



Healthy Ageing Current Awareness Update

April 2024

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COVID-19 and ageing

Covid-19: Pfizer vaccine to be available privately at pharmacy chain Boots from April

High street pharmacy chain Boots will start providing a private covid-19 vaccine service in England from April, offering the Pfizer BioNTech vaccine for £98.95. To be eligible, a person must be aged 12 or over and have not had a covid-19 vaccine in the past three months or had an allergic reaction to any previous injections or vaccinations

Adverse Events After XBB.1.5-Containing COVID-19 mRNA Vaccines

This study examines the association between XBB.1.5-containing vaccines administered as a fifth COVID-19 vaccine dose and the risk of 28 adverse events.

Deaths Associated with Pediatric Hepatitis of Unknown Etiology, United States, October 2021–June 2023

O. Almendares et al.

Measles Is Spreading Again in the US

This Medical News article discusses measles cases spreading in the US.

Stroke Risk After COVID-19 Bivalent Vaccination in US Older Adults

This self-controlled case series evaluates stroke risk after administration of either brand of the COVID-19 bivalent vaccine, either brand of the COVID-19 bivalent plus a high-dose or adjuvanted influenza vaccine on the same day, and a high-dose or adjuvanted influenza vaccine in Medicare beneficiaries aged 65 years or older.

ONS refines method to estimate excess deaths

As the UK emerges from the ravages of the pandemic, the Office for National Statistics (ONS) has announced a new method for estimating excess deaths in the UK. 1 Measurement of excess deaths became widely used in 2020 when timely data on the effect of covid-19 on mortality was vital for monitoring the spread of the virus and developing strategies for controlling it

Concurrent Outbreaks of Hepatitis A, Invasive Meningococcal Disease, and Mpox, Florida, USA, 2021–2022

T. J. Doyle et al.

Isolation of Diverse Simian Arteriviruses Causing Hemorrhagic Disease

T. M. Shaw et al.

Breaking Through: My Life in Science

S. C. Keller

Virtual Group Exercise Program Improved Long COVID Symptoms

A group exercise program delivered online in combination with psychological support sessions improved the health-related quality of life for people living with post-COVID-19 condition, also known as long COVID, compared with the usual care of 1 online support session

[Articles] Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950–2021, and the impact of the

COVID-19 pandemic: a comprehensive demographic analysis for the Global Burden of Disease Study 2021

Global adult mortality rates markedly increased during the COVID-19 pandemic in 2020 and 2021, reversing past decreasing trends, while child mortality rates continued to decline, albeit more slowly than in earlier years

Type and Severity of Immunodeficiency Affect Speed of SARS-CoV-2 Clearance, Study Finds

This Medical News story discusses a recent study that found people who are immunocompromised clear SARS-CoV-2 at varying rates.

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Healthy lifestyle and dementia prevention

Using Natural Language Processing to Identify Home Health Care Patients at Risk for Diagnosis of Alzheimer's Disease and Related Dementias

This study aimed to: (1) validate a natural language processing (NLP) system developed for the home health care setting to identify signs and symptoms of Alzheimer's disease and related dementias (ADRD) documented in clinicians' free-text notes; (2) determine whether signs and symptoms detected via NLP help to identify patients at risk of a new ADRD diagnosis within four years after admission

The Value of Screening for a History of Incarceration in the Palliative Care Setting

The United States (US) has one of the highest rates of incarceration in the world. Due to the aging of the US population as a whole and limited opportunities for early release, the proportion of older people in prison continues to rise. Some correctional health systems have adopted geriatric and palliative care principles to better care for this aging population, many of whom die in prison

The ABC's of Alzheimer risk gene ABCA7

Alzheimer's disease (AD) is a growing problem worldwide. Since ABCA7's identification as a risk gene, it has been extensively researched for its role in the disease. We review its recently characterized structure and what the mechanistic insights teach us about its function

Profiling the medical, functional, cognitive, and psychosocial care needs of adults assessed for home care in Ontario, Canada: The case for long-term 'life care' at home

Calls to leverage routinely collected data to inform health system improvements have been made. Misalignment between home care services and client needs can result in poor client, caregiver, and system outcomes

Soccer (football) and brain health

Soccer is one of the most popular sports worldwide, played by over 270 million people and followed by many more. Several brain health benefits are promoted by practising soccer and physical exercise at large, which helps contrast the cognitive decline associated with ageing by enhancing neurogenesis processes

Comments on Pu et al. (2024) 'Associations between facial expressions and observational pain in residents with dementia and chronic pain'

No abstract

Cognitive outcome and its neural correlates after cardiorespiratory arrest in childhood

Hypoxia-ischaemia (HI) can result in structural brain abnormalities, which in turn can lead to behavioural deficits in various cognitive and motor domains, in both adult and paediatric populations. Cardiorespiratory arrest (CA) is a major cause of hypoxia-ischaemia in adults, but it is relatively rare in infants and children

Manifestations, social impact, and decay of conceptual beliefs: A cultural perspective

CONCLUSION: The power of conceptual beliefs to provide cultural orientation is likely to fade when circumstances and evidence make it clear that what was asserted no longer applies.

Individuals Diagnosed With Type 2 Diabetes Mellitus and the Status of Vitamin B12 Deficiency: A Review

Type 2 diabetes mellitus (T2DM) is a complex metabolic disorder with a multifactorial etiology and a significant global burden. In recent years, emerging evidence has suggested a potential link between T2DM and vitamin B12 deficiency, raising concerns about its impact on disease progression, management, and associated complications

The Impact of Long COVID on Cognitive Performance and Sleep Quality: An Analysis of the Rancagua Chilean Study (RACHIS)

Background Infection with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can lead to prolonged symptoms post-recovery, commonly known as long-term coronavirus disease 2019 (COVID-19) or "long COVID." Neuropsychiatric consequences of long COVID include cognitive dysfunction and sleep disturbances, which significantly impair daily living

Intrinsic anticipatory motives in non-human primate food consumption behavior

Future-oriented behavior is regarded as a cornerstone of human cognition. One key phenomenon through which future orientation can be studied is the delay of gratification, when consumption of an immediate reward is withstood to achieve a larger reward later

Can white matter hyperintensities based Fazekas visual assessment scales inform about Alzheimer's disease pathology in the population?

Background White matter hyperintensities (WMH) are considered hallmark features of cerebral small vessel disease and have recently been linked to Alzheimer's disease pathology. Their distinct spatial distributions, namely periventricular versus deep WMH, may differ by underlying age-related and pathobiological processes contributing to cognitive decline

Dietary and Lifestyle Factors of Brain Iron Accumulation and Parkinson's Disease Risk

CONCLUSION: Dietary and lifestyle factors and preferences, especially those related to carbohydrates, alcohol, and exercise, are related to detectable differences in brain iron accumulation and alterations in risk of PD, suggesting a potential avenue for lifestyle interventions that could influence risk.

Primate thalamic nuclei select abstract rules and shape prefrontal dynamics

Flexible behavior depends on abstract rules to generalize beyond specific instances, and outcome monitoring to adjust actions. Cortical circuits are posited to read out rules from high-dimensional representations of task-relevant variables in prefrontal cortex (PFC)

Cognitive modeling of the Mnemonic Similarity Task as a digital biomarker for Alzheimer's Disease

AD related pathologies, such as beta-amyloid ($A\beta$) and phosphorylated tau (pTau), are evident decades before any noticeable decline in memory occurs. Identifying individuals during this asymptomatic phase is crucial for timely intervention

CSF proteomic profiling with amyloid/tau positivity identifies distinctive sex-different alteration of multiple proteins involved in Alzheimer's disease

In Alzheimer's disease (AD), the most common cause of dementia, females have higher prevalence and faster progression, but sex-specific molecular findings in AD are limited. Here, we comprehensively examined and validated 7,006 aptamers targeting 6,162 proteins in cerebral spinal fluid (CSF) from 2,077 amyloid/tau positive cases and controls to identify sex-specific proteomic signatures of AD

The wake and sleep-modulating neurons of the lateral hypothalamic area demonstrate a differential pattern of degeneration in Alzheimer's disease

CONCLUSIONS: Our data demonstrated very early substantial ORX neuronal loss in the LHA, while MCH neurons were resilient to AD pTau accumulation. Interventions capable of preventing ORX neuronal loss and inhibiting pTau accumulation in the LHA can reinstate sleep-wake dysfunction in AD and possibly prevent the progression of the disease.

Towards a multimodal neuroimaging-based risk score for mild cognitive impairment by combining clinical studies with a large ($N > 37000$) population-based study

Alzheimer's disease (AD) is the most common form of age-related dementia, leading to a decline in memory, reasoning, and social skills. While numerous studies have investigated the genetic risk factors associated with AD, less attention has been given to identifying a brain imaging-based measure of AD risk

Residual Partial Least Squares Learning: Brain Cortical Thickness Simultaneously Predicts Eight Non-pairwise-correlated Behavioural and Disease Outcomes in Alzheimer's Disease

Alzheimer's Disease (AD) is the leading cause of dementia. It results in cortical thickness changes and is associated with a decline in cognition and behaviour. Such decline affects multiple important day-to-day functions, including memory, language, orientation, judgment and problem-solving

Circuit mechanism underlying fragmented sleep and memory deficits in 16p11.2 deletion mouse model of autism

Sleep disturbances are prevalent in children with autism spectrum disorder (ASD) and have a major impact on the quality of life. Strikingly, sleep problems are positively correlated with the severity of ASD symptoms, such as memory impairment. However, the neural mechanisms underlying sleep disturbances and cognitive deficits in ASD are largely unexplored

Age-appropriate adaptation of creativity tasks for infants aged 12-24 months

Creativity is an important skill that relates to innovation, problem-solving and artistic achievement. However, relatively little is known about the early development of creative

potential in very young children, in part due to a paucity of tasks suitable for use during infancy

Tau and delirium superimposed on dementia: A case report

We present a case involving a 60-year-old man with subacute delirium characterized by challenging attention shifts and obstinate behavior, contrasting with his usual mild-mannered personality. The patient developed pneumonia and a urinary tract infection following the onset of subacute delirium

Detection of arousal and valence from facial expressions and physiological responses evoked by different types of stressors

Automatically detecting mental state such as stress from video images of the face could support evaluating stress responses in applicants for high risk jobs or contribute to timely stress detection in challenging operational settings (e.g., aircrew, command center operators)

Neuropsychiatric Symptoms Predict Faster Cognitive Decline in Dementia Collaborative Care Than Antipsychotic Use

CONCLUSION: Certain neuropsychiatric symptoms, rather than antipsychotic use, lead to faster cognitive decline in a dementia collaborative care model. Checking for and providing appropriate interventions for NPS in people with dementia and their caregivers are highlighted.

Discovery of PLD4 modulators by high-throughput screening and kinetic analysis

Phospholipase D3 (PLD3) and D4 (PLD4) are endolysosomal exonucleases of ssDNA and ssRNA that regulate innate immunity. Polymorphisms of these enzymes are correlated with numerous human diseases, including Alzheimer's, rheumatoid arthritis, and systemic sclerosis. Pharmacological modulation of these immunoregulatory proteins may yield novel immunotherapies and adjuvants

Impulse buying behavior during livestreaming: Moderating effects of scarcity persuasion and price perception

This research aimed to identify the factors that influence impulse buying behavior during livestreaming and advance the existing literature based on a proposed conceptual framework grounded in the stimulus-organism-response (S-O-R) model. We also tested the moderating effects of price perception and scarcity persuasion

Feasibility of Emotional Freedom Techniques in Patients with Posttraumatic Stress Disorder: a pilot study

CONCLUSION: The study suggests that EFT is a feasible treatment for PTSD, with high session compliance and low dropout rates. The effect size observed in this study supports the need for a larger trial in the future to further investigate EFT as a treatment for PTSD. However, the lack of a control group and the use of a self-rated questionnaire for PTSD symptoms are limitations of this study

Promoting Healthy Aging to Reduce the Risk of Dementia: A Public Health Imperative

Alzheimer's disease and related dementias place an enormous burden on individuals, families, health and long-term care systems, and governmental budgets. As the burden escalates with rising prevalence, attention has increasingly focused on how the risk of developing dementia can be reduced

Endocrine and non-endocrine causes of fatigue in adults with Neurofibromatosis type 1

CONCLUSIONS: Endocrine and non-endocrine disorders were equally present in our cohort of NF1 adults with and without fatigue. This suggests that the high prevalence of fatigue in NF1 adults is not explained by these somatic disorders. An alternative explanation for fatigue might be deficits in cognitive functioning and other neuropsychological processes in NF1

Brain pathology and symptoms linked to concussion history: beyond chronic traumatic encephalopathy

Repeated head trauma acquired through sports injuries has been associated with the development of long-term disabling symptoms that negatively impact the quality of life. In this retrospective case series, 52 male former professional athletes involved in contact sports and with a history of multiple concussions were evaluated for chronic clinical symptoms and post-mortem neuropathological

Brain functional and structural changes in diabetic children. How can intellectual development be optimized in type 1 diabetes?

The neuropsychological functioning of people with type 1 diabetes (T1D) is of key importance to the effectiveness of the therapy, which, in its complexity, requires a great deal of knowledge, attention, and commitment. Intellectual limitations make it difficult to achieve the optimal metabolic balance, and a lack of this alignment can contribute to the further deterioration of cognitive functions

Personality traits and the risk of urinary incontinence: Evidence from three longitudinal samples

CONCLUSIONS: The present study provides novel, robust, and replicable evidence linking personality traits to UI. The higher vulnerability for UI for individuals who score higher on neuroticism and lower on conscientiousness is consistent with findings for other multifactorial geriatric syndromes

Behaviour, barriers and facilitators of shared decision making in breast cancer surgical treatment: A qualitative systematic review using a 'Best Fit' framework approach

CONCLUSIONS: Patients had various considerations of breast surgery and SDM was not routinely implemented. There was a discrepancy between information exchange behaviours, value clarification, decision support utilization and SDM due to cognitive and behavioural biases. When individuals made surgical decisions, their behaviours were affected by individual-level and system-level factors

Montreal Cognitive Assessment (MoCA) XpressO: Validation of a digital self-administered cognitive prescreening tool

CONCLUSION: XpressO demonstrated high AUC, high sensitivity and specificity to predict cognitive performance compared to the digital MoCA. It may provide efficient cognitive prescreening by identifying individuals who would benefit from further clinical assessments, potentially reducing waiting times and high burden on healthcare clinics.

Patients' perceptions of post-treatment factors that influenced skill use after cognitive-behavioral therapy for bulimia nervosa spectrum disorders

OBJECTIVE: Deterioration rate among patients with bulimia-spectrum eating disorders (BN-EDs) after receiving enhanced cognitive-behavioral therapy (CBT-E) remains high. Previous

studies identified body image concerns, environmental triggers, lack of social support, lack of resources, comorbidity, and discontinued skill use as predictors of deterioration

Severe behavioral and psychological symptoms of dementia successfully treated at home with a blonanserin transdermal patch: A case report

CONCLUSIONS: The blonanserin transdermal patch may be able to manage BPSD at home and is effective in patients who refuse oral medications. Home-visiting doctors may consider the use of blonanserin patches at home for patients with severe BPSD, manifesting as delusions of poisoning and refusing oral drugs.

The conceptualisation and measurement of engagement in digital health

Digital tools are an increasingly important component of healthcare, but their potential impact is commonly limited by a lack of user engagement. Digital health evaluations of engagement are often restricted to system usage metrics, which cannot capture a full understanding of how and why users engage with an intervention

Polyphenols: immunonutrients tipping the balance of immunometabolism in chronic diseases

Mounting evidence progressively appreciates the vital interplay between immunity and metabolism in a wide array of immunometabolic chronic disorders, both autoimmune and non-autoimmune mediated. The immune system regulates the functioning of cellular metabolism within organs like the brain, pancreas and/or adipose tissue by sensing and adapting to fluctuations in the microenvironment's nutrients,

Cortico-striatal action control inherent of opponent cognitive-motivational styles

Turning on cue or stopping at a red light requires the detection of such cues to select action sequences, or suppress action, in accordance with cue-associated action rules. Cortico-striatal projections are an essential part of the brain's attention-motor interface

A multidimensional investigation of sleep and biopsychosocial profiles with associated neural signatures

Sleep is essential for optimal functioning and health. Interconnected to multiple biological, psychological and socio-environmental factors (i.e., biopsychosocial factors), the multidimensional nature of sleep is rarely capitalized on in research

A systems-biology approach connects aging mechanisms with Alzheimer's disease pathogenesis

Age is the strongest risk factor for developing Alzheimer's disease, the most common neurodegenerative disorder. However, the mechanisms connecting advancing age to neurodegeneration in Alzheimer's disease are incompletely understood

The neutrophil to lymphocyte ratio associates with markers of Alzheimer's disease pathology in cognitively unimpaired elderly people

CONCLUSIONS: We report associations between the NLR and A β 42 in the older ADNI cohort, and between the NLR and t-tau and p-tau (181) in the younger NYU cohort. Associations persisted after adjusting for comorbidities, suggesting a direct link between the NLR and AD. However, changes in associations between the NLR and specific AD biomarkers may occur as part of immunosenescence.

A Trisomy 21-linked Hematopoietic Gene Variant in Microglia Confers Resilience in Human iPSC Models of Alzheimer's Disease

While challenging, identifying individuals displaying resilience to Alzheimer's disease (AD) and understanding the underlying mechanism holds great promise for the development of new therapeutic interventions to effectively treat AD. Down syndrome (DS), or trisomy 21, is the most common genetic cause of AD

Molecular Deformation Is a Key Factor in Screening Aggregation Inhibitor for Intrinsically Disordered Protein Tau

Direct inhibitor of tau aggregation has been extensively studied as potential therapeutic agents for Alzheimer's disease. However, the natively unfolded structure of tau complicates the structure-based ligand design, and the relatively large surface areas that mediate tau-tau interactions in aggregation limit the potential for identifying high-affinity ligand binding sites

Deep learning from latent spatiotemporal information of the heart: Identifying advanced bioimaging markers from echocardiograms

A key strength of echocardiography lies in its integration of comprehensive spatiotemporal cardiac imaging data in real-time, to aid frontline or bedside patient risk stratification and management. Nonetheless, its acquisition, processing, and interpretation are known to all be subject to heterogeneity from its reliance on manual and subjective human tracings, which challenges workflow and

CsAGP: Detecting Alzheimer's disease from multimodal images via dual-transformer with cross-attention and graph pooling

Alzheimer's disease (AD) is a terrible and degenerative disease commonly occurring in the elderly. Early detection can prevent patients from further damage, which is crucial in treating AD. Over the past few decades, it has been demonstrated that neuroimaging can be a critical diagnostic tool for AD, and the feature fusion of different neuroimaging modalities can enhance diagnostic performance

Implementing Lifestyle Medicine in Undergraduate Medical Education at Riphah International University, Pakistan

The Need of the LM content in Medical undergraduate curriculum was imperative based on the mortality and morbidity statistics in Pakistan along with lack of LM training and unhealthy lifestyle of physicians themselves. Aims and Objectives for integrating LM content were designed including cognitive, affective and psychomotor domains of learning

Diet-induced hyperhomocysteinemia causes sex-dependent deficiencies in offspring musculature and brain function

Hyperhomocysteinemia (HHcy), characterized by elevated homocysteine (Hcy) levels, is a known risk factor for cardiovascular, renal, and neurological diseases, as well as pregnancy complications. Our study aimed to investigate whether HHcy induced by a high-methionine (high-Met) diet exacerbates cognitive and behavioral deficits in offspring and leads to other breeding problems

Recent Advances in Fluorescent Theranostics for Alzheimer's Disease: A Comprehensive Survey on Design, Synthesis, and Properties

Alzheimer's disease (AD) is the most common form of neurodegenerative dementia that is rapidly becoming a major health problem, especially in developed countries because of their increasing life expectancy

Executive and memory dysfunction related to binge drinking in stroke survivors during a 9-year follow-up

CONCLUSION: Binge drinking was associated with executive and memory dysfunction at three time points over a decade after a first-ever ischemic stroke. Subdiagnostic binge drinking might increase the adverse effects of a first-ever ischemic stroke on executive function and memory, evident over a decade poststroke.

Association between atrial fibrillation, frailty, and geriatric syndromes in the late elderly in a south Belgian outpatient and inpatient setting

CONCLUSION: A deeper understanding of associations between atrial fibrillation and geriatric syndromes and frailty could give new patient management perspectives beyond pharmaceutical or interventional treatment.

Sequential model based on human cognitive processing to robot acceptance

Robots have tremendous potential, and have recently been introduced not only for simple operations in factories, but also in workplaces where customer service communication is required. However, communication robots have not always been accepted

Therapeutic potential of Thai herbal formula for cognitive impairment: A metabolomics approach for Comprehensive Insights

Chronic cerebral ischemia hypoperfusion plays a role in the initiation and progression of vascular dementia, which causes changes in metabolites. Currently, there is no standard treatment to treat, prevent and reduce the severity of this condition. Thai herbal Yahom no.20 (YHF20) is indicated for fatigue and dizziness

Uncovering predictors of low hippocampal volume: Evidence from a large-scale machine-learning-based study in the UK Biobank

CONCLUSION: Lifestyles, physical measures, and biomarkers may affect hippocampal volume, with many of the characteristics potentially reflecting oxygen supply to the brain. Further studies are required to establish causality and clinical relevance of these findings.

The Associations Between Parental-Reported and Device-Based Measured Outdoor Play and Health Indicators of Physical, Cognitive, and Social-Emotional Development in Preschool-Aged Children

CONCLUSIONS: Future research in preschool-aged children should take into account MVPA and contextual factors when examining the association between OP and health-related indicators.

Early-onset dementia and risk of hip fracture and major osteoporotic fractures

INTRODUCTION: There is limited knowledge about early-onset dementia (EOD) on fracture risk.

Impact of NMDA receptors block versus GABA-A receptors modulation on synaptic plasticity and brain electrical activity in metabolic syndrome

CONCLUSIONS: Both Allo and Memantine boosted the outcome parameters in the animal model of MetS. Allo markedly improved the anxiety-like behavior in the form of significantly decreased grooming frequency compared to the Memantine-treated groups

Age-related brain atrophy and the positive effects of behavioral enrichment in middle-aged beagles

Aging dogs serve as a valuable preclinical model for Alzheimer's disease (AD) due to their natural age-related development of beta-amyloid (A β) plaques, human-like metabolism, and large brains that are ideal for studying structural brain aging trajectories from serial neuroimaging

Antidepressant use in relation to dementia risk, cognitive decline, and brain atrophy

INTRODUCTION: We aimed to assess the effect of antidepressant use on dementia risk, cognitive decline, and brain atrophy.

Native-state proteomics of Parvalbumin interneurons identifies unique molecular signatures and vulnerabilities to early Alzheimer's pathology

Dysfunction in fast-spiking parvalbumin interneurons (PV-INs) may represent an early pathophysiological perturbation in Alzheimer's Disease (AD). Defining early proteomic alterations in PV-INs can provide key biological and translationally-relevant insights. We used cell-type-specific in-vivo biotinylation of proteins (CIBOP) coupled with mass spectrometry to obtain native-state PV-IN proteomes

Aging like fine wine: Mischievous microbes and other factors influencing senescence

In this issue, a special section is dedicated to the factors affecting senescence. It examines the interplay between immunosenescence and chronic kidney disease, probes into Peto's paradox, and explores how epigenetic switches can potentially mitigate senescence and inflammation

Structural white matter properties and cognitive resilience to tau pathology

INTRODUCTION: We assessed whether macro- and/or micro-structural white matter properties are associated with cognitive resilience to Alzheimer's disease pathology years prior to clinical onset.

Self-reported physical activity and sleep quality is associated with working memory function in middle-aged and older adults during the COVID-19 pandemic

While previous work has shown a positive relationship between cognitive performance and lifestyle factors in younger adults, evidence for this relationship among middle-aged and older adults has been mixed

The impact of water pollution on the health of older people

Water pollution exerts a negative impact on the health of both women and men, inducing hormonal changes, accelerating aging, and consequently leading to the premature onset of age-related health problems. Water pollutants can in general be classified as chemical (both organic and inorganic), physical, and biological agents

Impact of heat stress on health-related symptoms and physiological changes among workers at a palm oil mill in Mukah, Sarawak, Malaysia

CONCLUSION: Results of the present study confirmed that workers in PO mill were exposed to high temperatures while at work. Although the evidence indicates the physiological parameters in general are not significantly affected while working, it also demonstrated that worker's body adapts and acclimates to the level of heat. Even so, precautions should still be taken to reduce future heat exposure

The mediating role of neuroimaging-derived biological brain age in the association between risk factors for dementia and cognitive decline in middle-aged and older individuals without cognitive impairment: a cohort study

BACKGROUND: Neuroimaging-based brain-age delta has been shown to be a mediator linking cardiovascular risk factors to cognitive function. We aimed to assess the mediating role of brain-age delta in the association between modifiable risk factors of dementia and longitudinal cognitive decline in middle-aged and older individuals who are asymptomatic, stratified by Alzheimer's disease pathology

A control study on pain characteristics and influencing factors in patients with depressive disorders-Based on a 5-year follow-up report from the epidemiological survey of mental disorders in Shandong Province, China

CONCLUSION: Depression sufferers may experience prolonged heightened pain, potentially relieved when depression subsides. Individual pain is influenced by depression, physical illnesses, sleep quality, quality of life, cognitive function, gender, residence, and occupation.

Prediction of cognitive decline in older breast cancer survivors: the thinking and living with cancer study

CONCLUSIONS: Our proof-of-concept tool demonstrates our prediction models are potentially useful to predict risk of CRCD. Future research is needed to validate this approach for predicting CRCD in routine practice settings.

Relationship between stable smoking behavior and cognitive function in male schizophrenia patients

CONCLUSION: Smoking in male schizophrenic patients may have impacts on their cognitive function. This impact worsens as the patient's nicotine dependence increases, especially on their memory function. Effective measures should be taken in clinical practice to correct patients' smoking behavior, reduce their nicotine dependence, and improve their cognitive function.

Chemotherapy-Induced Peripheral Neuropathy (CIPN) as a Predictor of Decreased Quality of Life in Testicular Germ Cell Tumor Survivors

CONCLUSION: CIPN is a strong predictor of impairment in QOL among GCT survivors. Molecular mechanisms of neurotoxicity should be intensively studied to find preventive and therapeutic strategies.

Risk-Adapted Strategy Combining Magnetic Resonance Imaging and Prostate-Specific Antigen Density to Individualize Biopsy Decision in Patients With PI-RADS 3 "Gray Zone" Lesions

CONCLUSION: mpMRI combined with PSA_d strategies reduced biopsy attempts in PI-RADS 3 lesions. Using these strategies, the advantage of avoiding biopsy and the risk of missing the diagnosis of csPCa can be discussed with the patient, and the biopsy decision can be made afterwards.

A scoping review of functional near-infrared spectroscopy biomarkers in late-life depression: Depressive symptoms, cognitive functioning, and social functioning

Late-life depression is one of the most damaging mental illnesses, disrupting the normal lives of older people by causing chronic illness and cognitive impairment. Patients with late-life depression, accompanied by changes in appetite, insomnia, fatigue and guilt, are more likely to experience irritability, anxiety and somatic symptoms

Bridging modifiable risk factors and cognitive decline: the mediating role of brain age

No abstract

Patient-reported outcome measures in hip fracture patients

CONCLUSION: Hip fracture leads to a persistent reduction in measured HRQoL, up to 36 months. The patients' health and socioeconomic status were associated with the proportion of patients returning PROM data for analysis, and affected the results reported. Observed EQ-5D-3L scores are affected by attrition and selection bias mechanisms and motivate the use of statistical modelling for adjustment.

A TrkB cleavage fragment in hippocampus promotes Depressive-Like behavior in mice

Decreased hippocampal tropomyosin receptor kinase B (TrkB) level is implicated in the pathophysiology of stress-induced mood disorder and cognitive decline. However, how TrkB is modified and mediates behavioral responses to chronic stress remains largely unknown

Training Semantic Long-Term Memory Retrieval transfers to executive function and reading fluency

The retrieval of information from long-term memory is a fundamental cognitive ability, crucial for most aspects of successful human functioning. Whether and how long-term memory retrieval (LTMR) can be improved with training has clear societal importance but also theoretical value for furthering our understanding of underlying mechanisms

Uncontrolled eating is associated with higher impulsiveness, risk taking and novelty-seeking

Previous studies suggest that trait disinhibition as measured by the Three Factor eating Questionnaire (TFEQ) is related to selected measures of impulsivity and risk taking. However, the factor validity of the original trait disinhibition measure has been questioned, and a revised scale of uncontrolled eating consequently developed

Assessment of social behavior and chemosensory cue detection in an animal model of neurodegeneration

Numerous studies have shown that aging in humans leads to a decline in olfactory function, resulting in deficits in acuity, detection threshold, discrimination, and olfactory-associated memories. Furthermore, impaired olfaction has been identified as a potential indicator for the onset of age-related neurodegenerative diseases, including Alzheimer's disease (AD)

Trajectories in depressive symptoms and midlife brain health

Depressive symptoms may either be a risk factor or prodromal to dementia. Investigating this association in midlife may help clarify the role of depression in cognitive aging. We aimed to identify trajectories in depressive symptoms in early to mid-life and related cognitive and brain outcomes in midlife

Rational inattention: A new theory of neurodivergent information seeking

This paper presents rational inattention as a new, transdiagnostic theory of information seeking in neurodevelopmental conditions that have uneven cognitive and socio-emotional profiles, including developmental language disorder (DLD), dyslexia, dyscalculia and autism

Characterization of African-American Super-Agers in the National Alzheimer's Coordinating Center cohort

CONCLUSIONS: Participants with controlled vascular risk, mental health, alcohol use, and sleep disorders tended to be in the super-ager group. These factors may be important focus areas in clinical practice to support cognitive resilience with aging in older African-American adults.

Small vessel disease and cognitive reserve oppositely modulate global network redundancy and cognitive function: A study in middle-to-old aged community participants

Cerebral small vessel disease (SVD) can disrupt the global brain network and lead to cognitive impairment. Conversely, cognitive reserve (CR) can improve one's cognitive ability to handle damaging effects like SVD, partly by optimizing the brain network's organization. Understanding how SVD and CR collectively influence brain networks could be instrumental in preventing cognitive impairment

Sleep Disturbance during Post-Traumatic Amnesia and Early Recovery following Traumatic Brain Injury

Following moderate to severe traumatic brain injury (TBI), sleep disturbance commonly emerges during the confused post-traumatic amnesia (PTA) recovery stage. However, the evaluation of early sleep disturbance during PTA, its recovery trajectory, and influencing factors is limited

Prenatal treatment with corticosterone via maternal injection induces learning and memory impairments via delaying postsynaptic development in hippocampal CA1 neurons of rats

Previously, we reported that prenatal exposure to high corticosterone induced attention-deficit hyperactivity disorder (ADHD)-like behaviors with cognitive deficits after weaning. In the present study, cellular mechanisms underlying cortisol-induced cognitive dysfunction were investigated using rat pups (Corti

Cross-Cultural Adaptation and Validation of the Perception of the Doctor-Patient Relationship (PREMEPA) Questionnaire in Chronic Multi-Pathological Patients

CONCLUSIONS: This adapted version of the PREMEPA questionnaire can be considered valid for use in the Spanish population with a history of chronic pathology. This version of PREMEPA provides a new instrument to understand and improve chronic patient care, which can improve the doctor-patient relationship, encouraging adherence to treatment and enhancing health outcomes.

Model-Based Economic Evaluations of Interventions for Dementia: An Updated Systematic Review and Quality Assessment

CONCLUSIONS: This review informs future research and resource allocation by providing insights into model-based economic evaluations for dementia interventions and highlighting areas for improvement.

The Association between Postural Sway and Preclinical Alzheimer Disease among Community-Dwelling Older Adults

CONCLUSIONS: Older adults with preclinical AD are more likely to demonstrate significantly greater DTC in postural sway than those without preclinical AD. Dual tasking should be integrated into balance and fall risk assessments and may inform early detection of preclinical AD.

Association of body-mass index with physiological brain pulsations across adulthood - a fast fMRI study

CONCLUSIONS: The findings suggest that BMI is a significant factor in alterations of cardiovascular pulsation of neurofluids. As physiological pulsations are the drivers of CSF flow and subsequent metabolite clearance, these results emphasize the need for further research into the mechanisms through which obesity affects brain clearance.

Rural-urban differences in use of health services before and after dementia diagnosis: a retrospective cohort study

CONCLUSIONS: This study identified important geographic differences in physician services and all-type prescription drugs before and after dementia diagnosis. Health system planners and educators must determine how to use existing resources and technological advances to support care for rural persons living with dementia.

The diagnostic and prognostic value of tau-PET in amnesic MCI with different FDG-PET subtypes

OBJECTIVES: Mild cognitive impairment presenting with an amnesic syndrome (aMCI) and amyloid positivity is considered due to AD. Many subjects, however, can show an overall very slow progression relevant for differential diagnosis, prognosis, and treatment

Altered intersubject functional variability of brain white-matter in major depressive disorder and its association with gene expression profiles

Major depressive disorder (MDD) is a clinically heterogeneous disorder. Its mechanism is still unknown. Although the altered intersubject variability in functional connectivity (IVFC) within gray-matter has been reported in MDD, the alterations to IVFC within white-matter (WM-IVFC) remain unknown

Sex Differences in Healthcare Utilization in Persons Living with Dementia Between 2000 and 2017: A Population-Based Study in Quebec, Canada

Objectives: Describe sex differences in healthcare utilization and mortality in persons with new dementia in Quebec, Canada. Methods: We conducted a repeated cohort study from 2000 to 2017 using health administrative databases. Community-dwelling persons aged 65+ with a new diagnosis of dementia were included

Depletion of Mettl3 in cholinergic neurons causes adult-onset neuromuscular degeneration

Motor neuron (MN) demise is a hallmark of several neurodegenerative diseases, including amyotrophic lateral sclerosis (ALS). Post-transcriptional gene regulation can control RNA's fate, and defects in RNA processing are critical determinants of MN degeneration. N⁶-methyladenosine (m⁶A) is a post-transcriptional RNA modification that controls diverse aspects of RNA metabolism

Clinical characteristics and risk factors for septic shock in patients with pyometra: A retrospective multicenter cohort study

CONCLUSIONS: Our findings suggest that pyometra is a unique gynecological infectious syndrome in post-menopausal individuals. The most common associated pathogens are similar to those involved in urinary tract infections rather than those of sexually transmitted diseases. Decreased cognitive function could delay early diagnosis of pyometra and lead to septic shock and higher mortality.

Developmental exposure to Bisphenol F and Bisphenol S induces autism-like endophenotypes in adult *Drosophila melanogaster*

Bisphenol F (BPF) and Bisphenol S (BPS) are being widely used by the industry with the claim of "safer substances", even with the scarcity of toxicological studies. Given the etiological gap of autism spectrum disorder (ASD), the environment may be a causal factor, so we investigated whether exposure to BPF and BPS during the developmental period can induce ASD-like modeling in adult flies

Association of exposures to environmental chemicals estimated through primary teeth biomatrix and health outcomes in children and adolescents - A systematic review

Children's heightened susceptibility to environmental exposure arises from their underdeveloped detoxification mechanisms and augmented per-unit body-weight absorption capacity for chemical compounds. Primary teeth are an emerging biomatrix, which aid in storing crucial data on early exposure to harmful substances and developmental illnesses

Neuropsychology of late-onset epilepsies

In an increasingly ageing society, patients ageing with epilepsy and those with late-onset epilepsies (LOE) represent a challenge for epilepsy care and treatment. Senescence itself bears risks of pathologies which in the form of acute focal damage (e.g. stroke) or slowly progressive degenerative damage can cause seizures and substantial cognitive impairment

The role of psychology and neuropsychology in pediatric epilepsy surgery evaluation

Epilepsy is one of the most common neurological problems affecting 470,000 children in the United States. While most youth will achieve seizure freedom using medication, up to a third will continue to have seizures and are therefore considered to have drug-resistant epilepsy (DRE). Children and adolescents with epilepsy are at higher risk of behavioral, cognitive, and emotional disorders

A neuroimaging measure to capture heterogeneous patterns of atrophy in Parkinson's disease and dementia with Lewy bodies

CONCLUSIONS: Neuroanatomical normative modelling shows promise as a clinically informative technique in PD and DLB, where patterns of atrophy are variable.

From childhood maltreatment to intimate partner violence perpetration: A prospective longitudinal examination of the roles of executive functioning and self-esteem

CONCLUSION: Findings suggest that executive functioning and self-esteem play a role in the cycle of violence. Implications and suggestions for future directions are discussed.

Long-term characterization of cognitive phenotypes in children with seizures over 36 months

CONCLUSIONS: This study demonstrates the presence of diverse latent cognitive trajectory phenotypes over 36 months in youth with new-onset seizures that are associated with a stable neuropsychological and academic performance longitudinally.

Tenuifolin improves learning and memory by regulating long-term potentiation and dendritic structure of hippocampal CA1 area in healthy female mice but not male mice

Polygala tenuifolia Wild is an ancient traditional Chinese medicine. Its main component, tenuifolin (TEN), has been proven to improve cognitive impairment caused by neurodegenerative diseases and ovariectomy. However, there was hardly any pharmacological research about TEN and its potential gender differences

Current treatments of alcohol use disorder

Emerging treatments for alcohol dependence reveal an intricate interplay of neurobiological, psychological, and circumstantial factors that contribute to Alcohol Use Disorder (AUD). The approved strategies balancing these factors involve extensive manipulations of neurotransmitter systems such as GABA, Glutamate, Dopamine, Serotonin, and Acetylcholine

Clinical characteristics and outcomes among hospitalised COVID-19 patients across epidemic waves in Spain: An unCoVer analysis

CONCLUSIONS: In summary, the study associate hospital mortality with factors such as advanced age and comorbidities. The decline in mortality after the 4th wave indicates potential influences like vaccination, viral adaptation, or improved treatments

Cannabinoid type 2 receptor inhibition enhances the antidepressant and proneurogenic effects of physical exercise after chronic stress

Chronic stress is a major risk factor for neuropsychiatric conditions such as depression. Adult hippocampal neurogenesis (AHN) has emerged as a promising target to counteract stress-related disorders given the ability of newborn neurons to facilitate endogenous plasticity

The association of premorbid conditions with 6-month mortality in acutely admitted ICU patients over 80 years

CONCLUSIONS: We found that Clinical Frailty Scale, age, and SOFA at admission were independent prognostic factors for 6 month mortality after ICU admission in patients age 80 and above. Adding other geriatric syndromes and scores did not improve the model. This information can be used in shared-decision making.

Neuromodulation by nanozymes and ultrasound during Alzheimer's disease management

Alzheimer's disease (AD) is a neurodegenerative disorder with complex pathogenesis and effective clinical treatment strategies for this disease remain elusive. Interestingly, nanomedicines are under extensive investigation for AD management

Recruitment of the premotor cortex during arithmetic operations by the monkey

Arithmetic operations are complex mental processes rooted in the abstract concept of numerosity. Despite the significance, the neural architecture responsible for these operations has remained largely uncharted. In this study, we explored the presence of specific neuronal activity in the dorsal premotor cortex of the monkey dedicated to numerical addition and subtraction

Taurine reduces microglia activation in the brain of aged senescence-accelerated mice by increasing the level of TREM2

Alzheimer's disease (AD), a chronic neurodegenerative disorder, is the leading cause of dementia. Over-activated microglia is related to amyloid-beta ($A\beta$) and phosphorylated tau (phospho-tau) accumulation in the AD brain. Taurine is an amino acid with multiple physiological functions including anti-inflammatory effects, and has been reported to be neuroprotective in AD

The nuclear import receptor Kap β 2 modifies neurotoxicity mediated by poly(GR) in C9orf72-linked ALS/FTD

Expanded intronic G(4)C(2) repeats in the C9ORF72 gene cause amyotrophic lateral sclerosis (ALS) and frontotemporal dementia (FTD). These intronic repeats are translated through a non-AUG-dependent mechanism into five different dipeptide repeat proteins (DPRs), including poly-glycine-arginine (GR), which is aggregation-prone and neurotoxic

Association between cytomegalovirus infection and neurological disorders: A systematic review

Cytomegalovirus (CMV) belongs to the Herpesviridae family and is also known as human herpesvirus type 5. It is a common virus that usually doesn't cause any symptoms in healthy individuals. However, once infected, the virus remains in the host's body for life and can reactivate when the host's immune system weakens

The gut metabolite indole-3-propionic acid activates ERK1 to restore social function and hippocampal inhibitory synaptic transmission in a 16p11.2 microdeletion mouse model

CONCLUSIONS: Our study reveals that 16p11.2 + / - leads to a decline in gut metabolite IPA levels; however, IPA supplementation notably reverses the behavioral and neural phenotypes of 16p11.2 + / - mice

Analysis of functional efficiency and risk of falls in patients with different types of dementia - preliminary observations

CONCLUSIONS: It has been demonstrated inter alia that static balance and functional efficiency depends on the patient's independence in everyday activities, and the level of dementia may suggest the patient's dynamic balance. In addition, the need for a broader analysis of targeted studies was recognized to confirm the conclusions obtained.

'My goal was to become normal'-A qualitative investigation of coping with stigma, body image and self-esteem long-term after bariatric surgery

Improved self-esteem and body image, as well as reduced experiences of weight stigma are important patient-reported obesity treatment outcomes. However, more knowledge is needed about how individuals who have undergone metabolic and bariatric surgery (MBS) perceive themselves and their bodies and use different coping strategies in relation to body image and self-esteem long-term after MBS

Dissecting Alzheimer's Disease Risk in Asian American Elders: A Classification and Regression Tree Approach

CONCLUSIONS: These findings have far-reaching implications for future research, particularly in examining the roles of gender, cultural nuances, socio-demographic factors, and cardiovascular risk elements in AD within the Asian American elderly population

Is Effective Recruitment Strategy Critical to Assess Brain Cognitive Function of Super Agers in Rural West Texas

Our commentary aims to elucidate the importance of participant recruitment strategy in healthy brain aging study, particularly in rural West Texas, where more than 50% of the population are Hispanics and Latinos

Falls and Alzheimer Disease

Falls are the leading cause of injury, disability, and injury-related mortality in the older adult population. Older adults with Alzheimer disease (AD) are over twice as likely to experience a fall compared to cognitively normal older adults

Retracted: A Prediction Model for Cognitive Impairment Risk in Colorectal Cancer after Chemotherapy Treatment

[This retracts the article DOI: 10.1155/2021/6666453].

Understanding the complexities of space anaemia in extended space missions: revelations from microgravitational odyssey

Space travel exposes astronauts to several environmental challenges, including microgravity and radiation exposure. To overcome these stressors, the body undergoes

various adaptations such as cardiovascular deconditioning, fluid shifts, metabolic changes, and alterations in the state of the bone marrow

Considerations for Clinician-Educators Developing Online Educational Content: A Narrative Review

In modern medical education, clinician-educators are increasingly called upon to develop online education to complement or replace in-person instruction. Despite a growing need for online curricula, many medical professionals lack training and experience in digital content development, deployment, assessment, and maintenance

An ethical advantage of autistic employees in the workplace

Differences between autistic and nonautistic people are often framed as deficits. This research considers whether some of these differences might actually be strengths. In particular, autistic people tend to be less sensitive to their social environment than nonautistic people who are easily influenced by the judgments, opinions, beliefs and actions of others

Utilizing Random Effects Machine Learning Algorithms for Identifying Vulnerability to Depression

CONCLUSION: Random effects machine learning models have the potential for high clinical utility and can be leveraged for interventions to reduce vulnerability to depression.

Applications of artificial intelligence in dementia research

More than 50 million older people worldwide are suffering from dementia, and this number is estimated to increase to 150 million by 2050. Greater caregiver burdens and financial impacts on the healthcare system are expected as we wait for an effective treatment for dementia. Researchers are constantly exploring new therapies and screening approaches for the early detection of dementia

Mendelian Randomization Highlights Gut Microbiota of Short-chain Fatty Acids' Producer as Protective Factor of Cerebrovascular Disease

CONCLUSION: This investigation has pinpointed particular strains of gut microbiota that play protective or detrimental roles in cerebrovascular disease pathogenesis. These findings offer valuable insights that could be pivotal for the clinical management, prevention, and treatment of cerebrovascular diseases.

A Rapid Evidence Assessment on The Effectiveness of Interventions for Autistic Adolescents with Harmful Sexual Behaviors

The management and treatment of harmful sexual behaviors (HSBs) in autistic adolescents is a complex area of research and clinical practice. Autistic adolescents face unique challenges in understanding social and sexual interactions, putting them at a higher risk of engaging in HSBs

Brain temperature and free water increases after mild COVID-19 infection

The pathophysiology underlying the post-acute sequelae of COVID-19 remains understudied and poorly understood, particularly in healthy adults with a history of mild infection. Chronic neuroinflammation may underlie these enduring symptoms, but studying neuroinflammatory phenomena in vivo is challenging, especially without a comparable pre-COVID-19 dataset

Serum high-sensitivity C-reactive protein and dementia in a community-dwelling Japanese older population (JPSC-AD)

In recent years, the association between neuroinflammatory markers and dementia, especially Alzheimer's disease (AD), has attracted much attention. However, the evidence for the relationship between serum-hs-CRP and dementia including AD are inconsistent

How do people with long COVID utilize COVID-19 vaccination and rehabilitation services and what are their experiences with these services? results of a qualitative study with 48 participants from Germany

CONCLUSIONS: Several implications can be derived from this study: (1) researchers should explore the effects of COVID-19 vaccination on long COVID symptoms; (2) vaccination campaigns should be more responsive to the perspectives of people with long COVID on vaccination; (3) care planners should build rehabilitation facilities specialized in long COVID; (4) rehabilitation providers should train

Validation of a viable delirium detection test performed by nurses and physicians during routine patient care

CONCLUSIONS: The RMA test is reliable, easy to administer, likely to boost compliance with guidelines, and is expected to raise awareness of delirium among the nurses and physicians directly involved in the diagnostic process.

The relationship between healthy lifestyles and cognitive function in Chinese older adults: the mediating effect of depressive symptoms

CONCLUSION: Depressive symptoms mediate the relationship between healthy lifestyles and cognitive function. Our findings suggest that prevention strategies for cognitive impairment in older adults should focus on healthy lifestyles and mental health.

Prognostic impact of frailty based on a comprehensive frailty assessment in patients with heart failure

CONCLUSIONS: The KCL is a useful tool for risk stratification of adverse outcomes in patients with AHF. Functional declines in psycho-emotional domains including cognitive function and depressed mood contribute to adverse outcomes.

Is it time for a paradigm shift? Inclusion of APOE on genetic dyslipidemia panels

APOE codes for apolipoprotein E (ApoE), which plays an important role in lipid and lipoprotein metabolism and homeostasis of tissue lipid content. Several variants in APOE have been associated with inherited dyslipidemias, and a subsequent increased risk of developing premature coronary artery disease (CAD)

Digital adaptations to arts programme delivery for people living with dementia in response to the COVID-19 pandemic

CONCLUSIONS: Despite challenges, the range of interactions across activities demonstrated various ways for people living with dementia to make a contribution, feeding into the feelings of purpose and belonging in the online/digital community.

Development and Validation of the Positive Outcomes of Cannabis Use Scale (POCUS) Among Predominantly White Adults in the United States

Operant conditioning and social learning theories suggest that positive cannabis use-related outcomes are a primary contributor to maintained use and risk for dependence. However, currently there does not exist a reliable, validated measure of positive cannabis-related

outcomes. This study sought to develop and psychometrically evaluate the Positive Outcomes of Cannabis Use Scale (POCUS)

A Longitudinal Dose-Response Curve Between Leisure-Time Physical Activity and the Prevalence of Diabetes Based on the Different Levels of Cognitive Function Among Older Adults

This study investigated a dose-response relationship between Leisure-Time Physical Activity participation (LTPA) and the risk of diabetes and a comparison of the risk across different cognitive function groups among older adults. The Health and Retirement Study data were used from 2012 to 2020 (n = 18 746)

Discriminant Potential of the Alzheimer's Disease Assessment Scale-Cognitive Subscale (ADAS-Cog) in Greek Older Adults with Subjective Cognitive Decline and Mild Cognitive Impairment

CONCLUSIONS: The current study provided evidence concerning the discriminant potential of ADAS-Cog-G to differentiate older adults with SCD from those with MCI in the Greek population, and therefore contributes to the relevant literature on the field.

Spirituality for Social Isolation in a Patient with Cognitive Impairment: A Case Report

CONCLUSIONS: Spiritual reconnection as part of a multi-component intervention may protect against social isolation in older adults with cognitive impairment. Caution must be exercised in reaching this conclusion as this is a report of a single patient. Systematic studies are needed.

Retracted: A Predictive Model for the Risk of Cognitive Impairment in Patients with Gallstones

[This retracts the article DOI: 10.1155/2021/3792407].

Exploring neonicotinoid effects on *Drosophila*: insights into olfactory memory, neurotransmission, and synaptic connectivity

Neonicotinoid insecticides, the fastest-growing class in recent decades, interfere with cholinergic neurotransmission by binding to the nicotinic acetylcholine receptor. This disruption affects both targeted and non-targeted insects, impairing cognitive functions such as olfaction and related behaviors, with a particular emphasis on olfactory memory due to its ecological impact

Temporal Supervised Contrastive Learning for Modeling Patient Risk Progression

We consider the problem of predicting how the likelihood of an outcome of interest for a patient changes over time as we observe more of the patient's data. To solve this problem, we propose a supervised contrastive learning framework that learns an embedding representation for each time step of a patient time series

Prospective associations of family conflict with alcohol expectancies in the adolescent brain cognitive development study: effects of race and ethnicity

CONCLUSION: The results indicate that family conflict is a potential risk factor for problematic alcohol expectancies for Black and White adolescents. Although we did not directly compare Black and White adolescents, our findings indicate that family conflict may operate differently for Black and White adolescents

Social determinants of health rather than race impact health-related quality of life in 10-year-old children born extremely preterm

CONCLUSIONS: Among 10-year-old children born EP, differences in parent-reported QoL were associated with maternal SES factors but not with race. Our results suggest that interventions designed to improve the SES of mothers may enhance the QoL of children born EP

Psychometric properties of the modified Suicide Stroop Task (M-SST) in patients with suicide risk and healthy controls

CONCLUSION: The results provide preliminary evidence for a suicide attentional bias in individuals with STBs compared to healthy controls. The M-SST represents a promising tool for assessing a suicide attentional bias by revealing adequate psychometric properties. Future studies with larger samples are needed to confirm these preliminary findings.

Cognitive control in honesty and dishonesty under different conflict scenarios: insights from reaction time

This study investigated the role of cognitive control in moral decision-making, focusing on conflicts between financial temptations and the integrity of honesty. We employed a perceptual task by asking participants to identify which side of the diagonal contained more red dots within a square to provoke both honest and dishonest behaviors, tracking their reaction times (RTs)

beta1-adrenoceptor expression on GABAergic interneurons in primate dorsolateral prefrontal cortex: potential role in stress-induced cognitive dysfunction

Uncontrollable stress exposure impairs working memory and reduces the firing of dorsolateral prefrontal cortex (dlPFC) "Delay cells", involving high levels of norepinephrine and dopamine release. Previous work has focused on catecholamine actions on dlPFC pyramidal cells, but inhibitory interneurons may contribute as well

Psychosocial experiences of competitive rugby players on the "long, long journey" to recovery following ACL ruptures and reconstruction

Anterior Cruciate Ligament (ACL) injuries are serious and potentially career-ending. Reconstruction surgery and extended rehabilitation typically follow, but some athletes never attain the same level of sport performance

Patient-reported outcome measures for monitoring primary care patients with depression: the PROMDEP cluster RCT and economic evaluation

CONCLUSIONS: We found no evidence of improved depression management or outcome at 12 weeks from using the Patient Health Questionnaire-9, but patients' quality of life was better at 26 weeks, perhaps because feedback of Patient Health Questionnaire-9 scores increased their awareness of improvement in their depression and reduced their anxiety

Effects of schisandrin B on hypoxia-related cognitive function and protein expression in vascular dementia rats

Vascular dementia (VD) a heterogeneous group of brain disorders in which cognitive impairment is attributable to vascular risk factors and cerebrovascular disease. A common phenomenon in VD is a dysfunctional cerebral regulatory mechanism associated with insufficient cerebral blood flow, ischemia and hypoxia

The Association of Levels of Mindfulness on the Cognitive Performance of Community-Dwelling, Low-Educated Older Adults From a Middle-Income Country

Limited information exists on the potential link between levels of mindfulness and cognitive performance in seniors with low education. This cross-sectional study aims to explore the

association between mindfulness levels and cognitive performance in older adults with different years of education

The multidisciplinary team in the management of chronic pain and pain-related fear: an evidence-based approach in a clinical case

CONCLUSION: This case report offers valuable insights into the usefulness of this multidisciplinary and multimodal approach, highlighting its potential as an avenue in the management of chronic pain and pain-related fear.

The Effect of Intervention Program based on Interaction Model of Client Health Behavior on Patients of Pressure Injury

CONCLUSION: The intervention program based on IMCHB can significantly improve cognitive ability and thus promote health behavior.

GD2-targeting CAR T-cell therapy for patients with GD2+ medulloblastoma

CONCLUSIONS: Our experimental data indicate the feasibility of CAR.GD2 T-cell therapy. A phase I/II clinical trial will be conducted to evaluate the safety and therapeutic efficacy of CAR.GD2 therapy in high-risk MB patients.

Effects of a Digital Mental Health Intervention on Perceived Stress and Rumination in Adolescents Aged 13 to 17 Years: Randomized Controlled Trial

CONCLUSIONS: Happify for Teens was effective at reducing perceived stress, rumination, and loneliness among adolescents over 12 weeks when compared to a waitlist control group. Our data reveal the potential benefits of DMHIs for adolescents, which may present a more scalable, destigmatized, and cost-effective alternative to school-based programs.

Telehealth Cognitive Behavior Therapy to Reduce Anxiety in People Living with Cognitive Impairment: A Randomized Feasibility Pilot Study

CONCLUSIONS: The Tele-CBT program was acceptable to use via videoconferencing. Reduced anxiety symptoms were observed in both groups at post-. An RCT with a larger sample is required to determine the efficacy and implementation of the intervention.

Pathophysiological hypothesis and diagnosis of insomnia disorder

PATHOPHYSIOLOGICAL HYPOTHESES AND DIAGNOSIS OF INSOMNIA DISORDER. All pathophysiological models place hyperarousal as a central process in the mechanisms of insomnia. These models differ, however, in terms of the importance and role of the variables explaining this hyperarousal

Pharmacotherapies for insomnia

PHARMACOTHERAPIES FOR INSOMNIA. The first line of treatment in adult chronic insomnia is cognitive behavioral therapy (CBT). However, its difficult accessibility limited its use and medications are still often prescribed

Traumatic Brain Injury and Post-Traumatic Stress Disorder and Their Influence on Development and Pattern of Alzheimer's Disease Pathology in Later Life

CONCLUSIONS: These findings suggest that a) although subsets of patients with PTSD and/or TBI develop AD-pathology, a history of TBI or PTSD alone or both is not associated with a significantly higher risk to develop AD pathology in later life. b) remote TBI or PTSD do not modify the typical AD pathology distribution pattern.

Land/Water Aerobic Activities: Two Sides of the Same Coin. A Comparative Analysis on the Effects in Cognition of Alzheimer's Disease

Evidence in the literature indicates that aerobic physical activity may have a protective role in aging pathologies. However, it has not been clarified whether different types of aerobic exercise produce different effects. In particular, these potential differences have not been explored in patients with Alzheimer's disease (AD)

Clinical Phenotypes Associated With Cerebral Small Vessel Disease: An Overview of Systematic Reviews

BACKGROUND AND OBJECTIVES: Cerebral small vessel disease (cSVD) causes lacunar and hemorrhagic stroke and is an important contributor to vascular cognitive impairment. Other potential physical and psychological consequences of cSVD have been described across various body systems

Adaptive, behavioral, and emotional outcomes following postoperative pediatric cerebellar mutism syndrome in survivors treated for medulloblastoma

CONCLUSIONS: Survivors with CMS, compared with those without CMS, are rated as having significant deficits in overall or general adaptive functioning, with specific weakness in practical skills several years posttreatment

Role of albumin infusion in cirrhosis-associated complications

Cirrhosis is an advanced-stage liver disease that occurs due to persistent physiological insults such as excessive alcohol consumption, infections, or toxicity. It is characterised by scar tissue formation, portal hypertension, and ascites (accumulation of fluid in the abdominal cavity) in decompensated cirrhosis

Prevalence and predictors of anemia among six-week-old infants in Kwale County, Kenya: A cross-sectional study

Anemia is a significant public health problem among children worldwide. The etiology of anemia is multifactorial but iron deficiency (ID) is the most common cause of anemia in low- and middle-income countries. ID and anemia in infancy can impair growth and cognitive development

A systematic review of the associations between sedentary behavior, physical inactivity, and non-motor symptoms of Parkinson's disease

CONCLUSION: Associations observed between physical inactivity, sedentary behavior, and non-motor symptoms in PD underscore the need to address these factors for enhanced well-being. Further well-designed studies are essential to assess the impact of reducing sedentary behavior and physical inactivity on non-motor symptoms in PD

Aniracetam: An Evidence-Based Model for Preventing the Accumulation of Amyloid-beta Plaques in Alzheimer's Disease

Alzheimer's disease is the leading cause of dementia in the world. It affects 6 million people in the United States and 50 million people worldwide. Alzheimer's disease is characterized by the accumulation of amyloid- β plaques (A β), an increase in tau protein neurofibrillary tangles, and a loss of synapses

Unveiling the Role of Novel miRNA PC-5P-12969 in Alleviating Alzheimer's Disease

CONCLUSIONS: In summary, this study sheds light on the crucial role of miRNA PC-5P-12969 and its direct interaction with GSK3 α in the context of AD.

Self-Reported Late-Life Hypertension Is Associated with a Healthy Cognitive Status and Reduced Alzheimer's Disease Pathology Burden

CONCLUSIONS: Our findings suggest that late-life hypertension is associated with less severe AD pathology. We postulate that AD pathology may be promoted by reduced cerebral blood flow.

Health literacy in older adults: The newest vital sign and its relation to cognition and healthy lifestyle behaviors

Health literacy tends to decrease with age, and lower health literacy has been associated with lower levels of physical function, mental health, and medication adherence. The present study examined health literacy in relation to cognition in a sample of community-dwelling older adults. The study also examined the impact of health literacy on engagement in healthy aging lifestyle behaviors

Generation of human induced pluripotent stem cell line (XWHNi004-A) from a male with APOE gene mutation

Genetic polymorphism of apolipoprotein E (APOE) confers differential susceptibility to Alzheimer's disease (AD), and APOE $\epsilon 4$ variants is the most powerful risk factor for this disease. Here, we report the generation of a human induced pluripotent stem cell (iPSC) line carrying the APOE $\epsilon 4/\epsilon 4$ genotype from peripheral blood mononuclear cells (PBMCs) isolated from a male with a family history of AD

Studying the social mind: An updated summary of findings from the Vietnam Head Injury Study

Lesion mapping studies allow us to evaluate the potential causal contribution of specific brain areas to human cognition and complement other cognitive neuroscience methods, as several authors have recently pointed out

Persistent postural-perceptual dizziness: A functional neuro-otologic disorder

Persistent postural-perceptual dizziness (PPPD) is a functional neuro-otologic disorder that is the most frequent cause of chronic vestibular syndrome. The core vestibular symptoms include dizziness, unsteadiness, and non-spinning vertigo, which are exacerbated by an upright posture or walking, active or passive motion, and exposure to moving or complex visual stimuli

Nurse-led physical activity interventions for people with dementia in nursing homes: A systematic review on intervention characteristics and implementation facilitators/barriers

CONCLUSIONS: The results of our review provide a comprehensive overview on types, characteristics and effects of nurse-led physical activity interventions for people with dementia in nursing homes. Based on evidence from a range of study designs and sources, we came to the conclusion that all stakeholders involved considered physical activity interventions for people with dementia as useful and

Amyloid precursor protein combinatorial phosphorylation code regulates AMPA receptor removal during distinct forms of synaptic plasticity

Synaptic plasticity is essential for memory encoding and stabilization of neural network activity. Plasticity is impaired in neurodegenerative conditions including Alzheimer disease (AD). A central factor in AD is amyloid precursor protein (APP). Previous studies have suggested APP involvement in synaptic plasticity, but physiological roles of APP are not well understood

The involvement of neuroinflammation in an animal model of dementia and depression

Alzheimer's disease (AD) and depression are inflammatory pathologies leading to increased inflammatory response and neurotoxicity. Therefore, this study aimed to evaluate the effect of the treatment with fluoxetine and/or galantamine and/or donepezil on the levels of proinflammatory and anti-inflammatory cytokines in a mixed animal model of depression and dementia

Parthanatos: Mechanisms, Modulation, and therapeutic prospects in neurodegenerative disease and stroke

Parthanatos is a cell death signaling pathway that has emerged as a compelling target for pharmaceutical intervention. It plays a pivotal role in the neuron loss and neuroinflammation that occurs in Parkinson's Disease (PD), Alzheimer's Disease (AD), Huntington's Disease (HD), Amyotrophic Lateral Sclerosis (ALS), and stroke

Physical activity, sedentary behaviour, and cognitive function among older adults: A bibliometric analysis from 2004 to 2024

Because of population ageing, there will be a vast increase in the prevalence of cognitive decline and dementia. Physical activity and sedentary behaviour have been identified as modifiable lifestyle behaviours associated with these cognitive conditions

Mitochondria-tau association promotes cognitive decline and hippocampal bioenergetic deficits during the aging

Current studies indicate that pathological modifications of tau are associated with mitochondrial dysfunction, synaptic failure, and cognitive decline in neurological disorders and aging. We previously showed that caspase-3 cleaved tau, a relevant tau form in Alzheimer's disease (AD), affects mitochondrial bioenergetics, dynamics and synaptic plasticity by the opening of mitochondrial

Long-term table tennis training alters dynamic functional connectivity and white matter microstructure in large scale brain regions

Table tennis training has been employed as an exercise treatment to enhance cognitive brain functioning in patients with mental illnesses. However, research on its underlying mechanisms remains limited

A SERS nanocellulose-paper-based analytical device for ultrasensitive detection of Alzheimer's disease

BACKGROUND: Alzheimer's disease (AD), one of the most prevalent neurodegenerative diseases, results in severe cognitive decline and irreversible memory loss. Early detection of AD is significant to patients for personalized intervention since effective cure and treatment methods for AD are still lacking

Effects of a Nurse-Led Cognitive Behavioral Intervention for Parents of Children With Epilepsy

CONCLUSIONS: The adoption of the nurse-led cognitive behavioral intervention on parents of CWE can improve the parents' mental health status and their satisfaction with the nurses, which can have a positive association with the seizure severity of CWE. In light of this information, this nursing intervention may be a new method for the long-term disease management of CWE.

Extracellular vesicles: Mediators of microenvironment in hypoxia-associated neurological diseases

Hypoxia is a prevalent characteristic of numerous neurological disorders including stroke, Alzheimer's disease, and Parkinson's disease. Extracellular vesicles (EVs) are minute particles released by cells that contain diverse biological materials, including proteins, lipids, and nucleic acids

An Effort to Identify Genetic Determinants in Siblings With Wilson Disease Manifesting Striking Clinical Heterogeneity: An Exome Profiling Study of Two Indian Families

CONCLUSION: Clinical heterogeneity between siblings with WD with the same ATP7B mutation profile may be attributed to the presence of different pathogenic variants in potential modifier genes.

Life experience and identity of spousal caregivers of people with dementia: A qualitative systematic review

CONCLUSIONS: In this review, spouse identity of people with dementia is complex and affects caregiving experience together with dementia cognition. Disease cognition, caregiving burden and social isolation are identified. Interventions for barriers are suggested to enhance social support.

Subclinical vascular composites predict clinical cardiovascular disease, stroke, and dementia: The Multi-Ethnic Study of Atherosclerosis (MESA)

CONCLUSIONS: Subclinical vascular composites of atherosclerosis and arteriosclerosis may be useful biomarkers to inform the vascular pathways contributing to events of CVD, CHD, stroke, and dementia.

Validation of the German version of the DSQIID in adults with intellectual disabilities

CONCLUSIONS AND IMPLICATIONS: DSQIID-G total score can discriminate between dementia and non-dementia cases in adults with ID. A lower cutoff score with a higher sensitivity is desirable for a screening instrument.

Conclusive demonstration of iatrogenic Alzheimer's disease transmission in a model of stem cell transplantation

The risk of iatrogenic disease is often underestimated as a concern in contemporary medical procedures, encompassing tissue and organ transplantation, stem cell therapies, blood transfusions, and the administration of blood-derived products

Resolving neuroinflammatory and social deficits in ASD model mice: Dexmedetomidine downregulates NF- κ B/IL-6 pathway via α 2AR

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that severely affects individuals' daily life and social development. Unfortunately, there are currently no effective treatments for ASD. Dexmedetomidine (DEX) is a selective agonist of α 2 adrenergic receptor (α 2AR) and is widely used as a first-line medication for sedation and hypnosis in clinical practice

Prevalence of dementia among people experiencing homelessness in Ontario, Canada: a population-based comparative analysis

BACKGROUND: Cognitive decline in people experiencing homelessness is an increasingly recognised issue. We compared the prevalence of dementia among people experiencing

homelessness to housed individuals in the general population and those living in low-income neighbourhoods.

Life course epidemiology and public health

Life course epidemiology aims to study the effect of exposures on health outcomes across the life course from a social, behavioural, and biological perspective. In this Review, we describe how life course epidemiology changes the way the causes of chronic diseases are understood, with the example of hypertension, breast cancer, and dementia, and how it guides prevention strategies

Depressive Symptoms and Plasma Markers of Alzheimer's Disease and Neurodegeneration: A Coordinated Meta-Analysis of 8 Cohort Studies

CONCLUSIONS: Late-life depressive symptoms did not show an association to plasma biomarkers of AD pathology. However, in APOE ϵ 4 allele carriers, a more profound role of neurodegeneration was suggested with depressive symptoms.

An examination of measures of young children's interest in natural object categories

Developmental research utilizes various different methodologies and measures to study the cognitive development of young children; however, the reliability and validity of such measures have been a critical issue in all areas of research practices

Exposure to Non-Steady-State Oxygen Is Reflected in Changes to Arterial Blood Gas Values, Prefrontal Cortical Activity, and Systemic Cytokine Levels

Onboard oxygen-generating systems (OBOGSs) provide increased inspired oxygen ($F(i)O(2)$) to mitigate the risk of neurologic injury in high altitude aviators. OBOGSs can deliver highly variable oxygen concentrations oscillating around a predetermined $F(i)O(2)$ set point, even when the aircraft cabin altitude is relatively stable

HFE Mutations in Neurodegenerative Disease as a Model of Hormesis

Common variants in the iron regulatory protein HFE contribute to systematically increased iron levels, yet the effects in the brain are not fully characterized. It is commonly believed that iron dysregulation is a key contributor to neurodegenerative disease due to iron's ability to catalyze reactive oxygen species production

The Chronic Effects of a Single Low-Intensity Blast Exposure on Phosphoproteome Networks and Cognitive Function Influenced by Mutant Tau Overexpression

Blast-induced neurotrauma (BINT) is a pressing concern for veterans and civilians exposed to explosive devices. Affected personnel may have increased risk for long-term cognitive decline and developing tauopathies including Alzheimer's disease-related disorders (ADRD) or frontal-temporal dementia (FTD)

Chaperones-A New Class of Potential Therapeutic Targets in Alzheimer's Disease

The review describes correlations between impaired functioning of chaperones and co-chaperones in Alzheimer's disease (AD) pathogenesis. The study aims to highlight significant lines of research in this field. Chaperones like Hsp90 or Hsp70 are critical agents in regulating cell homeostasis. Due to some conditions, like aging, their activity is damaged, resulting in β -amyloid and tau aggregation

Zfra Overrides WWOX in Suppressing the Progression of Neurodegeneration

We reported that a 31-amino-acid Zfra protein (zinc finger-like protein that regulates apoptosis) blocks neurodegeneration and cancer growth. Zfra binds WW domain-containing

oxidoreductase (WVVOX) to both N- and C-termini, which leads to accelerated WVVOX degradation

Exploring the Influence of Gut-Brain Axis Modulation on Cognitive Health: A Comprehensive Review of Prebiotics, Probiotics, and Symbiotics

Recent research exploring the relationship between the gut and the brain suggests that the condition of the gut microbiota can influence cognitive health. A well-balanced gut microbiota may help reduce inflammation, which is linked to neurodegenerative conditions

Healthful Eating Behaviors among Couples Contribute to Lower Gestational Weight Gain

Through longitudinal analysis from the GLOWING cohort study, we examined the independent and joint relationships between couples' eating behaviors and gestational weight gain (GWG). Pregnant persons (n = 218) and their non-pregnant partners (n = 157) completed an Eating Inventory. GWG was calculated as gestation weight at 36 weeks minus that at 10 weeks

The Interplay between Gut Microbiota and Cognitive Functioning in the Healthy Aging Population: A Systematic Review

CONCLUSIONS: Changes in gut microbiota composition in the elderly, even without a cognitive impairment diagnosis, could potentially serve as early biological markers for Alzheimer's disease or other dementias before mild cognitive impairment appears.

Identification of Potent Acetylcholinesterase Inhibitors as New Candidates for Alzheimer Disease via Virtual Screening, Molecular Docking, Dynamic Simulation, and Molecular Mechanics-Poisson-Boltzmann Surface Area Calculations

Huperzine A (HUP) plays a crucial role in Alzheimer's therapy by enhancing cognitive function through increased cholinergic activity as a reversible acetylcholinesterase (AChE) inhibitor. Despite some limitations being seen in AChE inhibitors, ongoing research remains dedicated to finding innovative and more effective treatments for Alzheimer's disease

Evaluating Fatty Acid Amide Hydrolase as a Suitable Target for Sleep Promotion in a Transgenic TauP301S Mouse Model of Neurodegeneration

Sleep disruption is an expected component of aging and neurodegenerative conditions, including Alzheimer's disease (AD). Sleep disruption has been demonstrated as a driver of AD pathology and cognitive decline. Therefore, treatments designed to maintain sleep may be effective in slowing or halting AD progression

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Living well with dementia

Navigating complexity of the medication management system within the home setting-a functional resonance analysis method (FRAM) analysis of people with dementia and their carers' experiences

CONCLUSION: Future work will develop a comprehensive FRAM model that includes the perspectives of health and social care professionals and those from the third sectors to

underpin the development of a range of system recommendations to strengthen resilience in the medication management system within the home setting.

Development and validation of cognitive ageing risk score (CARS) for early detection of subtle cognitive deficits in older people

CONCLUSION: The CARS can be used as a standard risk assessment of dementia or in conjunction with a computerized cognitive screening to evaluate a full cognitive profile for detecting early cognitive deficits. The result put forward the integration of risk algorithm into smart healthcare system to provide personalized lifestyle interventions.

The role of supervision and motivation during exercise on physical and mental health in older adults: a study protocol for a randomized controlled trial (PRO-Training project)

BACKGROUND: Although supervised exercise is frequently recommended for older adults, its superiority over unsupervised exercise remains uncertain. Furthermore, whether motivational techniques could help to enhance the effectiveness of the latter remains to be elucidated

Community based complex interventions to sustain independence in older people: systematic review and network meta-analysis

CONCLUSIONS: The intervention most likely to sustain independence is individualised care planning including medicines optimisation and regular follow-up reviews resulting in multifactorial action. Homecare recipients may particularly benefit from this intervention. Unexpectedly, some combinations may reduce independence

Change in cardiovascular health and rate of cognitive decline in older adults: a 15-year population-based study

CONCLUSIONS: Change in cardiovascular health in old age may lead to accelerated cognitive decline, particularly in late senescence. These results suggest that it is important to monitor and maintain cardiovascular health status in very old adults.

The association between quality of life and diabetes: the Bushehr Elderly Health Program

CONCLUSION: Individuals with diabetes exhibited reduced QOL scores. Upon adjusting for other variables, it was found that uncontrolled diabetes correlated with decreased PCS scores, whereas controlled diabetes was linked to lower MCS scores. Factors such as depression and being female were identified as contributors to diminished QOL in both physical and mental aspects

"We're still alive, much to everyone's surprise": The experience of trans older adults living with dementia in an ageist, cisgenderist, and cognitivist society

Trans and non-binary older adults living with dementia experience forms of marginalization, pathologization, and discrimination embedded in epistemic violence that leads them to be mistreated and dismissed as knowledgeable subjects

Home-based mobile-guided exercise-based cardiac rehabilitation among patients undergoing transcatheter aortic valve replacement (REHAB-TAVR): protocol for a randomised clinical trial

INTRODUCTION: Transcatheter aortic valve replacement (TAVR) is a standard treatment for aortic stenosis, particularly in older adults. Reduced exercise capacity and frailty significantly impact outcomes in TAVR patients, yet current management lacks strategies to address these issues

Mental health and ageing

[The associations between type 2 diabetes and plasma biomarkers of Alzheimer's disease in the Health and Aging Brain Study: Health Disparities \(HABS-HD\)](#)

Alzheimer's disease (AD) affects Latinos disproportionately. One of the reasons underlying this disparity may be type 2 diabetes (T2D) that is a risk factor for AD. The purpose of this study was to examine the associations of T2D and AD blood biomarkers and the differences in these associations between Mexican Americans and non-Hispanic Whites

[Proximity to public green spaces and depressive symptoms among South African residents: a population-based study](#)

CONCLUSION: Our findings suggest that public green spaces close to residential homes may be associated with a reduction in the occurrence of depressive symptoms among urban populations in resource-constrained settings like South Africa.

[What works to support carers of older people and older carers? an international evidence map of interventions and outcomes](#)

CONCLUSION: Evidence on what works best to support carers is extensive but limited in scope. A disproportionate focus on mental health and burden outcomes neglects other important areas where carers may need support. Given the impact of caring on carers' physical health, financial and social wellbeing, future research could evaluate interventions that aim to support these outcomes

[An examination of anxiety and its influence on health-related quality of life in Parkinson's disease using the geriatric anxiety scale: a cross-sectional study](#)

CONCLUSION: Our study used the GAS and its three subscales to shed light on the connections between anxiety, depression, and motor impairment in people with PD. Although anxiety is linked to depression and motor symptoms, it independently affects the HRQoL of people with PD

[Study protocol for a randomized controlled trial: Effect of an everyday cognition training program on cognitive function, emotional state, frailty and functioning in older adults without cognitive impairment](#)

BACKGROUND: Ageing entails changes in complex cognitive functions that lead to a decrease in autonomy and quality of life. Everyday cognition is the ability to solve cognitively complex problems in the everyday world, enabling instrumental activities of life

[Mental and physical health morbidity among people in prisons: an umbrella review](#)

BACKGROUND: People who experience incarceration are characterised by poor health profiles. Clarification of the disease burden in the prison population can inform service and policy development. We aimed to synthesise and assess the evidence regarding the epidemiology of mental and physical health conditions among people in prisons worldwide.

[The effect of social pension on health-related quality of life of the rural older people: a panel study from China](#)

CONCLUSIONS: The NRSP reduced health disparities and had long-term benefits on the physical and mental health of the rural older people. We suggest continuously expanding the NRSP throughout rural China and further improving the social support system to enhance the overall quality of life of the rural older people

Factors related to a sense of economic insecurity among older adults who participate in social activities

Japan has the highest life expectancy worldwide. Older adults who experience economic insecurity may refrain from seeking medical consultation or using long-term care insurance, and these behaviors may increase the incidence and progression of frailty

Association between sociodemographic factors, clinic characteristics and mental health screening rates in primary care

BACKGROUND: Screening for mental health problems has been shown to be effective to detect depression and initiate treatment in primary care. Current guidelines recommend periodic screening for depression and anxiety. This study examines the association of patient sociodemographic factors and clinic characteristics on mental health screening in primary care.

Spousal collaboration mediates the relation between self-rated health and depressive symptoms of Chinese older couples: an actor-partner interdependence approach

BACKGROUND: Dyadic coping resources have been considered a potential explanatory mechanism of spousal interdependence in health, but the mediation of spousal collaboration for the relationship between self-rated health and depressive symptoms has yet to be examined

Tools to measure barriers to medication management capacity in older adults: a scoping review

CONCLUSION: This scoping review identified 44 validated tools to measure various challenges that older adults encounter with medication management. However, no tool measures all five barriers (physical, cognitive, sensory, motivational, and environmental) to medication-taking at home

Prevalence of swallowing disorder in different dementia subtypes among older adults: a meta-analysis

CONCLUSIONS: More than half of older adults with dementia demonstrate to have swallowing disorder. Our findings offer valuable insights to healthcare professionals for the identification of swallowing disorder in ageing population with dementia.

Development and validation of the Japanese version of the Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale

CONCLUSIONS: LGBT-DOCSS-JP has the potential to serve as a valuable tool in the development and assessment of effective curricula for LGBT healthcare education, as well as a means to promote self-reflection among trainees and professionals.

Delirium and incident dementia in hospital patients in New South Wales, Australia: retrospective cohort study

CONCLUSIONS: The study findings suggest delirium was a strong risk factor for death and incident dementia among older adult patients. The data support a causal interpretation of the association between delirium and dementia. The clinical implications of delirium as a potentially modifiable risk factor for dementia are substantial.

The impact of food insecurity on mental health among older adults residing in low- and middle-income countries: A systematic review

Over the past few years, food insecurity has been increasing globally due to the COVID-19 pandemic, climate change, economic downturns and conflict and a number of other intersecting factors. Older adults residing in low- and middle-income countries are more vulnerable to food insecurity

Interventions to address mealtime support needs in dementia: A scoping review

The decrease in cognitive and physical ability among people with dementia can significantly affect eating performance, resulting in mealtime support needs that could lead to inadequate oral intake, weight loss, malnutrition, and reduced functionality in activities of daily living

Pain trajectories and their associations with cognition among older adults: a 10-year cohort study from network perspective

CONCLUSIONS: Pain trajectories appeared stable over time among older adults in this study. Severity of persistent pain was an important risk factor for poor cognition, especially in relation to memory and calculation domains. Interventions targeting memory, language and calculation domains might be useful in addressing cognitive decline in older adults with persistent pain.

Sarcopenia in subjects with Alzheimer's disease: prevalence and comparison of agreement between EGWSOP1, EGWSOP2, and FNIH criteria

CONCLUSIONS: AD patients and controls show comparable sarcopenia prevalence. Sarcopenia prevalence is higher in males than females among AD patients and higher when using EWGSOP1 compared to FNIH and EWGSOP2 criteria.

Neuropsychiatric profiles and cerebral amyloid burden in adults without dementia

CONCLUSIONS: In a cohort of older adults without dementia, both self- and informant-reported measures of global NPS, particularly patient-reported cognitive concerns and informant-reported anxiety and depression, corresponded with cerebral A β burden

Correction to: Loneliness among older Chinese individuals: the status quo and relationships with activity-related factors

No abstract

Ischemic heart disease-related mortality in Brazil, 2006 to 2020. A study of multiple causes of death

CONCLUSIONS: Several diseases - including AMI, AH, CIHD, HF, and DM - were the most frequent associated causes of death when IHD was recorded as the UC. In contrast, AMI, DM, CIHD, COPD, and stroke were the most frequent UCs when IHD was listed as an associated cause of death. The degree of these associations varied between sexes and geographic regions.

Strategies used during the cognitive evaluation of older adults with dual sensory impairment: a scoping review

CONCLUSIONS: The most used strategy reported in the included studies was drawing on the assistance of team members from related fields during the administration and interpretation of cognitive screening measures. Alternative strategies were rarely employed

The relationship between gender discrimination and wellbeing in middle-aged and older women

CONCLUSIONS: Middle-aged and older women who perceive gender discrimination report poorer mental wellbeing than those who do not perceive discrimination. Further, this type of discrimination may be predictive of declining mental wellbeing over time. These findings highlight the need for interventions to target gender-based discrimination to improve the wellbeing of women at mid- and older age.

Can routine assessment of older people's mental health lead to improved outcomes: A regression discontinuity analysis

CONCLUSION: Case finding of depression in podiatry patients based on a GDS-15 score of 10 or more followed by a letter to their General Practitioner significantly reduced depression severity. Whether this applies to all older patients in primary care is unknown. Further research is required to confirm these findings

Social support in older adults: Validation and norm values of a brief form of the Perceived Social Support Questionnaire (F-SozU K-6)

CONCLUSION: The F-SozU K-6 is a reliable and economical tool to assess perceived social support in older adults. Norm values for individual > 60 years are provided.

Short- and long-term safety of discontinuing chronic opioid therapy among older adults with Alzheimer's disease and related dementia

CONCLUSIONS: The rates of adverse outcomes were higher in the first quarter but lower or non-differential at 1-year and 2-year follow-ups between COT discontinuers versus continuers among older residents with ADRD.

Place of death in Parkinson's disease and related disorders in England and Wales: post-pandemic trends and implications for care planning

CONCLUSION: Place of death for people with PDRD is changing, with more hospice and home deaths. People with PDRD, particularly those with co-existent dementia, are less likely to access inpatient hospice care than the general population

Development and psychometric testing of the Aesthetics of Everyday Life Scale in Aging (AELSA)

CONCLUSIONS: The AELSA is a valid and reliable instrument for evaluating the aesthetics of everyday life in older adults. the scale will help policymakers in formulating interventions to improve mental health and well-being in older adults. Moreover, Further studies is need to provide more support of construct validity.

What influences life expectancy in people with dementia? Social support as an emerging protective factor

CONCLUSION: Our study provides novel evidence that less support from the social environment, especially emotional support, is a risk factor for shorter life expectancy in people with dementia-beyond known clinical factors. Not only the clinical and caregiving needs but also their psychosocial needs of individuals with dementia should be emphasised.

Delirium is more common and associated with worse outcomes in Parkinson's disease compared to older adult controls: results of two prospective longitudinal cohort studies

CONCLUSION: Delirium is common in hospitalised PD patients, affecting two thirds of patients, and is associated with increased mortality, institutionalisation, and dementia.

Further research is essential to understand how to accurately identify, prevent and manage delirium in people with PD who are in hospital.

Characteristics of older unpaid carers in England: a study of social patterning from the English Longitudinal Study of Ageing

CONCLUSION: Our findings suggest that financially disadvantaged unpaid carers (and their households) may have the greatest needs for intervention and support. Focussing resources on this group has potential to address social inequalities.

Health-related quality of life during the COVID-19 pandemic: The impact of restrictive measures using data from two Dutch population-based cohort studies

CONCLUSIONS: During the Dutch COVID-19 epidemic, health utility and mental health scores were lower and fluctuated strongest among young adults compared to older adults. In our study population, age, sex and presence of a medical risk condition seemed to have more impact on health scores than stringency of COVID-19 non-pharmaceutical interventions.

Mental health effects associated with COVID-19 financial assistance in South Korea: a comparison of employment status

CONCLUSIONS: Financial assistance can provide material resources and also positively affect mental health. In particular, it had a greater impact on the relatively vulnerable groups, such as those in unstable employment.

Hierarchy of demographic and social determinants of mental health: analysis of cross-sectional survey data from the Global Mind Project

CONCLUSION: Social determinants of traumas, adversities and lifestyle can account for 60%-90% of mental health challenges. However, additional factors are at play, particularly for younger ages, that are not included in these data and need further investigation.

The diagnostic accuracy of the Mini-Cog screening tool for the detection of cognitive impairment-A systematic review and meta-analysis

CONCLUSIONS: The Mini-Cog is a quick and freely available screening tool and has high sensitivity and specificity to screen for CI in older adults across various healthcare settings. It is a practical screening tool for use in time-sensitive and resource-limited healthcare settings.

The longitudinal relationship between leisure activities and depressive symptoms among older Chinese adults: an autoregressive cross-lagged analysis approach

CONCLUSION: These findings underscore the importance of interventions targeting depressive symptoms to potentially enhance engagement in leisure activities among older adults. The results contribute to the understanding of the complex dynamics between mental health and lifestyle choices in older populations, highlighting the potential of proactive mental health interventions to improve overall

Predictive models for perceived convenience of accessing outdoor activities among elderly with physical disabilities in rural China

CONCLUSIONS: Structural equation models have effectively predicted the self-reported convenience of accessing outdoor activities, underscoring the importance of functional and behavioral rehabilitation. Furthermore, gender-sensitive rehabilitation programs are advised to promote engagement in outdoor activities among elderly individuals with physical disabilities.

Hearing and vision impairment and social isolation over 8 years in community-dwelling older adults

CONCLUSION: Greater clinical awareness of hearing impairment as a risk factor for social isolation can increase opportunities to identify and aid older adults who may benefit from resources and interventions to increase social connection and mitigate social isolation.

Social isolation and depression as risk factors for weight loss of 5kg or more among older Korean adults

Given a well-known overlapping prevalence of social isolation with loneliness and depression among older adults, this study aimed to contextually investigate the relationship of these constructs with weight loss of more than 5kg in a year, with a special focus on the intersection of living alone and marital dissolution as key dimensions of isolation

Facilitators and barriers to codesigning social robots with older adults with dementia: a scoping review protocol

INTRODUCTION: Social robots including telepresence robots have emerged as potential support in dementia care. However, the effectiveness of these robots hinges significantly on their design and utility. These elements are often best understood by their end-users. Codesign involves collaborating directly with the end-users of a product during its development process

HFE genotypes, haemochromatosis diagnosis and clinical outcomes at age 80 years: a prospective cohort study in the UK Biobank

CONCLUSIONS: Male and female p.C282Y homozygotes experienced greater excess morbidity than previously documented, including those undiagnosed with haemochromatosis in the community. As haemochromatosis diagnosis rates were low at baseline despite treatment being considered effective, trials of screening to identify people with p.C282Y homozygosity early appear justified.

Effects of the abacus-based mental calculation training application "SoroTouch" on cognitive functions: A randomized controlled trial

This study investigated the effect of a home-based computerized cognitive training program that utilizes a digital application for training abacus-based mental calculations, "SoroTouch," on the cognitive functions of healthy middle-aged and older people using a randomized controlled trial

The Danish Aging and Cognition (DanACo) cohort

CONCLUSION: Cognitive decline is a result of a summary of factors across the life-course. The DanACo cohort is characterized by a long retest interval and contains data on a wealth of factors across adult life which is essential to establish evidence on predictors of cognitive decline

Allied health professionals' experiences and views towards improving musculoskeletal services in the UK for patients with musculoskeletal and co-existing mental health conditions: a qualitative study

CONCLUSION: Many challenges to achieving optimal integration of physical and mental health care exist within MSK services. These challenges go beyond the need for additional training and knowledge acquisition and include departmental readiness such as funding, diary management, and supervision by senior colleagues/or psychologists

Midlife cumulative deficit frailty predicts Alzheimer's disease-related plasma biomarkers in older adults

CONCLUSIONS: Frailty during one's 50s doubled the risk of mortality by age 68. A mechanism linking frailty and ADRD may be through its associations with biomarkers related to neurodegeneration. Cumulative deficit frailty increases with age but remains moderately heritable across the age range studied

A systematic scoping review of health-promoting interventions for contact centre employees examined through a behaviour change wheel lens

CONCLUSION: There is little evidence on the effectiveness, acceptability, and feasibility of health-promoting interventions for contact centre advisors. Evidence is especially needed in low-to-middle income countries, and for remote/hybrid, nightshift, older and disabled advisors.

'Robbed out of mind': Reflections on Alzheimer's and gendered subjectivity in select Indian literary narratives

Neurological degeneration is a potent signifier molding older lives, divesting them of 'personhood' and making them a 'target of care'. This article delineates the depictions of Alzheimer's and its associated losses in select Indian literary narratives- Jalsobi: In the Shadow of Light (2018) and Girl in White Cotton (2019) and seeks to understand how 'ageing into disability' for older women has

Adapting to home care in Norway: A longitudinal case study of older Adults' experiences

This study aimed to describe how older adults with complex health problems manage their everyday lives in their own homes and how they interact with given home care. In this multiple-case study, a total of 14 individual interviews were conducted with five older adults over the course of one year. Deductive and inductive content analyses were performed

Feasibility and usefulness of cognitive monitoring using a new home-based cognitive test in mild cognitive impairment: a prospective single arm study

CONCLUSION: The feasibility and usefulness of the HCT were demonstrated in elderly subjects with MCI. HCT could be an alternative option to monitor cognitive decline in early stages without dementia.

Developing blood-brain barrier arterial spin labelling as a non-invasive early biomarker of Alzheimer's disease (DEBBIE-AD): a prospective observational multicohort study protocol

INTRODUCTION: Loss of blood-brain barrier (BBB) integrity is hypothesised to be one of the earliest microvascular signs of Alzheimer's disease (AD). Existing BBB integrity imaging methods involve contrast agents or ionising radiation, and pose limitations in terms of cost and logistics

Attrition from longitudinal ageing studies and performance across domains of cognitive functioning: an individual participant data meta-analysis

CONCLUSIONS: Older adults who attrited from longitudinal ageing studies had lower cognitive functioning (assessed at the timepoint before attrition) across all domains as compared with individuals who remained. Cognitive functioning differences may contribute to selection bias in longitudinal ageing studies, impeding accurate conclusions in developmental research

Preclinical Dementia and Economic Well-Being Trajectories of Racially Diverse Older Adults

ObjectivesThis study examined the magnitude, changes, and racial/ethnic disparities in the economic costs of the 16-year preclinical phase of dementia—a period of cognitive decline without significant impact on daily activities. **Methods:** The study utilized two dementia algorithms to classify individuals with incident dementia in the Health and Retirement Study

Associations between adiposity measures and depression and well-being scores: A cross-sectional analysis of middle- to older-aged adults

CONCLUSIONS: These findings suggest that increased adiposity is significantly associated with poorer mental health, independent of lifestyle factors and disease conditions. Targeted interventions for reducing depression should include better population-level weight management measures.

Toxoplasma gondii seropositivity and cognitive functioning in older adults: an analysis of cross-sectional data of the National Health and Nutrition Examination Survey 2011-2014

CONCLUSIONS: Toxoplasma gondii seropositivity is associated with worse immediate and delayed verbal learning, language proficiency, executive functioning, processing speed, sustained attention, working memory, as well as global cognition in older adults. Public health measures aiming at preventing Toxoplasma gondii infection may help preserve cognitive functioning in older adults.

Association of perceived childhood socio-economic status and health with depressive symptoms among middle-aged and older adults in India: using data from LASI Wave I, 2017-2018

CONCLUSIONS: Childhood socioeconomic status and health have a significant role in determining mental health in later life. Results suggest that considering childhood socioeconomic status and health is important while diagnosing depression in older population in order to identify the significant associated factors in early childhood and thus help in preventing depressive symptoms in later life.

Bidirectional associations between sleep quality/duration and multimorbidity in middle-aged and older people Chinese adults: a longitudinal study

CONCLUSIONS: There was a bidirectional association between sleep quality or short sleep duration and multimorbidity in middle-aged and older Chinese adults. We recommend that greater attention be given to clinical management among adults with sleep disorders or physical multimorbidities.

Impact of hearing impairment on the mental status of the adults and older adults in Jordanian society

CONCLUSION: The present research revealed that psychological disabilities associated with hearing loss in the adult Jordanian population are more frequent and severe than in other nations. This may be attributed to the lack of awareness of the mental consequences of hearing loss among Jordanian healthcare providers and the public.

Cognitively enhanced tai chi improved cognition vs. tai chi or stretching at 24 wk in older adults with MCI or memory concerns

Li F, Harmer P, Eckstrom E, et al. Clinical effectiveness of cognitively enhanced tai ji quan training on global cognition and dual-task performance during walking in older adults with mild cognitive impairment or self-reported memory concerns: a randomized controlled trial. *Ann Intern Med.* 2023;176:1498-1507. 37903365.

Digital interventions for healthy ageing and cognitive health in older adults: a systematic review of mixed method studies and meta-analysis

CONCLUSIONS: Digital interventions used in older adults to facilitate healthy ageing were not always effective. Health knowledge improvement does not necessarily result in health risk reduction in that knowledge translation is key. Factors influencing knowledge translation (i.e., digital engagement, human coaching etc) were identified to determine the intervention effects

Associations between social networks, cognitive function, and quality of life among older adults in long-term care

CONCLUSIONS: Among individuals most at risk of social isolation, having supportive and fulfilling social networks was associated with preserved cognitive function. The relationship between service provision and social interactions that offer psychosocial support within long-term facilities and its impact over time on cognitive function requires further exploration.

Determining optimal cutoff scores of Cognitive Abilities Screening Instrument to identify dementia and mild cognitive impairment in Taiwan

CONCLUSION: Our results in this study underline the importance of establishing optimal cutoff scores for individuals with specific demographic characteristics and establishing profiles by which to guide CASI analysis.

Exploring the impact of information and communication technologies on loneliness and social isolation in community-dwelling older adults: a scoping review of reviews

CONCLUSIONS: This review sheds light on the diverse range of ICTs, their impact, and the facilitators and barriers associated with their use. Future investigations should prioritize refining outcome measures, addressing gender differences, and enhancing the usability and accessibility of interventions

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Physical activity and ageing

Assessing fall risk and equilibrium function in patients with age-related macular degeneration and glaucoma: An observational study

CONCLUSION: Self-efficacy was higher and fall risk was relatively lower among patients with mild-to-moderate visual impairment, with a tendency for sensory reweighting from visual to somatosensory in those with greater peripheral visual field impairment. Further studies are required to validate these findings.

Lifestyle-related factors in late midlife as predictors of frailty from late midlife into old age: a longitudinal birth cohort study

CONCLUSIONS: Lifestyle-related differences in frailty were already evident in late midlife and persisted into old age. Adopting one new healthy lifestyle-related factor had a small impact on a slightly less steeply increasing level of frailty. Maintaining regular exercise and sleeping habits may help prevent more rapid increases in frailty.

Iron status determined changes in health measures induced by nordic walking with time-restricted eating in older adults- a randomised trial

CONCLUSION: Body iron stores determine the effects of a 12-week NW + TRE intervention on serum ferritin. The changes in HbA1c are more pronounced in subjects with a higher decrease in serum ferritin.

Associations between cooking fuel use, its transitions, and worsening sensory impairments among Chinese middle-aged and older adults: a cohort study

CONCLUSION: Solid fuel use was associated with higher risks of worsening SI transitions, while converting the type of cooking fuel from solid to clean fuels may reduce the risk of worsening SI transitions

Analysis of related factors for sarco-osteoporosis in middle-aged and elderly inpatients and development and validation of a nomogram

CONCLUSIONS: Our research showed that the occurrence of sarco-osteoporosis was associated with age, regular exercise, albumin, height and lean mass index, and we have developed a nomogram that can be effectively used in the preliminary and in-depth risk prediction of sarco-osteoporosis in middle-aged and elderly hospitalized patients.

Perceived Balance, Balance Performance, and Falls Among Community-Dwelling Older Adults: A Retrospective, Cross-Sectional Study

Objectives: To examine the extent to which older adults' perceived balance, a balance performance test, and fear of falling (FOF) were associated with falls in the last month. Methods: The Health Belief Model served as the theoretical framework. A retrospective, cross-sectional, secondary analysis using data from the National Health and Aging Trends Study was conducted (N = 7499)

The accuracy of different calculation methods when identifying handgrip strength asymmetry among middle-aged and older Chinese adults

At present, there is no uniform standard mean of identifying handgrip strength (HGS) asymmetry based on maximum or average HGS values. Therefore, this study aimed to explore the accuracy of different calculation methods in the evaluation of HGS asymmetry

Social-media based Health Education plus Exercise Programme (SHEEP) to improve muscle function among community-dwelling young-old adults with possible sarcopenia in China: A study protocol for intervention development

Possible sarcopenia refers to low muscle strength. Prevalence of possible sarcopenia is estimated to be significantly higher in community-dwelling older adults than that of confirmed or severe sarcopenia. However, there are currently far fewer non-pharmacological intervention strategies for possible sarcopenia than for sarcopenia in the community

Self-reported factors associated with community ambulation after stroke: The Canadian Longitudinal Study on Aging

Community ambulation is frequently limited for people with stroke. It is, however, considered important to people with stroke. The objectives were to identify factors associated with self-reported community ambulation in Canadians aged 45+ with stroke and to identify factors associated with community ambulation specific to Canadian males and to Canadian females with stroke

Metabolomic response to acute resistance exercise in healthy older adults by 1H-NMR

CONCLUSIONS: This study demonstrates that while many exercise-responsive metabolites change similarly in young and older adults, several demonstrate age-dependent changes even in the absence of evidence of sarcopenia or frailty.

Study protocol for a prospective cohort study describing the injury characteristics in elite gymnasts in TeamGym: the Swedish TeamGym Injury Cohort - STIC

INTRODUCTION: Gymnastics consists of several different disciplines, whereof TeamGym is one. TeamGym is a young discipline with sparse research. The aim of the study is to investigate the injury characteristics in Swedish elite gymnasts competing in TeamGym including training load and other physical and psychological factors associated with injury.

Risk Assessment and Prevention of Falls in Older Community-Dwelling Adults: A Review

CONCLUSIONS AND RELEVANCE: More than 25% of older adults fall each year, and falls are the leading cause of injury-related death in persons aged 65 years or older. Functional exercises to improve leg strength and balance are recommended for fall prevention in average-risk to high-risk populations

Moving together: Increasing physical activity in older adults with an intergenerational technology-based intervention. A feasibility study

Robust evidence supports the role of physical activity and exercise in increasing longevity, decreasing morbidity and helping older adults maintain the highest quality of life attainable. However, the majority of older adults are not sufficiently physically active and interventions are needed to change their behaviors

Clinical challenges of biomechanical performance of narrow-diameter implants in maxillary posterior teeth in aging patients: A finite element analysis

This study evaluated the biomechanical performance of narrow-diameter implant (NDI) treatment in atrophic maxillary posterior teeth in aging patients by finite element analysis. The upper left posterior bone segment with first and second premolar teeth missing obtained from a patient's cone beam computed tomography data was simulated with cortical bone thicknesses of 0.5 and 1.0 mm

The association between physical activity and quality of life among people aged 60-89 living in own homes and nursing homes

CONCLUSIONS: Our research has shown that PA improves quality of life among older people. Higher scores of quality of life were obtained in the F1 subscale (satisfaction) than in the F2 subscale (meeting expectations) in both age groups. Age significantly affects quality of life for older people.

The Conceptual Definition of Sarcopenia: Delphi Consensus from the Global Leadership Initiative in Sarcopenia (GLIS)

CONCLUSION AND RELEVANCE: The GLIS has created the first global conceptual definition of sarcopenia, which will now serve to develop an operational definition for clinical and research settings.

Longitudinal association of sleep duration with possible sarcopenia: evidence from CHARLS

CONCLUSIONS: Short sleep duration was a potential risk factor for possible sarcopenia and low handgrip strength. The improvement of sleep duration should be considered a

target in early preventive and administrative strategies against the development of handgrip strength decline and further reduced the occurrence of sarcopenia.

Measurement properties of the usual and fast gait speed tests in community-dwelling older adults: a COSMIN-based systematic review

CONCLUSION: Findings from this review demonstrated evidence in support of the reliability and validity of the usual and fast gait speed tests in community-dwelling older adults. However, future validation studies should employ rigorous methodology and evaluate the tests' responsiveness.

Prevalence and risk factors of work-related musculoskeletal disorders among shopkeepers in Ethiopia: Evidence from a workplace cross-sectional study

CONCLUSION: This study revealed that shopkeepers face an alarmingly high prevalence of work-related musculoskeletal disorders. Female, older, overweight, stressed and shopkeepers who sit in the same position for long periods of time were identified as particularly vulnerable groups

Prevalence and impact of sarcopenia in individuals with heart failure with reduced ejection fraction (the SARC-HF study): A prospective observational study protocol

Sarcopenia, a clinical syndrome primarily associated with reduced muscle mass in the elderly, has a negative impact on quality of life and survival. It can occur secondarily to other diseases such as heart failure (HF), a complex clinical syndrome with high morbidity and mortality

Investigation of divergent thinking among surgeons and surgeon trainees in Canada (IDEAS): a mixed-methods study

CONCLUSIONS: The divergent thinking ability among surgeons and surgeon trainees was not meaningfully different from the adult normative score; however, their ability to generate original ideas was below average.

Do changes in the frailty score differ by the type of group sports and exercises participated in? A 3-year longitudinal study

CONCLUSION: Participation in specific sports and exercise groups offer significant physical and psychological benefits for frailty prevention among older adults in Japan. The results of this study may offer substantive evidence to encourage older adults to participate in group activities for the prevention of multidimensional frailty

Design guidelines for movement-assistive clothing based on a comprehensive understanding of older adults' needs and preferences

This study aimed to explore the needs and wants of older adults in the context of movement-assistive clothing (MSC), with a focus on muscle strength and posture correction. A survey was conducted to understand the needs and wants of older adults, considering aspects of functions and designs, and to evaluate the comfort, safety, ease of use, usefulness, and intention of users to purchase and use

Relationship between social isolation and glycaemic control of people previously diagnosed with diabetes: secondary analysis from the CHARLS

CONCLUSION: Middle-aged men with diabetes with higher social isolation tend to have higher blood glucose and glycosylated haemoglobin levels. This subset of patients requires targeted attention to provide social support from family and friends for improved glycaemic

control. If necessary, education on diabetes should be made available to family members and friends.

Knowledge, attitude, and practice of pre-diabetic older people regarding pre-diabetes

CONCLUSIONS: The older people in the pre-diabetes stage had low knowledge and attitude and a negative viewpoint towards correcting lifestyle on diet, exercising and physical activity, weight control, diagnostic and screening methods

Effects of oral oligopeptide preparation and exercise intervention in older people with sarcopenia: a randomized controlled trial

CONCLUSION: Both oral peptide nutrition and exercise interventions can improve the muscle strength or function of the older people with sarcopenia. However, there were no increases in muscle mass observed.

Associations of physical activity intensity, frequency, duration, and volume with the incidence of sarcopenia in middle-aged and older adults: a 4-year longitudinal study in China

CONCLUSIONS: These findings suggest that the frequency, duration, and volume of VPA or MPA are negatively associated with the presence of sarcopenia. Participation in LPA tends to have a lower incidence of sarcopenia in middle-aged and older adults.

Objectively measured the impact of ambient air pollution on physical activity for older adults

CONCLUSION: Air pollution demonstrates an inverse association with physical activity levels among older adults, potentially discouraging their engagement in physical activity. Different air quality indicators may exert varying impacts on physical activity. Future studies are warranted to enhance policy interventions aimed at reducing air pollution and promoting physical activity.

Alterations in stride-to-stride fluctuations in patients with chronic obstructive pulmonary disease during a self-paced treadmill 6-minute walk test

Evaluating variability and stability using measures for nonlinear dynamics may provide additional insight into the structure of the locomotor system, reflecting the neuromuscular system's organization of gait. This is in particular of interest when this system is affected by a respiratory disease and its extrapulmonary manifestations

Adjuvant chemotherapy and survival outcomes in older women with HR+/HER2- breast cancer: a propensity score-matched retrospective cohort study using the SEER database

CONCLUSIONS: Patients with HR+/HER2- BC ≥ 80 years of age may be considered exempt from ACT because no benefits were found in terms of OS and CSS.

Mortality and disability risk among older adults unable to complete grip strength and physical performance tests: a population-based cohort study from China

CONCLUSION: The risks of adverse events faced by older adults unable to complete the tests vary, indicating the necessity for future research to conduct separate analyses on this high-risk population.

A comparison of interferential current efficacy in elderly intervertebral disc degeneration patients with or without sarcopenia: a retrospective study

CONCLUSION: The prevalence of sarcopenia was high in intervertebral disc degeneration, and paravertebral muscles degeneration correlated with the degree of disc degeneration.

Compared to those without sarcopenia, intervertebral disc degeneration patients with sarcopenia have more severe pain, poorer mobility and neurological function

The immediate and lasting balance outcomes of clinical falls-prevention programs: A non-randomised study

CONCLUSION: These results indicate land-based and water-based falls-prevention programs improve physical outcome measures associated with falls-risk and many improvements are maintained for six months after the completion of the program. (Retrospective trial registration: ACTRN1262300119069).

Comparison across age groups of causes, circumstances, and consequences of falls among individuals living in Canada: A cross-sectional analysis of participants aged 45 to 85 years from the Canadian Longitudinal Study on Aging

Falls are a leading cause of injury-related deaths and hospitalizations among Canadians. Falls risk has been reported to be increased in individuals who are older and with certain health conditions. It is unclear whether rurality is a risk factor for falls. This study aimed to investigate: 1) fall profiles by age group e.g

Relationship between sacral-abdominal wall distance, movement performance, and spinal alignment in osteoporosis: a retrospective study

CONCLUSION: SAD was associated with posterior pelvic tilt and movement performance parameters. In addition to testing for osteoporosis, movement performance parameters should be evaluated in women with osteoporosis who are aged ≥ 65 and have greater SAD (≥ 160 mm in this study). The SAD is a new assessment method, and further research is required to verify its validity and reproducibility

Prevalence of and factors associated with multimorbidity among adults in Kuwait

CONCLUSION: This study provides evidence that multimorbidity is more prevalent among the elderly, females, and Kuwaiti nationals. Sedentary behaviour, smoking and alcohol consumption were significantly and independently associated with multimorbidity. These findings highlight the burden of multimorbidity and should be considered in the development of future prevention programs.

The need for evidence-based mobile health technology

No abstract

The preventative effects of statin on lung cancer development in patients with idiopathic pulmonary fibrosis using the National Health Insurance Service Database in Korea

Little is known about the effect of statin use in lung cancer development in idiopathic pulmonary fibrosis (IPF). We analyzed the database of the National Health Insurance Service to further investigate the clinical impacts of statin on lung cancer development and overall survival (OS) in IPF patients. The analysis included 9,182 individuals diagnosed with IPF, of which 3,372 (36

The association between healthy beverage index and sarcopenia in Iranian older adults: a case-control study

CONCLUSIONS: Our findings indicated that HBI is inversely related to the chance of sarcopenia. Therefore, to reduce the odds of sarcopenia, it is recommended to consume healthy drinks such as fruit juices and milk.

Serum soluble alpha-klotho and cognitive functioning in older adults aged 60 and 79: an analysis of cross-sectional data of the National Health and Nutrition Examination Survey 2011 to 2014

CONCLUSIONS: Lower serum soluble alpha-klotho quartile was associated with poorer cognitive functioning among older women. Future studies are expected to examine the longitudinal association between klotho levels and cognitive outcomes.

Determinants of multimorbidity in older adults in Iran: a cross-sectional study using latent class analysis on the Bushehr Elderly Health (BEH) program

BACKGROUND AND OBJECTIVES: Multimorbidity, defined as the presence of two or more long-term health conditions in an individual, is one of the most significant challenges facing health systems worldwide. This study aimed to identify determinants of classes of multimorbidity among older adults in Iran.

Protective effects of physical activity on episodic memory during aging are explained by executive functioning

Aging is marked by a memory decline related to an executive function decline. Physical activity (PA) has beneficial effects on both executive functions and memory, especially in aging. The protective effects of PA on these two cognitive abilities have always been studied separately, despite the well-established relationship between memory and executive functions

Arthritis prevalence is associated with metabolic syndrome risk factors but not with physical activity in middle-aged and older patients - a cross-sectional study

CONCLUSION: Middle-aged and older Europeans with multiple comorbidities suffered from RA, OA or other rheumatism more frequently than participants with fewer comorbidities, while the level of physical activity was not associated with the number of metabolic risk factors in patients with RA and OA/other rheumatism.

Differential association between physical activity behaviours and dynapenia by comorbid diseases in community-dwelling Korean older adults

CONCLUSION: We observed an independent inverse association between PA behaviours and dynapenia. Disease-specific associations between each PA behaviour (sufficient aerobic exercise, sufficient resistance exercise, and low sedentary time) and dynapenia differed in the older adults. Therefore, these differences should be acknowledged during interventions for this population.

Finding the balance between person-centred and treatment-centred discussions in advance care planning-a qualitative analysis of conversations within the MUTUAL (Multidisciplinary Timely Undertaken Advance Care Planning conversations) intervention using a narrative analysis

CONCLUSION: Person-centred and treatment-centred focus varied within the ACP conversations in the MUTUAL intervention. Certain strategies by healthcare professionals facilitated a more person-centred focus.

Cost-effectiveness of prehabilitation of elderly frail or pre-frail patients prior to elective surgery (PRAEP-GO) versus usual care - Protocol for a health economic evaluation alongside a randomized controlled trial

BACKGROUND: Prehabilitation aims to improve patients' functional capacity before surgery to reduce perioperative complications, promote recovery and decrease probability of disability. The planned economic evaluation is performed alongside a large German multi-

centre pragmatic, two-arm parallel-group, randomized controlled trial on prehabilitation for frail elderly patients before elective

Cutaneous melanoma in older patients

CONCLUSIONS: In older CMM patients, the clinicopathological presentation of CMM shows a distinctive profile. The present results provide critical information to optimize secondary prevention strategies and refine diagnostic-therapeutic procedures tailored to older patients.

Sleep Quality as a Critical Pathway Between Adverse Childhood Experiences and Multimorbidity and the Impact of Lifestyle

OBJECTIVES: This study aims to establish the effects of ACEs on multimorbidity through sleep quality and investigate whether lifestyle factors (e.g., eating habits and exercise) may influence this relationship among middle-aged and older adults.

Development and feasibility of a conceptual model for planning individualised physical exercise training (IPET) for older adults: a cross-sectional study

OBJECTIVE: Older adults constitute a heterogeneous group, and the focus of the individual physical exercise is often subject to the reasoning and experience of health professionals or exercise physiologists who prescribe them

Adverse childhood experiences, sarcopenia, and social participation in older adults: a cohort study

CONCLUSIONS: ACEs were associated with the development of sarcopenia; however, social participation had a modifying effect. These findings provide insights for early identification of vulnerable groups, advance intervention timing, and highlight the benefits of promoting active social participation among individuals with sarcopenia who have experienced ACEs.

Working retirees in Taiwan: examining determinants of different working status after retirement

This study aims to investigate the factors influencing the work status of retirees after retirement, especially focusing on self-employment and unpaid work. Data was taken and analyzed from the "Taiwan Health and Retirement Study," a nationally representative sample of retired personnel aged 50-74 in 2015-2016

Exploring determinants of sex and family history-based disparity in type 2 diabetes mellitus prevalence among clinical patients

CONCLUSIONS: The significance of hypertension as a comorbidity in T2DM, highlighting sex-specific associations and the potential impact of a family history of diabetes on blood pressure. Our findings emphasize the importance of considering lipid profiles, obesity, and their sex-specific associations when assessing and managing diabetes risk

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Employment, volunteering and ageing

Daylight saving time was not associated with a change in suicide rates in Austria, Switzerland and Sweden

CONCLUSIONS: There were no significant changes in suicide rates associated with DST and no clear evidence to support proposed mechanisms (light exposure, disruption of sleep). Our study is one of the largest and was adequately powered. Nonetheless, even larger studies to detect smaller effects could be important to inform the debate about harms and benefits of DST.

Exploring the impacts of age at menarche on cognitive aging in late adulthood: Evidence from a Mendelian randomization study on the Taiwanese population

CONCLUSION: Evidence from the present MR study did not fully support a causal relationship between AM and cognitive function decline in later life. Potential pleiotropic effects of the genes underlying these two traits are worth of further investigation.

Knowledge, attitude, and practice toward weight management among diabetic patients in Qidong City, Jiangsu Province

CONCLUSION: Diabetic patients showed moderate knowledge, neutral attitudes, and inappropriate practices toward weight management. Knowledge was positively associated with attitude and practice. These findings provided valuable directions for healthcare interventions targeting improved KAP status of weight management among diabetic patients.

Predictive characteristics and model development for acute heart failure preceding hip fracture surgery in elderly hypertensive patients: a retrospective machine learning approach

CONCLUSION: The predictive model developed in this study is highly accurate and serves as a powerful tool for the clinical assessment of the risk of preoperative acute heart failure in elderly hypertensive patients with hip fractures, aiding in the optimization of preoperative risk assessment and patient management.

Cross-sectional study of the burden and determinants of non-medical and opportunity costs of accessing chronic disease care in rural Tanzania

CONCLUSION: Outpatient care in Tanzania imposes considerable non-medical costs, particularly for people with CDs, besides illness-related opportunity costs. Despite having health insurance, patients with CDs who seek outpatient care in hospitals face higher financial burdens than other patients

Gender differences in alcohol drinking among adolescents: a school-based survey in China

CONCLUSIONS: Alcohol consumption is prevalent among Chinese adolescents, with some even classified as hazardous drinkers. These findings may offer valuable insights for policymakers and caregivers, guiding them in formulating appropriate interventions and support strategies.

Older women's experience with COVID-19 pandemic: A study of risk perception and coping among culturally and linguistically diverse population in South Australia

CONCLUSIONS: Evidence shows a fear among the older CALD women with an endeavor to cope and prepare for emergency situations. This suggests the requirements for interventions that improve coping and reduce the risk of stress among them.

Difficulties and challenges experienced by nurses in eldercare institutions in Albania: A qualitative content analysis

CONCLUSION: The findings indicate that nurses working in eldercare institutions faced significant challenges in caring for elderly people. Nurses need more legal, financial, educational, and emotional support. The study indicates that more organizational and

national support is necessary for nursing staff to care for elderly people in eldercare Albanian institutions properly

Electromyographic activity of pelvic floor muscles in different positions during the use an innovative vaginal educator: Cross-sectional study

The pelvic floor requires an integrated anatomical structure owing to its multiple functions. Therefore, it is necessary to study methods for improving muscle recruitment during training. This study aimed to analyze the effect of using an innovative vaginal trainer on the bioelectrical activity of the pelvic floor muscles

Adjuvant chemotherapy and survival in males aged 70 years or older with breast cancer: a population-based retrospective study

CONCLUSION: Adjuvant chemotherapy may benefit certain elderly male breast cancer patients, specifically those with positive lymph node status, poorly/undifferentiated grade, and PR-positive in stage III, as well as PR-negative expression in stage II/III. Given favorable physical tolerance, it is advisable not to hastily dismiss chemotherapy for these elderly male breast cancer patients.

The impact of epidemic infectious diseases on the relationship between subjective well-being and social class identity in older adults: The mediating role of Self-rated health

CONCLUSIONS: In the face of epidemic infectious diseases, we need to pay more attention to the Self-rated health of the elderly, and the Chinese government should take effective measures to improve their health level, which will in turn improve the subjective well-being of the elderly and realize the goal of healthy aging.

Motivation and associated factors of health development army in the implementation of health extension packages in Northwest Ethiopia: a cross-sectional study

CONCLUSION: The proportion of motivation among health development army members was low. To increase the motivation of health development army members in the implementation of the health extension package, measures or strategies may consider targeting members who live in rural areas, are older than 30 years, have less than 4 years of work experience, report low job satisfaction, have low community

Natural disasters, livelihood, and healthcare challenges of the people of a riverine island in Bangladesh: A mixed-method exploration

CONCLUSION: The failure to seek treatment for chronic diseases and undiagnosed diseases is a significant health issue among the aging adults on the island. Island residents face the challenge of establishing effective prevention strategies for the well-being of older adults especially at the period of natural disasters

Biochemical changes in lumbar facet joint and disc degeneration by T2* mapping

CONCLUSIONS: Downward trend of T2* values can be found in LFJ, AF and NP as the degenerative grade rised. But in elderly patients with low back pain, no change trend was found in LFJ due to increased fluid accumulation in the joint space.

Psychometric properties of the World Health Organization WHOQOL-AGE Scale in Singapore

WHOQOL-AGE is a promising quality of life (QOL) tool that has not been fully validated in Asia. The present study aimed to verify its factor structure and psychometric properties among community-dwelling older adults in Singapore. This study was cross-sectional and

used data (N = 593) from the Community Health and Intergenerational study that interviewed older adults between 2018 and 2021

Musculoskeletal pain affects the age of retirement and the risk of work cessation among older people

CONCLUSIONS: Frequent musculoskeletal pain may increase the risk of earlier work exit and earlier retirement. Further research should establish the mechanisms and decision making involved in leaving the workforce in people with frequent musculoskeletal pain.

Healthcare utilization and its association with socioeconomic status in China: Evidence from the 2011-2018 China Health and Retirement Longitudinal Study

CONCLUSIONS: Healthcare utilization rates were overall low in China, but relatively high for people in higher quintiles of per-capita household expenditure or those with morbidity, compared to their counterparts

Exposure to early-life adversity and long-term trajectories of multimorbidity among older adults in China: analysis of longitudinal data from the China Health and Retirement Longitudinal Study

CONCLUSIONS: There are heterogeneous long-term trajectories of multimorbidity in Chinese older adults, and the risk of multimorbidity associated with ELA accumulates over the lifespan. Our findings highlight the role of a supportive early-life family environment in promoting health development across the lifespan, advocating for the integration of life-course approaches to implementing health

Are changes in sleep problems associated with changes in life satisfaction during the retirement transition?

Retirement reduces sleep problems, but changes in life satisfaction during the retirement transition are multifactorial and partly unknown. The aim of this prospective cohort study was to examine whether changes in sleep problems are associated with changes in total and domain-specific life satisfaction during the retirement transition (on average 0.5 years before and 0.5 years after retirement)

Association between socioeconomic status and hypertension among adults in Fujian province and the mediating effect of BMI and cooking salt intake: a cross-sectional study

CONCLUSIONS: SES was associated with the prevalence of hypertension among adults in Fujian province, China. BMI and cooking salt intake were partial mediators of the association between SES and hypertension.

Socioeconomic differences in working life expectancy: a scoping review

CONCLUSIONS: The identified socioeconomic inequalities are highly relevant for policy makers and pose serious challenges for equitable pension policies. Many policy interventions aimed at increasing the length of working life follow a one-size-fits-all approach which does not take these inequalities into account

Moving in together in later life: Making spaces into places as a joint endeavor

BACKGROUND AND OBJECTIVES: We focus on the linkages between relocation, new forms of partner cohabitation, and retirement. What are the patterns and trajectories of moving in with a partner in retirement? How do older adults experience different transitions, place attachment, and placemaking when they move in with a partner?

Developing a disease-specific patient reported outcome measure to enhance understanding of the lived experiences of ANCA associated vasculitis: A protocol paper

Anti-neutrophil cytoplasmic antibody (ANCA) associated vasculitis (AAV) is a chronic, relapsing-remitting condition associated with increased morbidity. Previous research has shown patients with AAV report high levels of fatigue, pain, depression and anxiety

A 'hidden problem': Nature, prevalence and factors associated with sexual dysfunction in persons living with HIV/AIDS in Uganda

CONCLUSION: Sexual dysfunction has considerable prevalence among PLWHA in Uganda. It is associated with socio-demographic, psychiatric and clinical illness factors. To further improve the quality of life of PLWHA, they should be screened for sexual dysfunction as part of routine assessment.

Effects of telerehabilitation-based respiratory and corrective exercises among the elderly with thoracic hyper-kyphosis: a clinical trial

CONCLUSION: It is therefore recommended that online corrective exercises be used in the rehabilitation protocol to improve the quality of life, posture, chest expansion, and disability in the elderly with thoracic kyphosis.

A cross-sectional study determining prevalence and factors associated with ST-segment elevation myocardial infarction and non-ST segment elevation myocardial infarction in Iran: results from fasa registry on acute myocardial infarction (FaRMI)

CONCLUSION: In this study, significant predictors of MI risk included age, gender, anemia, lipid profile, inflammation, and renal function. Subsequent investigations ought to prioritize the comprehensive understanding of the underlying mechanisms that drive these connections and assess the effectiveness of specific interventions aimed at diminishing the occurrence of MI and improving patient

The Mentors in Violence Prevention programme: impact on students' knowledge and attitudes related to violence, prejudice, and abuse, and willingness to intervene as a bystander in secondary schools in England

CONCLUSIONS: Evidence from this study suggests MVP is effective as a targeted programme for mentors, but no significant evidence was found to demonstrate its effectiveness as a universal bystander and violence prevention programme for mentees

Factors associated with social participation among community-dwelling frail older adults in Japan: a cross-sectional study

CONCLUSIONS: Interactions with friends and neighbors and physical functionality are correlated with levels of social participation among frail older adults, suggesting that social participation can be promoted by maintaining friendships, forming new ones, and maintaining and improving physical functionality.

Association between maternal employment status and presence of children with major congenital anomalies in Denmark

CONCLUSION AND RELEVANCE: MCMCAs were less likely to participate in the Danish workforce, less likely to be employed, and more likely to receive disability pensions than mothers of unaffected children. The rate of leaving the workforce intensified as their affected children grew older

Who continues to work after retirement age?

CONCLUSION: These results are in line with the previous literature and suggest the importance of designing retirement policies that tailor the transition toward retirement according to specific characteristics of both the individual and the segment of occupation.

Unraveling the relationship between high-sensitivity C-reactive protein and frailty: evidence from longitudinal cohort study and genetic analysis

CONCLUSIONS: Our results suggest that reducing systemic inflammation is significant for developing strategies for frailty prevention and pre-frailty reversion in the middle-aged and elderly population.

Hypertension combined with limitations in activities of daily living and the risk for cardiovascular disease

CONCLUSION: Hypertension and limitations in ADL/IADL jointly increased the risk of CVD, stroke and cardiac events.

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Musculoskeletal health, falls prevention and ageing

Zoledronate for hip fractures: the road towards achieving consensus

No abstract

Validation of a fall rate prediction model for community-dwelling older adults: a combined analysis of three cohorts with 1850 participants

CONCLUSION: This analysis suggests that the fall history treated as a factor variable is a robust predictor of estimating future falls among different cohorts.

Correction: Efficacy of a modified FRAIL scale in predicting the peri-operative outcome of hepatectomy in older adults (aged ≥ 75 years): a model development study

No abstract

Construction of a nomogram model for deep vein thrombosis in patients with tibial plateau fracture based on the Systemic Inflammatory Response Index

CONCLUSION: The nomogram constructed based on SIRI can assist clinicians in early assessment of the probability of DVT occurrence.

How can we improve Comprehensive Geriatric Assessment for older people living with frailty in primary care and community settings? A qualitative study

CONCLUSIONS: Viable solutions to address gaps in the current delivery of CGA include the provision of training and support to use digital technology and a designated comprehensive care coordinator. The next stage of this research will use these findings, existing evidence and stakeholder engagement, to develop and refine a model of community-based CGA that can be assessed for feasibility and

Falls Prevention for Older Adults

No abstract

Association between admission albumin levels and 30-day readmission after hip fracture surgery in geriatric patients: a propensity score-matched study

CONCLUSIONS: Lower admission albumin levels were independently associated with higher 30-day readmission rates in elderly hip fracture patients. Our findings indicate that serum albumin may assist perioperative risk assessment, and prompt correction of hypoalbuminemia and malnutrition could reduce short-term readmissions after hip fracture surgery in this high-risk population.

Development and external validation of the eFalls tool: a multivariable prediction model for the risk of ED attendance or hospitalisation with a fall or fracture in older adults

CONCLUSION: The eFalls prediction model shows good performance and could support proactive stratification for falls prevention services if appropriately embedded into primary care EHR systems.

Promoting meaningful activities by occupational therapy in elderly care in Belgium: the ProMOTE intervention

CONCLUSION: This study transparently reflects on the process of a high-quality occupational therapy intervention to optimize the functional performance and social participation of the home-based physically frail older adult and describes the ProMOTE intervention in detail. The ProMOTE intervention contributes to safely aging in place and to maintaining social participation

Knowledge, protective behaviours, and perception of Lyme disease in an area of emerging risk: results from a cross-sectional survey of adults in Ottawa, Ontario

CONCLUSIONS: This study highlights the dynamics between Lyme disease knowledge, patterns of exposure risk awareness, and vigilance of personal protection in a Canadian region with emerging Lyme disease risk

IT-assisted comprehensive geriatric assessment for residents in care homes: quasi-experimental longitudinal study

CONCLUSIONS: Proactive, community-based i-CGA can improve documentation of care home residents' ACP preferences, and may reduce unplanned hospital admissions. In severely frail residents, a mortality reduction was seen in those who received an i-CGA.

Association between preoperative frailty and myocardial injury after noncardiac surgery in geriatric patients: study protocol for a prospective, multicentre, real-world observational, cohort trial

INTRODUCTION: Frailty has become a worldwide health burden that has a large influence on public health and clinical practice. The incidence of frailty is anticipated to increase as the ageing population increases. Myocardial injury after noncardiac surgery (MINS) is associated with short-term and long-term mortality. However, the incidence of MINS in frail geriatric patients is unknown.

The mediating effect of nutrition on oral frailty and fall risk in community-dwelling elderly people

CONCLUSIONS: Oral frailty was significantly associated with fall risk, and nutrition might be a mediating factor for adverse effects of oral frailty and fall risk. Enhancing the nutrition of older individuals is a vital approach to mitigating fall risk among those with oral frailty.

Post-discharge nutritional management for patients with coronary heart disease and frailty: a qualitative study

CONCLUSIONS: Nutrition management after discharge places a burden on elderly patients with coronary heart disease and frailty. According to the patients' physical conditions, we should develop a diet support system that is coordinated by individuals, families and society.

The impact of residential environment on older people's capabilities to live independently: a survey in Beijing

CONCLUSIONS: This study contributes to the literature by emphasizing the role of supportive residential environments in enabling older people to live independently. Furthermore, we identify four environmental factors that support older people's capabilities. Results can be used to develop effective community-based environmental support to enable older people to live independently.

The causal relationship between sleep disturbances and the risk of frailty: a two-sample Mendelian randomization study

CONCLUSIONS: Our research showed that there is a causal relationship between sleep disturbances and frailty. This result was obtained by a TSMR analysis, which involves the use of genetic variation as an IV to determine causal relationships between exposure and outcome. Future TSMR studies should include a larger sample for analysis.

Frailty on the island of Ireland: evidence from the NICOLA and TILDA studies

CONCLUSIONS: Frailty is a major public health concern for both jurisdictions. Further research and monitoring are required to elucidate why there is a higher prevalence in NI and to identify factors in early life that may be driving these differences.

Multivariable machine learning models for clinical prediction of subsequent hip fractures in older people using the Chinese population database

CONCLUSIONS: Our prediction models identify Chinese older people at high risk of subsequent hip fractures with specific baseline clinical and demographic variables such as length of hospital stay. These models might guide future targeted preventative treatments.

Missing Black males among preterm births in the US, 1995 to 2019

CONCLUSIONS: Analysis of over 10 million PTBs reveals a persistently low male PTB frequency among NH Black conception cohorts relative to NH white cohorts. Low PTB sex ratios among NH Black births concentrate among subgroups that show an elevated risk of fetal death. PTB sex ratios may serve as an indicator of racial/ethnic and subgroup differences in fetal death, especially among male gestations.

Long-term, patient-centered, frailty-based outcomes of older critical illness survivors from the emergency department: a post hoc analysis of the LIFE Study

CONCLUSIONS: Regardless of frailty, older ICU survivors from the emergency department were more likely to experience reduced QOL and ADL six months after ICU admission compared to baseline.

The impact of the COVID-19 pandemic on frail older people ageing in place alone in two Italian cities: Functional limitations, care arrangements and available services

The study aimed to explore and compare effects of lockdown, due to the COVID-19 pandemic in 2020, on frail older people living alone at home in Brescia and Ancona, two urban cities located respectively in Northern and Central Italy

Virtual wards for people with frailty: what works, for whom, how and why-a rapid realist review

CONCLUSIONS: Insights gained from this review could inform implementation or evaluation of VWs for frailty. A combination of acute and longer-term VWs may be needed within a whole system approach. Proactive care is recommended to avoid frailty-related crises.

"It's a stressful, trying time for the caretaker": an interpretive description qualitative study of postoperative transitions in care for older adults with frailty from the perspectives of informal caregivers

CONCLUSIONS: Transitions in care present challenges for informal caregivers of older adults with frailty, who play an important role in successful transitions. Future postoperative transitional care programs should consider making targeted information, accessible communication, and support networks available for caregivers as part of facilitating successful transitions in care.

Long-Term Effect of Randomization to Calcium and Vitamin D Supplementation on Health in Older Women : Postintervention Follow-up of a Randomized Clinical Trial

CONCLUSION: Calcium and vitamin D supplements seemed to reduce cancer mortality and increase CVD mortality after more than 20 years of follow-up among postmenopausal women, with no effect on all-cause mortality.

Images of care: A pedagogy of rosiness about aging transitions

How do people learn about what it is like to become frail and require assistance with activities of daily living? This significant transition in the life course is often avoided and denied by those in North America. This paper examines images from the websites of agencies providing care to older adults in their homes as one aspect of a wider social pedagogy about aging

The timescapes of older adults living alone and receiving home care: An interview study

In this study, we drew on Barbara Adam's (1998) timescape perspective and applied a timescape lens to our analysis of how nine older adults who live alone, receive home care and are considered by home care professionals to be frail, experience living (in) time. Over a period of eight months, we conducted three interviews with each of the nine participants

Factors associated with caregiver burden of toileting assistance at home versus in a nursing home: A cross-sectional study

This study aimed to identify differences in caregiver burden related to toileting assistance, and examine the factors associated with the most burdensome aspects of providing toileting assistance. In 2019, a self-administered postal survey was conducted with 743 caregivers of older adults who received subsidies for continence products in Komatsu City, Japan

Prevalence and population characteristics associated with frailty in a rural low socioeconomic area in Denmark: the Lolland-Falster Health Study

CONCLUSION: The syndrome of frailty consists of not only physiological and medical issues but also education, life conditions such as living alone and living in poverty and how you evaluate your own health.

Correlation of preoperative frailty with postoperative delirium and one-year mortality in Chinese geriatric patients undergoing noncardiac surgery: Study protocol for a prospective observational cohort study

BACKGROUND: To Frailty is associated with postoperative delirium (POD) but is rarely assessed in patients undergoing noncardiac surgery. In this study, the correlation between preoperative frailty and POD, one-year mortality will be investigated in noncardiac Chinese geriatric surgery patients.

Bone mineral density in lower thoracic vertebra for osteoporosis diagnosis in older adults during CT lung cancer screening

CONCLUSION: Calculating the threshold of TBMD or normalizing TBMD to LBMD are both useful in identifying osteoporosis in older adults during CT lung cancer screening.

Tobacco use and its associated factors among middle and old-aged women in India using LASI wave-1 data

CONCLUSION: Given the heightened susceptibility of these demographic groups to tobacco use, it is crucial to prioritize tobacco prevention and cessation initiatives specifically tailored to their needs and circumstances.

Longitudinal assessment of the relationship between frailty and social relationships among Japanese older adults: a random intercept cross-lagged panel model

CONCLUSIONS: The results suggest that frailty was associated with lower levels of social relationships. Frailty improvement programs can be combined with interventions to enhance social relationships, which will be beneficial in preventing frailty. The results emphasize the importance of combining clinical treatments of frailty with interventions to improve social relationships.

Defining and assessing psychological frailty in older adults: a scoping review protocol

INTRODUCTION: Frailty is widely acknowledged as a multidimensional construct encompassing physical, psychological and social aspects. However, the lack of consensus in defining and operationalising psychological frailty challenges the holistic approach to frailty advocated by health professionals

Bone density of the cervical, thoracic and lumbar spine measured using Hounsfield units of computed tomography - results of 4350 vertebrae

CONCLUSIONS: In our study, bone density decreased from cranial to caudal with higher values in the cervical spine. These data from the individual spinal segments may be helpful to comprehensively evaluate the status of the spine and to design a better preoperative plan before instrumentation.

Female university students' fertility intentions and their psychosocial factors

CONCLUSION: The level of feminist identity is significantly and negatively related to childbearing desires. Psychosocial factors have a greater degree of influence on fertility intentions, with the level of feminist identity, the perception of fertility hindrances and the perception of fertility supports all significantly impacting fertility intentions

Age- and sex-specific associations of frailty with mortality and healthcare utilization in community-dwelling adults from Ontario, Canada

CONCLUSIONS: These findings suggest that frailty is an important health construct for both younger and older adults. Hence targeted interventions to reduce the impact of frailty before the age of 60 would likely have important economic and social implications in both the short- and long-term.

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Ageism and discrimination

Social Mobility and Health-Related Quality of Life Trajectory Classes Among Older Women and Men

OBJECTIVES: Changes in socioeconomic status (SES) during life may impact health in old age. We investigated whether social mobility and childhood and adulthood SES are associated with trajectories of health-related quality of life (HrQoL) over a 17-year period.

Socioeconomic inequalities in accumulation of multimorbidity in England from 2019 to 2049: a microsimulation projection study

BACKGROUND: There are socioeconomic inequalities in the prevalence of multimorbidity and its accumulation across the life course. Estimates of multimorbidity prevalence in English primary care increased by more than two-thirds from 2004 to 2019. We developed a microsimulation model to quantify current and projected multimorbidity inequalities in the English adult population.

Improvement of scoring system used before discharge to predict 30-day all-cause unplanned readmission in geriatric population: a prospective cohort study

CONCLUSIONS: Malignancy, delirium, length of stay ≥ 10 days, and being at risk of malnutrition or malnourished are predictors for 30-day all-cause unplanned readmission. The sensitive scoring system is a strong model to identify whether an individual is at higher risk for readmission

Psychometric evaluation of the Decision Support System (DSS) for municipal nurses encountering health deterioration among older adults

CONCLUSIONS: The Rasch analysis revealed that the psychometric properties of the instrument were acceptable, although further research with a larger sample size and more items is needed. The DSS has the potential to assist municipal RNs in making clinical decisions regarding health deterioration in older adults, thereby avoiding unnecessary emergency admission and helping.

Experiences of the clinical academic pathway: a qualitative study in Greater Manchester to improve the opportunities of minoritised clinical academics

CONCLUSIONS: Cultural and structural interventions are needed, such as introducing financial support for early career CAs and intercalating healthcare students to promote wider social and cultural change and increase the feelings of belonging and representation across the entire CA pipeline.

Quantitative measures of discrimination with application to appointment processes

Bias and discrimination in appointment processes such as hiring decisions (and analogous selection procedures for performance evaluations, promotions, scholarships, and awards), are quantified statistically via the binomial distribution. These statistical measures are described and an easily used webapp for calculating them is provided

Age differences in emotional reactions to ageist memes and changes in age of one's Best Self

Memes on social media can carry ageist messages and can elicit reactions that are both emotional and self-evaluative. The present study investigates age-related differences in nine discrete emotions and in the evaluation of when individuals have been or will be their best selves

Healthy aging, self-care, and choice in India: Class-based engagements with globally circulating ideologies

Euro-American notions of successful and healthy aging are taking root globally, shaped and inflected by local cultural and political contexts. India is one place where globally inflected discourses of healthy, active, and successful aging are on the rise. However, notions about just what constitutes healthy aging and how to achieve such a goal do not play out the same way across the globe

Impacts of income inequality and the mediation role of reporting delays on COVID-19 deaths during 2020 and 2021 in Hong Kong: an observational study

CONCLUSION: The disparity in COVID-19 deaths between income regions is not due to reporting delays, but rather to health inequities in Hong Kong. These risks may persist after the discontinuation of test-and-trace measures and extend to other high-threat respiratory pathogens

Determinants of public health expenditure in the EU

CONCLUSION: Since increases in public health expenditure in EU member states are mainly triggered by GDP increases, it is expected that differences in PHE per capita across member states will persist and, consequently, making it more difficult to attain the health equity sustainable development goal

Systematic review of social determinants of childhood immunisation in low- and middle-income countries and equity impact analysis of childhood vaccination coverage in Nigeria

CONCLUSIONS: Basic vaccination coverage is below target levels for all groups. Children from the poorest households, of Fulani ethnicity, who were born in home settings, and with young mothers with no formal education nor antenatal care, were associated with lower odds of basic vaccination in Nigeria

Prevalence of perceived discrimination, determinants and associations with self-rated general and sexual health, healthcare utilization and self-perceived integration: a cross-sectional survey of migrants in Sweden

CONCLUSIONS: This study shows that migrants in Sweden face widespread perceived discrimination based on ethnicity and religion. This can affect their health, healthcare use, and social integration. The study calls for policies and interventions that tackle systemic perceived discrimination, foster inclusion, and guarantee equal opportunities in accessing healthcare and resources for migrants

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