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Healthy Ageing Current Awareness Update

January 2024

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

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COVID-19 and ageing

Higher-Dose Fluvoxamine and Time to Sustained Recovery in Outpatients With COVID-19

This randomized study examines the effect of higher-dose fluvoxamine on time to sustained recovery from mild to moderate COVID-19 or progression to severe disease in nonhospitalized adults.

Caregiving Tied to Mental Health Decline, Including in Younger People

The transition to unpaid caregiving was linked with increased psychological distress and worse mental health, according to results from a nationally representative survey of UK participants aged 16 years or older.

[Newsdesk] Research in brief

A study found that when compared to placebo, 100 mg of fluvoxamine taken twice per day did not reduce the duration of symptoms in outpatients with mild-to-moderate COVID-19. Researchers did a platform randomised trial in 1175 participants aged 30 years and older in the USA who had COVID-19 while omicron subvariants were circulating

Addressing Eldercare to Promote Gender Equity in Academic Medicine

This Viewpoint argues for an expansion of paid family leave policies to include eldercare as a way to support the well-being of faculty members, retain physicians, and promote gender equity in academic medicine.

Nationwide Survey Reflects State of US Behavioral and Mental Health

Roughly 49 million people aged 12 years or older in the US lived with a substance use disorder in 2022, and about 59 million people lived with a mental illness, according to numbers from the National Survey on Drug Use and Health released by the Substance Abuse and Mental Health Services Administration (SAMHSA).

Tuberculosis Diagnostic Delays and Treatment Outcomes among Patients with COVID-19, California, USA, 2020

E. Han et al.

Population-Based Study of Pertussis Incidence and Risk Factors among Persons 50 Years of Age, Australia

R. Pearce et al.

Racial and Ethnic Disparities in Tuberculosis Incidence, Arkansas, USA, 2010–2021

M. Humayun et al.

COVID-19–Related School Closures, United States, July 27, 2020–June 30, 2022

N. Zviedrite et al.

Down Syndrome in a New Era for Alzheimer Disease

This Viewpoint explains the genetic association between Alzheimer disease and Down syndrome and the negative impact of excluding people with Down syndrome from clinical trials on treatment for Alzheimer disease.

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Healthy lifestyle and dementia prevention

Care needs assessment of older adults with dementia in a semi-rural district in Vietnam: A community-based cross-sectional study

CONCLUSIONS: Unmet needs for PWLD are common. Increased caregiver education, resources, and services in Vietnam are urgently required to improve the quality of life for this population.

Childhood Maltreatment and Dementia Risk Factors in Midlife: A Prospective Investigation

CONCLUSION: These findings provide evidence that childhood maltreatment increases the risk for dementia in mid-life and has a demonstrable impact lasting over 30 years. Reducing the prevalence of mid-life dementia risk factors could reduce the risk of later-life dementia.

A long-term ketogenic diet in young and aged rats has dissociable effects on prelimbic cortex and CA3 ensemble activity

INTRODUCTION: Age-related cognitive decline has been linked to distinct patterns of cellular dysfunction in the prelimbic cortex (PL) and the CA3 subregion of the hippocampus. Because higher cognitive functions require both structures, selectively targeting a neurobiological change in one region, at the expense of the other, is not likely to restore normal behavior in older animals

The determinants of public acceptance of telemedicine apps: an innovation diffusion perspective

With the rapid advancement of information technology, telemedicine apps have gradually become an indispensable tool for providing patients with more convenient, efficient, and accessible healthcare services. However, the successful implementation of these apps largely depends on widespread acceptance among the public

An explainable machine learning model of cognitive decline derived from speech

INTRODUCTION: Traditional Alzheimer's disease (AD) and mild cognitive impairment (MCI) screening lacks the sensitivity and timeliness required to detect subtle indicators of cognitive decline. Multimodal artificial intelligence technologies using only speech data promise improved detection of neurodegenerative disorders.

Effect of blood pressure on mortality in patients with cognitive impairment: a prospective cohort study

CONCLUSIONS: Participants with CI exhibited a markedly elevated risk of all-cause and CVD-specific mortality when coexisting with hypertension. Appropriate management of hypertension in patients with CI may be helpful in reducing the excess risk of death.

Follow-up after PICU discharge for patients with acquired brain injury: the role of an abbreviated neuropsychological evaluation and a return-to-school program

CONCLUSIONS: Abbreviated neurocognitive and psychological evaluation successfully identifies the same deficits commonly found among PICU survivors who undergo longer, more complete testing protocols. When combined with services aimed at successfully re-integrating PICU survivors back to school, this focused evaluation can provide an effective and efficient means of screening for cognitive and

Advances in the prevention and treatment of Alzheimer's disease based on oral bacteria

With the global population undergoing demographic shift towards aging, the prevalence of Alzheimer's disease (AD), a prominent neurodegenerative disorder that primarily afflicts individuals aged 65 and above, has increased across various geographical regions

Content Validity and Cognitive Testing in the Development of a Motivational Interviewing Self-Assessment Questionnaire

CONCLUSIONS: The final version of the questionnaire demonstrated appropriate content validity for use in studies among Slovenian MI-based ASBI practitioners and is now ready for further psychometric testing.

Impact of Obesity on Atrial Fibrillation Pathogenesis and Treatment Options

Atrial fibrillation (AF) is the most common cardiac arrhythmia. AF increases the risk of stroke, heart failure, dementia, and hospitalization. Obesity significantly increases AF risk, both directly and indirectly, through related conditions, like hypertension, diabetes, and heart failure

Aortic Characteristic Impedance and Suspected Mild Cognitive Impairment in a Community-Based Healthy Population

CONCLUSIONS: This study found that Zc was significantly associated with Mini-Mental State Examination score and suspected MCI, especially in younger and middle-aged adults. These findings suggest that Zc may be a useful biomarker for identifying individuals at risk for MCI.

Suboptimal Sleep Duration Is Associated With Poorer Neuroimaging Brain Health Profiles in Middle-Aged Individuals Without Stroke or Dementia

CONCLUSIONS: Among middle-aged adults without stroke or dementia, suboptimal sleep duration is associated with poorer neuroimaging brain health profiles. Because these neuroimaging markers precede stroke and dementia by several years, these findings are consistent with other findings evaluating early interventions to improve this modifiable risk factor.

Association between structural brain MRI abnormalities and epilepsy in older adults

OBJECTIVE: To determine the association between brain MRI abnormalities and incident epilepsy in older adults.

Acute high-intensity interval exercise improves food-related cognition in young adults with obesity: An ERP study

Purpose Cognitive function, particularly food-related cognition, is critical for maintaining a healthy weight and preventing the acceleration of obesity. High-Intensity Interval Exercise (HIIE) is an increasingly popular form of exercise and has been shown to improve physical fitness and cognitive function

Top Alzheimer's disease risk allele frequencies differ in HABS-HD Mexican- versus Non-Hispanic White Americans

INTRODUCTION: Here we evaluate frequencies of the top 10 Alzheimer's disease (AD) risk alleles for late-onset AD in Mexican American (MA) and non-Hispanic White (NHW) American participants enrolled in the Health and Aging Brain Study-Health Disparities Study cohort

Traumatic Encephalopathy Syndrome and Tauopathy in a 19-Year-Old With Child Abuse

The majority of traumatic encephalopathy syndrome (TES) cases have been reported in former contact sport athletes. This is the first case with TES in a 19-year-old male patient with progressive cognitive decline after daily domestic physical violence through repeated hits to the head for 15 years. The patient presented with a moderate depressive episode and progressive cognitive decline

Early intervention and adding effective doses of EGb761 like Ginkgo extract slow down dementia progression: insights to the neurovascular unit

CONCLUSION: Pharmacological interventions, particularly the use of AChEIs and memantine, can have a positive impact on cognitive function and overall function in individuals with dementia. The combination of AChEIs with EGb761 like Ginkgo extract may provide additional benefits in slowing down disease progression in AD cases

Knowledge on cause, clinical manifestation and treatment for fibromyalgia among medical doctors: A worldwide survey

OBJECTIVES: Hensch introduced the fibromyalgia syndrome almost 50 years ago. In the meantime, the prevalence has increased, the clinical criteria have changed and the way we explain (chronic) pain has altered.

Long-term effects of low prenatal alcohol exposure on GABAergic interneurons of the murine posterior parietal cortex

CONCLUSIONS: These results suggest that impairments in cognitive control observed in FASD may be due to the significant reduction of parvalbumin-expressing GABAergic interneurons in the PPC. PAE animals may show compensatory changes in GABAergic function following developmental reduction of these interneurons.

The Effect of Surgical Weight Loss on Cognition in Individuals with Class II/III Obesity

CONCLUSIONS: Following bariatric surgery, the age-adjusted composite cognitive outcome did not change, but an executive subtest score improved. These results suggest that bariatric surgery may mitigate the natural history of cognitive decline in individuals with obesity, which is expected to be faster than normal aging, but confirmatory randomized controlled trials are needed

Dose-Response Relationships between Diet Quality and Mortality among Frail and Non-Frail Older Adults: A Population-Based Kyoto-Kameoka Prospective Cohort Study

CONCLUSIONS: Our findings demonstrate an L-shaped association between diet quality and mortality in both frail and non-frail individuals. This study may provide important knowledge for improving poor diet quality in older individuals with frailty or domains of frailty.

Does hazelnut consumption affect brain health and function against neurodegenerative diseases?

INTRODUCTION: A healthy daily diet and consuming certain nutrients, such as polyphenols, vitamins, and unsaturated fatty acids, may help neuronal health maintenance. Polyphenolic chemicals, which have antioxidant and anti-inflammatory properties, are involved in the neuroprotective pathway

Study on effects of 40 Hz light flicker stimulation on spatial working memory in rats and its neural mechanism

Alzheimer's disease (AD) is a neurodegenerative disease characterized by cognitive impairment, with the predominant clinical diagnosis of spatial working memory (SWM) deficiency, which seriously affects the physical and mental health of patients

Utility of the Japanese version of the Clinical Dementia Rating® plus National Alzheimer's Coordinating Centre Behaviour and Language Domains for sporadic cases of frontotemporal dementia in Japan

CONCLUSIONS: This study validated the Japanese version of the CDR® plus NACC FTLD with good reliability, validity, and responsiveness.

Risk factors of cognitive impairment: Impact of decline in oral function

Cognitive impairment and subsequent dementia are the major causes of disability and need for nursing care among older people in worldwide. The purpose is to review well-known risk factors for cognitive impairment and dementia, focusing on the relationship between decline in oral function and current prevention strategies

Role of menopausal hormone therapy in the prevention of postmenopausal osteoporosis

The use of menopausal hormone therapy (MHT) has declined due to concerns about its potential side effects. However, its pivotal role in managing postmenopausal osteoporosis is gaining increased recognition. In this article, we explore how MHT assists postmenopausal women in maintaining bone health and preventing fractures

Bidirectional associations between hearing difficulty and cognitive function in Chinese adults: a longitudinal study

CONCLUSION: These results showed that within-person relationships between hearing impairment and cognitive function were unidirectional, while between-person relationships were reciprocal. Setting mental health first may be able to break the vicious cycle that relates hearing loss to cognitive decline

The Prevalence of Depression and Anxiety Symptoms and Their Association With Respiratory Diseases

CONCLUSIONS: Anxiety and depression are frequent disorders in patients with respiratory diseases, negatively affecting the prognosis. Routine mental health screening and multidisciplinary management are essential in this population.

Evaluation of 'Normal' Cognitive Functions and Correlation With MRI Volumetry: Towards a Definition of Vascular Cognitive Impairment

Introduction It is important to establish criteria to define vascular cognitive impairment (VCI) in India as VCI is an image-based diagnosis and magnetic resonance imaging (MRI) changes resulting from age with prevalent vascular risk factors may confound MRI interpretation

Anti-diabetics and the Prevention of Dementia: A Systematic Review

Type 2 diabetes mellitus (T2DM) is a worldwide epidemic that is only increasing as the years progress, and as of 2019, affecting over 37 million. T2DM is a chronic condition caused by reduced insulin secretion and increased insulin resistance. Due to insulin not operating at optimal conditions, blood glucose rises and remains high, thus disturbing metabolic hemostasis

Neuronal plasticity in hippocampal neurons due to chronic mild stress and after stress removal in postnatal chicks

The avian dorsomedial surface of the cerebral hemisphere is occupied by the hippocampal complex (HCC), which plays an important role in learning, memory, cognitive functions, and regulating instinctive behavior patterns

Long COVID in Pakistan: a cross-sectional analysis of health and psychosocial outcomes

According to the World Health Organization-led Delphi consensus, long COVID corresponds to the occurrence of symptoms beyond twelve weeks after the onset of acute COVID-19 illness that cannot be explained by alternate diagnosis. This cross-sectional study aimed to analyse the impacts of long COVID on general health and psychosocial well-being

Toxicity Evaluation of Anti-cholinesterasic Amphibian Extracts by MTT and an Optimized Artemia salina Test

The amphibian skin is an important source of bioactive compounds. Recently, our workgroup reported the bioactivity of new extracts from the Hylidae, Microhylidae and Leptodactylidae families against several pathways involved in Alzheimer's disease

Dietary Tyrosine Intake (FFQ) Is Associated with Locus Coeruleus, Attention and Grey Matter Maintenance: An MRI Structural Study on 398 Healthy Individuals of the Berlin Aging Study-II

CONCLUSIONS: These findings provide the first evidence linking tyrosine intake with LC-NA system signal intensity and its correlation with neuropsychological performance. This study strengthens the role of diet for maintaining brain and cognitive health and supports the noradrenergic theory of cognitive reserve

Multi-Domain Interventions for Dementia Prevention - A Systematic Review

CONCLUSION: This systematic review aimed to determine the effect of multimodal lifestyle interventions on cognitive outcomes in older adults at risk of dementia. We found that participants with conditions that may increase the risk of dementia, (e.g., hypertension, cardiovascular fragility) do benefit from multi-modal lifestyle changes including diet, physical activity, and cognitive training

Is There a Sex-Frailty Paradox in Dementia?

No abstract

Effects of 50 Hz electromagnetic field on rat working memory and investigation of neural mechanisms

With the widespread use of electrical equipment, cognitive functions such as working memory (WM) could be severely affected when people are exposed to 50 Hz electromagnetic fields (EMF) for long term. However, the effects of EMF exposure on WM and its neural mechanism remain unclear

Brain white matter microstructural changes in chemotherapy-treated older long-term breast cancer survivors

CONCLUSIONS: Brain white matter microstructural alterations may be the underlying neural correlates of cognitive changes in older breast cancer survivors who had chemotherapy treatment years ago.

Prefrontal cortex glutamatergic adaptations in a mouse model of alcohol use disorder

Alcohol use disorder (AUD) produces cognitive deficits, indicating a shift in prefrontal cortex (PFC) function. PFC glutamate neurotransmission is mostly mediated by α -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid-type ionotropic receptors (AMPA receptors); however preclinical studies have mostly focused on other receptor subtypes

Nanopharmacology as a new approach to treat neuroinflammatory disorders

Neuroinflammation, a complex process involving the activation of microglia, astrocytes, and other immune cells in the brain, plays a role in neurodegeneration and psychiatric disorders. Current therapeutic strategies for neuroinflammation are limited, necessitating the development of improved approaches

Clinical characteristics and prognosis in patients with neuronal surface antibody-mediated autoimmune encephalitis: a single-center cohort study in China

CONCLUSIONS: Different AE subtypes demonstrated different clinical symptom spectra throughout the disease stage. Anti-LGI1 encephalitis and anti-CASPR2 encephalitis were more sensitive to first-line and second-line treatments. Anti-GABA(B)R encephalitis had the worst prognosis among the abovementioned subtypes

Lifespan trajectories of risk preference, impulsivity, and self-control: A dataset containing self-report, informant-report, behavioral, hormone and functional neuroimaging measures from a cross-sectional human sample

This paper describes data collected from a cross-sectional convenience sample of 200 healthy human volunteers between 16 and 81 years of age. We assembled an extensive battery of measures of risk preference, impulsivity, and self-control, as well as a range of demographic and cognitive measures. Crucially, we adopted different measure categories, including self-reports, informant reports,

Combination of anti-CGRP/CGRP-R mAbs with onabotulinumtoxin A as a novel therapeutic approach for refractory chronic migraine: a retrospective study of real-world clinical evidence and a protocol for a double-blind, randomized clinical trial to establish the efficacy and safety

Chronic migraine is a disabling neurovascular disorder that ranks amongst the top causes of years lived with disability worldwide. The duration and the frequency of migraine affect cognitive and affective domains, inducing worsening of memory, executive functions, orientation and causing anxiety. Population-based studies report a worrying level of resistance to treatments

Hyponatremia and Identification of Seniors at Risk (ISAR) Score in Geriatric Patients: An Analytical Cross-Sectional Study

Aim and objective Hyponatremia is the most common electrolyte abnormality in hospitalized patients. Age is an important, strong independent factor for hyponatremia. Geriatric at-risk groups are identified with six straightforward dichotomous questions

The Effect of Acute and Chronic Formaldehyde Exposure on Learning and Memory in Male and Female Rats

Formaldehyde is a chemical that can cause various disorders when it enters metabolism. Many products that people use contain formaldehyde. Owing to its tissue fixative properties, scientists who work in life sciences are exposed to this substance more than others

Hexahydrocurcumin attenuated demyelination and improved cognitive impairment in chronic cerebral hypoperfusion rats

Age-related white matter lesions (WML) frequently present vascular problems by decreasing cerebral blood supply, resulting in the condition known as chronic cerebral hypoperfusion (CCH). This study aimed to investigate the effect of hexahydrocurcumin (HHC) on the processes of demyelination and remyelination induced by the model of the Bilateral Common Carotid Artery Occlusion (BCCAO) for 29 days

GBA-associated Parkinson's disease in Hungary: clinical features and genetic insights

CONCLUSION: We need further studies to better understand the drivers of clinical differences in these patients, as this could have important therapeutic implications.

Effect of Psychological and Medication Therapies for Insomnia on Daytime Functions: A Randomized Clinical Trial

CONCLUSIONS AND RELEVANCE: In this randomized clinical trial of adults with insomnia disorder, BT and zolpidem produced improvements for various daytime symptoms of insomnia that were no different between treatments. Adding a second treatment offered an added value with further improvements of daytime functions.

Enhancing early language and literacy skills for racial/ethnic minority children with low incomes through a randomized clinical trial: The mediating role of cognitively stimulating parent-child interactions

Parenting is a critical mediator of children's school readiness. In line with this theory of change, data from the randomized clinical trial of Smart Beginnings (tiered Video Interaction Project and Family Check-Up; N = 403, treatment arm n = 201) were used to examine treatment impacts on early language and literacy skills at child age 4 years (n(Latinx) = 168, n(Black) = 198, n(Male) = 203), as

Liver integrity and the risk of Alzheimer's disease and related dementias

INTRODUCTION: We examined midlife (1990-1992, mean age 57) and late-life (2011-2013, mean age 75) nonalcoholic fatty liver disease (NAFLD) and aminotransferase with incident dementia risk through 2019 in the Atherosclerosis Risk in Communities (ARIC) Study.

Hyperbaric oxygen alleviates selective domains of cognitive and motor deficits in female 5xFAD mice

Treatment of Alzheimer's disease (AD) has been limited to managing of symptoms or anti-amyloid therapy with limited results and uncertainty. Seeking out new therapies that can reverse the effects of this devastating disease is important. Hyperbaric oxygen (HBO) therapy could be such a candidate as it has been shown to improve brain function in certain neurological conditions

Relationship between hair cortisol concentrations and cognitive functioning in adolescents with ADHD

Background: Our study aimed to explore whether the hair cortisol concentration (HCC), a measure of long-term cortisol output, is associated with poorer cognitive functioning in adolescents with attention deficit and hyperactivity disorder (ADHD). We further aimed to test the potential moderating effects of sex and childhood maltreatment

Stigma associated with cutaneous and mucocutaneous leishmaniasis: A systematic review

CONCLUSIONS: There are various manifestations of stigma associated with CL and MCL. This review highlights the lack of knowledge on the structural stigma associated with CL, the lack of stigma interventions and the need for a unique stigma tool to measure stigma associated with CL and MCL.

Effects of Acute Physical Fatigue on Gaze Behavior in Expert Badminton Players

Perceptual cognitive skills in real game settings, under conditions of fatigue, such as the ability to gather relevant visual information, are key factors in achieving motor goals in sports. The objectives were to evaluate the effects of acute physical fatigue on gaze

behavior during a badminton game (Study 1) and in an unfavorable force ratio situation (Study 2)

Treatment of Concurrent Depression and Its Effect on Outcomes After Total Joint Arthroplasty: A Systematic Review of Comparative Studies

CONCLUSION: Interventions targeted at PDDs may improve short-term pain and functional outcomes, and there may be an association between selective serotonin reuptake inhibitor use and implant survival. The current literature is limited and inconclusive, with important gaps in understanding regarding the optimization and treatment of this modifiable risk factor

The peptide Acein promotes dopamine secretion through clec-126 to extend the lifespan of elderly *C. elegans*

Dopamine plays a crucial role in regulating brain activity and movement and modulating human behavior, cognition and mood. Regulating dopamine signaling may improve cognitive abilities and physical functions during aging. Acein, a nonapeptide of sequence H-Pro-Pro-Thr-Thr-Thr-Lys-Phe-Ala-Ala-OH is able to stimulate dopamine secretion in the brain

Selenomethionine alleviates decabromodiphenyl ether-induced oxidative stress and ferroptosis via the NRF2/GPX4 pathway in the chicken brain

Decabromodiphenyl ether (BDE209) is a toxic environmental pollutant that can cause neurotoxicity, behavioral abnormalities, and cognitive impairment in animals. However, the specific mechanisms of BDE209-induced neurological injury and effective preventative and therapeutic interventions are lacking

Longitudinal Clusters of Long-Term Trajectories in Patients with Early-Onset Chronic Depression: 2 Years of Naturalistic Follow-Up after Extensive Psychological Treatment

CONCLUSION: While some patients experienced stable remission over 2 years of follow-up, the majority of patients experienced subthreshold or major depressive symptoms regardless of former study treatment with CBASP or SP. This calls for a long-term perspective implementing staging and innovative treatment approaches such as the sequential model or modular psychotherapy.

Alzheimer's Disease and Alzheimer's Disease-Related Dementias in Hispanics: Identifying Influential Factors and Supporting Caregivers

Alzheimer's disease (AD) and Alzheimer's disease-related dementias (ADRD) are the primary public health concerns in the United States and around the globe. AD/ADRD are irreversible mental illnesses that primarily impair memory and thought processes and may lead to cognitive decline among older individuals

Association evaluations of oral anticoagulants with dementia risk based on genomic and real-world data

CONCLUSIONS: This study reveals that the inhibition of genetically proxied VKORC1 expression or VKAs exposure is associated with a reduced risk of Alzheimer's dementia. However, there is little evidence to support similar associations with direct oral anticoagulants (F2 inhibitors and F10 inhibitors). Further research is warranted to clinically validate our findings.

Bipolarity in Older individuals Living without Drugs (BOLD): Protocol and preliminary findings

CONCLUSION: A group of individuals exists that meets diagnostic criteria of BD and is living without maintenance medication. They appear to be relatively successful in terms of psychosocial functioning, although they do not have a milder clinical course than those on maintenance medication. The high prevalence of childhood trauma warrants further investigation

Defects in AMPAR trafficking and microglia activation underlie socio-cognitive deficits associated to decreased expression of phosphodiesterase 2 a

Phosphodiesterase 2 A (PDE2A) is an enzyme involved in the homeostasis of cAMP and cGMP and is the most highly expressed PDE in human brain regions critical for socio-cognitive behavior. In cerebral cortex and hippocampus, PDE2A expression level is upregulated in Fmr1-KO mice, a model of the Fragile X Syndrome (FXS), the most common form of inherited intellectual disability (ID) and autism

NLRP3-GSDMD-dependent IL-1 β secretion from microglia mediates learning and memory impairment in a chronic intermittent hypoxia-induced mouse model

Hypoxia/reoxygenation caused by chronic intermittent hypoxia (CIH) plays an important role in cognitive deficits in patients with obstructive sleep apnea. However, the precise underlying mechanism remains unclear

Reconstitution of the Alzheimer's Disease Tau Core Structure from Recombinant Tau297-391 Yields Variable Quaternary Structures as Seen by Negative Stain and Cryo-EM

The protein tau misfolds into disease-specific fibrillar structures in more than 20 neurodegenerative diseases collectively referred to as tauopathies. To understand and prevent disease-specific mechanisms of filament formation, in vitro models for aggregation that robustly yield these different end point structures will be necessary

Nurse-delivered sleep restriction therapy in primary care for adults with insomnia disorder: a mixed-methods process evaluation

CONCLUSION: SRT was successfully delivered by practice nurses and was generally well received by patients, despite some difficulties delivering and applying the intervention in practice.

Re-thinking the role of primary care in dementia prevention

No abstract

A unique neuropsychophysiological approach to objectify emotion (dys)regulation in healthy older adults during the COVID-19 pandemic

The response of older people to the COVID-19 pandemic has attracted much attention as they are at increased risk of adverse outcomes. A longitudinal study has shown that improvement in global cognitive, executive and language functioning in healthy older adults enrolled at the University of the Third Age appears to play a protective role against emotional dysregulation and mood changes during the

Randomized trial comparing standard versus light intensity parent training for anxious youth

CONCLUSION: This is the second randomized controlled trial (RCT) evaluating SPACE and provides further support for the efficacy of this intervention both in standard and low-dose formats. This study provides support for parent-led anxiety treatment targeting family accommodation as a primary mechanism of change and extends evidence of efficacy to a more clinically diverse sample.

We don't know what you did last summer. On the importance of transparent reporting of reaction time data pre-processing

In behavioral, cognitive, and social sciences, reaction time measures are an important source of information. However, analyses on reaction time data are affected by researchers' analytical choices and the order in which these choices are applied

Cognitive impairment in intensive care unit patients: A qualitative exploration through observations and interviews

CONCLUSIONS: The findings provided a nuanced exploration of how patients in the intensive care unit grapple with cognitive impairments, leaving them feeling exposed and vulnerable due to increased dependency and loss of dignity. Relatives' presence and help was a huge support during admission.

Crisis response planning rapidly reduces suicidal ideation among U.S. military veterans receiving massed cognitive processing therapy for PTSD

Posttraumatic stress disorder (PTSD) is common among U.S. military veterans and is associated with increased risk of suicidal thoughts and behaviors. Crisis response planning (CRP), a brief safety planning-type intervention, has been shown to rapidly reduce suicidal ideation and suicide attempts in emergency and acute care settings

High Radiation Dose to the Fornix Causes Symptomatic Radiation Necrosis in Patients with Anaplastic Oligodendroglioma

CONCLUSION: The maximum dose to the fornix was a significant factor for SRN development. While fornix sparing may help maintain neurocognitive function, additional studies are needed.

Identification and reduction of retained primitive reflexes by sensory stimulation in autism spectrum disorder: effects on qEEG networks and cognitive functions

Several authors have reported finding retained primitive reflexes (RPRs) in individuals with autism spectrum disorders (ASD). This case report describes the reduction of RPRs and changes in cognitive function after transcutaneous electrical nerve stimulation (TENS) of muscle. Three individuals were examined in a study at the Institute for Neurology and Neurosurgery in Havana, Cuba

COGNITIVE ASPECTS OF DEPRESSION IN VICTIMS OF RADIATION ACCIDENTS, THE COVID-19 PANDEMIC, AND WARS

The relevance of the work is due to the significant increase in depression with cognitive disorders (CD) worldwide, and in Ukraine in particular, in victims of emergencies situations (ES), and the importance, but insufficient development of clinical and psychopathological aspects of medical and psychological-psychiatric care for this contingent of people

Psychometric properties and normative data of the Italian version of the Cognitive Function at Work Questionnaire: a screening tool for detecting subjective cognitive complaints at work

CONCLUSIONS: The Italian CFWQ showed good psychometric properties, in analogy with the original English scale. Therefore, it can be successfully employed in organizational contexts to possibly identify workers with CC and therefore with possible co-occurrent psychological, behavioral, and cognitive consequences.

Registered replication report of the construct validity of the error-related negativity (ERN): A multi-site study of task-specific ERN correlations with internalizing and externalizing symptoms

Intact cognitive control is critical for goal-directed behavior and is widely studied using the error-related negativity (ERN). A common assumption in such studies is that ERNs recorded during different experimental paradigms reflect the same construct or functionally equivalent processes and that ERN is functionally distinct from other error-monitoring event-related brain potentials (ERPs; error

Effects of Corticosterone on Beta-Amyloid-Induced Cell Death in SH-SY5Y Cells

Alzheimer's disease (AD) is a neurodegenerative disease characterized by neuronal cell death and memory impairment. Corticosterone (CORT) is a glucocorticoid hormone produced by the hypothalamic-pituitary-adrenal axis in response to a stressful condition

A short staff training system for behavioural and psychological symptoms of dementia in care facilities, based on functional analysis and positive behaviour support: a single-arm pre- and post-comparative study

CONCLUSIONS: This preliminary study suggests that the training system is promising. A randomised controlled trial with a larger sample size is necessary to confirm the findings.

Communication with physicians and family about breast Cancer recurrence

CONCLUSION: Additional supports for patients and physicians are needed to improve understanding of breast cancer recurrence risk and risk factors for recurrence.

Network analysis and relationship of symptom factors to functional outcomes and quality of life following mild traumatic brain injury: a TRACK-TBI study

INTRODUCTION: Mild traumatic brain injury (mTBI) is a heterogenous injury which can be difficult to characterize and manage. Using cross-sectional network analysis (NA) to conceptualize mTBI symptoms offers an innovative solution to identify how mTBI symptoms relate to each other

C9orf72 Repeat Expansion Discordance in 6 Multigenerational Kindreds

BACKGROUND AND OBJECTIVES: A hexanucleotide repeat expansion in the noncoding region of the C9orf72 gene is the most common genetically identifiable cause of amyotrophic lateral sclerosis (ALS) and frontotemporal dementia in populations of European ancestry

An Automated Virtual Reality Program Accurately Diagnoses HIV-Associated Neurocognitive Disorders in Older People With HIV

CONCLUSIONS: The DETECT cognition module provides a novel means to identify cognitive impairment in older PWH. As DETECT is fully immersive and self-administered, this virtual reality tool holds promise as a scalable cognitive screening battery.

Knowledge mapping of exercise and physical activity research in older adults: Hotspots, bursts, and trends of the last decade

BACKGROUND AND OBJECTIVES: Global aging has increased the importance of health management in older adults. Exercise is a crucial strategy for healthy aging and has led to numerous scientific advancements due to its impact on age-related illnesses

Analyzing risk factors for post-acute recovery in older adults with Alzheimer's disease and related dementia: A new semi-parametric model for large-scale medicare claims

Nearly 300,000 older adults experience a hip fracture every year, the majority of which occur following a fall. Unfortunately, recovery after fall-related trauma such as hip fracture is poor, where older adults diagnosed with Alzheimer's disease and related dementia (ADRD) spend a particularly long time in hospitals or rehabilitation facilities during the post-operative recuperation period

Parenting with fetal alcohol spectrum disorders and neurobehavioral outcomes in offspring

CONCLUSION: Parents with FASD display notable strengths including a predominantly authoritative parenting style. However, parents with FASD underrecognize child trauma and show an underutilization of developmental services compared to socioeconomically matched controls, despite similar neurocognitive impairments

Impact of type, intensity, frequency, duration and volume of physical activity on dementia and mild cognitive impairment in older adults: protocol for a systematic review and meta-analysis

INTRODUCTION: Worldwide, the prevalence of degenerative diseases such as dementia and mild cognitive impairment (MCI) is increasing with population ageing and increasing life expectancy. Both conditions share modifiable risk factors. Physical inactivity is one of these modifiable risk factors, and research points to the protective effect of physical activity on the incidence of dementia and MCI

What are best practices for involving family caregivers in interventions aimed at responsive behaviour stemming from unmet needs of people with dementia in nursing homes: a scoping review

CONCLUSION: Best practices for involving family caregivers in interventions aimed at addressing responsive behaviour in residents with dementia concerned those interventions in which family caregivers were given an important role in managing responsive behaviour

A Systematic Review of Evidence-Based Treatments for Adolescent and Adult Sexual Assault Victims

CONCLUSIONS: Mental health nurses who provide services for victims of SA can utilize this overview to guide recommendations for treatment of SA trauma and related PTSD symptoms to mitigate the short- and long-term negative impacts after a traumatic event. When victims of SA receive optimal mental health treatments, our communities benefit as victims heal and recover.

Neurocognitive Dysfunction and predictors in non-CNS cancer patients: Rationale and methods for the neuro-oncology research at a South African academic hospital

BACKGROUND: The focus on central nervous system (CNS) malignancies has overshadowed scant but substantial research that suggests non-central nervous cancer patients experience cancer-related cognitive impairment (CRCI), which affects higher-order brain function and influences their quality of life

Compliance with CBT referral in nursing home residents diagnosed with depression: Results from a feasibility study

CONCLUSION: Within the implemented setting compliance rate was comparable to other age groups. Future interventions should include detailed psychoeducation on the benefits of

psychotherapy on mild depressive symptoms in older age and evidence-based interventions to address the stigma of depression

Mediation analysis of chronotype, sleep-related factors, and depressive symptoms among workers: a cross-sectional study

CONCLUSIONS: Evening chronotypes exhibit an increased risk of depressive symptoms, which ISI, PSQI, and PSAS-C partially mediated. This suggests that interventions to improve sleep quality and maintain adequate sleep habits may effectively prevent and treat depression in employees with an eveningness chronotype.

Structural flexibility and heterogeneity of recombinant human glial fibrillary acidic protein (GFAP)

Glial fibrillary acidic protein (GFAP) is a promising biomarker for brain and spinal cord disorders. Recent studies have highlighted the differences in the reliability of GFAP measurements in different biological matrices. The reason for these discrepancies is poorly understood as our knowledge of the protein's 3-dimensional conformation, proteoforms, and aggregation remains limited

Adding Neurofeedback Training to Neuromuscular Training for Rehabilitation of Chronic Ankle Instability: A 3-Arm Randomized Controlled Trial

CONCLUSION: NMT+NFT as a treatment protocol improved postural control, ankle proprioception, anxiety, and depression greater than NMT alone.

Functional benefits of cognitively driven pupil-size changes

Pupil-size changes are typically associated with the pupil light response (PLR), where they are driven by the physical entry of light into the eye. However, pupil-size changes are also influenced by various cognitive processes, where they are driven by higher-level cognition

Managing Hypertension in Older Adults

PURPOSE OF REVIEW: The population of older adults 60-79 years globally is projected to double from 800 million to 1.6 billion between 2015 and 2050, while adults ≥ 80 years were forecast to more than triple from 125 to 430 million. The risk for cardiovascular events doubles with each decade of aging and each 20 mmHg increase of systolic blood pressure

From Pathways to Partnerships: Building Patient-Centered Clinical Tracks (PCCT) in Outpatient Community Mental Health Settings

Clinical pathways are structured multidisciplinary care plans used by treatment providers to detail essential steps in the care of patients based on assessment of their current health care needs and motivation and commitment for treatment

Discovery of Quinolinone Hybrids as Dual Inhibitors of Acetylcholinesterase and A β Aggregation for Alzheimer's Disease Therapy

The development of multitargeted therapeutics has evolved as a promising strategy to identify efficient therapeutics for neurological disorders. We report herein new quinolinone hybrids as dual inhibitors of acetylcholinesterase (AChE) and A β aggregation that function as multitargeted ligands for Alzheimer's disease

Experiences of patients with chronic low back pain plus comorbid depressive symptoms in a videoconference group acceptance and commitment therapy or behavioral activation treatment for depression: a qualitative study

CONCLUSION: This study provided support for the acceptability of videoconference-delivered ACT or BATD in patients with CLBP plus comorbid depressive symptoms.

A nomogram to predict the risk of cognitive impairment in patients with depressive disorder

This study was to describe the cognitive function status in patients with depressive disorder and to construct a nomogram model to predict the risk factors of cognitive impairment in these patients. From October 2019 to February 2021, a total of 141 patients with depressive disorder completed the survey in two hospitals

Quality Criteria for Studies Assessing the Acute Effects of Heading: Results from a UEFA Expert Panel

There is increasing concern regarding the effects of heading in football on brain health including cognitive, behavioural and neuromotor function, with research suggesting an association between repeated ball-head impacts and neurodegenerative disease

Influencing factors of falls among older adults in Chinese retirement institutions: A systematic review and meta-analysis

CONCLUSION: Falls among older adults in Chinese nursing homes were common, and there were many influencing factors. Timely screening and intervention should be implemented to reduce the adverse consequences of falls on older adults.

The influence of college students' aesthetic cognitions on aesthetic behaviours: The Chain mediation effect

This research investigates the psychological and behavioural mechanisms of college students' aesthetic behaviours. A survey was administered to 1,060 students attending general undergraduate universities and measured four structured scales: aesthetic cognition, aesthetic emotion, aesthetic value tendency and aesthetic behaviour. The responses were scored with a 5-point Likert scale

Metric information in cognitive maps: Euclidean embedding of non-Euclidean environments

The structure of the internal representation of surrounding space, the so-called cognitive map, has long been debated. A Euclidean metric map is the most straight-forward hypothesis, but human navigation has been shown to systematically deviate from the Euclidean ground truth

Neighborhood Perceptions are Associated with Intrinsic Amygdala Activity and Resting-State Connectivity with Salience Network Nodes Among Older Adults

CONCLUSIONS: Taken together, our findings document relationships between select neighborhood perceptions and amygdala activity as well as connectivity with salience network nodes; if confirmed, targeted community-level interventions and existing community strengths may promote brain-behavior relationships.

A Microfluidic High-Capacity Screening Platform for Neurological Disorders

Compartmentalized cell cultures (CCCs) provide the possibility to study mechanisms of neurodegenerative diseases, such as spreading of misfolded proteins in Alzheimer's or Parkinson's disease or functional changes in, e.g., chronic pain, in vitro. However, many CCC devices do not provide the necessary capacity for identifying novel mechanisms, targets, or drugs in a drug discovery context

Efficacy and safety of non-invasive brain stimulation on cognitive function for cognitive impairment associated with schizophrenia: A systematic review and meta-analysis

Based on existing evidence of the effects of the most commonly used non-invasive brain stimulation (NIBS), which includes transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS), we conducted a meta-analysis to investigate the cognitive improvement and safety of NIBS on schizophrenia-related cognitive impairment

NFE2L1/Nrf1 serves as a potential therapeutical target for neurodegenerative diseases

The failure of the proper protein turnover in the nervous system is mainly linked to a variety of neurodegenerative disorders. Therefore, a better understanding of key protein degradation through the ubiquitin-proteasome system is critical for effective prevention and treatment of those disorders

Association between periodontitis and mild cognitive impairment: a systematic review and meta-analysis

CONCLUSIONS: Patients with periodontitis are at a higher risk of developing MCI and the periodontal health of MCI patients is generally compromised.

The polysaccharides from the fruits of *Lycium barbarum* ameliorate high-fat and high-fructose diet-induced cognitive impairment via regulating blood glucose and mediating gut microbiota

High-fat and high-fructose diet (HFFD) consumption can induce cognitive dysfunction and gut microbiota disorder. In the present study, the effects of the polysaccharides from the fruits of *Lycium barbarum* L. (LBPs) on HFFD-induced cognitive deficits and gut microbiota dysbiosis were investigated

Triple interactions between the environment, brain, and behavior in children: An ABCD study

CONCLUSIONS: This work revealed comprehensive environment-brain-behavior triple interactions based on ABCD study, identified cognitive control and default mode networks as the most predictive functional networks for a wide repertoire of behaviors, and underscored the long-lasting impact of critical environmental exposures on childhood development, in which sleep problem was the most prominent

Assessing the feasibility of a randomised controlled trial examining the effect of hearing aids on cognitive decline in elderly individuals: a study protocol

INTRODUCTION: Hearing loss is one of the leading potentially modifiable risk factors for dementia. There is growing evidence suggesting that treating hearing loss with hearing aids could be a relatively low-cost intervention in reducing cognitive decline and the risk of dementia in the long term

Dynamic Foraging Behavior Performance Is Not Affected by *Scn2a* Haploinsufficiency

Dysfunction in the gene *SCN2A*, which encodes the voltage-gated sodium channel $Na(v)1.2$, is strongly associated with neurodevelopmental disorders including autism spectrum disorder and intellectual disability (ASD/ID). This dysfunction typically manifests in these disorders as a haploinsufficiency, where loss of one copy of a gene cannot be compensated for by the other allele

Ability change across multiple domains in mucopolysaccharidosis (Sanfilippo syndrome) type IIIA

The objective of this paper is 1) to expand the scope of the domains previously published in a natural history study of Mucopolysaccharidosis IIIA (Sanfilippo syndrome type A) (MPS IIIA) and 2) to present evidence regarding the capacity of a new metric, Growth Scale

Values (GSVs), in comparison with traditional metrics, to show changes in skills as assessed by the Bayley Scales of Infant

A neural autopilot theory of habit: Evidence from consumer purchases and social media use

This article applies a two-process "neural autopilot" model to field data. The autopilot model hypothesizes that habitual choice occurs when the reward from a behavior has low numerical "doubt" (i.e., reward prediction errors are small). The model toggles between repeating a previous choice (habit) when doubt is low and making a goal-directed choice when doubt is high

Examining the impact of perceived psychological distances of quitting and continuing tobacco smoking on antismoking intention: a cross-sectional study

To date, little research has been conducted to understand the role of psychological distances on smoking behaviour. Construal Level Theory posits that individuals mentally construe events, objects, or ideas based on their perceived distance in terms of spatial, temporal, social, and hypothetical dimensions, influencing their judgments and decision-making processes

Air particulate pollution exposure associated with impaired cognition via microbiota gut-brain axis: an evidence from rural elderly female in northwest China

This study aimed to reveal harm of exposure to indoor air pollution to cognitive function through "gut-brain-axis" among rural elderly residents. There were 120 participants recruited in rural villages of northwest China from December 2021 to February 2022

Impact of demographics and comorbid conditions on plasma biomarkers concentrations and their diagnostic accuracy in a memory clinic cohort

Plasma biomarkers have emerged as promising tools for identifying amyloid beta (A β) pathology. Before implementation in routine clinical practice, confounding factors modifying their concentration beyond neurodegenerative diseases should be identified

Rheumatoid arthritis is a protective factor against Alzheimer's disease: a bidirectional two-sample Mendelian randomization study

CONCLUSIONS: The results of this two-way two-sample Mendelian randomization analysis revealed a causal association between genetic susceptibility to RA and a reduced risk of AD but did not reveal a causal association between genetic susceptibility to AD and an increased or reduced risk of RA.

Adherence to the Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet and exposure to selenium species: A cross-sectional study

Selenium is a trace element found in many chemical forms. Selenium and its species have nutritional and toxicologic properties, some of which may play a role in the etiology of neurological disease. We hypothesized that adherence to the Mediterranean-Dietary Approach to Stop Hypertension Intervention for Neurodegenerative Delay (MIND) diet could influence intake and endogenous concentrations of

An overview of systematic reviews of acupuncture for neurodegenerative disease

CONCLUSION: Evidence suggests that acupuncture is generally effective and relatively safe for cognitive function and activities of daily living in neurodegenerative diseases. In addition, acupuncture may have some benefits in improving motor and non-motor symptoms in patients with PD

Effectiveness and safety of second-generation antipsychotics for psychiatric disorders apart from schizophrenia: A systematic review and meta-analysis

Second-generation antipsychotics (SGAs) are widely used in treating schizophrenia and related disorders, also other mental disorders. However, the efficacy and safety of SGAs for treating other mental disorders is unclear

Synthesis and biological evaluations of 8-biaryl-2,2-dimethylbenzopyranamide derivatives against Alzheimer's disease and ischemic stroke

Alzheimer's disease, the commonest cause of dementia, is a growing global health concern with huge implications for individuals and society. Stroke has still been a significant challenge in clinics for a long time, which is the second leading cause of death in the world, especially ischemic stroke

Novel quinazolinone Derivatives: Design, synthesis and in vivo evaluation as potential agents targeting Alzheimer disease

Since Alzheimer disease is one of the most prevalent types of dementia with a high mortality and disability rate, so development of multi-target drugs becomes the major strategy for battling AD. This study shows the development of a series of quinazolinone based derivatives as novel, multifunctional anti-AD drugs that exhibit both cholinesterase inhibitory and anti-inflammatory properties

Impact of sleep deprivation on the brain's inflammatory response triggered by lipopolysaccharide, and its consequences on spatial learning and memory and long-term potentiation in male rats

CONCLUSION: These findings suggest that the combined effects of SD and brain inflammatory response can have more harmful effects on cognitive function, LTP, and inflammatory factors than either SD or LPS1 alone.

Binge ethanol exposure in advanced age elevates neuroinflammation and early indicators of neurodegeneration and cognitive impairment in female mice

Binge drinking is rising among aged adults (>65 years of age), however the contribution of alcohol misuse to neurodegenerative disease development is not well understood. Both advanced age and repeated binge ethanol exposure increase neuroinflammation, which is an important component of neurodegeneration and cognitive dysfunction

Defining anthropometric thresholds (mid-arm circumference and calf circumference) in older adults residing in the community: a cross-sectional analysis using data from the population representative Longitudinal Aging Study in India (LASI DAD)

CONCLUSION: Our study identifies a high BMI prevalence, especially among females, individuals with higher education, urban residents and those with comorbidities. We establish gender-specific MAC and CC cut-off values with significant implications for healthcare, policy and research

Resistance and Resilience to Alzheimer's Disease

Dementia is a significant public health crisis; the most common underlying cause of age-related cognitive decline and dementia is Alzheimer's disease neuropathologic change (ADNC). As such, there is an urgent need to identify novel therapeutic targets for the treatment and prevention of the underlying pathologic processes that contribute to the development of AD dementia

Clinical features and neurobiochemical mechanisms of olfactory dysfunction in patients with Parkinson disease

This study aimed to investigate clinical features, influencing factors and neurobiochemical mechanisms of olfactory dysfunction (OD) in Parkinson disease (PD). Total 39 patients were divided into the PD with OD (PD-OD) and PD with no OD (PD-nOD) groups according to overall olfactory function, including threshold, discrimination and identification, assessed by Sniffin' Sticks test

Palliative Care Costs in Different Ambulatory-Based Settings: A Systematic Review

CONCLUSIONS: This systematic review reveals that studies on the costs of ambulatory-based palliative care are increasing. These studies are mostly conducted from a healthcare system perspective, which leaves out costs related to patients'/caregivers' economic burden

The Cerebellum and Cognitive Function: Anatomical Evidence from a Transdiagnostic Sample

Multiple lines of evidence across human functional, lesion, and animal data point to a cerebellar role, in particular of crus I, crus II, and lobule VIIB, in cognitive function. However, a mapping of distinct facets of cognitive function to cerebellar structure is missing. We analyzed structural neuroimaging data from the Healthy Brain Network (HBN)

Predicting Support for COVID-19 Policies with Partisan Media Use and Negative Emotion: Evidence from the U.S. and South Korea

While prior scholarship on preventive health behaviors has focused on identifying their cognitive predictors, emerging literature suggests that emotion may also be an important determinant of health behaviors. Drawing from appraisal theory and the discrete-emotions models of affect, the current study establishes emotional pathways to support for COVID-19 policies and social distancing behavior

Cognitive deficits profiles in the first-episode of schizophrenia, clinical high risk of psychosis, and genetically high-risk of psychosis

CONCLUSION: Significant cognitive deficits exist in individuals with CHR, GHR, and FES, and these deficits vary across domains. Processing speed and attention/vigilance could potentially serve as robust biomarkers for identifying individuals at a risk of psychosis

Treatment of Cognitive Deficits and Behavioral Symptoms Following COVID-19-Associated Autoimmune Encephalitis With Intravenous Immunoglobulin: A Case Report and Review of the Literature

Coronavirus disease 2019 (COVID-19) is associated with long-term neuropsychiatric sequelae. We describe a 60-year-old male patient's history and symptom trajectory encompassing the development of behavioral symptoms and cognitive deficits following pneumonia and subsequent autoimmune encephalitis associated with COVID-19

Large-scale genome-wide association study to identify causal relationships and potential mediators between education and autoimmune diseases

CONCLUSION: Higher levels of education-related factors have a protective effect on the risk of several autoimmune disorders. Reducing smoking and BMI and promoting income equality can mitigate health risks associated with low education levels.

Dyadic influences on awareness of condition in people with dementia: findings from the IDEAL cohort

CONCLUSION: Few dyadic characteristics were important, but caregiver stress was higher where caregivers reported more RADIX difficulties and/or the difference in perspective was greater, whereas partners with dementia reported better mood

Combination Therapy with Platelet-Rich Plasma and Epidermal Neural Crest Stem Cells Increases Treatment Efficacy in Vascular Dementia

This study aimed to evaluate the efficacy and treatment mechanism of platelet-rich plasma (PRP) and neural crest-derived epidermal stem cells (ESCs) in their administration alone and combination in vascular dementia (VaD) model by two-vessel occlusion (2VO).
Methods. Sixty-six rats were divided into six groups: the control, sham, 2VO + vehicle, 2VO + PRP, 2VO + ESC, and 2VO + ESC + PRP

Dual Mobility Cup in Fractures of the Femoral Neck in Neuromuscular Disorders and Cognitive Dysfunction Patients above 60 years-old

CONCLUSION: Dual mobility cup is effective in preventing early dislocation in patients suffered from fracture neck of femur with muscle weakness due to neurologic disorders.

Post-translational modifications linked to preclinical Alzheimer's disease-related pathological and cognitive changes

INTRODUCTION: In this study, we leverage proteomic techniques to identify communities of proteins underlying Alzheimer's disease (AD) risk among clinically unimpaired (CU) older adults.

Micronutrient Deficiencies in Older Adults in Latin-America: A Narrative Review

CONCLUSION: Information on the micronutrient status in OA from LAC is poorly documented. Research and capacity building initiatives in the region are crucial to develop tailored strategies that address the specific nutritional needs and challenges faced by the ageing population in Latin-America.

Examining Antecedents of Factual Knowledge and Perceived Familiarity of COVID-19 Contact Tracing App: A Modified Cognitive Mediation Model

This study employs a modified cognitive mediation model to investigate the role of health valuation and fear in shaping media attention, factual knowledge, and perceived familiarity with COVID-19 contact tracing apps. Data were collected from a national survey of 906 Singaporeans, and structural equation modeling was used to analyze the results

Contributions of amyloid beta and cerebral small vessel disease in clinical decline

INTRODUCTION: We assessed whether co-morbid small vessel disease (SVD) has clinical predictive value in preclinical or prodromal Alzheimer's disease.

Cognitive Interview Validation of a Novel Household Hazard Vulnerability Assessment Instrument

CONCLUSION: Potential for racial bias exists relative to water dam failure, evacuation, external flood, suspicious packages/substances, and transportation failure. Hazard terms that were not interpreted as intended require further revision in the validation process of individual or household disaster vulnerability assessments

A Cross-Sectional Study of Cognitive Function, Illness Perceptions, and Immunosuppression Medication Adherence After Heart Transplantation

CONCLUSION: Cognitive impairment may be more common among heart transplant recipients than what is currently recognized, and specific domains of cognitive function were

related to medication adherence after transplantation in this study. Future studies should include longitudinal evaluations of cognitive function, depression, and medication adherence

Identifying brain tumor patients' subtypes based on pre-diagnostic history and clinical characteristics: a pilot hierarchical clustering and association analysis

INTRODUCTION: Central nervous system (CNS) tumors are severe health conditions with increasing incidence in the last years. Different biological, environmental and clinical factors are thought to have an important role in their epidemiology, which however remains unclear.

New cyclophilin D inhibitor rescues mitochondrial and cognitive function in Alzheimer's disease

Mitochondrial dysfunction is an early pathological feature of Alzheimer disease (AD) and plays a crucial role in the development and progression of AD. Strategies to rescue mitochondrial function and cognition remain to be explored

The significance of admission blood lactate and fibrinogen in pediatric traumatic brain injury: a single-center clinical study

CONCLUSION: The levels of blood lactate and fibrinogen may represent the severity of children with traumatic brain injury and may be risk factors for poor prognosis of children with traumatic brain injury.

Prediction of 2-Year Cognitive Outcomes in Very Preterm Infants Using Machine Learning Methods

CONCLUSIONS AND RELEVANCE: The findings of this study suggest that predictive modeling in neonatal care could enable early and targeted intervention for very preterm infants most at risk for developing cognitive impairment.

Two-Year Autism Risk Screening and 3-Year Developmental Outcomes in Very Preterm Infants

CONCLUSIONS AND RELEVANCE: Results suggest that the 2-stage parent-report autism risk screening tool administered at age 2 years was a meaningful screen for developmental delays in very preterm infants, with serious delays detected at age 3 years.

Acceptance of physical activity virtual reality games by residents of long-term care facilities: a scoping review

CONCLUSION: Validated acceptance questionnaires are needed in study of VR acceptance by older adults. Use of qualitative and quantitative methods can enhance understanding of technology acceptance, alongside exploration of individual, environmental, and age-related factors. Detailed reporting of VR interventions is recommended to comprehend acceptance factors.

Risk Factors for Young-Onset Dementia in the UK Biobank

CONCLUSIONS AND RELEVANCE: In this study, several factors, mostly modifiable, were associated with a higher risk of YOD. These modifiable risk factors should be incorporated in future dementia prevention initiatives and raise new therapeutic possibilities for YOD.

Profiles of Cognitive Functioning at 6 Months After Traumatic Brain Injury Among Patients in Level I Trauma Centers: A TRACK-TBI Study

CONCLUSIONS AND RELEVANCE: In this cohort study of patients seen at level I trauma centers 6 months after TBI, many patients with TBI demonstrated no cognitive impairment. Impairment was more prevalent in persons with more severe TBI and manifested in variable

ways across individuals. The findings may guide future research and treatment recommendations.

Organic mental disorders with comorbid alcoholism in the elderly

Elderly people are particularly vulnerable to comorbid disorders. The age-related weakness, cognitive decline, and criticism create favorable conditions for the formation of traumatic situations and is often accompanied by an increase in alcohol consumption, which in some cases leads to the formation of mental and physical dependence

Results of a multicenter observational program to evaluate the effectiveness of complex therapy of patients with chronic cerebrovascular pathology with cognitive impairment with Cortexin and Neuromexol (CORNELia study)

CONCLUSION: The results of the study allow us to recommend the complex prescription of Cortexin 10 mg/day for 10 days and Neuromexol tablets 125 mg (375-750 mg/day) for 30 days for chronic CVD. Complex therapy with Cortexin and Neuromexol is effective and safe in patients with CCI and CI.

Biomarkers of neuroinflammation in patients with chronic cerebral ischemia during the therapy with vinpocetine (study INFLAMARK)

CONCLUSIONS: The use of vinpocetine can significantly reduce the severity of cognitive and affective disorders, asthenia, normalize the circadian rhythm of sleep, suppress the expression S100 β and IL-1 β in patients with CCI. One of the vinpocetine's mechanisms of action may be the inhibition of neuroinflammation.

A novel neuroimaging signature for ADRD risk stratification in the community

INTRODUCTION: Early risk stratification for clinical dementia could lead to preventive therapies. We identified and validated a magnetic resonance imaging (MRI) signature for Alzheimer's disease (AD) and related dementias (ARDR).

Relationships Between Auditory Processing and Cognitive Abilities in Adults: A Systematic Review

CONCLUSIONS: Results from this systematic review summarize relationships between CAP and cognitive processing, but also underscore the complexity of these constructs, the importance of study design, and the need to select an appropriate measure. The relationship between auditory and cognitive abilities is complex but can provide informative context when creating clinical management plans

Assessing network degeneration and phenotypic heterogeneity in genetic frontotemporal lobar degeneration by decoding FDG-PET

Genetic mutations causative of frontotemporal lobar degeneration (FTLD) are highly predictive of a specific proteinopathy, but there exists substantial inter-individual variability in their patterns of network degeneration and clinical manifestations

Effect of a 36-Week Supervised Exercise Training Program on Physical and Cognitive Function in Older Patients With Dementia

CONCLUSION: A 36-week supervised exercise training program was found to result in significant improvements in physical and cognitive function of elderly patients in early to middle stages of dementia at an Elderly Care Unit

Barriers to child feeding during and after illness in the Democratic Republic of the Congo: Results from a qualitative study through the lens of behavioral science

CONCLUSIONS: Each of these behavioral drivers is triggered by one or more addressable features in caregivers' and health workers' environment, suggesting concrete opportunities for programs to support caregivers and health workers to improve feeding of young children during illness and recovery

Frontal and anterior temporal hypometabolism post chemoradiation in head and neck cancer: A real-world PET study

CONCLUSIONS: These findings provide evidence that standard chemoradiation for HNCa can lead to decreased neuronal glucose metabolism, contributing to literature emphasizing the vulnerability of the frontal and anterior temporal lobes, especially in HNCa, where these areas may be particularly vulnerable to indirect radiation-induced injury

Protein Compartments Modulate Fibrillar Self-Assembly

A notable feature of complex cellular environments is protein-rich compartments that are formed via liquid-liquid phase separation. Recent studies have shown that these biomolecular condensates can play both promoting and inhibitory roles in fibrillar protein self-assembly, a process that is linked to Alzheimer's, Parkinson's, Huntington's, and various prion diseases

Dissociation of reliability, heritability, and predictivity in coarse- and fine-scale functional connectomes during development

The functional connectome supports information transmission through the brain at various spatial scales, from exchange between broad cortical regions to finer-scale, vertex-wise connections that underlie specific information processing mechanisms

Myrtenol Inhalation Mitigates Asthma-Induced Cognitive Impairments: an Electrophysiological, Behavioral, Histological, and Molecular Study

Asthma is an inflammatory disorder with significant health problems. It generally affects the lungs but can also impact brain performance via several mechanisms. Some investigations have proposed that asthma impairs cognition. This study assessed the impacts of myrtenol as a monoterpene on cognitive disorders following asthma at behavioral, molecular, and synaptic levels

Effect of Pioglitazone on Vascular Events in Post-stroke Cognitive Impairment: Post hoc Analysis of the IRIS Trial

CONCLUSIONS.: These data indicate that pioglitazone treatment may be more effective at reducing risk of recurrent stroke and MI in stroke patients with PSCI. Simple cognitive testing 2 to 3 months post-stroke may identify patients for whom treatment would be most beneficial.

Sex-Dependent Effects of Chronic Circadian Disruption in A β PP/PS1 Mice

CONCLUSIONS: Collectively, these findings show that exposure to chronic CD impairs circadian behavioral patterns and cognitive phenotypes of A β PP/PS1 mouse model in a sex-dependent manner.

Investigating Sex Differences in Risk and Protective Factors in the Progression of Mild Cognitive Impairment to Dementia: A Systematic Review

CONCLUSIONS: The ability of studies to accurately detail risk factors for dementia are likely limited when solely controlling for the effects of sex. Although the heterogeneity and underpowered nature of the studies made it difficult to synthesize the findings for each risk

factor, this study highlights the apparent need for further research examining risk factors for dementia in males and

A Community-Based Study of Dementia in Mexican American and Non-Hispanic White Individuals

CONCLUSIONS: Dementia and MCI prevalence were high in both Mexican American and non-Hispanic white populations. Mexican American persons had double the odds of mild cognitive impairment and this was attenuated when age and educational attainment were considered. Educational attainment was a potent predictor of cognitive impairment.

Increased Risk of Dementia Following a Diagnosis of Hearing Impairment: A South Korean Nationwide Cohort Study

CONCLUSIONS: Older patients with hearing impairment exhibit an increased risk of dementia, thereby warranting a new approach to dementia care among these patients regardless of the degree of hearing impairment.

Predicting Four-Year's Alzheimer's Disease Onset Using Longitudinal Neurocognitive Tests and MRI Data Using Explainable Deep Convolutional Neural Networks

CONCLUSIONS: The proposed framework sets the stage for future studies for using multi-modal longitudinal data to achieve optimal prediction for prognosis of AD onset, leading to better management of the diseases, thereby improving the quality of life.

The Carnitine Palmitoyl-Transferase 2 Cascade Hypothesis for Alzheimer's Disease

Despite decades of intense research, the precise etiology of Alzheimer's disease (AD) remains unclear. In this hypothesis, we present a new perspective on this matter by identifying carnitine palmitoyl transferase-2 (CPT2) as a central target in AD. CPT2 is an enzyme situated within the inner mitochondrial membrane, playing a crucial role in beta-oxidation of fatty acids

Prevalence of Concomitant Pathologies in Parkinson's Disease: Implications for Prognosis, Diagnosis, and Insights into Common Pathogenic Mechanisms

Pathologies characteristic of Alzheimer's disease (i.e., hyperphosphorylated tau and amyloid- β (A β) plaques), cardiovascular disease, and limbic predominant TDP-43 encephalopathy (LATE) often co-exist in patients with Parkinson's disease (PD), in addition to Lewy body pathology (α -synuclein)

Orthostatic Hypotension in Multiple System Atrophy: Related Factors and Disease Prognosis

CONCLUSION: Our large cohort study of MSA provides additional evidence for the negative impact of severe OH on survival.

Validating the Fatigue Scale for Motor and Cognitive Function (FSMC) in chronic stroke

CONCLUSION: The FSMC is a valid and reliable measure of post-stroke fatigue and may be a useful tool to examine physical fatigue and cognitive fatigue in chronic stroke.

Long COVID neuropsychological follow-up: Is cognitive rehabilitation relevant?

CONCLUSION: Our data reveal the persistence of long-term cognitive and neuropsychiatric disorders in patients with long COVID. Neuropsychological rehabilitation is shown to be important, whether in-person or online.

Teaching Note-Supporting Homebound Older Adults and Caregivers Through Integrative Service Learning

The Supporting Older Adults & Caregivers: Integrative Service Learning (SOCIAL) partnership trains undergraduate social work students to provide practical home-based support for older adults with chronic illness and their family caregivers, serving as a pipeline for future leaders in older adult care

Alpha 2-Macroglobulin Polymorphisms and Susceptibility to Alzheimer's Disease: A Comprehensive Meta-Analysis Based on 62 Studies

CONCLUSIONS: Existing evidence indicate that A2M single nucleotide polymorphisms (SNPs) may be associated with AD risk in sub-populations. Future studies with larger sample sizes will be necessary to confirm the results.

Relationship Between Sphingomyelin and Risk of Alzheimer's Disease: A Bidirectional Mendelian Randomization Study

CONCLUSIONS: The study establishes a bidirectional positive correlation between SM and AD. Increased SM levels are associated with a higher risk of developing AD, and the presence of AD can further elevate SM levels, potentially exacerbating the disease's progression.

Longitudinal Associations Between Mild Behavioral Impairment, Sleep Disturbance, and Progression to Dementia

CONCLUSIONS: There is a bidirectional relationship between MBI and SD. Older adults with SD develop dementia at higher rates when co-occurring with MBI. Future studies should explore the mechanisms underlying these relationships, and dementia screening may be improved by assessing for both MBI and SD.

Assessing the method of providing health services to at-risk groups during natural events (earthquake): A systematic review

Disasters create a large amount of human needs. Health services in natural disasters are considered the main factor of human survival. The present study was conducted to determine the method of providing health services to at-risk groups during natural events such as earthquakes in 2022

Correlation between long-term glycemic variability and cognitive function in middle-aged and elderly patients with type 2 diabetes mellitus: a retrospective study

CONCLUSIONS: Cognitive function in middle-aged and elderly T2DM patients is influenced by long-term blood glucose variability, with poorer cognitive function observed in individuals with higher blood glucose variability. The impact of HbA1c-SD on MCI exhibited a greater magnitude compared to that of PFG-SD and smoking

Background check: cross-cultural differences in the spatial context of comic scenes

Cognitive research points towards cultural differences in the way people perceive and express scenes. Whereas people from Western cultures focus more on focal objects, those from East Asia have been shown to focus on the surrounding context. This paper examines whether these cultural differences are expressed in complex multimodal media such as comics

Is recovery just the beginning? Persistent symptoms and health and performance deterioration in post-COVID-19, non-hospitalized university students-a cross-sectional study

Many individuals experience persistent symptoms such as deteriorated physical and mental health, increased fatigue, and reduced cognitive performance months after recovering from coronavirus disease 2019 (COVID-19). There is limited data on the long-term trajectory and prevalence of these symptoms, especially in milder cases

How to Build and How not to Build an Implicit Measure in Behavior Analysis: A case Study Using the Function Acquisition Speed Test

This article provides a comprehensive overview of the development of a behavior-analytic alternative to the popular implicit association test (IAT), namely, the function acquisition speed test (FAST). The IAT appears, prima facie, to indirectly assess participants' learning histories with regard to the categorization of stimuli

Nudging oral habits; application of behavioral economics in oral health promotion: a critical review

BACKGROUND: Oral health disorders significantly contribute to the global incidence of chronic diseases. Nudge interventions have demonstrated effectiveness in enhancing people's decision-making and self-management capacities in a cost-efficient manner. As a result, these interventions could be valuable tools for fostering improved oral care habits

Temporal shifts to the gut microbiome associated with cognitive dysfunction following high-fat diet consumption in a juvenile model of traumatic brain injury

The gut-brain axis interconnects the CNS and the commensal bacteria of the gastrointestinal tract. The composition of the diet consumed by the host influences the richness of the microbial populations. Traumatic brain injury (TBI) produces profound neurocognitive damage, but it is unknown how diet influences the microbiome following TBI. The present work investigates the impact of a chow diet vs

Assistive technologies and aging in place for people with dementia and disabilities: a proof-of-concept study with in-home passive remote monitoring with interactive communication functions

PURPOSE: Can assistive technologies (ATs) support aging in place for people with dementia and disability? In seeking to go beyond the persistent institutional care delivery paradigm, this proof-of-concept study tested the feasibility of home care delivery using sensors and remote communication devices

Increased Likelihood of Dementia with Coexisting Atrophy of Multiple Regions of Interest

CONCLUSIONS: Our study showed that individuals with multiple regional atrophy (either lobar or AD-specific regions) have a higher likelihood of developing dementia compared to the age- and sex-matched population without atrophy. Thus, further consideration is needed when assessing MRI findings.

Socioeconomic Status and Dementia Risk Among Intensive Care Unit Survivors: Using National Health Insurance Cohort in Korea

CONCLUSIONS: After discharge from critical care, compared to the non-low SES group, the low SES group was associated with an increased risk of developing dementia.

Rationale and Design of the "Diagnostic and Prognostic Precision Algorithm for behavioral variant Frontotemporal Dementia" (DIPPA-FTD) Study: A Study Aiming to Distinguish Early Stage Sporadic FTD from Late-Onset Primary Psychiatric Disorders

CONCLUSIONS: DIPPA-FTD will make an important contribution to early sporadic bvFTD identification. By recruiting subjects with ambiguous or prodromal diagnoses, our research

strategy will allow the characterization of early disease stages that are not covered in current sporadic FTD research

Amyloid Pathology Modulates the Associations of Neuropsychiatric Symptoms with Cognitive Impairments and Neurodegeneration in Non-Demented Elderly

CONCLUSIONS: NPSs could be strongly associated with AD. The influences of NPSs on cognitive impairments, neurodegeneration might be partially associated with A β .

Blood Markers in Relation to a History of Traumatic Brain Injury Across Stages of Cognitive Impairment in a Diverse Cohort

CONCLUSIONS: Serum GFAP, NFL, T-tau, and UCHL1 were higher across stages of cognitive impairment in this diverse clinical cohort, regardless of TBI history, though longitudinal investigation of the timing, order, and trajectory of the biomarkers in relation to prior TBI is warranted.

A narrative review of the use of a cutting-edge virtual reality rehabilitation technology in neurological and neuropsychological rehabilitation

CONCLUSION: After discussing each study according to the type of rehabilitation we concluded that the use and efficacy of VRRS rehabilitative intervention for increasing the neurological and neuropsychological functioning of patients are promising but more evidence is needed to make a comparison with conventional treatment

Awareness of the Effect of Vitamin B12 Deficiency on the Nervous System Among the General Population in Taif, Saudi Arabia

CONCLUSION: This study recommends a scientific approach encouraging patients to self-report their B12 deficiency in medical institutions. In addition, a study about the relationship between B12 deficiency and other neurodegenerative disorders is also a recommendation of this study.

Chronic Inflammatory Demyelinating Polyneuropathy With Reversible Severe Cognitive Impairment and Gastrointestinal Dysfunction

We treated a patient with an unusual case of reversible rapidly progressive cognitive impairment, gastrointestinal dysfunction, and generalized neuromyopathy in chronic inflammatory demyelinating polyneuropathy (CIDP) with optic neuropathy

Tridimensional Structural Analysis of Tau Isoforms Generated by Intronic Retention

CONCLUSIONS: This study supports the importance of the structure-function relationship on the neuroprotective behavior of W-tau inhibiting tau fibrillization in vitro.

Contributions of Vascular Burden and Amyloid Abnormality to Cognitive Decline in Memory Clinic Patients

CONCLUSIONS: Our study demonstrates that amyloid abnormality predicts cognitive decline independent from vascular burden in a memory clinic population. Vascular burden shows a minor contribution to cognitive decline in these patients. This has important prognostic implications.

Skipping of FCER1G Exon 2 Is Common in Human Brain But Not Associated with the Alzheimer's Disease Genetic Risk Factor rs2070902

CONCLUSIONS: In summary, the proportion of FCER1G expressed as the D2-FCER1G isoform is increased with AD neuropathology but is not associated with rs2070902.

Alzheimer's Disease-Related Proteins Targeted by Secondary Metabolite Compounds from Streptomyces: A Scoping Review

CONCLUSIONS: The review highlights several prospective target proteins that can be regulated through treatments with Streptomyces sp. compounds to prevent AD's early stages and progression. Further identification of Streptomyces sp. compounds with potential anti-AD properties is recommended.

A Hierarchical Multi-Dimensional Cognitive Training Program for Preventive Cognitive Decline in Acute Ischemic Stroke Patients: Study Protocol for a Randomized Controlled Trial

CONCLUSIONS: The results will provide evidence highlighting differences in a new strategy of cognitive training through the WeChat program, which allows the home-based practice, puts forward an advanced idea of preventive cognitive training in the acute stage, and has the highest effectiveness of reducing cognitive impairment, and Alzheimer's disease.

Assessing Social Inequalities in Older Family Caregivers' Frailty Conditions, Comorbidity, and Cognitive Functioning: A Cross-sectional Study

We aimed to assess the social inequalities in older family caregivers' frailty conditions, comorbidity, and cognitive functioning. A cross-sectional study was conducted. Study participants were recruited in 2019 in Finland

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Living well with dementia

Exercise for falls prevention in aged care: systematic review and trial endpoint meta-analyses

CONCLUSIONS: Exercise is recommended as a fall prevention strategy for older people living in aged care who are willing and able to participate (moderate certainty evidence), but exercise has little or no lasting effect on falls after the end of a programme (high certainty evidence).

Intervention of muscle-building and antifrailty exercise combined with Baduanjin for frailty of different functional levels: study protocol for a randomised controlled trial

INTRODUCTION: Frailty has been currently considered as a multidimensional concept, including physical, cognitive and social frailty. Frailty has also been associated with a range of adverse events, which might increase the risks of disability, falls, fractures, delirium and death

Impact of digital assistive technologies on the quality of life for people with dementia: protocol for a scoping review

INTRODUCTION: Digital assistive technologies (eg, applications, wearables and robots) have emerged as promising tools for managing various aspects of daily life, such as basic assistance, encompassing social interaction, memory support, leisure activities, location tracking and health monitoring

The MEDITAGING study: protocol of a two-armed randomized controlled study to compare the effects of the mindfulness-based stress reduction program against a health promotion program in older migrants in Luxembourg

BACKGROUND: Migration is a phenomenon worldwide, with older migrants, particularly those with fewer socioeconomic resources, having an increased risk of developing adverse cognitive and health outcomes and social isolation. Therefore, it is of utmost importance to validate interventions that promote healthy aging in this population

Physical activity on executive function in sedentary individuals: Systematic review and meta-analysis of randomized controlled trials

Physical activity has been demonstrated to promote cognitive performance. However, the relationship between physical activity and executive function (EF) in sedentary individuals is not fully understood. This meta-analysis examined the impact of physical activity on EF in sedentary individuals and evaluated potential moderators of the relationship between physical activity and EF

Effect of community-based group exercises combined with action observation on physical and cognitive performance in older adults during the Covid-19 pandemic: A randomized controlled trial

CONCLUSION: These findings underscore the effectiveness of AOT-enhanced community-based exercises in enhancing both physical and cognitive performance among older adults facing social isolation during the pandemic, with Group I (AOT + exercise) showing particularly promising results.

Resilience in caregivers of people with mild-to-moderate dementia: findings from the IDEAL cohort

CONCLUSION: Caregivers of people with mild-to-moderate dementia generally scored well for resilience. Resilience was associated with both the personal characteristics of caregivers and level of care need among people with dementia

Association between cardiovascular risk factors and cognitive impairment in adults aged 60 years or older from Chile: a cross-sectional study

CONCLUSIONS: This study provided additional support for previous findings on the relationship between cognitive decline and an elevated risk of cardiovascular disease. Worse CI was associated with the group with the highest risk of cardiovascular disease, and the presence of lifestyle factors, such as obesity and physical inactivity, exacerbate this relationship, but not being a current smoker.

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Mental health and ageing

Anxiety symptoms and associated factors among school students after 2 years of the COVID-19 pandemic: a cross-sectional study in Zhejiang Province, China

CONCLUSION: Anxiety symptoms prevailed among middle and high school students in China. A variety of factors, containing sociodemographic factors, lifestyle behaviours,

mental health, academic performance and physical fitness should be taken in consideration in addressing prevention and intervention of anxiety symptoms.

Diabetes distress as mediators of loneliness and health promotion behaviour: a cross-sectional study

CONCLUSION: Our study illustrated that loneliness was negatively associated with health promotion behaviours, and diabetes distress acted as a mediator in this relationship. It is suggested that healthcare providers should prioritise the identification and management of diabetes distress in older patients with diabetes who experience loneliness to improve health promotion behaviours and optimise

Unemployed and disabled for work: identifying 3-year labour market pathways from the beginning of a sickness absence using sequence and cluster analyses in a register-based longitudinal study in Finland

CONCLUSIONS: Unemployed persons starting an SA are a heterogeneous group, with different labour market pathways. For many, the combination of unemployment and work disability means low chances for employment or regained work ability during the following years

Neighborhood effects on the health of elderly persons: evidence from China

CONCLUSIONS: Firstly, the NMH and NPH demonstrate a positive influence on the mental- and physical health of the elder population. However, there exist heterogeneous differences. Secondly, the conditional mixed process deals with the endogeneity of NMH and NPH

Memory support training and lifestyle modifications to promote healthy aging in persons at risk for Alzheimer's disease: a digital application supported intervention (Brain Boosters)

BACKGROUND: Evidence-based interventions to protect against cognitive decline among older adults at risk for Alzheimer's disease and related dementias (ADRD) are urgently needed. Rehabilitation approaches to support memory and behavioral/lifestyle interventions are recognized as promising strategies for preserving or improving cognitive health, although few previous interventions have combined

Impact of heat on mental health emergency visits: a time series study from all public emergency centres, in Curitiba, Brazil

CONCLUSION: The risk of MH-related EDV due to heat is elevated for the entire study population, but very differentiated by subgroups. This opens avenue for adaptation policies in healthcare: such as monitoring populations at risk and establishing an early warning systems to prevent exacerbation of MH episodes and to reduce suicide attempts

Randomised controlled trial combining vitamin E-functionalised chocolate with physical exercise to reduce the risk of protein-energy malnutrition in predementia aged people: study protocol for Choko-Age

OBJECTIVE: Protein-energy malnutrition and the subsequent muscle wasting (sarcopenia) are common ageing complications. It is known to be also associated with dementia. Our programme will test the cytoprotective functions of vitamin E combined with the cortisol-lowering effect of chocolate polyphenols (PP), in combination with muscle anabolic effect of adequate dietary protein intake and

Study protocol for a national observational cohort investigating frailty, delirium and multimorbidity in older surgical patients: the third Sprint National Anaesthesia Project (SNAP 3)

INTRODUCTION: Older surgical patients are more likely to be living with frailty and multimorbidity and experience postoperative complications. The management of these conditions in the perioperative pathway is evolving

Pemphigus and pemphigoid are associated with Alzheimer's disease in older adults: evidence from the US Nationwide inpatient sample 2016-2018

CONCLUSIONS: Pemphigus and pemphigoid were both independently associated with AD in older adults, especially among females and octogenarians. Further studies addressing the etiology and mechanisms underlying these associations are highly warranted.

Association between use of antihypertensives and cognitive decline in the elderly-A retrospective observational study

CONCLUSIONS: In this study, BB use was protective against conversion from MCI to dementia. Further studies are required to confirm the findings of our study and to elucidate the effect of BBs on cognitive decline.

The mediating role of health literacy between the presence of chronic disease and psychological distress among older persons in Xi'an city of China

CONCLUSION: Psychological distress among older persons is affected by chronic disease and health literacy. Health literacy had a partial mediating effect on the presence of chronic disease and psychological distress. Improved health literacy measures should be considered when treating older persons with psychological distress.

Health disparities in one of the world's most progressive countries: a scoping review of mental health and substance use among sexual and gender minority people in the Netherlands

CONCLUSIONS: Findings of persistent health disparities-despite the relatively long history of SGM supportive policies in the Netherlands-highlight the need for more research and greater attention to population groups that have been underrepresented

Trajectories of self-kindness, common humanity, and mindfulness during the COVID-19 pandemic: A person-oriented multi-trajectory approach

The COVID-19 pandemic has produced unprecedented changes in the lives of many people. Although research has documented associations between concerns related to COVID-19 and poor mental health indicators, fewer studies have focused on positive factors that could help people better cope with this stressful social context

It's all about connection: Determinants of social support and the influence on HIV treatment interruptions among people living with HIV in British Columbia, Canada

CONCLUSIONS: Social support may be an important protective factor in ensuring HIV treatment continuity among PLWH. Future research should examine effective means to build social support among communities that have potential to promote increased treatment engagement.

Study protocol for "In-vehicle sensors to detect changes in cognition of older drivers"

CONCLUSION: It is well established that individuals with progressive dementias are eventually unable to drive safely, yet many remain unaware of their cognitive decrements. Current screening and evaluation services can test only a small number of individuals with cognitive concerns, missing many who need to know if they require treatment

Effects of a mindfulness-based intervention and a health self-management programme on psychological well-being in older adults with subjective cognitive decline: Secondary analyses from the SCD-Well randomised clinical trial

CONCLUSION: Two non-pharmacological interventions were associated with only limited effects on psychological well-being in SCD. Longer intervention studies with waitlist/retest control groups are needed to assess if our findings reflect intervention brevity and/or minimal base rate changes in well-being.

Effect of different types of supervised exercise programs on cardiorespiratory and muscular fitness, pain, fatigue, mental health and inflammatory and oxidative stress biomarkers in older patients with post-COVID-19 sequelae "EJerSA-COVID-19": a randomized controlled trial

CONCLUSIONS: The results of this study will provide insights into the effects of different exercise programs on physical and mental fitness, physical condition and biomarkers of the immune system and oxidative stress in older patients with post-COVID-19 sequelae

Financial stress, health and malnourishment among older adults in India

As India's elderly population grows rapidly, there is a demand for robust policy tools for geriatric health management. This study focuses on unveiling the impact of financial stress and insecurity in diverse economic sectors on adult malnutrition in India. Further, we explore the connections of adult malnourishment with mental and physical health outcomes

Priority healthcare needs amongst people experiencing homelessness in Dublin, Ireland: A qualitative evaluation of community expert experiences and opinions

In light of evidence that housing-related disparities in mortality are worsening over time, this study aimed to explore the perspectives of experts working in homeless health and addiction services on priority healthcare needs amongst people experiencing homelessness in Dublin, Ireland, a city facing problematic increases in homelessness

Association between health-related quality of life and heart rate variability in elderly individuals with cognitive impairment in Korea: cross-sectional study

CONCLUSIONS: We found a significant association between HRQoL and HRV in Korean elders with cognitive impairment. However, this study is cross-sectional, so we cannot define direct causation. Further studies are needed to support our findings and to elucidate the biological mechanisms underlying these associations, especially in people cognitively impaired.

Predictors for quality of life in older adults: network analysis on cognitive and neuropsychiatric symptoms

CONCLUSIONS: By elucidating the NPS-cognition-QoL relationship, the current study provides insights for developing rehabilitation programs among older adults to ensure their QoL.

Machine learning analyses identify multi-modal frailty factors that selectively discriminate four cohorts in the Alzheimer's disease spectrum: a COMPASS-ND study

CONCLUSIONS: Both convergent and cohort-specific frailty factors discriminated the AD spectrum cohorts. Convergence was observed as all cohorts were marked by lower quality of life (memory), supporting recent research and clinical attention to subjective experiences of memory aging and their potentially broad ramifications

Application of machine learning in measurement of ageing and geriatric diseases: a systematic review

CONCLUSION: The review identified a wide range of studies that employed machine learning algorithms to analyse various diseases and datasets. While the application of machine learning in geriatrics and care has been well-explored, there is still room for future development, particularly in validating models across diverse populations and utilizing personalized digital datasets for customized

Frailty, cognitive impairment, and depressive symptoms in Chinese older adults: an eight-year multi-trajectory analysis

CONCLUSIONS: Findings could inform the understanding of the interrelationship of frailty, cognitive impairment, and depressive symptoms in older adults in China and may help practitioners detect adults at risk for adverse trajectories to implement strategies for proper care.

The static balance ability on soft and hard support surfaces in older adults with mild cognitive impairment

CONCLUSION: With eyes open, the older adults with MCI showed poorer static balance ability compared to the older adults with normal cognition on soft and hard support surfaces. With eyes closed, the older adults with MCI showed poorer static balance on soft support surfaces, but no differences on hard support surfaces compared with the older adults with normal cognition

A scoping review on the psychosocial interventions used in day care service for people living with dementia

CONCLUSIONS: This review has illustrated the wide variety in the types, range and facilitation of psychosocial interventions within adult day care services. This review highlights the potential benefits of these interventions

Effectiveness of social support programmes on loneliness in community-dwelling older adults: study protocol for a meta-analysis of randomised controlled trials

BACKGROUND: The prevalence of loneliness among older adults is of great importance in the field of public health. Numerous studies have provided evidence supporting the effectiveness of social support as a powerful intervention for reducing loneliness in older individuals. However, the specific types of social support that yield positive results are yet to be determined

Finnish Retirement and Aging Study: a prospective cohort study

PURPOSE: The Finnish Retirement and Aging (FIREA) Study was set up to study changes in health behavioural and cardiometabolic risk factors across retirement transition, and to examine the long-term consequences of work and retirement on health and functioning with advancing age.

Eliciting preferences of persons with dementia and informal caregivers to support ageing in place in the Netherlands: a protocol for a discrete choice experiment

INTRODUCTION: Ageing in place (AIP) for persons with dementia is encouraged by European governments and societies. Healthcare packages may need reassessment to account for the preferences of care funders, patients and informal caregivers. By providing insight into people's preferences, discrete choice experiments (DCEs) can help develop consensus between stakeholders

Association between first-line antidepressant use and risk of dementia in older adults: a retrospective cohort study

CONCLUSIONS: Our findings suggested that older adults with depression receiving SSRIs/SNRIs were associated with an increased dementia risk compared to those receiving psychotherapy.

Verification of a comprehensive framework for mobility using data from the Canadian Longitudinal Study on Aging: a structural equation modeling analysis

CONCLUSIONS: Associations between determinants described in the mobility framework were verified with adults 65-85 years of age and in an OA group when all factors were considered together using SEM. These results have implications for clinicians and researchers in terms of important outcomes when assessing life space mobility; findings support interdisciplinary analyses that include evaluation

Differentiating Alzheimer's disease from mild cognitive impairment: a quick screening tool based on machine learning

CONCLUSION: The quick screen ABC-Scale covers three dimensions of ADL, BPSD and cognitive function with good efficiency in differentiating AD from MCI.

Dementia subtypes, cognitive decline and survival among older adults attending a memory clinic in Cape Town, South Africa: a retrospective study

CONCLUSIONS: Knowledge of dementia subtypes, the rate and factors affecting cognitive decline and survival outcomes will help inform decisions about patient selection for potential future therapies and for planning dementia services in resource-poor settings.

Protocol for the Tallaght University Hospital Institute for Memory and Cognition-Biobank for Research in Ageing and Neurodegeneration

INTRODUCTION: Alzheimer's disease and other dementias affect >50 million individuals globally and are characterised by broad clinical and biological heterogeneity. Cohort and biobank studies have played a critical role in advancing the understanding of disease pathophysiology and in identifying novel diagnostic and treatment approaches

Effect of percutaneous cerebral oximetry-guided anaesthetic management on postoperative delirium in older adults undergoing off-pump coronary artery bypass grafting: study protocol for a single-centre prospective randomised controlled trial in a tertiary academic hospital in China

INTRODUCTION: Postoperative delirium is a prominent and clinically important complication in older adults after coronary artery bypass grafting (CABG) surgery, resulting in prolonged hospital stay, long-term cognitive impairment and increased morbidity and mortality

What do older people who have attempted suicide experience? Study protocol for a qualitative meta-synthesis among older adults, family caregivers and healthcare professionals

INTRODUCTION: Attempted suicide among older adults represents a significant mental health concern that has witnessed a rising incidence within this demographic in recent years. Research indicates that attempted suicide among the older population serves as a primary risk factor for completed suicide

Rural health care worker wellness during COVID-19: Compassion fatigue, compassion satisfaction & utilization of wellness resources

CONCLUSIONS: Rural HCWs have high CF, yet few utilize wellness resources. Rural health care organizations may foster wellness by providing time off for self-care, expanding mental health services and building resilience.

Older adults' experiences of self-determination when needing homecare services-an interview study

CONCLUSIONS: The study contributes increased understanding of older adults' experiences of self-determination. The results can act as a guide when planning future person-centred care interventions in the context of homecare services and help improve homecare services' ability to meet the needs of older adults

Potentially inappropriate medications among older patients with Parkinson's disease: a cross-sectional analysis of a national health insurance database in China

CONCLUSIONS: Prescribing PIMs for older adults with PD was common in China, especially for females and older age groups, yet younger patients were more inclined to be prescribed with motor or cognition-impaired PIMs. Our findings represent a clear target awaiting multidimensional efforts to promote the rational prescribing of medications for this vulnerable population.

The whole day matters after stroke: Study protocol for a randomized controlled trial investigating the effect of a 'sit less, move more, sleep better' program early after stroke

BACKGROUND: Movement-related behaviours, including prolonged sedentary behaviour, physical inactivity, and poor sleep, are associated with worse functional outcomes poststroke. Addressing these co-dependent behaviours early after stroke may help to optimize recovery and improve overall quality of life for individuals with stroke.

The role of military service in preventing depression in China: evidence from a nationally representative longitudinal survey

CONCLUSIONS: Individual characteristics could influence the relationship between military experience and depression in male veterans, and the mental health of veterans should be paid more attention and guaranteed.

Higher baseline resting metabolic rate is associated with 1-year frailty decline among older adults residing in an urban area

BACKGROUND: Dysregulated energy metabolism is one hypothesized mechanism underlying frailty. Resting energy expenditure, as reflected by resting metabolic rate (RMR), makes up the largest component of total energy expenditure. Prior work relating RMR to frailty has largely been done in cross section with mixed results

Association between prior-night sleep and next-day fatigue in older adults: a daily diary study

CONCLUSIONS: The findings suggest that prior-day sleep is associated with next-day fatigue in older adults. Long and short sleep duration and low sleep quality can lead to fatigue. Considering that sleep is a modifiable health behavior, appropriate management of sleep behavior may reduce fatigue.

The impact of COVID-19 on the mental health of older sexual minority Canadians in the CLSA

CONCLUSION: This study highlighted the detrimental effects of the pandemic on the mental health of older adults regardless of sexual orientation. It also showed that LGB older adults experienced more loneliness and depression symptoms than heterosexual older adults both before and during the pandemic

Working hours, social engagement, and depressive symptoms: an extended work-life balance for older adults

CONCLUSIONS: Maintaining an optimal number of working hours and degree of social engagement are necessary to minimize the risk of depressive symptoms in older adults. Based on these findings, we suggest that fulfillment for work and life and their balance are important for older adults and propose work-life fulfillment balance.

Thoughts, perceptions and concerns of coastal residents regarding the discharge of tritium-containing treated water from the Fukushima Daiichi Nuclear Power Plant into the Pacific Ocean

CONCLUSION: The poor mental health of the locals, connected to high levels of risk perception and anxiety about the loss of economic opportunities related to the discharge plans, must be addressed. The 30-year discharge process could handicap local industries and hamper post-disaster socioeconomic recovery due to the circulation of false rumours among consumers

Diagnosis of behavioral symptoms as a predictor of institutionalization among Medicaid patients with dementia

CONCLUSION: Several diagnosed behavioral symptoms were associated with a higher risk of institutionalization among older adults with dementia and should be considered when planning treatment strategies for the effective management of the condition.

Association between personality characteristics and sleep quality among Chinese middle-aged and older adults: evidence from China family panel studies

CONCLUSIONS: The higher the score of extraversion personality traits, the better the overall sleep quality of middle-aged and older adults. Having a spouse and feeling unwell were the important factors affecting their sleep quality

Melamine Exacerbates Neurotoxicity in D-Galactose-Induced Neuronal SH-SY5Y Cells

Numerous studies have depicted the role of diet and environmental toxins in aging. Melamine (Mel) is a globally known notorious food adulterant, and its toxicity has been shown in several organs including the brain. However, till now, there are no reports regarding Mel neurotoxicity in aging neurons

History of incarceration and age-related neurodegeneration: Testing models of genetic and environmental risks in a longitudinal panel study of older adults

History of incarceration is associated with an excess of morbidity and mortality. While the incarceration experience itself comes with substantive health risks (e.g., injury, psychological stress, exposure to infectious disease), most individuals eventually return from prison to the general population where they will be diagnosed with the same age-related conditions that drive mortality in the

Increased risk of osteoporosis in patients with cognitive impairment: a systematic review and meta-analysis

CONCLUSION: Current evidence suggests that patients with cognitive impairment are at increased risk of osteoporosis, especially patients with AD.

Psycho-social and health predictors of loneliness in older primary care patients and mediating mechanisms linking comorbidities and loneliness

CONCLUSIONS: Results can help understand the pathophysiology loops linking poor health status (comorbidity level) of older individuals and loneliness, and have significant potentials from the translational perspectives, as a decision-support tool.

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Physical activity and ageing

The mediation and interaction of the obesity index between moderate-vigorous recreational physical activity and hypertension

Previous studies showed that physical activity (PA) is concerned with hypertension (HTN). However, the mediation and interaction role of the obesity index: body mass index (BMI), waist-hip ratio (WHR), body fat rate (BFR) and visceral fat index (VFI) between PA and HTN has never been studied

Yoga therapy on elderly patients with fear of fall: an open-label randomised controlled trial (YOFEAR trial)

INTRODUCTION: Fear of fall is experienced by the elderly irrespective of the presence or absence of history of fall. Falls contribute to injuries that culminate in hospitalisation that incur unwarranted medical expenses. Yoga is unique to Indian cultural practices, with a potential to enhance proprioception

Recruiting patients for falls prevention in the emergency department - worth the challenge

CONCLUSION: ED-based recruitment offers the opportunity to include more diverse individuals in falls prevention. To achieve adequate sample sizes, flexibility in working days and hours of the research team are obligatory.

The development of physical characteristics in adolescent team sport athletes: A systematic review

CONCLUSIONS: Although both sexes consistently improved through adolescence, girls tended to have less pronounced physical development compared to boys, likely due to lower increase in lean mass and limb length

Monitoring mobility in older adults using a Global Positioning System (GPS) smartwatch and accelerometer: A validation study

There is growing interest in identifying valid and reliable methods for detecting early mobility limitations in aging populations. A multi-sensor approach that combines accelerometry with Global Positioning System (GPS) devices could provide valuable insights into late-life mobility decline; however, this innovative approach requires more investigation

Community-based group rehabilitation program for stroke patients with dysphagia on quality of life, depression symptoms, and swallowing function: a randomized controlled trial

CONCLUSION: Community-based group rehabilitation program is more effective than traditional treatment in improving patients' depressive symptoms and quality of life, as well as being more cost-effective.

The association of technology acceptance and physical activity on frailty in older adults during the COVID-19 pandemic period

CONCLUSIONS: This study showed that physical activity and technology acceptance were associated with frailty, and technology acceptance moderated the association of physical activity with frailty. This study recommends engaging older adults in physical activity to combat frailty preferentially in those with a lower level of technology acceptance.

Comparing the efficacy of low-load resistance exercise combined with blood flow restriction versus conventional-load resistance exercise in Chinese community-dwelling older people with sarcopenic obesity: a study protocol for a randomised controlled trial

INTRODUCTION: Sarcopenic obesity (SO) is characterised by decreased muscle mass, diminished muscle strength and/or reduced physical performance and a high percentage of body fat (PBF). Conventional-load resistance exercise (CRE) may be difficult for older people with SO owing to their declining physical functions

Anthropometric and physical characteristics in U16, U18 and U20 elite French youth rugby union players

The aims of this study in elite youth French players were to 1) describe the anthropometric and physical characteristics of international and non-international players from U16 to U20, and 2) compare these characteristics across age categories and playing standard (international or non-international)

The association between sedentary behaviour and sarcopenia in older adults: a systematic review and meta-analysis

CONCLUSIONS: The findings support the hypothesis that sedentary behaviour is independently positively associated with sarcopenia in older adults, providing vital indications for the development of strategies to prevent sarcopenia.

'Ageing with an alcohol problem is not what I envision': reclaiming agency in shaping personal ageing trajectory and recovery from alcohol problems

CONCLUSIONS: Older persons in non-abstinent recovery perceive healthy ageing and alcohol recovery as personal and interacting multidimensional processes involving their agency to improve biopsychosocial functioning. Treatment approaches that recognize older persons' desire for healthy ageing, incorporate their treatment goals and respect their autonomy are likely to be acceptable and effective.

Impact of a wearable-based physical activity and sleep intervention in multimorbidity patients: protocol for a randomized controlled trial

BACKGROUND: The benefits of physical activity (PA) and adequate sleep are well documented, and their importance strengthens with the increasing prevalence of chronic diseases and multimorbidity (MM). Interventions to promote physical activity and sleep that use commercial activity trackers may be useful non-pharmacological approaches to managing individual health; however, limited evidence exists

Using hypergraphs to quantify importance of sets of diseases by healthcare resource utilisation: A retrospective cohort study

Rates of Multimorbidity (also called Multiple Long Term Conditions, MLTC) are increasing in many developed nations. People with multimorbidity experience poorer outcomes and require more healthcare intervention. Grouping of conditions by health service utilisation is poorly researched

Perceptions of academic staff and students of senior high school in implementing game-based exercises in physical education classes-a research protocol for a qualitative descriptive study

BACKGROUND: The COVID-19 pandemic has taken a toll on both physical activity and fitness as several pursuits and activities have been restricted. Coupled with this, increased food intake and sedentary lifestyles have produced poor physical health outcomes. Online physical education classes have been more difficult to conduct given the limitations of the setup

Study protocol on effectiveness of yoga practice on composite biomarker age predictors (yBioAge) in an elderly Indian cohort- two-armed open label randomized controlled trial

INTRODUCTION: The recent development of robust indices to quantify biological aging, along with the dynamic epidemiological transitions of population aging generate the unmet need to examine the extent up to which potential interventions can delay, halt or temporarily modulate aging trajectories.

The level of actual functional fitness of men from different living environments in Poland and associations with health - a cross-sectional study

CONCLUSIONS: The place of residence is a factor that differentiates seniors' functional fitness levels. The reduced fitness of social welfare home residents may also result from the low level of their daily physical activity, education and health. Introducing physical activity programs for elderly residents in social welfare homes seems reasonable.

Moderate alcohol consumption on the risk of stroke in the Million Veteran Program

CONCLUSIONS: We observed a lower risk of ischemic stroke, but not hemorrhagic stroke with moderate alcohol consumption and did not observe substantial differences in risk by beverage preference among a sample of U.S. Veterans. Healthy user bias of moderate alcohol consumption may be driving some of the observed protective association.

Lifestyle factors associated with a rapid decline in the estimated glomerular filtration rate over two years in older adults with type 2 diabetes-Evidence from a large national database in Japan

CONCLUSIONS: We found specific lifestyle risk factors were associated with a rapid eGFR decline among people with type 2 diabetes from a nationwide database in Japan. The associations varied by baseline eGFR level, age, and sex. Lifestyle modifications may effectively prevent the aggravation of diabetic kidney disease.

Effectiveness of telehealth in preventive care: a study protocol for a randomised controlled trial of tele-exercise programme involving older people with possible sarcopenia or at risk of fall

BACKGROUND: Continuous loss of muscle mass and strength are the consequences of the ageing process, which increase the risk of falls among older people. Falls can lead to severe consequences such as bone fractures and hampered physical and psychological well-being. Regular exercise is the key to reversing muscle atrophy and relieving sarcopenia

A park-based group mobility program for older adults with difficulty walking outdoors: a quantitative process evaluation of the Getting Older Adults Outdoors (GO-OUT) randomized controlled trial

CONCLUSIONS: This process evaluation helps explain the main study findings and demonstrates the flexibility required in the protocol for safe and feasible community

implementation. Future research could explore the use of additional behaviour change strategies to optimize attendance for community implementation.

The reliability and suitability of strength assessments in frail and pre-frail older adults: recommendations for strength testing in older populations

CONCLUSIONS: Overall, maximal isometric strength in frail and pre-frail older adults with no previous testing experience can be measured with good to high reliability within their first testing session. An initial two familiarisation trials followed by two measurement trials is recommended to achieve the highest level of overall repeatability.

Systematic review and meta-analysis of disease clustering in multimorbidity: a study protocol

INTRODUCTION: Multimorbidity is defined as the presence of two or more chronic diseases. Co-occurring diseases can have synergistic negative effects, and are associated with significant impacts on individual health outcomes and healthcare systems. However, the specific effects of diseases in combination will vary between different diseases

Exercise instructors are not consistently implementing the strength component of the UK chief medical officers' physical activity guidelines in their exercise prescription for older adults

Strength training recommendations have been embedded within the UK's Chief Medical Officers' physical activity guidelines since 2011. There is limited evidence that these recommendations are used by exercise instructors in the community to underpin strength training prescription in the older adult population

What frail, older patients talk about when they talk about self-care-a qualitative study in heart failure care

CONCLUSION: This study provides valuable insights into the perspectives of frail, older patients with HF regarding self-care. It was observed that older patients often associate self-care with general well-being, hygiene, and happiness

Assessment of post-COVID-19 fatigue among female survivors 2 years after hospital discharge: a nested case-control study

CONCLUSION: Female COVID-19 patients who had cerebrovascular disease and older age have higher risk of fatigue. Patients with fatigue have higher CAT scores, and are more likely to have concurrent depression.

Impact of the Exercise Right for Active Ageing program on physical function in older adults: a quasi-experimental pre-post study

CONCLUSIONS: Participation of older Australians in the ERAA program, led to statistically significant improvements in physical function. The program reached a large number of older Australians from every state and territory, including those from regional and remote parts of Australia, aged over 85 years, and with high levels of comorbidity, which supports the feasibility and acceptability of AES-

Study on the correlation between lifestyle and negative conversion time in patients diagnosed with coronavirus disease (COVID-19): a retrospective cohort study

CONCLUSION: Our research suggests that adequate sleep, physical exercise and a higher protein intake can help alleviate COVID-19 symptoms, while a higher level of carbohydrates intake may hinder recovery from COVID-19.

Employment, volunteering and ageing

[Characteristics of patients attached to near-retirement family physicians: a population-based serial cross-sectional study in Ontario, Canada](#)

CONCLUSIONS: The primary care sector faces capacity challenges as both patients and physicians age and fewer physicians practice comprehensiveness. Nearly 15% (1.7 million) of Ontarians may lose their comprehensive FP to retirement between 2019 and 2025. To serve a growing, increasingly complex population, innovative solutions are needed.

[The role of multimorbidity and socio-economic characteristics as potential risk factors for Long Covid: evidence from the multilevel analysis of the Survey of Health, Ageing and Retirement in Europe's corona surveys \(2020-2021\)](#)

CONCLUSION: Our results provide evidence on the substantial burden of Long Covid in Europe. Individuals who contracted Covid-19 may require long-term support or further medical intervention, putting additional pressure on national health care systems.

[How to construct a frailty index from an existing dataset in 10 steps](#)

CONCLUSIONS: This 10-step procedure can be used as a template to create one continuous health variable. The resulting high-information variable is suitable for use as an exposure, predictor or control variable, or an outcome measure of overall health and ageing.

[Factors affecting the green investment and assessing sustainable performance of firms in China](#)

In the process of development, global economies are prioritizing environmental protection and firms are also recognizing the importance of minimizing environmental impact during production along with maximization of profits through green investments. It is vivid that green investments are vital for environmental preservation

[Socio-economic inequalities in and factors associated with minimum dietary diversity among children aged 6-23 months in South Asia: a decomposition analysis](#)

CONCLUSION: Inequality in the prevalence of MDD favours the affluent. Health policy and intervention design should prioritise minimising socioeconomic inequalities concerning the MDD. In addition, policy-makers should prioritise the associated factors of MDD such as education, wealth status, employment, media exposure while designing intervention or policies.

[Price tag of glaucoma care is minor compared with the total direct and indirect costs of glaucoma: Results from nationwide survey and register data](#)

CONCLUSION: Glaucoma is associated with an increased health care consumption mainly due to non-eye-related health care, which can be explained by the vision loss as well as increased number of co-morbidities among glaucoma patients. Therefore, glaucoma constitutes a major economic burden for the health care system and society, highlighting the importance of early glaucoma interventions

Mediating factors explain anxiety experienced by women with obesity during the Covid-19 pandemic

The Covid-19 pandemic could be a source of great anxiety, especially for those at higher risk, such as women experiencing obesity. The aim of this study was to measure how some personal characteristics such as BMI (from underweight to class 3 obesity), bariatric surgery (yes or no), comorbidities, or age (as antecedent variables), and mediating factors impacted state anxiety during the Covid-19

Metabolic syndrome and poor self-rated health as risk factors for premature employment exit: a longitudinal study among 55 016 middle-aged and older workers from the Lifelines Cohort Study and Biobank

CONCLUSIONS: Poor SRH did not fully capture the risk for unemployment and work disability associated with MetS. More awareness about MetS as a 'hidden' cardio-metabolic risk factor for premature employment exit is needed among workers, employers, and occupational health professionals

The relationship between social support and dimensions of elder maltreatment: a systematic review and Meta-analysis

CONCLUSION: This systematic review provides evidence that social support in the form of structural or functional support may play an important role in improving the quality of life of the elderly.

The association between satisfaction with life and anxiety symptoms among Chinese elderly: a moderated mediation analysis

CONCLUSIONS: Our findings suggest that increased life satisfaction can reduce anxiety symptoms among Chinese elderly as their BMI decreases (when BMI ranged between "mean - 1SD" and "mean" of the population)

Do the New Rural Pension Scheme promote the health status of chronic patients in old age? -Evidence from CHARLS 2018 in China

CONCLUSION: This paper has confirmed the contribution and positive causal effect of NRPS on health status in a subgroup of older adults with COPD and asthma, using the CHARLS database as evidence. Thus, Chinese government should increase the take-up rate of the NRPS to enhance their positive impact on health status of elderly people with chronic diseases in rural areas.

The action logic of the older adults about health-seeking in South Rural China

CONCLUSION: This study showed that the medical practices of the rural elderly were profoundly influenced by their perceptions of health and their life experiences. In the face of diseases, they tended to keep their lives in order, preferring self-treatment practices that address symptoms or selectively following medical advice rather than medical and science-based clinical solutions

Tobacco smoke and all-cause mortality and premature death in China: a cohort study

CONCLUSION: This study found a negative effect of smoking status on all-cause mortality and premature death among a contemporary and nationally representative data in China. The correlation between pack-years of smoking and premature death and the trend of pack-years of smoking with premature death was also identified.

Measurements of methane and nitrous oxide in human breath and the development of UK scale emissions

Exhaled human breath can contain small, elevated concentrations of methane (CH₄) and nitrous oxide (N₂O), both of which contribute to global warming. These emissions from humans are not well understood and are rarely quantified in global greenhouse gas inventories

Labour market attachment dynamics in patients with concussion: a Danish nationwide register-based cohort study

CONCLUSIONS: Concussion was associated with enhanced risk of adverse transitions between labour market states and lower occurrence of favourable transitions, indicating work disability, potentially due to persistent post-concussive symptoms. Some age groups, individuals with high income, and employees with management experience may be more affected.

Challenging experiences of the elderly with heart failure in the COVID-19 pandemic: a phenomenological study in Iran

CONCLUSIONS: The present study revealed the challenges experienced and the coping strategies employed by elderly patients with heart failure during the pandemic in Iran. A knowledge of these challenges and experiences during the COVID-19 pandemic can raise healthcare workers' awareness of the elderly patients' strategies used to cope with the virus.

Area-level deprivation and individual-level socioeconomic correlates of the diabetes care cascade among black south africans in uMgungundlovu, KwaZulu-Natal, South Africa

South Africa is experiencing a rapidly growing diabetes epidemic that threatens its healthcare system. Research on the determinants of diabetes in South Africa receives considerable attention due to the lifestyle changes accompanying South Africa's rapid urbanization since the fall of Apartheid

Labour market participation after sickness absence due to cancer: a dynamic cohort study in Catalonia (Spain)

CONCLUSIONS: Workplaces, many of which have policies common to all diagnoses, should be modified to the needs of cancer survivors to prevent an increasing frequency of early retirement and permanent disability when possible. Future studies should assess the impact of cancer on premature exit from the labour market among survivors, depending on cancer localisation and type of treatment.

Residential proximity to major roadways and hearing impairment in Chinese older adults: a population-based study

CONCLUSIONS: This nation-wide cohort study suggested that residential proximity to major roadways was significantly associated with an increased exposure-response risk of HI in Chinese older adults. Exposure to CO pollution and opening windows frequently might strengthen the relations.

Cross-cultural adaption and inter-rater reliability of the Swedish version of the updated clinical frailty scale 2.0

CONCLUSION: The Clinical Frailty Scale was translated, linguistically validated and culturally adapted into Swedish following a well-established standard technique. The IRR was excellent, judged by two established, separately used, reliability tests. The reliability test results did not differ between non-specialised and specialised registered nurses

Prevalence and factors associated with inconsistent condom use among female sex workers in Ethiopia: findings from the national biobehavioral survey, 2020

CONCLUSION: Inconsistent condom use among FSWs is prevalent in Ethiopia and is associated with marital status, education status, depression, alcohol drinking, drug use, sexual violence, being raped, lack of knowledge about HIV, practising anal sex, selling sex in different locations, having more than two non-paying sexual partners, working in more than two cities, and lack of access to condom at

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Musculoskeletal health, falls prevention and ageing

Use of Artificial Intelligence in the Identification and Management of Frailty: A Scoping Review Protocol

INTRODUCTION: Rapid population ageing and associated health issues such as frailty are a growing public health concern. While early identification and management of frailty may limit adverse health outcomes, the complex presentations of frailty pose challenges for clinicians

Adverse drug events associated with nortriptyline compared with paroxetine and alternative medications in an older adult population: a retrospective cohort study in Southern California

CONCLUSIONS: Compared with therapeutic alternatives, nortriptyline was found to represent a lower risk for falls, fractures and syncope, versus comparator medications, except for a few instances that had equivalent risk. The risk for these adverse events from paroxetine was comparable to the alternative medications.

New Horizons in artificial intelligence in the healthcare of older people

Artificial intelligence (AI) in healthcare describes algorithm-based computational techniques which manage and analyse large datasets to make inferences and predictions. There are many potential applications of AI in the care of older people, from clinical decision support systems that can support identification of delirium from clinical records to wearable devices that can predict the risk of a

Effects of posture on heart rate variability in non-frail and prefrail individuals: a cross-sectional study

CONCLUSIONS: The effects of posture on HRV were blunted in the prefrail group, which suggests an impaired cardiac autonomic functioning. Measuring the effects of posture on HRV parameters may contribute to frailty assessment. However, further evidence from larger cohorts and including additional HRV parameters is needed.

Association of low blood pressure and falls: An analysis of data from the Leiden 85-plus Study

CONCLUSION: Our results point towards a possible benefit of higher blood pressure in the oldest-old with respect to falls independent of the use of antihypertensive treatments.

Epidemiology, site-specific characteristics and survival of carcinosarcoma: a retrospective study based on SEER database

CONCLUSIONS: CS has unique clinical features in each primary site. Substantial prognosis variances exist based on tumour locations. The aggressive course is the common feature in CS at all sites.

Clinical pharmacist-led assessment and management of anticholinergic burden and fall risk in geriatric patients

CONCLUSION: Our study revealed that incorporating a clinical pharmacist in the handling of geriatric patients aids in the detection, reduction, and prevention of anticholinergic adverse effects.

A population study on factors associated with unintentional falls among Iranian older adults

CONCLUSIONS: Our findings revealed that a wide range of intrinsic and extrinsic risk factors contributed to injurious falls; based on the literature, some are preventable. The present data may be helpful as a starting point and guide future efforts for health providers and policymakers to allocate additional resources and develop proper falls prevention or intervention programs at the community

The impacts of COVID-19 hospitalizations on non-COVID-19 deaths and hospitalizations: A panel data analysis using Brazilian municipalities

The COVID-19 pandemic in Brazil has brought many challenges, particularly regarding the management of hospital capacity, and a new demand for healthcare that added to the preexisting demands, such as neoplasms, cardiovascular diseases and births. In this paper, we estimate the impact of the pandemic on the number of deaths and hospitalizations for other diseases

"I can't imagine having to do it on your own": a qualitative study on postoperative transitions in care from the perspectives of older adults with frailty

CONCLUSION: Future programs should focus on supporting patients to return home by empowering patients with resources and clear communication, ensuring continuity of care, creating access to homecare and virtual support, focusing on functional and medical recovery, and recognizing the invaluable role of informal caregivers.

Development and validation of a machine learning-based fall-related injury risk prediction model using nationwide claims database in Korean community-dwelling older population

CONCLUSION: We developed and validated an explainable machine-learning model for predicting serious FRIs in community-dwelling older adults. With prospective validation, this model could facilitate targeted fall prevention strategies in primary care or community-pharmacy settings.

Frailty Assessment in Vascular Outpatients Review (FAVOUR) protocol: single-centre prospective cohort study comparing feasibility and prognostic value of commonly used frailty assessment tools

INTRODUCTION: Frailty has consistently demonstrated associations with poorer healthcare outcomes. Vascular guidelines have recognised the importance of frailty assessment. However, an abundance of frailty tools and a lack of prospective studies confirming suitability of routine frailty assessment in clinical practice has delayed the uptake of these guidelines

Stakeholders' experiences of comprehensive geriatric assessment in an inpatient hospital setting: a qualitative systematic review and meta-ethnography

CONCLUSION: While HCPs, older adults, and caregivers' values and ambitions related to CGA broadly align, their experiences often differ. The identified themes highlight organisational and relational factors, which positively and negatively influence CGA practices and processes in an inpatient hospital setting.

Does testosterone influence the association between sleep and frailty in men: results from the European Male Aging Study

CONCLUSION: Frailty is associated with impaired sleep quality and sleep duration. The association cannot, however, be explained by variation in testosterone levels.

The impact of perioperative enhanced recovery nursing model on postoperative delirium and rehabilitation quality in elderly patients with femoral neck fractures

CONCLUSIONS: The implementation of the ERAS nursing model in elderly patients with femoral neck fractures improved postoperative sleep quality, reduced delirium occurrence, shortened average hospitalization duration, and enhanced patients' quality of life.

Acute care models for older people living with frailty: a systematic review and taxonomy

CONCLUSION: Acute care models for older people living with frailty are heterogenous. The clinical effectiveness of these models cannot be conclusively established from the available evidence.

Individual and combined associations of sarcopenia, osteoporosis and obesity with frailty in a multi-ethnic asian older adult population

CONCLUSION: The prevalence of SP, OB and OP, alone and combined, is substantial in older Asians and their early identification is needed to mitigate the risk of frailty. OB may interact with SP in an antagonistic manner to moderate rates of frailty. Further longitudinal studies are needed to address causality and mechanistic underpinnings our findings.

Prevalence of frailty and associated factors in older adults seeking care at Swedish emergency departments

CONCLUSION: Our study shows a high prevalence of frailty in older people. Factors associated with frailty were living in a residential care facility, age ≥ 80 years, being a woman and arriving with EMS to the ED and being admitted to in-hospital care. Frailty screening should be incorporated in the triage system to identify frail patients who need tailored interventions

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Ageism and discrimination

Hypertension, socioeconomic status and depressive and anxiety disorders: a cross-sectional study of middle-aged and older Chinese women

CONCLUSIONS: Hypertension was associated with increased odds of depressive and anxiety disorders among middle-aged and older women, especially in those with low SES. Effective strategies and actions for identification and management of hypertension and depressive and anxiety disorders are needed.

Impact of odorants on perception of sweetness by honey bees

Organic volatiles produced by fruits can result in overestimation of sweetness by humans, but it is unknown if a comparable phenomenon occurs in other species. Honey bees collect nectar of varying sweetness at different flowering plants

Pre-Interventional Risk Assessment in The Elderly (PIRATE): Development of a scoring system to predict 30-day mortality using data of the Peri-Interventional Outcome Study in the Elderly

Risk assessment before interventions in elderly patients becomes more and more vital due to an increasing number of elderly patients requiring surgery. Existing risk scores are often not tailored to marginalized groups such as patients aged 80 years or older

HIV treatment cascade among female sex workers in Ethiopia: Assessment against the UNAIDS 90-90-90 targets

CONCLUSION: Only about half of HIV-positive FSWs knew they were HIV positive. More than 90% of those who knew their status were put on ART and achieved viral suppression. The weakest point in achieving HIV control among FSWs is the identification of those living with HIV.

Prevalence and risk factors of pre-hypertension and hypertension among adults in Southeastern Iran: Findings from the baseline survey of the Zahedan adult cohort study

Hypertension (HTN) stands as the leading modifiable risk factor for cardiovascular disease(CVD) and premature death globally. Understanding its prevalence and risk factors is essential for effective prevention and management of HTN

Machine learning-based model for predicting major adverse cardiovascular and cerebrovascular events in patients aged 65 years and older undergoing noncardiac surgery

CONCLUSION: By analyzing Chinese patients aged ≥ 65 years undergoing medium- or high-risk noncardiac surgery, the risk factors for perioperative MACCE were identified. Then, simple prediction models were constructed and validated, which showed good prediction performance and may be used as a decision-making assistant tool for clinicians

Gender-specific inequalities in coverage of Publicly Funded Health Insurance Schemes in Southern States of India: evidence from National Family Health Surveys

CONCLUSIONS: We found gender inequalities in self-reported enrolment in southern states with long-standing PFHIS. Inequalities favoured the poor, uneducated and elderly, which is to some extent desirable when rolling out a PFHIS intended for harder to reach populations. However, religion and caste-based inequalities, while reducing, were still prevalent among women

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