afford prevention and treatment. Phosphodiesterase-5 (PDE5) is widely expressed in vascular myocytes, neurons, and glia.

Reduced Brain Cortex Angiogenesis in the Offspring of the Preeclampsia-Like Syndrome
CONCLUSIONS: Offspring from preeclampsia exhibited diminished brain cortex angiogenesis, associated with lower circulating VEGF/PIGF/KDR protein levels, impaired brain endothelial migration, and dysfunctional assembly of F-actin filaments. These alterations may predispose to structural and functional alterations in long-term brain development.

Scopolamine-Induced Memory Impairment in Mice: Effects of PEA-OXA on Memory Retrieval and Hippocampal LTP
Transient global amnesia, both persistent and transient, is a very common neuropsychiatric syndrome. Among animal models for amnesia and testing new drugs, the scopolamine test is the most widely used for transient global amnesia (TGA).

Initiatives to detect and prevent death from perioperative deterioration
PURPOSE OF REVIEW: This study indicates that there are differences between hospitals in detection, as well as in adequate management of postsurgical complications, a phenomenon that is described as 'failure-to-rescue'. In this review, recent initiatives to reduce failure-to-rescue in the perioperative period are described.

Bidirectional Effect of Triphala on Modulating Gut-Brain Axis to Improve Cognition in the Murine Model of Alzheimer’s Disease
CONCLUSIONS: The study paves a new path for using dual modes of Triphala alone or in combination to treat incurable AD.

Age at Onset of Heart Failure and Subsequent Risk of Dementia: A Longitudinal Cohort Study
CONCLUSIONS: Younger age at HF onset was associated with increased risk of dementia. Individuals with an onset age of HF before 65 years of age may represent a particularly vulnerable population for dementia irrespective of subtypes and need careful monitoring and timely intervention to attenuate subsequent risk of incident dementia.

Preferred treatment focus among college students with eating disorders and comorbid mental health problems in a digital cognitive-behavioral guided self-help program
CONCLUSIONS: Students with EDs and comorbid depression and/or anxiety disorders showed variable preferred treatment focus across diagnostic profiles. Research should explore specific symptom presentations associated with preferred treatment focus.

Physical activity and exercise for the prevention and management of mild cognitive impairment and dementia: a collaborative international guideline
CONCLUSIONS: Although the scientific evidence on the beneficial role of physical activity and exercise in preserving cognitive functions in subjects with normal cognition, MCI or dementia is inconclusive, this panel, composed of scientific societies and other stakeholders, recommends their implementation based on their beneficial effects on almost all facets of health.
Job Satisfaction for Caregivers and Other Employees in Innovative Long-Term Care Homes for Residents With Cognitive Problems

New housing models have emerged in Europe, Australia, the United States, and Canada. Intended for individuals with neurocognitive disorders, these models are characterized by a philosophy centered on the person, self-determination, liberty of choice, flexibility of care, acceptance of risk, and autonomy. Work and care are organized according to the pace and preferences of residents.

Longitudinal predictions between executive function and general and specific psychiatric problems in school-age children

This study examined the longitudinal associations of various executive function components with subsequent psychiatric problems in Chinese school-age children. Data from 1,639 children (44.36% girls) ages 6-13 years were drawn from the Children School Functions and Brain Development project.

Trajectories of cognitive flexibility through kindergarten and first grade: Implications for externalizing and internalizing behavior problems in the second grade

Developmental delays in cognitive flexibility early in elementary school can potentially increase vulnerability for subsequent externalizing and internalizing psychopathology. The first goal of the current study was to identify latent subgroups of children characterized by different developmental trajectories of cognitive flexibility throughout kindergarten and first grade using data from the.

Primary Care Practitioner Perspectives on the Role of Primary Care in Dementia Diagnosis and Care

CONCLUSIONS AND RELEVANCE: In this qualitative study of PCP perspectives on their role in dementia care, there was alignment between PCP perspectives about the core values of primary care and their work diagnosing and providing care for people living with dementia.

Reattribution to Mind-Brain Processes and Recovery From Chronic Back Pain: A Secondary Analysis of a Randomized Clinical Trial

CONCLUSIONS AND RELEVANCE: In this secondary analysis of a randomized trial, PRT increased attribution of primary CBP to mind- or brain-related causes. Increased mind-brain attribution was associated with reductions in pain intensity.

Mediating and Moderating Effects of Internet Use on Urban-Rural Disparities in Health Among Older Adults: Nationally Representative Cross-Sectional Survey in China

CONCLUSIONS: The urban-rural inequalities in mental health are partially attributable to disparities in the prevalence of internet use between the 2 groups. However, using the internet is more beneficial for the psychological health of rural users, thereby alleviating the urban-rural disparities in health.

Sleep Disruptions in Hospitalized Adults Sustaining a Traumatic Brain Injury: A Scoping Review

CONCLUSION: Although the literature on sleep disturbances in hospitalized TBI patients has been increasing in recent years, many gaps in knowledge remain, including phenotypes and risk factors. Identifying these factors could help clinicians better understand the multiple sources of TBI patients’ sleep difficulties and intervene accordingly.

Psychometric testing of the Rheumatoid Arthritis Work Instability Scale in employed people with fibromyalgia

OBJECTIVE: The aim of the study was to establish whether the Rheumatoid Arthritis Work Instability Scale (RA-WIS), in its current form, is applicable for use with employed people with fibromyalgia (FM) to identify the risk of work disability and need for work rehabilitation. RAGE acted as a new anti-inflammatory target for Icariin's treatment against vascular dementia based on network pharmacology-directed verification.
Vascular dementia (VaD) ranks as the second most prevalent form of dementia and poses a considerable global health challenge. Icariin has been recognized for its robust neuroprotective effects in combating VaD. Nonetheless, the underlying mechanisms have not been fully elucidated.

Changes in cardiovascular health and white matter integrity with aerobic exercise, cognitive and combined training in physically inactive healthy late-middle-aged adults: the "Projecte Moviment" randomized controlled trial

CONCLUSIONS: We found changes in anthropometric measures that suggest initial benefits on cardiovascular health after only 12 weeks of AE and changes in WM microstructure in the CCT and COMB groups. These results add evidence of the clinical relevance of lifestyle interventions and the potential benefits when combining them.

The Role of NMDA Receptor Subunits in the Effect of Memantine on the Brain of Healthy Animals

The non-competitive NMDA glutamate receptor antagonist memantine has neuroprotective properties and is the first non-cholinergic drug approved for the treatment of Alzheimer’s disease. The purpose of this work was to test the hypothesis that injections of memantine to healthy animals can affect the subunit composition of NMDA receptors in the brain, which may explain the effects of its chronic

Body appearance values modulate risk aversion in eating restriction

The understanding of eating disorders is hindered by the lack of integration between existing psychosocial and neurobiological approaches. We address this problem by developing a novel transdiagnostic and computational approach to eating restriction decisions. We first validated a novel paradigm which extends an established monetary risk task to involve body stimuli with psychosocial values.

Development and Analysis of the Job Description for Dementia Care Center Nurses in Korea Using Developing a Curriculum (DACUM)

The current study aimed to develop and analyze a dementia care center nurse (DCCN) job description using Developing a Curriculum (DACUM) in Korea. Seven DCCN panels participated in the DACUM workshop to define the duties and tasks. The developed duties and tasks were validated with a survey that included the importance, difficulty, frequency, and educational needs of the duties and tasks.

Intervention format and therapist-child agreement associated with therapeutic alliance and outcomes

CONCLUSIONS: It is essential to train therapists to develop and assess for TA by midintervention with children with aggressive behavior problems, especially if they are seen in small groups, and to determine if therapists may misperceive the strength of TA. (PsycInfo Database Record (c) 2023 APA, all rights reserved).

Addressing the Chronic Pain-Early Cognitive Decline Comorbidity Among Older Adults: Protocol for the Active Brains Remote Efficacy Trial

CONCLUSIONS: We aim to establish the efficacy of the AB program over a time-matched and dose-matched control in a live video-based trial and test the mechanisms through theoretically driven mediators and moderators. Findings will inform the development of a future multisite effectiveness-implementation trial.

Acceptability Assessment of an Executive Function Training Game FISHERMAN for Older Adults

Objective: In recent years, an increasing number of gamification tools have been developed for older adults; however, few studies have explored the acceptability of these tools after initial use and sustained use in older adults.

Effects of tai chi on postural balance and quality of life among the elderly with gait disorders: A systematic review

CONCLUSION: Tai Chi intervention benefits postural balance in patients with gait disorders. 12 weeks is the most common intervention period for patients with gait disorders. The
Electroencephalographic findings in preterm neonates

CONCLUSION: Preterm neonates are at high risk of neurologic sequelae, and EEG is a sensitive method for assessing neuromotor and cognitive prognosis. In our study population, one-third had abnormal findings. Early postnatal screening is helpful, but additional records are usually needed to detect high-risk newborns. It would be important to continue studying this line of research in pediatrics.

Increasing glutathione levels by a novel posttranslational mechanism inhibits neuronal hyperexcitability

Glutathione (GSH) depletion, and impaired redox homeostasis have been observed in experimental animal models and patients with epilepsy. Pleiotropic strategies that elevate GSH levels via transcriptional regulation have been shown to significantly decrease oxidative stress and seizure frequency, increase seizure threshold, and rescue certain cognitive deficits.

A multidisciplinary approach to posterior quadrant disconnective epilepsy surgery in pediatric patients

CONCLUSION: TPO disconnection is a safe and effective motor-sparing epilepsy surgery for children with refractory seizures located in the posterior quadrant that prevents further cognitive deterioration.

Brain Functional Connectome Defines a Transdiagnostic Dimension Shared by Cognitive Function and Psychopathology in Preadolescents

CONCLUSION: These findings provide preliminary evidence for a transdiagnostic connectome-based measure that underlies individual differences in developing psychiatric disorders in early adolescence.

Antipsychotic Drug Reduction Through the Implementation of a Neurologically Oriented, Interdisciplinary Psycho-Diagnostic and Antipsychotic Stewardship Program

Antipsychotic utilization in skilled nursing facilities (SNFs) is a major focus of regulatory compliance and a key theme in resident care. This created opportunities for innovations in clinical care of behavioral and psychological symptoms of dementia (BPSD).

Providing the basis for a patient-centred and effective screening for cancer-related fatigue (MERLIN study): design of a longitudinal observational study

INTRODUCTION: Cancer-related fatigue (CRF) is a frequent and burdensome sequela of cancer and cancer therapies. It can persist from months to years and has a substantial impact on patients' quality of life and functioning. CRF is often still not adequately diagnosed and insufficiently treated.

d-Amino acids: new clinical pathways for brain diseases

Free d-amino acids (d-AAs) are emerging as a novel and important class of signaling molecules in many organs, including the brain and endocrine systems. There has been considerable progress in our understanding of the fundamental roles of these atypical messengers, with increasingly recognized implications in a wide range of neuropathologies, including schizophrenia (SCZ), epilepsy, Alzheimer's.

Computer aided progression detection model based on optimized deep LSTM ensemble model and the fusion of multivariate time series data

Alzheimer's disease (AD) is the most common form of dementia. Early and accurate detection of AD is crucial to plan for disease modifying therapies that could prevent or delay the conversion to sever stages of the disease.

Provision of Cognitive Behavior Therapy for Depression and Anxiety Disorders by Medical Student Trainees

CONCLUSIONS: Medical students can provide competent and clinically beneficial CBT treatments for depression and anxiety disorders. These findings have implications for
medical training and support the use of medical students to deliver care for individuals with limited access to psychotherapy.

Validity, diagnostics and feasibility of the Italian version of the Montreal Cognitive Assessment (MoCA) in Huntington's disease

CONCLUSIONS: The MoCA is a valid, diagnostically sound and feasible cognitive screener in motor-manifest HD patients, whose adoption is thus encouraged in clinical practice and research.

Late-onset cblC defect: clinical, biochemical and molecular analysis

CONCLUSIONS: The diagnosis of late-onset cblC defect is often delayed due to poor awareness of its various and nonspecific symptoms, thus having an adverse effect on the prognosis. It should be considered in patients with unexplained neuropsychiatric and other conditions such as renal involvement, cardiovascular diseases or even multiple organ damage.

Evaluating safety risks of whole-body cryotherapy/cryostimulation (WBC): a scoping review from an international consortium

Over the two last decades, whole-body cryotherapy/cryostimulation (WBC) has emerged as an exciting non-pharmacological treatment influencing inflammatory events at a cellular and physiological level, which can result in improved sleep quality, faster neuromuscular recovery after high-intensity exercise, and chronic pain relief for patients suffering different types of diseases (fibromyalgia).

Hypertension and small vessel disease: do the drugs work?

Associations of hypertension with ischaemic stroke and intracerebral haemorrhage, particularly when attributed to cerebral small vessel disease, are well established. While it seems plausible that treating hypertension should prevent small vessel disease from developing or progressing, there is limited evidence demonstrating this.

Attenuation of Chronic Stress-Induced Depressive-like Symptoms by Fish Oil via Alleviating Neuroinflammation and Impaired Tryptophan Metabolism in Aging Rats

The prevalence of depression is increasing, and geriatric depression, in particular, is difficult to recognize and treat. Depression in older adults is often accompanied by neuroinflammation in the central nervous system (CNS). Neuroinflammation affects the brain's physiological and immune functions through several pathways and induces depressive symptoms.

Combined exercise and cognitive interventions for adults with mild cognitive impairment and dementia: A systematic review and network meta-analysis

CONCLUSIONS: This review suggests the advantage of combined interventions over exercise with comparable effects when compared with cognitive interventions in the population with mild cognitive impairment and dementia. Full scale multi-arm randomized controlled trials to compare the effects of combined interventions with cognitive interventions are warranted.

Inhibition mechanism of fisetin on acetylcholinesterase and its synergistic effect with galantamine

The search for acetylcholinesterase (AChE) inhibitors produced by natural sources is of great significance for the prevention and therapy of Alzheimer's disease and has been widely concerned. In this study, fisetin, a flavonoid compound of plant origin, displayed a mixed inhibition mode on AChE (IC(50) = 8.88 ± 0.14 μM).

What can neurodiversity tell us about inner speech, and vice versa? A theoretical perspective

Inner speech refers to the experience of talking to oneself in one's head. While notoriously challenging to investigate, it has also been central to a range of questions concerning mind, brain, and behaviour. Posited as a key component in executive function and self-regulation, inner speech has been claimed to be crucial in higher cognitive operations, self-knowledge and self-awareness.
Injection-on-skin Granular Adhesive for Interactive Human-machine Interface

Realization of interactive human-machine interfaces (iHMI) has been improved with development of soft tissue-like strain sensors beyond hard robotic exosuits, potentially allowing cognitive behavior therapy and physical rehabilitation for patients with brain disorders.

Vitamin B12 reversed anxiety and depression induced by adolescent nicotine withdrawal through alteration the inflammatory, oxidative and serotoninergic profiles in male rats

CONCLUSION: According to the present findings, the results revealed that Vit B(12) is comparable with Bup in attenuation of Nic withdrawal symptoms. In addition, both Bup and Vit B(12) improved the decreased serum and cortical levels of Vit B(12), which caused by nicotine.

Non-invasive biomarkers for mild cognitive impairment and Alzheimer's disease

Alzheimer's disease is the most common type of dementia in the elderly. It is a progressive degenerative disorder that may begin to develop up to 15 years before clinical symptoms appear. The identification of early biomarkers is crucial to enable a prompt diagnosis and to start effective interventions.

A brain-wide risk score for psychiatric disorder evaluated in a large adolescent population reveals increased divergence among higher-risk groups relative to controls

CONCLUSIONS: The BRS could be a new image-based tool for assessing psychiatric vulnerability over time and in unaffected individuals, and it could also serve as a potential biomarker, facilitating early screening and monitoring interventions.

Personal Health Planning in Adult-Child Former Caregivers of Parents Living With Dementia

CONCLUSION: Caregiving for a parent living with dementia (PLWD) shapes former caregivers' personal health planning. Interventions should support former caregivers who have developed low self-efficacy or pessimistic views on healthy aging to support them in addressing health planning activities.


CONCLUSION: The lack of consensus on the wellness construct has made it difficult to find comparable measures that could assess and improve the level of wellness of individuals, organizations, and society. This study offers a conceptual framework that can be further validated and turned into a more universal measurement instrument.

Living well with dementia

The effects of walking on frailty, cognitive function and quality of life among inactive older adults in Saudi Arabia: a study protocol of randomized control trial by comparing supervised group-based intervention and non-supervised individual-based intervention

BACKGROUND: Kingdom of Saudi Arabia (KSA) demographics are also changing with the increase in life expectancy in the country and the rise in the number of older Saudi Arabians. Saudi Arabia has a higher rate of physically inactive people, and most of them are between the ages of 55-64.

The effects of a salutogenic strength-based intervention on sense of coherence and health outcomes of dementia family carers: A randomized controlled trial
CONCLUSION: A strength-based intervention is effective in improving the perceived burden and mental health of family caregivers of persons with dementia, and an SOC plays an important role in accounting for the mental health benefits.

**Measuring quality of life in care homes when self-report is challenging:**

the construct validity, structural characteristics and internal consistency of the mixed-methods adult social care outcomes toolkit

CONCLUSIONS: The ASCOT-CH4 is an alternative to conventional proxy-questionnaires for measuring the SCRQoL of care home residents, with good psychometric properties. A limitation is that users need a range of data collection skills. Future research should explore whether findings are replicable when data are collected by other researchers.

**Self-rated physical and mental health among older adults 80 years and older: cross-sectional results from a National community sample in Thailand**

CONCLUSION: SRPH and SRMH was relatively high rated among the oldest old in Thailand, and influenced by various social, economic, and health-related factors. Special attention should be given to those with no or low income, those living in the non-central regions and those having no or low formal social engagement

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**Mental health and ageing**

Quality of life and well-being during the COVID-19 pandemic:

associations with loneliness and social isolation in a cross-sectional, online survey of 2,207 community-dwelling older Canadians

CONCLUSIONS: The COVID-19 pandemic is associated with differential effects among older adults. In particular, those with limited financial resources and those with multiple chronic conditions may be at more risk to suffer adverse QoL and well-being consequences. Loneliness may be a modifiable risk factor for decreased QoL and well-being amenable to targeted interventions.

**Development of the "living well" concept for older people with dementia**

CONCLUSIONS: Our analysis of the concept of "living well" can be used for developing tools and interventions to improve the ability of older people with dementia to live well.

**Follow-up analysis of quality of life in elderly patients with bone trauma: a longitudinal observational study**

CONCLUSIONS: Although the QoL of elderly patients with bone trauma gradually improves after injury, their recovery time is long, and the influencing factors are complex. Follow-up services should continue for at least six months for these patients, and comprehensive treatment and long-term rehabilitation services should be provided.

**Living arrangements and depression of the older adults- evidence from the Chinese longitudinal healthy longevity survey**

CONCLUSION: The living arrangement related variables are significantly correlated with depression in older adults. In addition to the actual living arrangements, living arrangement preferences and whether the living arrangement preferences fit with reality are also related to the depression of older adults.

**Functional characterization of a single nucleotide polymorphism associated with Alzheimer's disease in a hiPSC-based neuron model**

Neurodegenerative diseases encompass a group of debilitating conditions resulting from progressive nerve cell death. Of these, Alzheimer's disease (AD) occurs most frequently, but is currently incurable and has limited treatment success.

The impact of perceived everyday discrimination and income on racial and ethnic disparities in PTSD, depression, and anxiety among veterans
CONCLUSIONS: Results suggest that discrimination and socioeconomic status are important mechanisms through which marginalized social status negatively impacts mental health.

An ethnography study exploring factors that influence social isolation in care home residents living with dementia and hearing loss

CONCLUSIONS: There is a wide range of social isolation that care home residents experience. This was not always associated with the severity of hearing loss but rather communication ability. Simple interventions such as staff dining with residents and focusing on improving communication could reduce social isolation within residential care settings.

Plant-based dietary patterns and the risk of dementia: a population-based study

CONCLUSIONS: We found no strong evidence for an overall association between plant-based eating and the risk of dementia. Our findings in stratified analyses warranted further investigation.

'Auspicious liaisons'-evaluating the impact of a liaison geriatrician initiative on older adults psychiatric wards

CONCLUSIONS: A liaison geriatrician service may be a component in reducing length of stay (although there are many others) and improving continuity of care, although it confers no impact on emergency transfers. The intervention was highly acceptable to clinicians.

Interventions for reducing anticholinergic medication burden in older adults—a systematic review and meta-analysis

INTRODUCTION: Anticholinergic medications block the neurotransmitter acetylcholine in the brain and peripheral nervous system. Many medications have anticholinergic properties, and the cumulative effect of these medications is termed anticholinergic burden.

Investigating predictors of progression from mild cognitive impairment to Alzheimer's disease based on different time intervals

CONCLUSION: Through machine learning, neuropsychological tests and MRI-related markers could accurately predict the progression from MCI to AD, especially in a short period time. This is of great significance for clinical staff to screen and diagnose AD, and to intervene and treat high-risk MCI patients early.

Relationship between gait parameters and cognitive indexes in adult aging

CONCLUSIONS: The association between individual cognitive variables and most of the summary cognitive indexes with gait parameters was weak. However, the MDCog index showed a stronger and significant association with the STGF, exhibiting the highest value of the proportion of the variance that can be explained by the predictor variables.

Adaptation to life after sport for retired athletes: A scoping review of existing reviews and programs

Retirement from sport is a life transition that has significant implications for athletes' physical and mental health, as well as their social and professional development. Although extensive work has been done to review the retirement experiences of athletes, relatively less work has been done to examine and reflect on this expansive body of literature with a pragmatic aim of deciding what needs.

New horizons in schizophrenia in older people

People aged 65 years and older will soon constitute more than a quarter of the total population with schizophrenia, challenging the existing systems of care. For a long time, research into schizophrenia in later life was very limited. However, recent years have seen an encouraging surge in novel and high-quality studies related to this stage of life.

The mental health impact of the COVID-19 pandemic on older adults: a systematic review and meta-analysis

CONCLUSIONS: Based on many studies, this review demonstrated small decreases in mental health during early stages of the pandemic in older adults, with evidence for later recovery. These findings are similar to those for younger adults and correct earlier claims that older adults are at particular risk for negative mental health consequences.
A devastating loss: driving cessation due to young onset dementia

Decision-making capacity in older medical in-patients: frequency of assessment and rates of incapacity by decision-type and underlying brain/mind impairment

CONCLUSION: Mental capacity assessments were performed frequently and often repeated, justifying the need for robust training in the practical application of the principles of capacity assessment for staff managing complex older patients.

Frequency of postoperative cognitive dysfunction after non-cardiac surgery and its impact on functional outcomes: protocol for a systematic review

INTRODUCTION: Older surgical candidates are at increased risk of a phenomenon known as postoperative cognitive dysfunction (POCD). Several studies have looked at the incidence of POCD at different time points following surgery, using different study methods.

A focus groups study of staff team experiences of providing interdisciplinary rehabilitation for people with dementia and their caregivers-a co-creative journey

CONCLUSIONS: The staff team perceived that by working in comprehensive teams they could provide individualised rehabilitation in creative collaboration with the participants through interaction, knowledge exchange, time and continuity, coordination and flexibility, and a holistic view.

Employment Dynamics Among Adult Children at the Onset of Parental Dementia: Variation by Sociodemographic Characteristics

OBJECTIVES: To examine the influence of sociodemographic factors on employment changes among adult children following onset of parental Alzheimer's disease and related dementia (ADRD).

A causal inference study: The impact of the combined administration of Donepezil and Memantine on decreasing hospital and emergency department visits of Alzheimer's disease patients

Alzheimer's disease is the most common type of dementia that currently affects over 6.5 million people in the U.S. Currently there is no cure and the existing drug therapies attempt to delay the mental decline and improve cognitive abilities. Two of the most commonly prescribed such drugs are Donepezil and Memantine.

Using co-creation focus groups to customise a remote multidomain programme designed to increase dementia literacy

CONCLUSIONS: Co-creation in dementia prevention research is important because it involves collaboration between researchers, community support and service providers, and persons with lived experience as care providers, in the design and implementation of clinical studies.

Correlation between air pollution and cognitive impairment among older individuals: empirical evidence from China

CONCLUSIONS: Air pollution affects cognitive impairment in older individuals, especially in those with lower education levels, and living in economically underdeveloped areas. This effect is synchronous and has a peak at an AQI of > 200.

Dementia care practices among community healthcare workers in Vietnam: a qualitative descriptive study

CONCLUSIONS: The quality of care provided to persons living with dementia was negatively impacted by the limited training of healthcare personnel. The diagnosis, treatment, and provision of supportive services to persons living with dementia and their families are substantial challenges for the Vietnamese healthcare system.
Prevalence of early and late onset of chronic diseases and multimorbidity and its association with physical, mental and functional health among older Indian adults

CONCLUSIONS: The present study revealed that early and/or late onset of chronic single and/or multiple morbidities significantly predicted poor self-perceived physical and mental health, functional limitations and physical inactivity among older Indian adults

Cognitivism ageing: The Alzheimer conundrum as switched ontology & the potential for a new materialist dementia

Following recent regulatory approvals for anti-Alzheimer's monoclonal antibodies, this paper considers the contemporary role of cognitivism in defining the ontological commitments of dementia research, as well as movements away from cognitivism under the umbrella of 4E cognitive science

Who believes in cross-age friendship? Predictors of the belief in intergenerational friendship scale in young adults

Intergenerational contact is beneficial for both younger and older adults, but friendships that span across generations are uncommon. While this is partially due to situational factors, people's beliefs about the possibility of intergenerational friendship may also affect how they approach potential intergenerational interactions

In search of epistemic justice. Dialogical reflection of researchers on situated ethics in studies with people living with language and/or cognitive impairment

BACKGROUND: Academics aim to understand the experiences of people living with cognitive and/or language impairment in their search for epistemic justice. Methods that do not rely solely on verbal information (e.g

The shadow of dementia: Listening to undecidability in ethnographic interviews with persons suspecting possible dementia

Even before a diagnosis of dementia, people may negotiate in their everyday lives the fears and suspicions about the possibility of a future with dementia. My field of research involves JewishIsraeli older adult individuals who suspect that they are beginning to lose their memory, but before seeking out a formal diagnosis-and when not seeking a diagnosis at all is an equal possibility

Exclusion within exclusion: The experiences of internally displaced older adults in Lugbe camp, Abuja

As the Boko Haram insurgency-induced conflict in Northeast Nigeria lingers and more people are made homeless, Displaced older persons who have lost their social networks, support systems, status, and roles as a result may experience new challenges at the internally displaced persons (IDPs) camps. Our study explored older adults' experiences of exclusion in the Lugbe IDP camp in Abuja

Sedentary Behavior and Incident Dementia Among Older Adults

CONCLUSIONS AND RELEVANCE: Among older adults, more time spent in sedentary behaviors was significantly associated with higher incidence of all-cause dementia. Future research is needed to determine whether the association between sedentary behavior and risk of dementia is causal.

Retirement Pathways' Effect on Physical and Mental Health: Evidence From Japan

OBJECTIVES: Few studies have used rigorous causal analysis to examine the difference in health effects between abrupt and gradual transitions from full-time employment to full retirement.

Health and wellbeing among the empty nest and non-empty nest elderly in China-Results from a national cross-sectional study

CONCLUSION: Our study showed that significant between-group difference was found between empty nest elderly and non-empty nest elderly in their health and wellbeing. However, disappearance of such difference in the multivariable analysis may indicate improved health and wellbeing among the empty nest elderly
Estimating the prevalence and characteristics of people in severe social isolation in 29 European countries: A secondary analysis of data from the European Social Survey round 9 (2018-2020)

The main aim of the present study was to estimate the prevalence of people in severe social isolation as a proxy for high risk of hikikomori using data from 29 European countries. The relationship between the presence/absence of severe social isolation and demographic and psychosocial variables was also investigated.

Diagnostic accuracy of Ascertain Dementia 8-item Questionnaire by participant and informant-A systematic review and meta-analysis

CONCLUSIONS: The diagnostic accuracy of iAD8 is superior to that of pAD8 when screening for cognitive impairment. The AD8 may be an acceptable alternative to screen for cognitive impairment in older adults when there are limitations to formal testing.

A qualitative exploration of older people's lived experiences of homelessness and memory problems - stakeholder perspectives

CONCLUSIONS: Efforts to meet the needs of older people living with memory problems and experiencing homelessness and future interventions must reflect the complexity of their lives, often in the context of long-term alcohol use and current service provision and we make suggestions as to what could be done to improve the situation.

Improved outcomes of older patients with acute and displaced proximal humerus fractures treated with window bone ingrowth fracture-specific stem reverse shoulder arthroplasty

CONCLUSION: RSA is used for complex and displaced fractures of the proximal humerus in older patients. Dementia was negatively correlated with functional outcomes. A window bone ingrowth fracture-specific stem combined with strong tuberosity fixation can yield better clinical and radiological results.

Study protocol for ELders AT Ease (ELATE): a cluster randomised controlled trial of cognitive behaviour therapy to reduce depressive symptoms in aged care residents

BACKGROUND: This protocol describes a study of the effectiveness of cognitive behaviour therapy (CBT) for reducing depressive symptoms in older adults living in residential aged care (RAC) facilities in Australia. Depressive symptoms are highly prevalent in this population, yet the benefits of CBT for reducing such symptoms in RAC facilities have not been widely investigated.

"Wrinkles will only go where the smiles have been": a path analysis of the associations between happiness and health, sleep, physical activities for older people in Abu Dhabi

CONCLUSIONS: Happiness of older adults is best understood when we look at both direct and indirect effects using a path model. Their happiness is significantly associated with their subjective health, mental health, participation in sport and activities and sleep quality. Implications of the study were highlighted, along with future research directions.

Prevalence of dementia and its association with central nervous system infections among older persons in northern Uganda: cross-sectional community-based study

CONCLUSION AND RECOMMENDATIONS: Dementia is a common condition among older persons in Lira district northern Uganda with a prevalence of 23% in our study. Older persons with a positive history of CNS infection had higher odd of developing dementia compared to their counterparts.

Perceived problematic alcohol use in the family and adolescents' stress-related complaints: examining the buffering role of the school's degree of student focus as rated by its teachers

CONCLUSIONS: The findings provide support for the assumption that favourable conditions in schools can buffer against negative health consequences of problematic conditions in the family, thus serving a compensatory role.
Systematic examination of methodological inconsistency in operationalizing cognitive reserve and its impact on identifying predictors of late-life cognition

CONCLUSIONS: Inconsistent methodology is theorized as a major limitation of CR research and barrier to identification of impactful experiences for healthy cognitive aging. Based on the weak associations, it is not surprising that the relationship between CR and late-life cognition is dependent on the experience used to operationalize CR.

Interactive association between insomnia symptoms and sleep duration for the risk of dementia—a prospective study in the Swedish National March Cohort

CONCLUSION: Insomnia and short sleep duration increase the risk of dementia amongst middle-aged to older adults.

Survival and critical care use among people with dementia in a large English cohort

CONCLUSIONS: In this cohort, while critical care use among people with dementia declined overall, its use increased among those in their last year of life. Survival remains comparable to that observed in general older populations.

Functional fitness, lifestyle and demographic factors as predictors of perceived physical and mental health in older adults: A structural equation model

Over the past 50 years, socioeconomic development has brought a reduction in birth rates, an increase in life expectancy and consequently in the elderly population. For this reason, there has been an increasing focus on physical and mental health of the elderly, promoting the concept of healthy aging.

Identifying predictors of cognitive decline in long-term care: a scoping review

CONCLUSIONS: Dementia was the most common risk factor, while ADL independence was the most common protective factor associated with cognitive decline in LTC residents. This information can be used to stratify residents by risk severity and provide better personalized care for older adults through the targeted management of cognitive decline.

Food-related worry and food bank use during the COVID-19 pandemic in Canada: results from a nationally representative multi-round study

CONCLUSIONS: Despite persistently high rates of food-related worry in 2020 and 2021 in Canada, relatively few adults reported accessing food banks or other charity-based community food programs. While respondents facing social, financial, and health-related inequities and reporting food worry were more likely to use food banks, most respondents did not report food bank use, regardless of

The quality of life in Alzheimer's disease is not associated with handgrip strength but with activities of daily living—a composite study from 28 European countries

CONCLUSIONS: Altogether, HGS was not associated with quality of life in individuals with AD. Conversely, difficulties in activities of daily living seem to be negatively associated with quality of life; thus, strategies are recommended to improve physical capacity.

The direct disease burden of COVID-19 in Belgium in 2020 and 2021

CONCLUSION: COVID-19 had a substantial impact on population health in Belgium, especially in 2020, when COVID-19 would have been the main cause of disease burden if all other causes had maintained their 2019 level.

Prediction of conversion to dementia disorders based on timed up and go dual-task test verbal and motor outcomes: a five-year prospective memory-clinic-based study

CONCLUSIONS: TUGdt words/time parameters have potential as cost-efficient tools for conversion-to-dementia risk assessment, useful for research and clinical purposes. These parameters may be able to bridge the gap of insufficient evidence for such clinical outcomes.
A scoping review of risk factors for urinary incontinence in older men
CONCLUSION: There is a dearth of evidence to describe the role behavioural risk factors have in UI in older men. These factors may play a role in health promotion and disease prevention in this area.

Feasibility, comprehensibility and acceptability of the VISION-Cog, a novel tool to assess cognitive impairment in visually impaired older adults: a cross-sectional pilot study in Singapore
CONCLUSIONS: Using an iterative mixed-methods process, we have developed a feasible, comprehensible and acceptable 5-domain and 9-item visually independent VISION-Cog test battery suitable to assist CI diagnosis in older adults with visual impairment. We will assess its diagnostic potential against clinician-based assessment of CI in subsequent phases.

Physical activity and ageing
Comparing exercise determinants between Black and White older adults with heart failure
CONCLUSIONS: Among health belief model constructs, perceived threats and barriers were not facilitated for both races in the experimental arm, and the intervention did not resolve barriers among Black older adults

Physical activity and self-rated health during retirement transition: a multitrajectory analysis of concurrent changes among public sector employees
CONCLUSION: Changes in physical activity and perceived health during retirement transition were interconnected. Both were improved during retirement transition, but the change was temporary. Longer follow-up studies are required to assess the changes over a longer period after retirement.

Peri-Operative Wearables in Elder Recover after Surgery (POWERS) study: a protocol for a multicentre, prospective cohort study to evaluate perioperative activity with postoperative disability in older adults after non-cardiac surgery
INTRODUCTION: The ageing population has led to an increasing proportion of surgical patients with greater frailty and comorbidity. Complications and mortality within 30 days of a surgical procedure are often used to evaluate success in the perioperative period however these measures can potentially underestimate a substantial level of morbidity associated with surgery

Are people interested in receiving advice from their general practitioner on how to protect their health during heatwaves? A survey of the German population
CONCLUSIONS: During winter season 2022/2023, around one quarter of the German population with GP contact-and around 40% of those aged 75+ years-was estimated to have a stated interest in receiving GP advice on protective health behaviour during heatwaves, especially on medication management. Climate change is creating new demands for healthcare provision in general practice

The relationship between visual function and physical performance in the Study of Muscle, Mobility and Aging (SOMMA)
CONCLUSIONS: Poor contrast sensitivity was more strongly associated with worse physical performance than acuity, especially for complex tasks that dynamically challenge coordination and balance. Future studies should examine if older adults with contrast sensitivity impairment would benefit from targeted intervention to decrease their risk of disability.
Spatiotemporal gait parameter fluctuations in older adults affected by mild cognitive impairment: comparisons among three cognitive dual-task tests

CONCLUSION: Gait assessment under dual task conditions, particularly in words recall test, using portable sensors could be useful as a complementary strategy for early detection of MCI.

Dietary behaviour change intervention for managing sarcopenic obesity among community-dwelling older people: a pilot randomised controlled trial

CONCLUSION: The DBC intervention could reduce body weight, and has positive trends in managing handgrip strength, gait speed, and waist circumference. Interestingly, the subtle difference between the two groups in the change of muscle mass index warrants futures investigation. This study demonstrated the potential for employing dietary behaviour change interventions in community healthcare.

Public transit stop density is associated with walking for exercise among a national sample of older adults

CONCLUSIONS: Density of neighborhood public transit stops was associated with walking for exercise, with a substantial portion of the association mediated by self-reported public transit use. Increasing public transit stop availability within neighborhoods may contribute to active aging among older adults.

Trial in Elderly with Musculoskeletal Problems due to Underlying Sarcopenia-Faeces to Unravel the Gut and Inflammation Translationally (TEMPUS-FUGIT): protocol of a cross-sequential study to explore the gut-muscle axis in the development and treatment of sarcopenia in community-dwelling older adults

BACKGROUND: Gut microbiota (GM) might play a role in muscle metabolism and physiological processes through a hypothesized gut-muscle axis, influencing muscle mass and function and thus, sarcopenia. The Trial in Elderly with Musculoskeletal Problems due to Underlying Sarcopenia-Faeces to Unravel the Gut and Inflammation Translationally (TEMPUS-FUGIT) aims to explore the gut-muscle axis in

A qualitative study examining young peoples' perceptions and adherence to COVID-19 public health guidelines in Ireland

CONCLUSION: These findings provide an insight into the psychological, financial and physical difficulties young people face as a consequence of pandemic public health measures and lockdowns in particular. They highlight the need for better communication with young people to support and embed trust in authorities and the scientific and political community.

Oral supplementation with fish cartilage hydrolysate in an adult population suffering from knee pain and function discomfort: results from an innovative approach combining an exploratory clinical study and an ex vivo clinical investigation

CONCLUSIONS: Thus, these data provide insights on the mode of action of FCH in humans and contribute to explain how FCH may relieve pain and improve joint function in subjects with knee discomfort. Although these preliminary data need to be confirmed in a randomized controlled trial, they strongly support the potential health benefit of such an active ingredient.

Group Model Building on causes and interventions for falls in Singapore: insights from a systems thinking approach

CONCLUSION: This work illustrates the potential of GMB to promote shared understanding of complex healthcare problems and to provide a roadmap for the development of more effective preventive actions.

Adult mortality trends in Matlab, Bangladesh: an analysis of cause-specific risks
CONCLUSION: Deaths from stroke, heart disease and cancers were either on the rise or remained unchanged, but other causes declined continuously from 2003 to 2017. Immediate strengthening of the preventive and curative healthcare systems for NCDs management is a burning need.

Prevalence and risk factors of possible sarcopenia in patients with subacute stroke
Possible sarcopenia, the loss of handgrip strength in the older population, can lead to poor functional prognosis after stroke. In this retrospective study, we aimed to elucidate the clinical risk factors for possible sarcopenia at discharge in 152 hospitalized patients with subacute stroke.

Usability and feasibility of a tablet-based e-coach for older adults in rehabilitation units to improve nutrition and physical activity: a prospective pilot study
CONCLUSION: The e-coach seems to be usable and feasible for older adults. We identified some optimization potentials for our application that can be transferred to the development of comparable e-health interventions for vulnerable older adults.

Lower limb muscle strength and balance in older adults with a distal radius fracture: a systematic review
CONCLUSION: Compared to controls, there is some evidence that older adults with a distal radius fracture have impaired lower limb muscle strength and balance. A cautious interpretation is required due to inconsistent findings across studies and/or outcome measures.

In-hospital mortality of older patients with COVID-19 throughout the epidemic waves in the great Paris area: a multicenter cohort study
CONCLUSIONS: Mortality was lower during the 5th Omicron wave in the older population, but remained high, implying that this variant could be considered as "milder" but not "mild". This persistently high mortality during the 5th Omicron wave highlights the importance of including older patients in clinical trials to confirm the benefit/risk balance of COVID-19 treatments in this fragile population.

Educational inequalities in self-rated health and their mediators in late adulthood: Comparison of China and Japan
Education has an impact on health, but the magnitude of the impact may vary across countries. This cross-sectional study compared educational inequalities in health and their mediators in late adulthood between China and Japan, which both face rapid population aging.

Estimated standard values of aerobic capacity according to sex and age in a Japanese population: A scoping review
Aerobic capacity is a fitness measure reflecting the ability to sustain whole-body physical activity as fast and long as possible. Identifying the distribution of aerobic capacity in a population may help estimate their health status.

Effects of early mental state changes on physical functions in elderly patients with a history of falls
CONCLUSIONS: In older adults with a history of falls without a diagnosis of anxiety or depression, higher SAS/SDS scores were associated with worse fall-related physical function, and there was a statistically significant correlation between the two. This may indicate a risk of falling again in the future.

Leisure time physical activity and exercise performance in active older people in rural areas—Comparison of the first and second COVID-19 related lockdown in Germany
The closure of all sports facilities during the two lockdowns in Germany favoured a reduction of leisure time physical activity during the COVID-19 pandemic. The aim of this study was to compare leisure time physical activity during the 1st and 2nd lockdown and to examine exercise performance before and after resumption of exercise.
Overground gait adaptability in older adults with type 2 diabetes in response to virtual targets and physical obstacles

BACKGROUND: To step over an unexpected obstacle, individuals adapt gait; they adjust step length in the anterior-posterior direction prior to the obstacle and minimum toe clearance height in the vertical direction during obstacle avoidance. Inability to adapt gait may lead to falls in older adults with diabetes as the results of the effects of diabetes on the sensory-motor control system.

Of duty and diaspora: (Re)negotiating the intergenerational contract in South Asian Muslim families

In recent years, there has been exponential growth in the South Asian Muslim population in the United States. This demographic trend, along with a rapidly aging North American population, implies that very soon, a significant proportion of U.S. adults 65 years and older will identify as South Asian Muslim.

Association of age-related hearing loss, tinnitus, and chronic low back pain in middle-aged and older Korean adults

This was a cross-sectional study conducted to evaluate the association between hearing impairment and low back pain (LBP) using data from the Korean National Health and Nutrition Examination Survey. A total of 5,504 middle-aged and older Korean adults (aged ≥50 years old) who underwent plain radiography of the lumbar spine and pure tone audiometry were included.

The efficacy of inspiratory muscle training in patients with coronary artery disease: Protocol for a systematic review and meta-analysis

CONCLUSION: This systematic review will improve our understanding of the effects of IMT on CAD patients and potentially establish IMT as an alternative form of exercise training for the treatment of CAD.

Effectiveness of the aquatic physical therapy exercises to improve balance, gait, quality of life and reduce fall-related outcomes in healthy community-dwelling older adults: A systematic review and meta-analysis

CONCLUSIONS: Aquatic physical therapy exercises are more effective than their land-based counterparts in enhancing balance, gait, quality of life and reducing the fear of falling in CDOAs. However, due to methodological limitations of the trials, this clinical decision remains inconclusive.

Comparative effectiveness of different exercise interventions for elderly patients with hip fracture: A systematic review and Bayesian network meta-analysis protocol of randomized controlled trials

BACKGROUND: Exercise intervention (EI) is a promising and economical way for elderly patients with hip fracture, but the evidence regarding effective EIs remains fragmented and controversial, and it is unclear which type of exercise is optimal. The purpose of this Bayesian network meta-analysis (NMA) is to compare and rank the efficacy of various EIs in elderly patients with hip fracture.

Factors associated with balance impairments in the community-dwelling elderly in urban China

CONCLUSIONS: In the elderly, age, overweight and obesity, exercise, vision, hearing, somesthesia, and cerebrovascular disease were dominant factors associated with impairments in overall balance, domains of static balance, postural stability, and dynamic balance, and most individual items.

Restoring walking ability in older adults with arm-in-arm gait training: study protocol for the AAGaTT randomized controlled trial

CONTEXT: Falls are a significant problem among older adults. While balance and functional exercises have been shown to be effective, it remains unclear whether regular walking has specific effects on reducing the risk of falls.
The prevalence of disability and associated factors among community adults in the baseline of CHCN-BTH Cohort Study

CONCLUSIONS: Many Chinese adults suffered from disabilities. Sustained efforts should be made to develop specific population-based health promotion and prevention programs for disabilities in China.

Foot characteristics of the daily-life gait in postmenopausal females with distal radius fractures: a cross-sectional study

CONCLUSIONS: We extracted the daily-life gait characteristics of patients with DRF using in-shoe IMU sensors. A lower foot angle in the swing phase, TFMA, may be associated with the risk of subsequent fractures, which may be effective in evaluating future fracture risk. Further studies to predict and prevent subsequent fractures from daily-life gait are warranted.

In older adults with frailty, virtual reality exercise training improves walking speed and balance


Feasibility, effectiveness and acceptability of two perturbation-based treadmill training protocols to improve reactive balance in fall-prone older adults (FEATURE): protocol for a pilot randomised controlled trial

INTRODUCTION: Perturbation-based balance training (PBT) targets the mechanism of falls (eg, slipping, tripping) to specifically train the recovery actions needed to avoid a fall. This task-specific training has shown great promise as an effective and efficient intervention for fall prevention in older adults.

Translating digital healthcare to enhance clinical management: a protocol for an observational study using a digital health technology system to monitor medication adherence and its effect on mobility in people with Parkinson's

INTRODUCTION: In people with Parkinson's (PwP) impaired mobility is associated with an increased falls risk. To improve mobility, dopaminergic medication is typically prescribed, but complex medication regimens result in suboptimal adherence. Exploring medication adherence and its impact on mobility in PwP will provide essential insights to optimise medication regimens and improve mobility.

Physical Activity and Its Associated Factors among Patients with Hypertension at Amhara Region Comprehensive Specialised Hospitals, Northwest Ethiopia: An Institutional Based Cross-Sectional Study

CONCLUSION: Inadequate physical activity was detected in one-fifth of the study participants, according to our research. Being elderly, having low self-efficacy, having inadequate facilities and having poor self-rated health were all linked to inadequate physical activity.

Employment, volunteering and ageing

"You are a child and this is not your business": Decision-making on child marriage in Sindh, Pakistan

Young people in Pakistan face challenges such as child marriage, which have adverse consequences on their education, employment, health and overall well-being. We conducted interviews (26) and focus group discussions (12) with young people (15 to 24 years) and community stakeholders to understand how child marriage is perceived by them and to gain insight into the decision-making regarding

Molecular characterization and genetic diversity of Wolbachia endosymbionts in bed bugs (Hemiptera; Cimicidae) collected in Paris
CONCLUSIONS: We highlight a significant heterogeneity within Wolbachia symbionts detected in C. lectularius and C. hemipterus. No correlation between Wolbachia species and bed bug species (C. lectularius versus C. hemipterus), physiological stages (egg, nymph, and adult), and sampling location was recorded in this study.

Experiences of work for people living with a grade 2/3 oligodendroglioma: a qualitative analysis within the Ways Ahead study
CONCLUSIONS: This study has highlighted, for the first time, influences on work experiences in this understudied population. These findings have implications for clinicians and employers, when considering the importance of work in rehabilitation for people with oligodendrogliomas, and the individually assessed adjustments required to accommodate them, should employment be desired.

Return to work after sick leave due to musculoskeletal disorder or injury: a longitudinal study conducted in Brazil
CONCLUSIONS: Occupational healthcare professionals should pay greater attention to patients who are aging and those with perceived worse physical and psychological conditions, in order to facilitate the reintegration process and promote sustained RTW after sick leave due to musculoskeletal disorder or injury.

Association between psychosocial work-related factors at midlife and arterial stiffness at older age in a prospective cohort of 1736 white-collar workers
CONCLUSIONS: Job strain may have a long-term deleterious effect on arterial stiffness in people with high BP. Interventions at midlife to reduce job strain may mitigate arterial stiffness progression.

Catastrophic health expenditure and its inequality in rural China: based on longitudinal data from 2013 to 2018
CONCLUSIONS: The incidence of CHE in rural China displayed an upward trend from 2013 to 2018, although it was not continuous. Furthermore, a strong pro-low-economic inequality in CHE existed in rural China. Mainly economic status, age, and chronic diseases contributed to this pro-low-economic inequality.

The prevalence of grandparental childcare in Europe: a research update
We investigate (a) how the proportion of European grandparents providing childcare changed over a period of 15 years, (b) how these proportions differ by gender and education, and (c) how countries not covered in earlier analyses fit into previously identified regional patterns of grandparental childcare in Europe.

The effectiveness of community-based palliative care programme components: a systematic review
CONCLUSIONS: Certain components of community-based palliative care programmes are effective. Such components should be implemented and tested more in low- and middle-income countries and key and vulnerable populations such as lower-income and marginalised racial or ethnic groups. In addition, more research is needed on the cost-effectiveness of individual programme components.

The association between contraceptive use and desired number of children among sexually active men in Zambia
CONCLUSIONS: There were minimal differences in the desired number of children among males who reported using and not using any contraceptive method. Strategies aimed at encouraging contraception use should cover all categories of males to achieve universal involvement of men in family planning in Zambia.

Association between diversity levels of member composition in group activities of older adults and the occurrence of need for care: the JAGES 2013-2019 longitudinal study
CONCLUSIONS: The reason the HRs of Japanese elderly people certified as needing support or care are lower when the diversity of participating groups is higher could be owing
to the presence of a variety of people and the diversification of social networks, which facilitates the building of bridging social relational capital.

**Assessing the impact of technological change on similar occupations: Implications for employment alternatives**

CONCLUSION: Our results demonstrate the utility of our occupational classification scheme. Furthermore, it suggests a critical need for skills upgrading and workforce development for workers in declining jobs. Special attention should be paid to vulnerable workers, such as older individuals and minorities.

**A validation study for wide-range remote assessment of cognitive functions in the healthy older Japanese population: a pilot randomised crossover trial**

CONCLUSIONS: The results suggest that remote video conference-based neuropsychological tests even using familiar devices and software may be able to assess a wide range of cognitive functions in the Japanese older population. As for the processing speed tasks, we need to create our own standards for the remote condition. For the tapping span, we should consider increasing the number of trials.

**Trajectories of CVD medication after statutory retirement: contributions of pre-retirement sociodemographic, work and health-related factors: a register study in Finland**

CONCLUSIONS: Individuals in lower socioeconomic positions or with a higher number of pre-retirement sickness absence may be considered at higher risk and might benefit from early interventions, e.g. lifestyle interventions and interventions targeting working conditions, or more frequent monitoring.

**Value of the short physical performance battery (SPPB) in predicting fall and fall-induced injury among old Chinese adults**

CONCLUSIONS: Neither use of SPPB alone nor SPPB together with demographic variables and self-reported health conditions appears to offer good predictive performance for falls or fall-induced injuries among community-dwelling older Chinese adults.

**Menopausal experiences of women of Chinese ethnicity: A meta-ethnography**

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE: A comprehensive approach that considers women’s physiological and psychological well-being and major attempts to change cultural beliefs and norms about women’s sexual health may be effective in aiding menopausal women during their transition.

**Exploring COVID-19 vaccine hesitancy and uptake in Nairobi’s urban informal settlements: an unsupervised machine learning analysis of a longitudinal prospective cohort study from 2021 to 2022**

CONCLUSIONS: Findings suggest this methodology can be a useful tool to characterise populations, with utility for improving targeted policy, programmes and behavioural messaging to promote uptake of healthy behaviours and ensure equitable distribution of prevention measures.

**Using decision tree analysis to identify population groups at risk of subjective unmet need for assistance with activities of daily living**

CONCLUSIONS: Reporting depressive symptoms was the most important predictor of subjective unmet need for assistance among participants with limitations in ADL or IADL. Our findings do not allow conclusions on causal relationships. Predictive performance of the decision trees should be further investigated before conclusions for practice can be drawn.

**Factors associated with eating behaviors in older adults from a socioecological model perspective**

CONCLUSIONS: This study identified factors that are specifically associated with older adults' eating behaviors from an SEM perspective. The comprehensive multiple-angle perspective consideration may be a valuable idea for studying healthy eating behaviors in older adults.
Demographic factors associated with myopia knowledge, attitude and preventive practices among adults in Ghana: a population-based cross-sectional survey

CONCLUSION: Ghanaian participants had adequate knowledge of myopia but showed poor attitude and low preventive practices, which varied significantly between regions and were modified by socio-demographic factors. Further research into how education can be used to stimulate Ghanaians' engagement in preventive practices is needed.

Development and validation of a novel nomogram to predict the risk of the prolonged postoperative length of stay for lumbar spinal stenosis patients

CONCLUSIONS: The individualized prediction nomogram incorporating five common clinical features for LSS patients undergoing surgery can be suitably used to smooth early identification and improve screening of patients at higher risk of prolonged PLOS and minimize health care.

Prevalence of social frailty and its associated factors in the older Chinese population: a national cross-sectional study

CONCLUSIONS: Using the HALFE social frailty index, we found a prevalence of 15.2% among older people in China, with the highest prevalence observed in the 75-79 age group. Social frailty was more prevalent in rural areas than in urban areas.

Musculoskeletal health, falls prevention and ageing

Call to action: a five nations consensus on the use of intravenous zoledronate after hip fracture

Currently in the UK and Ireland, after a hip fracture most patients do not receive bone protection medication to reduce the risk of re-fracture. Yet randomised controlled trial data specifically examining patients with hip fracture have shown that intravenous zoledronate reduces re-fracture risk by a third.

Patient outcome scores between 1,2- and 2,3-intercompartmental supra-retinacular artery (ICSRA) pedicled vascularised bone grafts (PVBGs) in the treatment of proximal pole scaphoid fracture non-union - a questionnaire study

CONCLUSION: Despite the 2,3-ICSRA having a longer arc of rotation, longer nutrient arteries, and is technically easier to incorporate in a PVBG, when compared with the 1,2-ICSRA it did not result in better patient-rated outcome scores.

On the comparability of frailty scores under the accumulation of deficits approach

CONCLUSIONS: There are clear potential benefits of measurement invariance testing as a general analytical framework from which to tackle with issues of comparability in frailty research.

Physiotherapists' perspectives of barriers and facilitators to effective community provision after hip fracture: a qualitative study in England

CONCLUSION: physiotherapists propose that effective provision of community physiotherapy following hip fracture could be improved by refining care coordination, utilising stratification techniques, employing enhanced recruitment and retention strategies and addressing fear avoidance behaviours.

Correction to: Guidelines for Falls in Older Adults, Medication reviews and deprescribing as a single intervention in falls prevention: a systematic review and meta-analysis, AND, World guidelines for falls prevention and management for older adults: a global initiative

No abstract
Implication of different frailty criteria in older people with atrial fibrillation: a prospective cohort study

CONCLUSIONS: In older people with AF, multidimensional frailty is more significantly associated with a composite of all-cause mortality or rehospitalization within 1 year than physical frailty, but these associations are attenuated after multivariate adjustment.

Effects of a clinical decision support system and patient portal for preventing medication-related falls in older fallers: Protocol of a cluster randomized controlled trial with embedded process and economic evaluations (ADFICE_IT)

BACKGROUND: Falls are the leading cause of injury-related mortality and hospitalization among adults aged ≥ 65 years. An important modifiable fall-risk factor is use of fall-risk increasing drugs (FRIDs). However, deprescribing is not always attempted or performed successfully.

Staff knowledge, attitudes and confidence levels for fall prevention in older person long-term care facilities: a cross-sectional study

CONCLUSION: The results, with the caveat of a low response rate, show the need for interdisciplinary fall prevention training that is tailored to both the perceived learning needs and actual knowledge gap of LTCF staff and their preferences for learning delivery, as part of an overall approach to reducing fall-related adverse outcomes.

What makes a multidisciplinary medication review and deprescribing intervention for older people work well in primary care? A realist review and synthesis

CONCLUSION: We identified key mechanisms that could inform the design of future interventions and services that successfully embed deprescribing in primary care.

The value of fever assessment in addition to the Early Detection Infection Scale (EDIS). A validation study in nursing home residents in Sweden

CONCLUSION: No items in the EDIS should be removed at present, and assessment of fever as > 1.0 °C from individual normal is a valuable addition. The EDIS has the potential to make it easier for first line caregivers to systematically assess changes in health condition in fragile elderly people and helps observations to be communicated in a standardised way throughout the care process.

Prediction of injurious falls in older adults using digital gait biomarkers extracted from large-scale wrist sensor data

CONCLUSIONS: Daily-life gait speed, quantity and quality, derived from wrist-worn sensors, are significant predictors of injurious falls in older people. These digital gait biomarkers could potentially be used to identify fall risk in screening programs and integrated into fall prevention strategies.

Total hip arthroplasty versus hemiarthroplasty in the treatment of active elderly patients over 75 years with displaced femoral neck fractures: a retrospective study

CONCLUSION: THA may be a preferred management option for active elderly patients over 75 years. The more extensive surgery of THA is not associated with higher in-hospital complication rate or mortality rate. These patients can benefit from THA in terms of hip function and quality of life.

Contact patterns of older adults with and without frailty in the Netherlands during the COVID-19 pandemic

CONCLUSIONS: The results of this study reveal that social distancing measures during the COVID-19 pandemic differentially affected the contact patterns of older adults with and without frailty. The reduction of contacts may have led to the direct protection of older adults in general but also to the indirect protection of older adults with frailty.
Risk of adverse events following the initiation of antihypertensives in older people with complex health needs: a self-controlled case series in the United Kingdom

CONCLUSION: Treatment with antihypertensives in older patients was associated with increased risk of AKI and transiently elevated risk of falls in the 30 days after starting antihypertensive therapy.

Updated COVID-19 Vaccine Now Available in US, Recommended for Everyone Older Than 6 Months

No abstract

Orthogeriatric co-managements lower early mortality in long-lived elderly hip fracture: a post-hoc analysis of a prospective study

CONCLUSIONS: For long-lived elderly hip fracture patients, orthogeriatric co-management care lowered early mortality, improved early mobility and compared with the traditional consultation mode.

Establishment and validation of a nomogram for predicting new fractures after PKP treatment of for osteoporotic vertebral compression fractures in the elderly individuals

CONCLUSION: Female sex, cerebrovascular disease, fracture history and bone cement intervertebral leakage are risk factors for NVCF after PKP. Based on this, a highly accurate nomogram was developed, and a webpage calculator (https://new-fracture.shinyapps.io/DynNomapp/) was created.

The inter-prefectural regional disparity of healthcare resources and representative surgical procedures in orthopaedics and general surgery: a nationwide study in Japan during 2015-2019

CONCLUSIONS: Inter-prefectural regional disparity was small, although certain items were unevenly distributed in the rural prefectures, which is contrary to our expectations. Higher prevalence was recognised in rural prefectures due to the higher ageing rate; however, supply and demand are balanced. This study provides basic data for healthcare policy development in a medium-sized community.

Women with limb loss: rationale, design and protocol for a national, exploratory needs assessment to evaluate the unique physical and psychosocial needs of women with limb loss

INTRODUCTION: There is a growing population of women with limb loss, yet limited research is available to provide evidentiary support for clinical decision-making in this demographic. As such, there is a critical gap in knowledge of evidence-based healthcare practices aimed to maximise the physical and psychosocial needs of women with limb loss.

Nursing home geriatric rehabilitation care and interprofessional collaboration; a practice-based study

CONCLUSIONS: Within the GRC teams, there was a shift observed to more IPC and better representation of the patient's wishes and needs. ADL independence did not change, yet we found a statistically significant decrease in the number of inpatient days.

Association between admission hyperglycemia and postoperative pneumonia in geriatric patients with hip fractures

CONCLUSIONS: Admission hyperglycemia in elderly hip fracture patients increases the risk of postoperative pneumonia. This biomarker can aid clinical assessment and perioperative management.

Ageism and discrimination

Geographical and sociodemographic differences in statin dispensation after acute myocardial infarction in Sweden: a register-based
prospective cohort study applying analysis of individual heterogeneity and discriminatory accuracy (AIHDA) for basic comparisons of healthcare quality

CONCLUSIONS: As the AUC statistics are small, interventions trying to achieve the benchmark value should be universal. However, special emphasis should nevertheless be directed towards women, especially older women with immigrant backgrounds.

Does a Community Care programme reach a high health need population and high users of acute care hospital services in Melbourne, Australia? An observational cohort study

CONCLUSIONS: The Community Care programme targets patients with high-readmission risks under-representation of individuals residing in residential aged care homes warrants further investigation. This study aids service planning and offers valuable feedback to clinicians about programme beneficiaries.

A nomogram for predicting breast cancer specific survival in elderly patients with breast cancer: a SEER population-based analysis

CONCLUSIONS: Our study identified independent predictors of BCSD in elderly patients with breast cancer. A prognostic nomogram was developed and validated to aid clinical decision-making.

Disrupted identities, invisibility and precarious support: a mixed methods study of LGBTQI adolescents and young adults with cancer

CONCLUSIONS: LGBTQI AYAs with cancer experience psychosocial vulnerabilities related to identity development, experiences of care, and social support networks. These factors likely contribute to their previously evidenced elevated risk of distress, relative to both non-LGBTQI AYAs and LGBTQI older adults.

Protocol for development and validation of a prediction model for post-induction hypotension in elderly patients undergoing non-cardiac surgery: a prospective cohort study

INTRODUCTION: Post-induction hypotension (PIH) is a common event in elderly surgical patients and is associated with increased postoperative morbidity and mortality. This study aims to develop and validate a PIH prediction model for elderly patients undergoing elective non-cardiac surgery to identify potential PIH in advance and help to take preventive measures.

Trends in the long-term impact of childhood visual impairment on health and social outcomes in the UK: a cross-cohort study across three decades of disability-related legislation and policy implementation

CONCLUSIONS: Many adverse impacts of childhood VI do not appear ameliorated over time by legislation, policies and provision that would have been expected to reduce inequalities. Moreover, some were increased. Childhood VI continues to cast a life-long shadow.

The role of stress and health behaviour in linking weight discrimination and health: a secondary data analysis in England

CONCLUSIONS: Weight discrimination is associated with poor health and well-being. While this discrimination is associated with stress exposure and physical inactivity, these variables explain little of the association between discrimination and poorer outcomes.

Application of machine learning approaches in predicting clinical outcomes in older adults - a systematic review and meta-analysis

CONCLUSION: The meta-analysis indicates that machine learning models display good discriminatory power in predicting mortality. However, more large-scale validation studies are necessary. As electronic healthcare databases grow larger and more comprehensive, the available computational power increases and machine learning models become more sophisticated; there should be an effort to integrate

Representations of older people in Turkish prime-time TV series and Netflix original Turkish series: A comparative content analysis
In this study, older characters that appeared in all the episodes of the first seasons of eight most popular Turkish TV series on prime-time television in Turkey and those appeared in all the episodes of the first seasons of eight "original" Turkish series on Netflix were submitted to a comparative quantitative and qualitative content analysis.

**The second empty nest: The lived experience of older women whose intensive 'grandmotherhood' has ended**

Grandmothers are the major nonparental unpaid source of childcare in Western societies. Intensive caring for grandchildren may pose challenges to some grandmothers, but also offers an opportunity to refill the 'empty nest' often experienced in mid-life.

**Why elderly in rural China didn't wear masks during the COVID-19 pandemic? A qualitative narrative interview study**

CONCLUSIONS: Although numerous studies have concluded that Chinese people wore masks out of collectivism and conformity during the pandemic, marginalized groups' opposition to wearing masks also contains distinctive, individualized elements and underlying causes. By exposing these elements and reasons, we can better comprehend the peculiar behavior of particular groups while fighting the pandemic.

**Neighbourhood sociodemographic factors and COVID-19 vaccine uptake in the Netherlands: an ecological analysis**

CONCLUSION: We identified determinants associated with COVID-19 vaccine uptake at neighbourhood level and observed heterogeneity in uptake between different subpopulations. Since the goal of vaccination is not only to reduce suffering and death by improving the average uptake, but also to reduce health inequity, it is important to focus on subpopulations with lower uptake.