8th International Conference on

Dementia and Dementia Care

September 18-19, 2017 Dublin, Ireland

Symposia

Empowering dementia family caregivers with an online care management system.

Euro Dementia Care 2017

Lee Greene, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Lee Greene

Stuward, Switzerland

A novel technology based model of care

Stuward is an integrated virtual care system that enables healthcare providers to deliver chronic care management to the home for people with dementia by partnering with family caregivers through a new technology based model of care. The value and cost-effectiveness of the model will be presented.

Biography

Lee Greene is a passionate, award-winning innovation expert, digital health entrepreneur and a startup member of Switzerland's Commission for Technology and Innovation. He is also the Cofounder and CEO of Stuward – a startup using artificial intelligence to help healthcare providers and family members collaborate on providing care in the home to people living with dementia. In 2016, from 292 entries from 65 countries, Stuward won the SEIF Social Entrepreneurship Award for Integration and Prevention.

lee@stuward.com

Notes:

Celeste A de Jager, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

8th International Conference on
Dementia and Dementia Care
September 18-19, 2017 Dublin, Ireland

Celeste A de Jager

University of Cape Town, South Africa

Remote assessment of caregiver preparedness, needs and feedback

Stuward provides personalized education and advice, based on individual caregiver assessment profiles. This method empowers carers to provide optimal care to their family members living with dementia. Details of assessment tools to monitor carer burden, dementia knowledge and caree activities of daily living will be presented. Decision trees used to provide education, advice and feedback will be discussed.

Biography

Celeste A de Jager, University of Cape Town (UCT) worked in the fields of neuropsychology and dementia research for 14 years at the University of Oxford, UK. She was the Principal Investigator in studies with Merck, plc to identify sensitive neuropsychological tests as outcomes for AD treatment trials; and for the Cognitive Archaeology collaborative study with Dr Peter Garrard from St George's University, London, on linguistic markers to predict dementia. She designed the cognitive and clinical assessment aspects of the VITACOG trial of B vitamins and omega-3 for those with MCI. Latter work involved novel brain imaging studies for predictive markers of Alzheimers disease. She obtained a British Academy award for community screening for cognitive impairment in India. She returned to UCT in South Africa in 2012 as a Senior Lecturer in Clinical Epidemiology and obtained a WUN award to examine nutrition and cognition in collaboration with Dementia SA, and researchers from Leeds and Sheffield University. She held the interim South African Research Chairs Initiative in Clinical Neurosciences from 2013-2014 and piloted dementia screening tools for Xhosa-speaking elders in order to conduct a large dementia prevalence study in a low-income community. She represented OPTIMA as a member of the European Alzheimer's Disease Consortium (EADC) and was an academic expert on the Nutrition and Mental Performance task force with the Institute of Life Sciences-Europe. She now leads the design of the assessment and recommendation system for stuward.com for family carers of people with dementia. She is an Editorial Board member for Journal of Alzheimers Disease and a reviewer for many medical journals.

celeste.dejager@uct.ac.za

Notes:

Karen Borochowitz, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Karen Borochowitz

Dementia SA, South Africa

Counseling and guidance with one to one expert mentoring via Stuward

Families receive expert counseling online to help work through concerns and tough decisions. Stuward also protects the mental and physical health of family caregivers, who tend to neglect their own needs.

Biography

Karen Borochowitz background is in the corporate world where she worked as a Production Manager for a large pharmaceutical company and then moved to advertising and marketing. Her mother Joyce, was diagnosed with Alzheimer's disease at the age of 62 and passed away in 2011, 21 years after her diagnosis. Karen was actively involved in her mother's care. She has two adult children, a daughter and a son. In 2006, she was one of the founder members of DEMENTIA SA, an organization which has grown enormously in the past years and which is affiliated to a number of international organizations.Karen is the recipient of many awards for her contribution to the rights of people with dementia, the most recent of which is the Lions Club International Hero of the Year.

.

diretor@dementiasa.org

Notes:

8th International Conference on

Dementia and Dementia Care

September 18-19, 2017 Dublin, Ireland

Scientific Tracks & Abstracts

Day 1

Dementia | Alzheimer's Disease

Session Chair
Ahmet Turan Isik
Dokuz Eylul University, Turkey

Session Introduction

Title: **Alzheimer's drug discovery: Targeting synaptic glutamate uptake**
Markku Kurkinen, Wayne State University, USA

Title: **Development of an informant questionnaire for screening Cognitive Impairment in Chinese older people**
Helen F K Chiu, The Chinese University of Hong Kong, Hong Kong

Title: **Astrocytes: The future in research of Alzheimer's disease**
Soraya L Valles, University of Valencia, Spain

Title: **Dementia in eastern Mediterranean countries: A systematic review**
Sara Mahmoud Yaghmour, King Abdulaziz University, Saudi Arabia

Markku Kurkinen, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Alzheimer's drug discovery: Targeting synaptic glutamate uptake

Markku Kurkinen
Wayne State University, USA

According to the amyloid hypothesis, Alzheimer dementia begins in the brain with Aβ peptides accumulation and amyloid formation. However, clinical trials targeting Aβ peptides and brain amyloid have failed to help anybody living with Alzheimer. Instead of repeating similar trials and errors of 25 years, we have to discover novel drug targets and better our research to prevent and treat Alzheimer. Glutamate is the synaptic signaling molecule of neurons. As soon as the glutamate signaling starts it is stopped in 0.1-2 ms by astrocytes, which take up and clear glutamate from synapses. This prevents glutamate neurotoxicity causing synapse loss and neuron cell death. Astrocytes make EAAT2 (excitatory amino acid transporter-2), the major glutamate transporter and 1% of brain protein. In Alzheimer, astrocytes are impaired in synaptic glutamate uptake. In experimental mouse models of Alzheimer, increasing EAAT2 expression slows dementia progression. Here, I describe a simple assay for drugs that activate EAAT2 in glutamate uptake. The assay targets the EAAT2 protein reconstituted in liposomes and measures glutamate uptake with Oxonol VI red fluorescent dye. By directly targeting EAAT2, the assay should limit 'off-targeting' of drugs and adverse events, which are the main problems in Alzheimer's drug discovery and clinical development. For efficacy, specificity and safety, EAAT2 activating drugs are studied in experimental C. elegans models of Alzheimer.

Biography

Markku Kurkinen Obtained his PhD from University of Helsinki, Finland in 1979. He worked as an assistant Professor at Rutgers medical school, USA .He is currently working as Professor of Molecular Medicine and Genetics at Wayne State University, School of medicine, USA .His research interests reflect in his wide range of publications in various national and international journals.

markku.kurkinen@wayne.edu

Notes:

8th International Conference on
Dementia and Dementia Care
September 18-19, 2017 Dublin, Ireland

Development of an informant questionnaire for screening Cognitive Impairment in Chinese older people

Helen F K Chiu and **Zhong B L**
Chinese University of Hong Kong, Hong Kong

Objectives: To develop and validate an Informant Questionnaire (IQ) for detection of cognitive impairment in Chinese older people, as Informant Questionnaires developed in western countries may not be suitable.

Methods: The new IQ was developed based on review of the literature, as well as the views of an Expert panel. Three groups of subjects aged 65 or above and their informants were recruited after informed consent: normal older people recruited in elderly centres, people with Mild NCD (Neurocognitive Disorder) and people with Major NCD (Neurocognitive Disorder). Clinical diagnosis of Major NCD and Mild NCD according to DSM-5 were made by experienced psychiatrists. All subjects and their informants gave written consent. The IQ test was administered to the informants, Montreal Cognitive Assessment (MoCA) and Mini Mental State Examination (MMSE) were administered to the subjects. The performance of the IQ in differentiating subjects with Major NCD, Mild NCD and normal elderly were compared with the clinical diagnosis, MoCA and the MMSE.

Results: In total, 296 informants were recruited. Inter-rater reliability, test-retest reliability after 6 weeks, of the IQ test were good. The internal consistency of the new cognitive test was satisfactory. The mean MMSE, MoCA and IQ scores showed significant differences among the 3 group of subjects. In the ROC curve analysis of the IQ in differentiating normal subjects from those with cognitive impairment (Mild NCD + Major NCD), the area under the curve (AUC) was 0.987 with an optimal cut-off score of ≥3. The performance of MMSE and MoCA in differentiating normal from cognitively impaired subject were inferior to the IQ.

Conclusions: We have developed an IQ instrument useful for screening of cognitive impairment in Chinese elderly. Further cross-validation studies involving a larger number of subjects are required.

Biography

Helen F K Chiu, is Professor of Psychiatry at the Chinese University of Hong Kong and President of the Hong Kong Psychogeriatric Association; Past President of the Pacific Rim College of Psychiatrists, Past President of the Hong Kong College of Psychiatrists, as well as Past President of the International Psychogeriatric Association. She has been Head of the Department of Psychiatry at the Chinese University of Hong Kong from 1996 to July 2011. Currently she sits on the Editorial Board of several journals. She has around 400 papers published in scientific journals. Her major research interests are in the field of dementia and suicide.

helenchiu@cuhk.edu.hk

Notes:

Soraya L Valles, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Astrocytes: The future in research of Alzheimer's disease

Soraya L Valles
University of Valencia, Spain

Brain cells, such as astrocytes, neurons, ependimiary cells, microglia and oligodendroglia may play a role in Alzheimer's disease. The role of neurons has been studied for decades because of their role in cell communication inside the nervous system and also in damaged brain, such as in Alzheimer's disease. However, glial cells have been poorly studied. Astrocytes are more abundant than neurons in brain and, moreover there are more astrocytes compared to neurons, when we progress in the phylogeny. Furthermore Einstein's brain has three times more astrocytes than normal brain. So many scientists are thinking about the important role of astrocytes in memory, synapsis, brain communication, inflammation, oxidative stress, nutrition or sleep. Amyloid theory to explain Alzheimer's disease is now questioned. So we studied the role of astrocytes and demonstrated that after amyloid beta addition to astrocytes and neurons, astrocytes are more resistant to the toxic than neurons producing inflammation and oxidative stress but protected neurons in mixed culture. Using Transgenic APP/Presenilin 1 we have also demonstrated that astrocytes can be involved in changes in inflammation and oxidative stress detected in this mice. We conclude that these kind of cells are the key to protect brain against Alzheimer's disease. Perhaps we do not need to eliminate amyloid beta but only protect astrocytes against amyloid effects. Furthermore, which role play astrocytes in Alzheimer's disease and in CNS degeneration? That needs to be discussed in the future to elaborate new drugs to protect astrocytes or, on the other hand, to look for TAU protein and its relationship with astrocytes.

Biography

Soraya L Valles graduated in 1990 in Biological Science at the University of Valencia and remained there to undertake her PhD and She attained her PhD in 1997. In 1997, she started her postdoctoral position in England in Sheffield, UK and spent three years working in immunology, cytokines, inflammation processes. At Present, She is the chief of the neurochemistry laboratory at University of Valencia. She works in Alzheimer's diseases and in basic mechanisms in inflammation and oxidative stress. She had also worked in brain cancer with the finality to obtain anticancer proteins, as pharmaceutical drugs or natural drugs.

Lilian.Valles@uv.es

Notes:

8th International Conference on
Dementia and Dementia Care
September 18-19, 2017 Dublin, Ireland

Dementia in eastern Mediterranean countries: A systematic review

Sara Mahmoud Yaghmour[1], **Ruth Bartlett**[2] and **Tula Brannelly**[2]
[1]King Abdulaziz University, Saudi Arabia
[2]University of Southampton, United Kingdom

Background: The increase in the older adults' population is a global phenomenon, including in Eastern Mediterranean (EM) countries, where dementia is conventionally hidden.

Aim: To explore dementia and cognitive impairment among geriatric population in EM countries and to identify the gap in the literatures.

Method: A systematic search was conducted in scientific databases including DelphiS, CINAHL, MEDLINE, and ProQuest along with google scholar looked for peer-reviewed articles between 2007-2017. Search keywords included older adult, old*, elder*, geriatric, and senior, in combination with dementia, Alzheimer's*, cognitive impairment, cognitive decline, memory loss. Further combined with Saudi, Arabia*, Middle East*, or Eastern Mediterranean.

Result: After obtaining critical appraisal tools, a total of 31 studies were included with four themes identified. (1) culture: The older adult within EM is highly respected and introducing them to a healthcare facility consider an abandonment of family duty. The term dementia is stigmatised and believed that it caused by fate. (2) Prevalence, comorbidity, and gender: EM population has become more cognisant of Dementia prevalence, and many studies indicated that it is high. Many EM older adults are having at least one chronic illness and low life-satisfaction. (3) Recognition and tools: Language barriers and lack of verified assessment instruments are considered issues in recognising and treating dementia. Despite high illiteracy among older adults within EM community, many are using Mini-Mental State Examination for dementia screening. Healthcare workers are facing a challenge in evaluating psychometric properties. (4) Healthcare workers: lack of knowledge about geriatric and dementia, while geriatric nursing/medicine been introduced recently in some Saudi's universities.

Conclusion/recommendations: Inconsistency published studies on dementia in the region. High demand for creating an educational programme and providing policies to promote practical gerontological nursing/medicine. Healthcare professionals need to become aware of health intentions shared by people from different sociocultural, religious, and linguistic backgrounds to deliver culturally sensitive care.

Biography

Sara Mahmoud Yaghmour is a psychogeriatric nursing lecturer at King Abdulaziz University and now a PhD student at the University of Southampton. Currently, she is working on a project to investigate nurses' perception and learning needs when caring for people with dementia using a diary-interview method. Her research interests include nursing education, psychogeriatric nursing care, and people with dementia care."She aims to be capable of developing and communicating new knowledge in psychogeriatric nursing through designing and carrying out high-quality research and training".

smyaghmour1@kau.edu.sa

Notes:

8th International Conference on

Dementia and Dementia Care

September 18-19, 2017 Dublin, Ireland

Scientific Tracks & Abstracts

Day 2

Assessment & Diagnosis | Causes & Risk Factors

Session Chair
Ken Nagata
Yokohama General Hospital, Japan

Session Introduction

Title: **A floor based motion sensing system to detect falls, assess gait, and count the number of simultaneous people on the system**

Harry W Tyrer, University of Missouri, USA

Title: **Associations of dietary intake of B vitamins and cognition in older adults from a low-income community in South Africa**

Celeste A de Jager, University of Cape Town, South Africa

Title: **Innovation in Dementia awareness and education In rural South Africa**

Karen Borochowitz, Dementia SA, South Africa

Harry W Tyrer et al., J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

8th International Conference on
Dementia and Dementia Care
September 18-19, 2017 Dublin, Ireland

A floor based motion sensing system to detect falls, assess gait, and count the number of simultaneous people on the system

Harry W Tyrer and **Fadi A Muheidat**
University of Missouri, USA

There are numerous technologies to detect falls and monitor the frail elderly including those with dementia. Falls are a rare event but cause drastic consequences: a fall may result in a fracture with hospitalization, physical therapy, loss of functionality, depression, and loss of life. Obviously the more rapid the discovery of the fall and subsequent intervention the better. Further more because it is a rare event devices that act autonomously can record the data continuously, and processed for a regular report for useful clinical information. We have developed a floor based monitoring system, which we call the smart carpet, originally to detect falls, but we can take advantage of the continual 24/7 monitoring capability to get important information on gait, which is a foundation of assessing activities of daily living, We have developed several fall algorithms, the best one uses multilayer perceptron classifier on 10 fold cross validation with accuracy of 96%, sensitivity of 81%, and specificity of 98%. We have extended this to detect gait parameters including walking speed stride time and stride length. We have compared the smart carpet to the gaitRITE and measured gait estimation accuracy (and correlation) in walking speed of 1% (90%), stride time of 6% (80%), and stride length of 4% (90%). These high accuracies are confirmed by many other tests we have run. We have also run experiments to count the number of people traversing the carpet and studied the waveform for useful information.

Biography

Harry W Tyrer has over 130 papers and 2 patents. His most recent work has been in eldercare. He is currently Professor Emeritus after serving over 33 years at the University of Missouri – Columbia. His main research work has been in the design contraction and testing of systems for floor sensing of people. Most recently it has been to provide computational intelligence to these devices and long term cloud storage. His PhD is in Electrical Engineering from Dule University, and he has been a fellow of the cytopathology division of Johns Hopkins University and a fellow in the Sinclair school of Nursing at the University of Missouri.

TyrerH@missouri.edu

Notes:

Celeste A de Jager et al., J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Associations of dietary intake of B vitamins and cognition in older adults from a low-income community in South Africa

Celeste A de Jager[1], **L Dye**[2], **J Cade**[2] and **J Harbron**[3]
[1]University of Cape Town, South Africa
[2]University of Leeds, United Kingdom
[3]University of Cape Town, South Africa

Background: Elevated concentrations of plasma homocysteine are associated with cognitive impairment and dementia. Homocysteine levels are raised when dietary intake of B vitamins (folic acid, B6 and B12) is low. The diet of low-income populations may be deficient in B vitamins as these are largely absent in staple, starchy foods. Fortified foods may provide B vitamins, but older people tend to have poor absorption. We aimed to look at the association of B vitamin intake with cognitive performance in a low-income community.

Methods: We assessed 60 Xhosa-speaking participants aged 60 years and over with the Community Screening Instrument for Dementia (CSID: isiXhosa version) the MMSE and verbal fluency. Blood samples were assayed for vitamins B12, B6, folate, homocysteine and other biomarkers. A food frequency questionnaire, adapted to the local diet, was completed by each participant.

Results: Over 85% of participants were overweight or obese. The median dietary intake of folate was 242.5 (196.7-316.4) mcg/d, much lower than the estimated average requirements for adults of 320mcg/d. The median dietary intakes were adequate for Vitamin B12 and Vitamin B6 at 5.95 (3.1-9.0) mcg/day and 2.2 (1.9-2.6) mg/day respectively. CSID scores were negatively correlated with folate intake (-0.33, p=0.015) and BMI (0.28, p=0.03). Trends were observed for correlations of serum B12 with MMSE (0.26, p=059) and verbal fluency (0.24, p=0.09).

Conclusions: Folate intake was inadequate for 75% of our participants. Dietary sources of folate and other micronutrients for this low-income region will be presented and implications for cognitive function will be discussed.

Biography

Celeste A de Jager, University of Cape Town (UCT) worked in the fields of neuropsychology and dementia research for 14 years at the University of Oxford, UK. She was the Principal Investigator in studies with Merck, plc to identify sensitive neuropsychological tests as outcomes for AD treatment trials; and for the Cognitive Archaeology collaborative study with Dr Peter Garrard from St George's University, London, on linguistic markers to predict dementia. She designed the cognitive and clinical assessment aspects of the VITACOG trial of B vitamins and omega-3 for those with MCI. Latter work involved novel brain imaging studies for predictive markers of Alzheimers disease. She obtained a British Academy award for community screening for cognitive impairment in India. She returned to UCT in South Africa in 2012 as a Senior Lecturer in Clinical Epidemiology and obtained a WUN award to examine nutrition and cognition in collaboration with Dementia SA, and researchers from Leeds and Sheffield University. She held the interim South African Research Chairs Initiative in Clinical Neurosciences from 2013-2014 and piloted dementia screening tools for Xhosa-speaking elders in order to conduct a large dementia prevalence study in a low-income community. She represented OPTIMA as a member of the European Alzheimer's Disease Consortium (EADC) and was an academic expert on the Nutrition and Mental Performance task force with the Institute of Life Sciences-Europe. She now leads the design of the assessment and recommendation system for stuward.com for family carers of people with dementia. She is an Editorial Board member for Journal of Alzheimers Disease and a reviewer for many medical journals.

celeste.dejager@uct.ac.za

Notes:

Karen Borochowitz, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Innovation in Dementia awareness and education in rural South Africa

Karen Borochowitz
Dementia SA, South Africa

Dementia South Africa (DementiaSA) embarked on a large epidemiological study in 2015 in collaboration with University of Cape Town and The Donald Woods Foundation in rural Eastern Cape. The Eastern Cape is one of the poorest provinces in South Africa but also an area with a large elderly community. The study was funded by the National Lottery Commission in South Africa.Through Books of Hope's innovative Speaking Book, DementiaSA commissioned a book called Making Memories Matter. Through this initiative, we were able to address the understanding of dementia amongst indigenous, rural communities in South Africa. Amongst these communities dementia is thought to be witchcraft and possession by the ancestors. Dementia understanding is almost non- existent, notwithstanding the poor levels of literacy as well as other critical socio-economic challenges. Besides the gathering of study results, it was important for DementiaSA to educate the community and community health outreach workers about different forms of dementia. As a result of memory and cognitive impairments, various forms of elder abuse exist. The Making Memories Matter Speaking Book has been very successful and helped to spread dementia education and awareness in many rural villages and schools around South Africa. DementiaSA is proud to share this innovative and successful project with you!.

Biography

Karen Borochowitz background is in the corporate world where she worked as a Production Manager for a large pharmaceutical company and then moved to advertising and marketing. Her mother Joyce, was diagnosed with Alzheimer's disease at the age of 62 and passed away in 2011, 21 years after her diagnosis. Karen was actively involved in her mother's care. She has two adult children, a daughter and a son. In 2006, she was one of the founder members of DEMENTIA SA, an organisation which has grown enormously in the past years and which is affiliated to a number of international organisations. She is the recipient of many awards for her contribution to the rights of people with dementia, the most recent of which is the Lions Club International Hero of the Year. She believes that the wounds of this insidious disease have actually become her gift where she and the work of Dementia SA, have been able to make a tangible difference in the lives of people with dementia, their families and carers.

diretor@dementiasa.org

Notes:

Care Practices | Dementia Awareness | Drug Development in Dementia

Session Chair
Harry S Goldsmith
University of California, USA

Session Introduction

Title: **Effects of exercise in older people with Dementia**

Marieke van Heuvelen, University of Groningen, Netherlands

Title: **Effects of an exercise format, Ageless Grace™, on cognitive performance in older adults**

Celeste A de Jager, University of Cape Town, South Africa

Title: **Drug burden and functional outcomes in nursing home patients with Dementia**

Lianne M J Sanders, University of Groningen, Netherlands

Marieke van Heuvelen et al., J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Effects of exercise in older people with Dementia

Marieke van Heuvelen, Willem Bossers, Lianne Sanders, Marelle Heesterbeek, Eddy van der Zee, Erik Scherder and **Tibor Hortobagyi**
University of Groningen, Netherlands

With the aging of the population the number of people with dementia is increasing. Dementia cannot be cured. To reduce the symptoms medications are prescribed but these medications do not always work and often have adverse effects. Non-pharmacological treatments are needed. Physical exercise may be such treatment. In several studies, we investigate the effects of different types of physical exercise on cognitive function, physical function and activities of daily living (ADLs) of older people with dementia. In the first study the effects of combined aerobic and strength exercise were investigated. 109 institutionalized persons with moderate to moderate/severe dementia were randomized over three interventions: combined aerobic and strength training, aerobic training and control (social visits). Sessions lasted 30 minutes, 4 times/week during 9 weeks. The effects were measured with performance-based tests for executive functioning, memory, physical function and ADLs. The results will be presented. Two studies within the Dutch national program Deltaplan Dementia are currently running. The dose-response relationship of combined aerobic and strength exercise is investigated in people with dementia visiting daycare centers. Low intensity and high intensity exercise are compared in a 24 week intervention, 3 times/week, 30 minutes/session. Preliminary results will be presented. For institutionalized dementia patients who cannot perform active exercises we examine the effects of passive exercise in a multisensory environment in the form of Whole Body Vibration and Therapeutic Motion Simulation using a movement platform with chair. Pilot results will be presented.

Biography

Marieke van Heuvelen, PhD, is a human movement scientist working at the Center of Human Movement Sciences in Groningen, the Netherlands. Her research focuses on how to influence the aging process with physical exercise with a special focus on the exercise effects in dementia. Currently, she is collaborating in a large national program (Deltaplan Dementia) in which several exercise interventions for dementia patients are evaluated using interdisciplinary knowledge from human movement science, neuropsychology and neurobiology. She is also an experienced teacher in aging and statistics and methodology.

m.j.g.van.heuvelen@umcg.nl

Notes:

Celeste A de Jager, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

Effects of an exercise format, Ageless Grace™, on cognitive performance in older adults

Celeste A de Jager
University of Cape Town, South Africa

Background: Prevention of dementia through non-pharmacological interventions is gaining traction for research. Exercise has been shown to benefit cognition, mood and physical factors. However, the particular type, and duration of, exercise that correlates best with these changes is not well defined. Listening to music also has marked benefits for people with dementia. We were interested to explore the effects of an exercise format that is performed with music. Ageless Grace™ was developed to enhance neuroplasticity. It is based on 21 exercise tools that engage the mind and body. To date there are no publications showing a direct link between Ageless Grace™ and cognitive performance. We aimed to conduct a pilot study to determine change in cognition, mood and physical parameters from intervention with Ageless Grace™ in older people without dementia.

Methods: 12 people (mean 82.4 y), completed one session per week of Ageless Grace™ for an average of 7 weeks. Baseline demographics, cognitive tests, a grip strength test and resilience scale were completed at baseline and follow-up. All measures were tested for change over time with independent t-tests.

Results: There was a significant increase in scores (p=0.027) on the Montreal Cognitive Assessment (MoCA) at the end of 7 weeks. None of the other measures showed significant change. Overall, participants enjoyed the exercise technique.

Conclusions. This pilot study shows promise for effects of Ageless Grace™ on cognitive performance over a short term. Further experimentation with suitable outcome measures, duration of intervention and inclusion of those with memory problems or dementia are warranted.

Biography

Celeste A de Jager, University of Cape Town (UCT) worked in the fields of neuropsychology and dementia research for 14 years at the University of Oxford, UK. She was the Principal Investigator in studies with Merck, plc to identify sensitive neuropsychological tests as outcomes for AD treatment trials; and for the Cognitive Archaeology collaborative study with Dr Peter Garrard from St George's University, London, on linguistic markers to predict dementia. She designed the cognitive and clinical assessment aspects of the VITACOG trial of B vitamins and omega-3 for those with MCI. Latter work involved novel brain imaging studies for predictive markers of Alzheimers disease. She obtained a British Academy award for community screening for cognitive impairment in India. She returned to UCT in South Africa in 2012 as a Senior Lecturer in Clinical Epidemiology and obtained a WUN award to examine nutrition and cognition in collaboration with Dementia SA, and researchers from Leeds and Sheffield University. She held the interim South African Research Chairs Initiative in Clinical Neurosciences from 2013-2014 and piloted dementia screening tools for Xhosa-speaking elders in order to conduct a large dementia prevalence study in a low-income community. She represented OPTIMA as a member of the European Alzheimer's Disease Consortium (EADC) and was an academic expert on the Nutrition and Mental Performance task force with the Institute of Life Sciences-Europe. She now leads the design of the assessment and recommendation system for stuward.com for family carers of people with dementia. She is an Editorial Board member for Journal of Alzheimers Disease and a reviewer for many medical journals.

celeste.dejager@uct.ac.za

Notes:

Lianne M J Sanders, J Alzheimers Dis Parkinsonism 2017, 7:4(Suppl)
DOI: 10.4172/2161-0460-C1-027

8th International Conference on
Dementia and Dementia Care
September 18-19, 2017 Dublin, Ireland

Drug burden and functional outcomes in nursing home patients with Dementia

Lianne M J Sanders
University of Groningen, Netherlands

Purpose: The Drug Burden Index (DBI) is a tool to quantify the anticholinergic and sedative load of drugs. Establishing functional correlates of the DBI could optimize drug prescribing in patients with dementia. In this cross-sectional study, we determined the relationship between DBI and cognitive and physical function in a sample of patients with dementia.

Methods: Using performance-based tests, we measured physical and cognitive function in 140 nursing home patients aged over 70 with all-cause dementia. We also determined anticholinergic (AChDBI) and sedative (SDBI) drug burden separately and in combination as total drug burden (TDB).

Results: Nearly one half of patients (48%) used at least one DBI-contributing drug. In 33% of the patients, drug burden was moderate ($0<TDB<1$) whereas in 15%, drug burden was high ($TDB \geq 1$). Multivariate models yielded no associations between TDB, AChDBI and SDBI, and physical or cognitive function (all $p > 0.05$).

Conclusions: A lack of association between drug burden and physical or cognitive function in this sample of patients with dementia could imply that drug prescribing is more optimal for patients with dementia compared with healthy older populations. However, such an interpretation of the data warrants scrutiny as several dementia-related factors may confound the results of the study.

Biography

Lianne M J Sanders is an clinical neuropsychologist who currently does a PhD on the effects of exercise in patients with dementia. The aim of my PhD project 'Train the Sedentary Brain' (Deltaplan Dementia, ZonMW: Memorabel) is to delay the progression of dementia with a combined aerobic and strength exercise program. Within this project, we investigate the dose-response relationship between exercise and cognition, and possible moderating effects of ApoE4 carriership on exercise effects, in a sample of patients with mild-to-moderate dementia.

l.m.j.sanders@umcg.nl

Notes: