Erasmus School of
Health Policy
& Management

The Well-being Multi-Instrument Comparison study

Erasmus University Rotterdam

Project background

Several well-being questionnaires have been developed to use in non-curative care to evaluate technology and services

These questionnaires are at different stages of development and have never been compared altogether in the same context/population

It is still unclear which instruments should be used to assess the effectiveness of an intervention targeting well-being in a specific context

This question led to the project named "The Well-being Multi-Instrument Comparison" (W-MIC) study

W-MIC research questions

- How do wellbeing scores vary across different health conditions and demographic subgroups?
- What are the conceptual similarities and differences across the instruments?
- Are the instruments able to distinguish individuals with different severity levels across clinical conditions?
- Do the instruments provide reliable measurement of wellbeing over time?
- How responsive are the well-being instruments to changes in health or well-being over time?

W-MIC study design

Part 1 involves an **online survey** with participants from the general population and with specific disease conditions

Part 2 focuses on **three case studies** in non-curative care aimed at improving WB in people with dementia or in the elderly

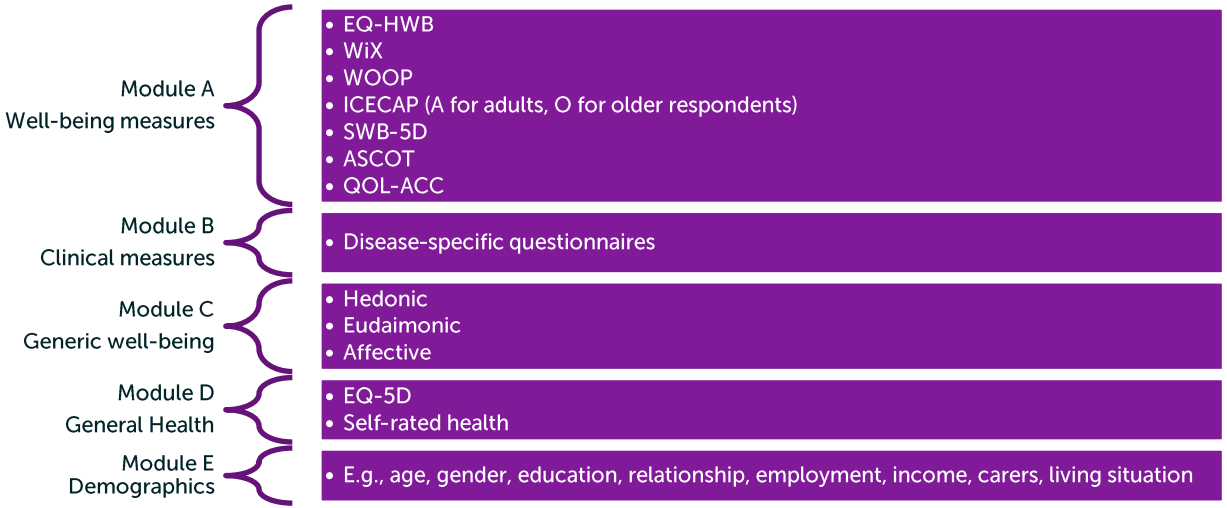
Collaborating partners

Online survey sample

- Sample size of 7,000 respondents from the Netherlands and the US:
  - General population
  - Elderly population (>70 years old)
  - Diabetes
  - Arthritis
  - Depression
  - Sleep-related disorders
  - Heart-related disorders
    - **List of disorders are under discussion**
- A 25% subgroup will complete a follow-up measurement

Online survey design

- The survey content will consist of five main modules (presented from A-E)
- Within modules A, C and D, the order of the questionnaires will be randomized



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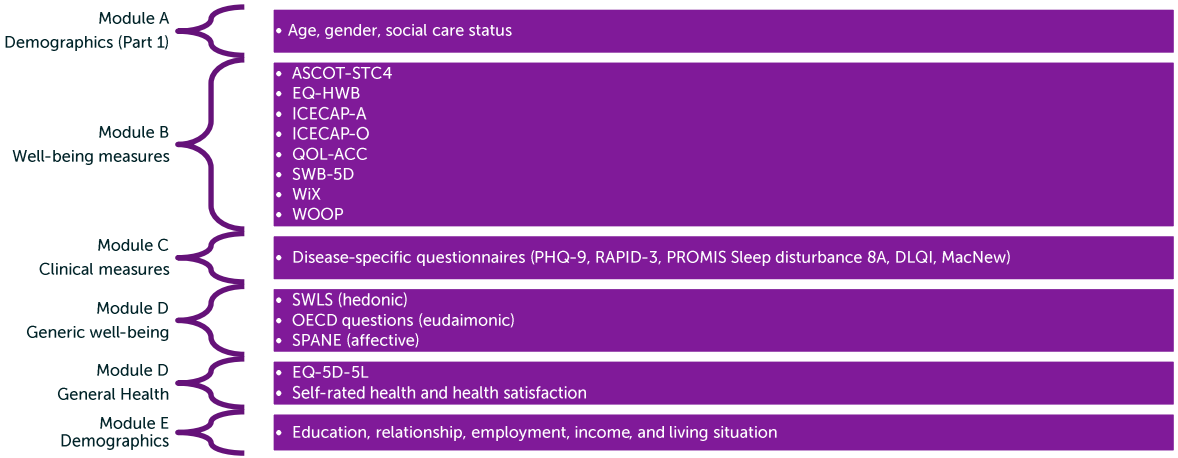


Online survey routing

Population	Demographics	Well-being measures					Generic health		Generic well-being			Subgroup-specific			Disease-specific					Total items
		EQ-HWB	WiX	SWB-5D	ASCOT	ICECAP-A	EQ-5D	Self-rated health	SWLS	OECD questions	SPANE	WOOP	QOL-ACC	ICECAP-O	PHQ-9	RAPID-3	Short PSQI	TBD	TBD	
General	8	9	10	5	9	5	6	2	5	6	4	-	-	-	-	-	-	-	-	69
Older people												9	6	5	-	-	-	-	-	89
Depression												-	-	-	9	-	-	-	-	78
Arthritis												-	-	-	-	12	-	-	-	81
Sleep												-	-	-	-	-	13	-	-	82
Diabetes												-	-	-	-	-	-	TBD	-	TBD
Heart												-	-	-	-	-	-	-	TBD	TBD

- Inclusion of ASCOT / QOL-ACC is under discussion
- Considering the inclusion of a general symptom checklist

Conceptual Coverage

Instrument	Mental health	Physical health	Cognitive health	Relationships	Support	Living environment	Safety	Finance	Relaxation and leisure	Activities	Acceptance and resilience	Independence	Self-worth	Personal hygiene	Life enjoyment / satisfaction	Quality of care	Thinking of future	Sleep issues
EQ-HWB	x	x	x	x						x		x						
WiX	x	x		x	~	x	x	x	x	x	~	x	x					
WOOP	x	x	~	x	x	x		x		~	x	x	x					
SWB-5D	x	~		x						~	~	x						
ASCOT				x		x	x		~	x		x	x	x		~		
QOL-ACC	x	x		x					x			x						
ICECAP-A				x	x		x					x	~		x			
EQ-5D	x	x								x				x				
ICECAP-O				x					x	~		x	x				x	
PHQ-9	x	x	x															x
RAPID-3		x								x				x				
Short PSQI	x	x								x								x
SWLS															x			
OECD	x											x	x		x			
SPANE	x																	

x indicates full coverage
~ indicates partial coverage

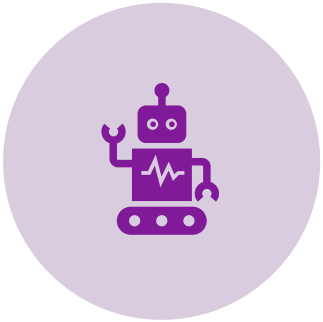
Case studies overview

Case study 1

Short-stay, emergency clinic for people with dementia, aimed at de-escalation and regaining control

Case study 2

Motion sensors to promote physical activity in patients undergoing rehabilitation for hip fractures



Case study 3

Tessa Tinybots to increase independence through verbal guidance in clients living in long-term care facilities

Case study design

Population: A total of 170 participants will be recruited across the three case studies

Design: Clients will complete well-being measures at least at enrollment and at discharge with the help of a Dutch interviewer

Caregivers/family members can respond on behalf of the client or together

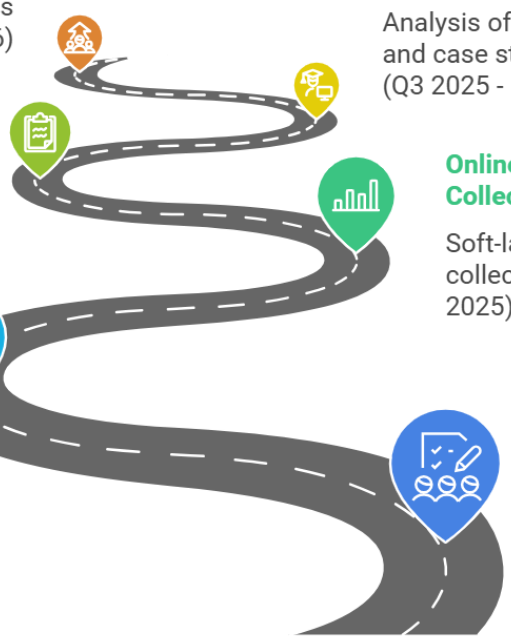
Information on Psychometric Assessment

- For the seven well-being measures, we will look at the following psychometric properties:

    - Ceiling / Floor effects
    - Test-retest reliability
    - Structural validity
    - Convergent and discriminate validity
    - Known-group validity
    - Responsiveness

- Additional analyses may be explored based on other interests/research ideas

Project timeline



Results Dissemination

Presentation in journals/conferences (Q3 2025 - Q4 2026)

Online Study Analysis

Analysis of online and case study data (Q3 2025 - Q1 2026)

Case Studies Launch

Preparing content, ethics and soft-launch (Q1-Q4 2025)

Online Data Collection

Soft-launch, full data collection (Q1-Q2 2025)

Online Survey Preparation

Preparing survey content, licensing and ethics (Q4 2024)

Preparation Phase

Establishing advisory group and setting up study (Q3 2024)