

For immediate release

## **NUHS Mind Science Centre on world-first study to prevent dementia through mindfulness**

- **NUHS Mind Science Centre launches free 'live' digital resources using mindfulness intervention for seniors to cope with pandemic from this week, together with partners People's Association, Council for Third Age and National Silver Academy.**

*Singapore, 27 April 2020* - As Singapore enters its fourth week of the Circuit Breaker, vulnerable seniors face unprecedented challenges of prolonged isolation and increased anxiety. Caregivers also cope with care for persons with dementia at home. In an effort to uplift the senior population from isolation and enabling caregivers of seniors at home, from this week, the Mind Science Centre (MSC) in collaboration with its community and educational partners including Council for Third Age (C3A), People's Association (PA), Singapore University of Social Sciences (SUSS) and National Silver Academy (NSA), will launch three free resources online to equip seniors and caregivers with evidence-based mindfulness intervention to encourage mental health and resilience during COVID-19.

Researchers from the MSC, an NUHS Centre of Excellence and academic research centre, NUS Yong Loo Lin School of Medicine, Psychological Medicine, have recently published a first-ever study<sup>1</sup> on evidence-based mindfulness interventions and practice in elderly that concluded mindfulness improves memory and inflammation associated with cognitive impairment, and suggests that it may be of benefit to ageing adults with early cognitive degeneration to improve cognitive health in order to prevent or slow down the onset of

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<sup>1</sup> The two research analysis findings from the study are in more detail via the articles below:

- **Mindfulness lowers inflammation in cognitively impaired older adults:**  
<https://goamra.org/mindfulness-lowers-inflammation-in-cognitively-impaired-older-adults/>
- **Cognitively impaired older adults improve memory with mindfulness:**  
<https://goamra.org/cognitively-impaired-older-adults-improve-memory-with-mindfulness/>

dementia. Mindful awareness practice is part of the MSC's dementia and depression risk prevention programme, Age Well Everyday (AWE), which includes physical activities, health education, music reminiscence, art therapy and horticulture therapy.

**This is the first study in the world on mindfulness in the elderly using MRI and biomarkers. The research study focused on Singaporean elderly with a diagnosis of mild cognitive impairment (MCI).**

The first analysis of findings which assesses memory of participants with MCI showed mindfulness significantly improved auditory verbal learning recognition, which requires individuals to listen to something, learn and recognise them at a later time. Auditory verbal learning recognition is commonly known as verbal learning and memory.

The second analysis which randomly assigned older adults with MCI to a health education control group, found that a structured mindfulness programme can lower a biomarker of inflammation which is linked to brain changes associated with Alzheimer's Disease. The health education programme covered topics such as sleep, diet, exercise, grief, stress, social support and the management of common chronic diseases associated with ageing.

The two papers are of the first-ever mindfulness intervention study done through a randomised controlled trial that focused on Singapore elderly with MCI – the participants have an average age of 70 and are over 95% Chinese. **Both research papers cited significant positive results that suggest that mindfulness may be of benefit to ageing adults with early cognitive degeneration.** Individuals with MCI, like the participants in the research, have an increased risk of dementia, with 50% of cases progressing to develop dementia. Unfortunately, no new treatment options have been discovered in the past decade despite intensified efforts and numerous attempts in pharmaceutical trials. Hence, **the dementia field has recently moved towards validating potential preventative intervention such as mindfulness practice to slow cognitive decline. Mindfulness practice involves focused attention to experience the present moment in a purposeful way.**

Elderly Singaporeans have benefitted from mindfulness practice, as detailed in the two profiles in **Annex A**. The two are volunteers with the Kong Meng San Phor Kark See Monastery (光明山普觉禅寺) who participated in the AWE Programme, an evidence-based, volunteer-driven community programme that aims to prevent or delay the onset of dementia and improve the quality of life of the elderly. Both attended mindfulness practice sessions as part of the AWE

Programme conducted in the Monastery in 2017. Since then, the two female volunteers, age 71 and 65 respectively, have cultivated mindfulness practice as part of their daily lives and cited falls prevention, improved memory, better focus, better sleep quality, improved personal relationships and improvement in overall health as benefits of mindfulness. Since the beginning of Circuit Breaker, both volunteers said that mindfulness has been helpful in managing anxiety during this period of uncertainty and isolation. Please find more information on their experiences in **Annex A**.

Drawing on the findings of the above study, the MSC, helmed by Associate Professor John Wong, Director of MSC, collaborated with PA and C3A, respectively, to come up with mindfulness training video series and live FB conversations on mindfulness for seniors.

“The disruptive effects of COVID-19 can be felt across all sectors of our society, especially among the older population who are at higher risk of getting a severe infection from the virus and also facing the psychological impact of fear and loneliness. The NUHS Mind Science Centre, with our mission of nurturing an undefeated mind and building resilience across all ages, is committed to providing the mental health and psychosocial services to help support all seniors,” said Associate Professor John Wong, Director of MSC and Senior Consultant Psychiatrist, Department of Psychological Medicine, NUS Yong Loo Lin School of Medicine.

Associate Professor Rathi Mahendran, Senior Consultant, Department of Psychological Medicine, University Medicine Cluster, Chairman of MSC Academic Committee and a researcher in the Mindfulness Study said, “During these trying times, seniors in Singapore may be faced with uncertainty and frightening possibilities. We hope the digital resources can help them develop healthy coping skills through the practice of mindfulness to overcome their feelings of anxiety and be more intentional on cultivating calming and joyful emotions. Mindfulness intervention as one of several preventive approaches to delay cognitive decline has gained traction globally in the past decade; I hope our study can encourage more seniors in Singapore to try mindfulness, a proven effective measure against cognitive decline with no time or space constraints.”

#### ***(1) Mindfulness training video series with PA***

MSC is collaborating with PA to produce a series of bite-sized videos to give seniors advice and tips on mindful breathing, eating and drinking. The videos will be featured under the PA E-Programmes “Stay IN, Do Something” initiative to encourage residents, particularly the seniors and young families, to stay active and healthy at home during the Circuit Breaker. The videos will be hosted by trainers, MSC’s Joy Chen, a Clinical Psychologist and mindfulness

teacher, and Roy Cheng, AWE Volunteer Trainer and aim to direct viewers' minds to issues that are important for a better quality of life and happiness; guard their mind against unhelpful thoughts, speech and behaviour that are not supportive of their welfare; and help them be more alert and knowing to make wiser decisions that benefit themselves as well as others around them.

The videos will be shared over the next month on various MSC, NUHS, PA and NSA social media platforms (links provided below). The first video on mindful breathing will be released on Monday, 27 April 2020, video on mindful drinking will be on 11 May 2020, and video on mindful eating on 25 May 2020.

MSC Facebook: <https://www.facebook.com/mindsciencecentre/>

MSC Website: <https://medicine.nus.edu.sg/nmsc>

NUHS Facebook: <https://www.facebook.com/nationaluniversityhealthsystem/>

PA Active Ageing Facebook: <https://www.facebook.com/PAactiveageing/>

C3A Facebook: <https://www.facebook.com/councilforthirdage>

C3A Website: <https://www.c3a.org.sg/>

### ***(2) Facebook LIVE talk about Mindfulness on NSA e-Nuggets Series***

MSC's Joy Chen, a Clinical Psychologist and mindfulness teacher, will host a 'live' video session on Tuesday, 28 April 2020, to introduce the practice of mindfulness on C3A's Stay Home, Stay Active initiative "NSA e-Nuggets Series" which provides seniors useful tips on active ageing on C3A's Facebook page twice a week.

Titled "Introduction to Mindfulness to Stay Well at Home", Joy's talk will illuminate how practising mindfulness can help seniors to build their resilience as they stay home to combat the ongoing pandemic and how they can take charge of their health and happiness by adopting the habit of mindfulness. Viewers will be able to interact with Joy, with their questions about mindfulness answered in real-time. The 45-minute 'live' session will take place on Tuesday, 28 April 2020, 2:00pm on <https://www.facebook.com/councilforthirdage/events>.

### ***(3) Free online modules from MSC's AWE programme via SUSS's UniLEARN portal***

MSC and SUSS jointly developed a Lifestyle Management course as part of MSC's AWE programme. Comprising a total of six modules, the online course is specially curated for seniors to learn about healthy eating, keeping a balanced diet, benefits of regular health screening, stress management skills as well as strategies to manage and cope with stress.

From now until 31 May 2020, the first two modules of the Lifestyle Management course will be offered for free. Interested members of public can visit the SUSS UniLEARN portal at <https://free.unilearn.edu.sg/> to sign up or find out more about the course.

***Other 'live' and engaging activities online for Seniors from May 2020***

In addition to the collaborations above, MSC will also continuously engage seniors online during the extended Circuit Breaker throughout the month of May. Experts such as Associate Professor Jason Yap, Director of Public Health Translation at NUS Saw Swee Hock School of Public Health, have been invited to speak on a range of topics in a series of online videos on the MSC Facebook page. The AWE programme will also be made available online so that seniors can keep active with 'live' sessions on physical activities, health talks, mindfulness practice, horticulture therapy and music or art reminiscence weekly. Seniors are invited to follow the MSC Facebook page for weekly updates: <https://www.facebook.com/mindsciencecentre>. There are also various other useful resources for seniors available for easy reading on the MSC website: <https://medicine.nus.edu.sg/nmsc/education/>

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**Profile 1**

Name: Mdm Tan Sok Khoon, 陈淑群

Age: 65

AWE Dementia Preventive Programme (DPP) Participant: March 2017

Mdm Tan Sok Khoon, a retired financial controller, completed the mindfulness practice sessions via the AWE Programme in 2017. She felt that the sessions were well organised and helped to cultivate mindfulness for her well-being and happiness. The mindfulness awareness practice also helps to improve her relationships with others as well as improves her overall health. She feels that she is able to have a clear mind to make better decisions.

Mdm Tan recounted an incident when she became very angry and emotional at work during a meeting with colleagues from other departments. Recalling her mindfulness training, she took deep breaths to calm herself down to avoid any direct confrontation with her colleagues. Mindfulness training had allowed her to cultivate the awareness of self and not to react too impulsively in situations that might create unhappiness and instead, to remain calm and rational.

Mindfulness has truly become a part of Mdm Tan's life as she will perform a body scan meditation every night before going to bed to enjoy better quality of sleep, and starts her day with a fresh mind the next morning with deep breathing exercises.

Since the start of the Circuit Breaker, she has increased the length of time she performs the mindfulness exercises to keep active. Mindfulness has also helped her to embrace the changes that isolation has brought in her life – for examples, cooking all her meals herself instead of heading out to eat, and doing more cleaning chores as she is unable to engage her part-time domestic helper during this period. Mdm Tan does not find the changes frustrating and understands that staying home is the best way to combat the pandemic.

**Profile 2**

Name: Mdm Lim Ah Mei, 林垂妹

Age: 71

AWE Dementia Preventive Programme (DPP) Participant: July 2017

Mdm Lim Ah Mei completed the mindfulness practice sessions via the AWE Programme in 2017. She is currently practicing mindfulness twice a week based on what she has learnt during Programme. She has also been an active participant in the Kong Meng San Phor Kark See Monastery activities since attending the AWE Programme in 2017.

Mdm Lim participates in the volunteer's exercise group every Friday and puts up performances to celebrate occasions such as Vesak Day and Chinese New Year. She also joins the weekly DPP interest group where it allows her to put the mindfulness into practice with the AWE Programme instructors.

Mdm Lim used to have problems sleeping in the past, but daily mindfulness practice helps her to sleep better now. She also finds herself calmer from practicing mindfulness and less distracted with random thoughts. Most importantly, Mdm Lim finds herself to be more alert and aware of the environment, which she believes help her in fall prevention. Lastly, she also observed that he memory has improved and her husband has now become the more forgetful spouse!

**For media enquiries, please contact:**

Crystal MK  
Senior Manager, Communications Office  
National University Health System  
Mobile: 9789 8995  
Email: [crystal\\_mk@nuhs.edu.sg](mailto:crystal_mk@nuhs.edu.sg)

Yvonne Lee  
Senior Assistant Manager, Communications Office  
National University Health System  
Mobile: 9657 1329  
Email: [yvonne\\_lee@nuhs.edu.sg](mailto:yvonne_lee@nuhs.edu.sg)

**About Mind Science Centre**

The Mind Science Centre takes an upstream and evidence-based approach to optimise cognitive performance, build emotional resilience and promote mental wellbeing through translational research and community-based interventions. Its mission is to nurture an undefeated mind and build resilience across all ages. The Centre focuses on academic research in neuroscience and mental health, translation of the research into community interventions through strategic partnerships, programme evaluation and capability building of healthcare professionals and volunteers, with the intention to create a network of shared knowledge to benefit the local community. The Mind Science Centre is a centre of excellence under the National University Health System (NUHS) and academic research centre, NUS Yong Loo Lin School of Medicine, Psychological Medicine.

For more information, visit <https://www.facebook.com/mindsciencecentre> or <https://medicine.nus.edu.sg/nmsc>.

**About the National University Health System (NUHS)**

The National University Health System (NUHS) aims to transform how illness is prevented and managed by discovering causes of disease, development of more effective treatments through collaborative multidisciplinary research and clinical trials, and creation of better technologies and care delivery systems in partnership with others who share the same values and vision.

Institutions in the NUHS Group include the National University Hospital, Ng Teng Fong General Hospital, Jurong Community Hospital and Alexandra Hospital; three National Specialty Centres - National University Cancer Institute, Singapore (NCIS), National University Heart Centre, Singapore (NUHCS) and National University Centre for Oral Health, Singapore (NUCOHS); the National University Polyclinics (NUP); Jurong Medical Centre; and three NUS health sciences schools – NUS Yong Loo Lin School of Medicine (including the Alice Lee Centre for Nursing Studies), NUS Faculty of Dentistry and NUS Saw Swee Hock School of Public Health.

With member institutions under a common governance structure, NUHS creates synergies for the advancement of health by integrating patient care, health science education and biomedical research.

As a Regional Health System, NUHS works closely with health and social care partners across Singapore to develop and implement programmes that contribute to a healthy and engaged population in the Western part of Singapore.

For more information, please visit <http://www.nuhs.edu.sg>.