

Mohr W¹, Hoffmann W^{1,2}, Buchholz M¹, Michalowsky B¹, Rädke A¹
¹ German Center for Neurodegenerative Diseases e.V. (DZNE), Site Rostock/Greifswald, Greifswald
² Institute for Community Medicine, Section Epidemiology of Health Care and Community Health, University Medicine Greifswald, Germany

Background & Aim

- Person-Centered Care (PCC) requires knowledge about patient preferences¹
- Limited data on quantitative patient preferences among People living with Dementia (PlwD)²
- Analytic Hierarchy Process (AHP) has been suggested suitable for people with cognitive impairments³
- Important aspect of an AHP-survey: evaluation of acceptability, reliability and consistency⁴
- Aim:** The evaluation of acceptability, reliability and consistency in an AHP survey for PCC in Dementia with PlwD and Physicians

Methods

- A cross-sectional analysis of data from the Mixed-Methods *PreDemCare-Study*⁵, IRB approval; Ref.-Nr.: BB018-21
- Extensive pre-study (systematic literature review⁶, qualitative interviews⁷, pre-tests⁸) for AHP decision hierarchy and surveys
- 6x2-(sub)criteria AHP experimental-design
- Individual surveys with n=50 community-dwelling PlwD and n=25 physicians
- AHP weights calculated with Principal Eigenvector method⁹, aggregated by Aggregation of Individual Priorities (AIP) method¹⁰ with Expert Choice Comparion and R (package ,ahp-survey')
- Acceptability: missing values and rating of survey difficulty with 5-point-scale (easy to difficult)
- Reliability: descriptive analyses, Intra-Class-Correlation (ICC)
- Consistency: individual CR = $(\lambda_{\max} - n / n-1) * (1 / RI)$, where RI = Random Index¹¹, aggregated per group, accepted inconsistency threshold for patients CR ≤ 0.3 ¹², physicians CR ≤ 0.2 ¹³
- Test for correlation of CR-value and severity of cognitive impairment (DemTect¹⁴, Mini Mental Status Examination (MMSE)¹⁵, diagnosis, status (patient/physician), sum of values ≥ 5 / = 1 value-judgements with univariable analyses

Results

- Acceptability: No missing's in AHP survey, 2/3 of patients rated survey as rather easy/neutral, none as difficult
- Reliability: some contradiction, only n=3 (6%) of patients & n=2 (8%) of physicians chose contradictive, per ICC moderate agreement for criteria, substantial agreement for sub-criteria
- Mean CRs below threshold (patients = 0.261, physicians = 0.181)
- No significant correlation of CR by participant characteristics

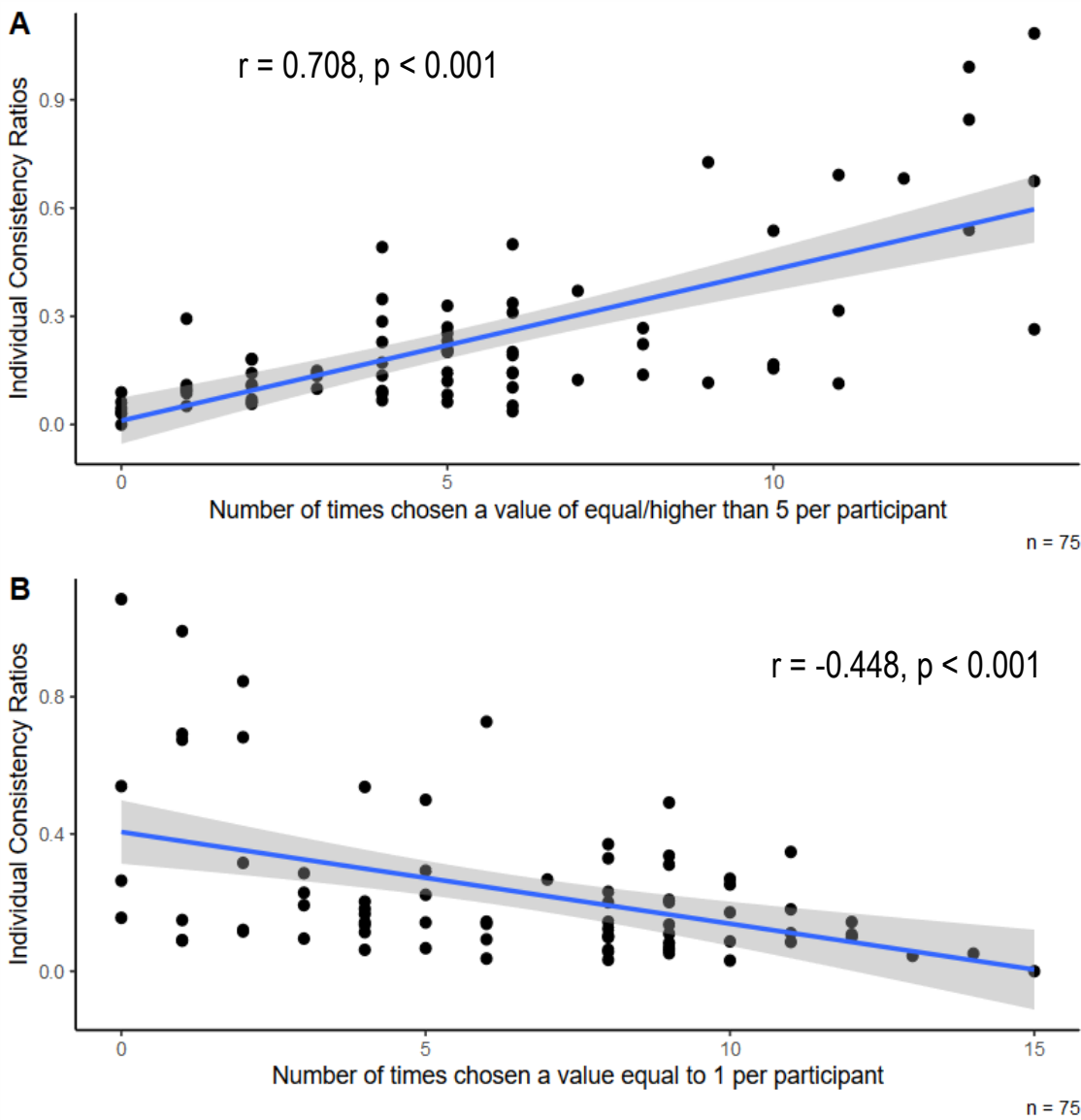


Fig. 1 Individual CRs plotted against sum of times chosen values of ≥ 5 or $= 1$

Table 1a Participant characteristics (excerpt) n=50 patients

Characteristic	n (%)
Age (years, recoded binary grouped)	
60-80	22 (44.0)
81 to >90	28 (56.0)
Female gender	28 (56.0)
DemTect	8.02 (3.49) ^a
MMSE	23.5 (4.2) ^a
Diagnosis of MCI or dementia ^b	40 (80.0)

^a Mean (SD)
^b ICD-10: F00.1, F00.2, F00.9, F01.3, F01.9, F02.3, F03, F06.7, G30, U51.02, U51.11, U51.12

Table 1b Participant characteristics (excerpt) n=25 physicians

Characteristic	n (%)
Age (years, recoded binary grouped)	
30-50	13 (52.0)
51 to > 70	12 (48.0)
Female gender	18 (72.0)
Family medicine/ general practitioner ^a	16 (64.0)

^a Other specialists included from psychiatry, neurology and internal medicine.

Conclusions

AHP showed good acceptability, moderate-substantial agreement in reliability, and both group's consistency below defined threshold. Findings should be tested in larger samples, potentially adjust AHP-judgement-scale to avoid use of high values and related risk of inconsistency.

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