

Measuring and Monitoring “Living Well” in Dementia: Development of the Well-being in Dementia Inventory (WiDI)



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BACKGROUND & AIM

Background

Well-being is a key outcome in dementia care but difficult to assess due to communication and cognitive challenges. Existing tools are often self-report, complex or not designed for routine care.

Aim

To develop and validate an observational well-being assessment completed by caregivers and embedded in a digital system to inform care planning through insights and activity suggestions.

DEVELOPMENT PROCESS

- Item Generation**
Literature review, existing tools, and qualitative interviews with caregivers and clinicians.
- Item Refinement**
Expert panel review for relevance, clarity and comprehensiveness.
- Pilot Testing**
Cognitive testing with caregivers and initial field testing.
- Validation Study**
Psychometric evaluation in a large sample of people with dementia in care settings.
- Implementation**
Integrated into a digital platform with visual outputs and care support tools.

PSYCHOMETRIC RESULTS

The WiDI demonstrated strong psychometric properties across reliability, validity and measurement invariance.

1. RELIABILITY

- Internal reliability: All subscales showed acceptable to good Cronbach's α .
- Inter-rater reliability (Sample 2): ICC ≥ 0.82 for total and non-omitted samples, indicating high agreement.

2. STRUCTURAL VALIDITY (CFA)

- Six-factor model (6 domains) showed satisfactory overall fit.
- Improved fit compared to unidimensional model.

3. MEASUREMENT INVARIANCE (MULTI-GROUP CFA) – SAMPLE 3

- Invariance supported across gender, age group and carer type.
- Excellent fit with minimal changes in indices (ΔCFI , $\Delta RMSEA$, $\Delta SRMR$) across all levels.

4. CONCURRENT VALIDITY – SAMPLE 3

- Strong correlations with Scales of Psychological Well-being and Mental Health Continuum Short Form.
- Correlations ranged from $r = 0.515$ to $r = 0.732$ (large effect size).

CONCLUSION

The Well-being in Dementia Inventory (WiDI) is a reliable, valid and feasible observational tool for routine use. Embedded in a digital platform, it transforms assessment into actionable insights that support personalised dementia care.

FROM ASSESSMENT TO ACTION

Integrated into care workflows to support personalised care.



EXAMPLE OUTPUT / DASHBOARD (Illustrative)

- Overview
- Well-being Profile
- Trends
- Activity Suggestions
- Care Notes
- Reports

Well-being Profile

Latest assessment: 12 May 2024

- Self-Sufficiency: 72/100
- Functional Mastery: 68/100
- Goal-Based Mastery: 61/100
- Purposeful Engagement: 55/100
- Positive Interactions: 70/100
- Self-Perspective: 64/100

Legend: High (70-100) Moderate (40-69) Low (0-39)

Well-being Trend (Overall)

Suggested Activities (Based on current well-being profile)

- Music session – Supports purposeful engagement
- Outdoor walk – Supports physical activity and mood
- Reminiscence activity – Supports self-perspective and positive interactions

[View all suggestions →](#)

Areas to Monitor

- Goal-Based Mastery – Slightly decreased
- Purposeful Engagement – Slightly decreased

Notes for Care Staff

Encourage participation in meaningful activities that support goals and interests.

