

**Background:** Changes in lifestyle factors are known to affect mood. However, there is insufficient evidence supporting the association between smoking, alcohol consumption, physical activity and depression in middle-aged women who are likely to experience rapid hormonal changes.

**Methods:** We used a nationwide database of medical records in South Korea. 901,721 premenopausal and 943,710 postmenopausal women aged 40 years or older included in this study. Information on smoking, alcohol consumption, physical activity was identified from health examination data and followed up for the occurrence of depression using claims data.

**Results:** Compared with never-smokers, ex-smokers and current smokers among premenopausal and postmenopausal women showed an increased risk of depression in a dose-dependent manner (aHR 1.13 for ex-smokers; aHR 1.23 for current smokers). Compared with non-drinkers, mild drinkers showed a decreased risk of depression (aHR 0.98 for premenopausal women; aHR 0.95 for postmenopausal women), and heavy drinkers showed an increased risk of depression both among premenopausal (aHR 1.20) and postmenopausal women (aHR 1.05). The risk of depression due to smoking and heavy alcohol consumption was higher in premenopausal women than in postmenopausal women. Compared with those who had not engaged in regular physical activity, those who had engaged showed a decreased risk of depression both among premenopausal (aHR 0.96) and postmenopausal women (aHR 0.95).

**Conclusions:** Smoking and heavy alcohol consumption increased the risk of depression, and the increased risk was prominent in premenopausal than in postmenopausal women. Regular physical activity decreased the risk of depression both in premenopausal and postmenopausal women.

## **P61: The use of the errorless learning method in the rehabilitation of activities of daily living and instrumental activities of daily living**

**Authors:** MSc Gabriela Początek<sup>1</sup>, MSc Natalia Segiet<sup>2</sup>, Professor Aleksandra Klimkowicz-Mrowiec, MD, Ph.D.<sup>3</sup>, Professor Agnieszka Gorzkowska, MD, Ph.D.<sup>4</sup>

<sup>1</sup>Medical University of Silesia, Doctoral School of Medical University of Silesia in Katowice

<sup>2</sup>Jagiellonian University Medical College Collegium Medicum, Doctoral School of Medical and Health Sciences

<sup>3</sup>Jagiellonian University Collegium Medicum, Chair in Internal Medicine and Gerontology.

<sup>4</sup>Medical University of Silesia, Faculty of Medical Sciences in Katowice, Department of Neurorehabilitation

**Objective:** The aim of this review was to describe the usage and effectiveness of errorless learning in activities of daily living (ADL) and instrumental activities of daily living (IADL) rehabilitation methods reported in the literature over the past 10 years.

**Methods:** Two databases were searched (PubMed, EMBASE) using the key words “errorless learning and ADL and IADL”. Articles published in the last 10 years in English were considered.

**Results:** 4 studies were identified that included 94 people with Alzheimer's disease (AD) and 129 people with stroke (104 with amnesia and 25 with ideational apraxia).

One study on AD patients showed that it is possible for them to re-learn relevant IADL activities using the errorless learning (EL) and spaced retrieval (SR) techniques and to maintain these gains for at least 3 months ( $t = 2.811$ ;  $df = 22.246$ ;  $p = 0.010$ ).

In another study on AD patients, participants with AD had to re-learn three IADLs. All three learning methods (including EL) had similar efficiency ( $F(2,94)=21,99$ ). However, the intervention resulted in greater improvement in actual IADL task performance than in explicit knowledge.

In another study, structured ADL re-training in stroke survivors with amnesia significantly increased functional independence (MD: 4.90, SE=1.4, 95% confidence interval) and shortened time of hospitalisation (mean difference: 5.22, SE= 1.4, 95% CI: 1.8, 8.7).

The fourth study presented a model in which patients with post-stroke ideational apraxia attended tea making training sessions during which progress was monitored and feedback was provided via a computer system. A qualitative analysis of errors was conducted before training, and the most common errors observed were those related to kettlebell and continuous perseveration. After training, the frequency of errors decreased for all error types except for skipping a step.

**Conclusion:** The results of the studies discussed demonstrate the wide range of applications of error-free learning protocols in both AD patients and post-stroke patients. A clearly specified but flexible training protocol, together with information on error distribution, provide pointers for further refinement of task model approaches in ADL and IADL rehabilitation.

## **P63: Best Practice Guidance on Human Interaction with Technology in Dementia Update June 2023 – Recommendations from the INDUCT and DISTINCT Networks**

**Authors:** Rose-Marie Dröes<sup>1</sup>, Yvette Vermeer<sup>2</sup>, Sébastien Libert<sup>2</sup>, Gianna Kohl<sup>2</sup>, Sophie Gaber<sup>3</sup>, Sarah Wallcook<sup>3</sup>, Harleen Rai<sup>4</sup>, Aline Cavalcanti Barroso<sup>4</sup>, Esther Gerritzen<sup>4</sup>, Joeke van Santen<sup>1</sup>, Floriana Mangiaracina<sup>1</sup>, Kim Beentjes<sup>1</sup>, David Neal<sup>1</sup>, Josephine Tan<sup>1</sup>, Sara Bartels<sup>5</sup>, Hannah Christie<sup>5</sup>, Pascale Heins<sup>5</sup>, Golnaz Atefi<sup>5</sup>, Rose Miranda<sup>6</sup>, Annelien van Dael<sup>6</sup>, Fanny Monnet<sup>6</sup>, Kate Shiells<sup>7</sup>, Ángel C. Pinto Bruno<sup>8</sup>, Angie Alejandra Diaz<sup>9</sup>, Mauricio Molinari Ulate<sup>9</sup>, Aysan Mahmoudi Asl<sup>9</sup>, Simone Fielding<sup>10</sup>, Beliz Budak<sup>10</sup>, Viktoria Hoel<sup>11</sup>, Wei Qi Koh<sup>12</sup>, Jaroslav Cibulka<sup>13</sup>, Lieve Van den Block<sup>6</sup>, Lara Pivodic<sup>6</sup>, Dymrna Casey<sup>12</sup>, Georgina Charlesworth<sup>2</sup>, Karin Dijkstra<sup>14</sup>, Teake Ettema<sup>1</sup>, Manuel Franco Martin<sup>9</sup>, Paul Higgs<sup>2</sup>, Iva Holmerova<sup>7</sup>, Camilla Malinowsky<sup>3</sup>, Orla McDermott<sup>4</sup>, Franka Meiland<sup>1</sup>, Louise Nygard<sup>3</sup>, Martina Roes<sup>10</sup>, Henriëtte van der Roest<sup>9</sup>, Justine Schneider<sup>4</sup>, Olga Stepankova<sup>13</sup>, Annemieke van Straten<sup>8</sup>, Elaine Toomey<sup>12</sup>, Frans Verhey<sup>5</sup>, Marjolein de Vugt<sup>5</sup>, Karin Wolf-Ostermann<sup>11</sup>, Martin Orrell<sup>4</sup>

<sup>1</sup>VU University Medical Centre, Amsterdam, The Netherlands, <sup>2</sup>University College London, London, United Kingdom, <sup>3</sup>Karolinska Institutet, Stockholm, Sweden <sup>4</sup>University of Nottingham, Nottingham, United Kingdom, <sup>5</sup>Alzheimer Center Limburg/Maastricht University, Maastricht, The Netherlands, <sup>6</sup>End of Life Care Research Group, Vrije Universiteit Brussel, Brussels, Belgium, <sup>7</sup>Charles University, Prague, Czech Republic, <sup>8</sup>Vrije Universiteit, Amsterdam, The Netherlands, <sup>9</sup>Universidad de Salamanca, Salamanca, Spain, <sup>10</sup>Deutsches Zentrum fuer Neurodegenerative Erkrankungen, Germany, <sup>11</sup>University of Bremen, Germany, <sup>12</sup>National University of Galway, Ireland, <sup>13</sup>Czech Technical University, Prague, Czech Republic, <sup>14</sup>Saxion University of Applied Sciences, The Netherlands

**Objective:** INDUCT (Interdisciplinary Network for Dementia Using Current Technology), and DISTINCT (Dementia Inter-sectorial strategy for training and innovation network for current technology) are two Marie Skłodowska-