

Pain Assessment in Impaired Cognition (PAIC-15) meta-tool

Description: The Pain Assessment in Impaired Cognition (PAIC-15) meta-tool has been developed by an international workgroup for pain in impaired cognition made up of representatives from 16 European nations. The PAIC consists of items from 12 established observational pain scales. The PAIC has been finalized in 2018 and includes 15-items representing facial expression, vocalization, and body movements. Psychometric testing was undertaken in multiple European countries.

Psychometric Testing:

Tool Development: Based on multiple reviews, group consultations, and workgroup meetings 12-tools were included for the meta-tool. Tools included the ABBEY Pain Scale, ADD, CNPI, DS-DAT, DOLOPLUS-2, EPCA-2, MOBID-2, NOPPAIN, PACSLAC, PAINAD, PADE, and PAINE.

After selecting the theoretically and clinically most promising items with little redundancy out of existing pain assessment tools (36 out of approx. 221 items), each item was tested for “item difficulty”, “reliability”, and “validity”. This psychometric testing was carried out in different EU (and associated) countries, in different care settings (nursing homes, hospital wards, laboratory), and included clinical as well as experimental pain conditions.

Across all studies conducted in 8 countries, 587 patients with dementia, 27 individuals with intellectual impairment, 12 Huntington patients, and 59 cognitively healthy controls were observed during rest and movement situations or while receiving different intensities of experimental pressure pain, respectively. Observations were mostly undertaken by health-care professionals. Items were excluded based on poor outcomes

for “item difficulty”, “inter-rater reliability”, “construct validity”, and “content validity and usability in different care situations”. In the end, five items for facial expressions (frowning, narrowing eyes, raising upper lip, opening mouth, looking tense), five items for body movements (freezing, resisting care, guarding, rubbing, restlessness), and five items for vocalizations (using pain-related words, complaining, shouting, mumbling, groaning) were retained to form a new internationally agreed-upon meta-tool for pain assessment in dementia.

Language and Settings: The PAIC-15 meta-tool has been translated from English into German, Dutch, Romanian, Greek, Norwegian, Spanish, and Italian.

Scoring and Interpretation: The PAIC is now being clinically tested for normative data and cut-off scores.

Summary/Critique: The PAIC-15 meta-tool has much promise. It appears to be undergoing a rigorous development process that is currently underway. Rigorous translation processes have been reported.

Tool Developers

EU-Cost Action TD1005

Stefan Lautenbacher

Physiological Psychology, University of Bamberg & EU COST Chair, Bamberg, Germany

Stefan.lautenbacher@uni-bamberg.de

Wilco Achterberg

Department of Public Health and Primary care medicine, Leiden University Medical Center & EU COST Vice-Chair, Leiden, The Netherlands

w.p.achterberg@lumc.nl

Online Links, which allow downloading of PAIC-15 scale and related material

<https://paic15.org>

<https://paic15.com>

References:

Corbett, A., Achterberg, W., Husebo, B., Lobbezoo, F., de Vet, H., Kunz, M., . . . Lautenbacher, S. (2014). An international road map to improve pain assessment in people with impaired cognition: the development of the Pain Assessment in Impaired Cognition (PAIC) meta-tool. *BMC Neurology*, *14*, 229. doi:10.1186/s12883-014-0229-5

van Dalen-Kok, A. H., Achterberg, W. P., Rijkmans, W. E., Tukker-van Vuuren, S. A., Delwel, S., de Vet, H. C., . . . de Waal, M. W. (2018). Pain Assessment in Impaired Cognition (PAIC): content validity of the Dutch version of a new and universal tool to measure pain in dementia. *Clinical Interventions in Aging*, *13*, 25-34. doi:10.2147/cia.S144651

Kunz M, de Waal M, Achterberg WP, Gimenez-Llort L , Lobbezoo F, Sampson EL, van Dalen-Kok AH, Defrin R, Invitto S, Konstantinovic L, Oosterman JM, Petrini L, Fischer T, van der Steen JT, Strand LI, de Tommaso M, Zwakhalen S, Husebo BS, Lautenbacher S (submitted). The Pain Assessment in Impaired Cognition scale (PAIC-15): a multidisciplinary and international approach to develop and test a meta-tool for pain assessment in dementia.

Revised 3/2019