

Groups with special needs

Read about DDRC's research projects on groups with special needs.

Brief cross-cultural cognitive screening instruments (TIMING)

The Timely Diagnosis of Dementia in Minority Ethnic Groups in Europe (TIMING) project is an international multicenter study aimed at identifying enduring challenges in clinical practice for dementia diagnostics in minority ethnic populations, and validating new brief case-finding tools and cross-cultural cognitive screening tests in European multicultural memory clinic populations.

The project is conducted between 2022 and 2024.

The project is conducted in collaboration with University Medical Center Rotterdam, the Netherlands; University College London, United Kingdom; Sapienza University, Rome, Italy; Università degli Studi di Milano, Italy; University of Paris, France; University of Granada, Spain; Universidad Autónoma de Madrid, Spain; University of Edinburgh, Scotland; European Alzheimer's Disease Consortium; Alzheimer Europe.

Contact

Associate Professor, neuropsychologist T. Rune Nielsen

thomas.rune.nielsen.01@regionh.dk (Please note that this email service is not encrypted.)

Publications

[Nielsen, T. R., Grollenberg, B. U., Ringkøbing, S. P., Özden, M., Weekes, B., & Waldemar, G. \(2023\). The Copenhagen Cross-Linguistic Naming Test \(C-CLNT\): Development and Validation in a Multicultural Memory Clinic Population. *Journal of the International Neuropsychological Society*. In press.](#)

Psychosocial interventions for people from minority ethnic groups living with dementia (CLEAR)

The 'Closing the Ethnic Gap in Dementia Care' project aimed at developing and assessing psychosocial interventions to increase knowledge about dementia and dementia care and increase access to available primary care dementia services in minority ethnic groups.

The project was conducted across several municipalities between 2018 and 2021.

The project was supported by the Danish VELUX FOUNDATIONS and conducted in collaboration with the Migrant Health Clinic, Odense University Hospital and Albertslund, Brøndby, Hvidovre, Høje Taastrup, Ishøj and Odense municipalities.

Contact

Associate Professor, neuropsychologist T. Rune Nielsen

thomas.rune.nielsen.01@regionh.dk (Please note that this email service is not encrypted.)

Publications

[Nielsen, T. R., Nielsen, D. S., & Waldemar, G. \(2020\). Barriers to post-diagnostic care and support in minority ethnic communities: A survey of Danish primary care dementia coordinators. *Dementia*, 19\(8\), 2702-2713.](#)

[Nielsen, T. R., Nielsen, D. S., & Waldemar, G. \(2021\). Barriers in access to dementia care in minority ethnic groups in Denmark: a qualitative study. *Aging & mental health*, 25\(8\), 1424-1432.](#)

[Nielsen, T. R., Waldemar, G., & Nielsen, D. S. \(2021\). Rotational care practices in minority ethnic families managing dementia: A qualitative study. *Dementia*, 20\(3\), 884-898.](#)

[Nielsen, T. R., Nielsen, D. S., & Waldemar, G. \(2022\). A personalized dementia care intervention for family carers from minority ethnic groups in Denmark: A pilot study. *Dementia*, 21\(2\), 477-488.](#)

[Nielsen, T. R., Nielsen, D. S., & Waldemar, G. \(2022\). Feasibility of a culturally tailored dementia information program for minority ethnic communities in Denmark. *International Journal of Geriatric Psychiatry*, 37\(1\).](#)

The Migration School – diagnosis and care for people from minority ethnic groups with dementia

“The Migration School for dementia care in the Öresund region” was a transnational collaborative project aimed at adapting dementia care services to ensure people with migration backgrounds receive diagnoses, treatment and care of the same quality as native Swedes or Danes. The project was conducted between 2012 and 2014.

The project was supported by the Capital Region of Denmark, Region of Skåne, and the European regional development fund Interreg IVA and was conducted in collaboration with Kunskapscentrum för Demenssjukdomar, Skåne University Hospital.

Contact

Associate Professor, neuropsychologist T. Rune Nielsen

thomas.rune.nielsen.01@regionh.dk (Please note that this email service is not encrypted.)

Publications

[Nielsen TR, Jørgensen K. \(2013\). Visuoconstructional abilities in cognitively healthy illiterate Turkish immigrants: a quantitative and qualitative investigation. *Clinical Neuropsychologist*, 27\(4\), 681-692.](#)

[Nielsen TR, Andersen BB, Gottrup H, Lutzhoft JH, Høgh P, Waldemar G. \(2013\). Validation of the Rowland Universal Dementia Assessment Scale for Multicultural Screening in Danish Memory Clinics. *Dement. Geriatr Cogn Disord*, 36\(5-6\), 354-362.](#)

[Nielsen TR, Waldemar G. Knowledge and perceptions of dementia and Alzheimer's disease in four ethnic groups in Copenhagen, Denmark. *Int J Geriatr Psychiatry* 2016;31\(3\):222-30.](#)

[Nielsen TR., Antelius E, Spilker RS, Torkpoor R, Toresson, H, Lindholm C, Plejert C, Nordic Research Network on Dementia and Ethnicity. \(2015\). Dementia care for people from ethnic minorities: a Nordic perspective. *International journal of geriatric psychiatry*, 30\(2\), 217-218.](#)

The European Cross-Cultural Neuropsychological Test Battery (CNTB)

The European Cross-Cultural Neuropsychological Test Battery project was an international multicenter study aimed at developing and validating a neuropsychological test battery for assessment of dementia in European minority and majority ethnic groups. The project was conducted between 2009 and 2016.

The project was conducted in collaboration with Department of Neurology, Brugmann University Hospital, Brussels; Memory Clinic/ Norwegian Centre for Migration and Minority Health, Oslo University Hospital, Oslo; Norwegian National Advisory Unit on Ageing and Health, Vestfold Hospital, Tønsberg; Clinical Memory Research Unit, Lund University, Malmö; Ambulantes Gesundheitszentrum, Charité Universitätsmedizin, Berlin; and Department of Neurology, Aristotle University, Thessaloniki.

Contact

Associate Professor, neuropsychologist T. Rune Nielsen

thomas.rune.nielsen.01@regionh.dk (Please note that this email service is not encrypted.)

Publications

[Nielsen TR, Segers K, Vanderaspolden V et al. Performance of middle-aged and elderly European minority and majority populations on a Cross-Cultural Neuropsychological Test Battery \(CNTB\). *Clin Neuropsychol* 2018; 32\(8\): 1411-1.](#)

[Nielsen TR, Segers K, Vanderaspolden V et al. Validation of a European Cross-Cultural Neuropsychological Test Battery \(CNTB\) for evaluation of dementia. *International Journal of Geriatric Psychiatry* 2020; 34\(1\): 144-152.](#)

[Nielsen TR, Segers K, Vanderaspolden V et al. Validation of the Rowland Universal Dementia Assessment Scale \(RUDAS\) in a multicultural sample across five Western European countries: diagnostic accuracy and normative data. *Int Psychogeriatr* 2019; 31\(2\):287-296.](#)

[Nielsen TR. Effects of Illiteracy on the European Cross-Cultural Neuropsychological Test Battery \(CNTB\). *Arch Clin Neuropsychol*. 2019; 34\(5\): 713-720.](#)

[Nielsen TR, Segers K, Vanderaspolden V et al. Validation of a brief Multicultural Cognitive Examination \(MCE\) for evaluation of dementia. *Int J Geriatr Psychiatry* 2019; 34\(7\): 982-989.](#)

[Al-Jawahir F, & Nielsen TR. Effects of Acculturation on the Cross-Cultural Neuropsychological Test Battery \(CNTB\) in a Culturally and Linguistically Diverse Population in Denmark. *Archives of Clinical Neuropsychology* 2020.](#)

Down syndrome and Alzheimer dementia

The overall aim with the project was to examine whether there was a significant difference between alpha, theta, and delta activity in people with Down syndrome measured before and after development of dementia. This project was a follow-up on a previous project examining qEEG as a diagnostic marker in people with Down syndrome and Alzheimer dementia.

The activity of the different bands was analysed using quantitative EEG measurements, spectral analysis with fast fourier transformation and frequency band analysis. The study included adults with Down syndrome who had an EEG performed before and after development of dementia due to Alzheimer disease in Down syndrome.

The project has been terminated and 3 participants were included. The project was performed in cooperation with Clinic of Neurophysiology, Neurological department, Sealand University Hospital, Roskilde.

Other projects have been performed using data from the project mentioned above.

We set out to examine whether it was possible to identify AD-associated changes (increased high-frequency power and decreased low-frequency power) in persons with DS-AD compared with DS. We found that changes known to be associated with AD could also be identified when comparing DS-AD with DS using quantitative EEG. In general, these findings suggest that EEG might be a useful tool in diagnosing AD in persons with DS, but larger studies are needed.

In another study we aimed to assess whether microstates could be used to differentiate between adults with DS, and DS-AD. We included EEGs from 10 persons with DS and 15 persons with DS-AD in the analysis. For the microstate analyses, we calculated four global maps, which were then back-fitted to all the EEGs.

Lastly, we extracted the duration, occurrence, and coverage for each of the microstates. Here, we found the four archetypical maps as has previously been reported in the literature. We did not find any significant difference between DS and DS-AD but the largest difference in microstate duration between DS and DS-AD was found in microstate A and D.

In a third study we investigated whether EEG functional connectivity could be used as a diagnostic marker of AD in persons with DS and the association with symptoms. The decreased alpha coherence and weighted phase lag index have previously been found in AD. The increased delta coherence and weighted phase lag index may indicate a different initial neurophysiological presentation as compared with patients with AD or may be a sign of more advanced disease.

Contact

Neurologist Lise Cronberg Salem

Lise.Cronberg.Salem@regionh.dk (Please note that this email service is not encrypted.)

Publications

[Salem LC, Sabers A, Kjaer TW, Nielsen MN, Nielsen AG, Musaeus C, Waldemar G. Quantitative electroencephalography as a diagnostic tool for Alzheimer's dementia in adults with Down syndrome. Dement Geriatr Cogn Dis Extra. 2015 Oct 21;5\(3\):404-3. doi:10.1159/000438857.](#)

[Associations between electroencephalography, power and Alzheimer's disease in persons with Down syndrome. C S Musaeus, L C Salem, A Sabers, T W Kjaer, G Waldemar. J Intellect Disabil Res. . 2019 Sep;63\(9\):1151-1157. doi: 10.1111/jir.12627.](#)

[Microstate changes associated with Alzheimer's disease in persons with Down syndrome. C S Musaeus, L C Salem, T W Kjaer, G Waldemar. Front Neurosci. 2019 Nov 28;13:1251. doi: 10.3389/fnins.2019.01251. eCollection 2019](#)

[Electroencephalographic functional connectivity is altered in persons with Down syndrome and Alzheimer's disease. C S Musaeus, L C Salem, T W Kjaer, G Waldemar. J Intellect Disabil Res. 2020 Dec 18. doi: 10.1111/jir.12803. Online ahead of print.](#)



Latest update: 10. December 2020