

Who Benefits Most?

A responder analysis of the NOMAD home-based psychosocial intervention in North Macedonia

NOMAD STUDY · North Macedonia Interprofessional Dementia Care

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KEY TAKEAWAY - NOMAD helps most where patient dependency and caregiver depression are highest — but high caregiver burden blocks improvement. Psychosocial support alone isn't enough; it must be backed by **respite, support, and policy change**.

PROTECTIVE · OR > 1

OR **1.29**

Functional impairment (B-ADL)

95% CI 1.02–1.70 · $p = 0.043$

Each 1-pt rise in baseline dependency → 1.29× higher odds of clinical success.

PROTECTIVE · OR > 1

OR **1.45**

Baseline depression (PHQ-9)

95% CI 1.19–1.89 · $p = 0.001$

Caregivers with more depressive symptoms at baseline had the most to gain.

BARRIER · OR < 1

OR **0.80**

Caregiver burden (ZBI)

95% CI 0.68–0.91 · $p = 0.003$

Higher baseline burden significantly lowered the odds of success — a ceiling effect.

● Introduction

LMICs bear **60%** of the global dementia burden, projected to reach **71% by 2050**, yet face a service gap exceeding 75%.

In North Macedonia, dementia care falls almost entirely on family. The system offers medication but no daycare or respite services.

NOMAD was the first RCT in the region to test a home-based, non-pharmacological intervention. This responder analysis asks who benefits — and whether systemic gaps block success.

● Methods

Design. Responder analysis of the NOMAD cluster-RCT intervention group (**N = 58**).

Success. A reduction ≥ 0.5 SD of baseline on the Zarit Burden Interview (ZBI) *or* the PHQ-9, baseline → follow-up.

Analysis. Logistic regression on baseline predictors: functional impairment (B-ADL), neuropsychiatric symptoms (NPI), and caregiver demographics.

● Results

Mean burden scores did not differ between groups — but the intervention showed **targeted efficacy**.

Functional impairment positively predicted burden reduction (OR 1.29), supporting dyads in advanced dependency.

A suppressor effect emerged: higher baseline depression predicted improvement (OR 1.45), while higher baseline burden reduced success (OR 0.80).

Relationship type (spouse vs. child) was not a significant predictor.

● Conclusions

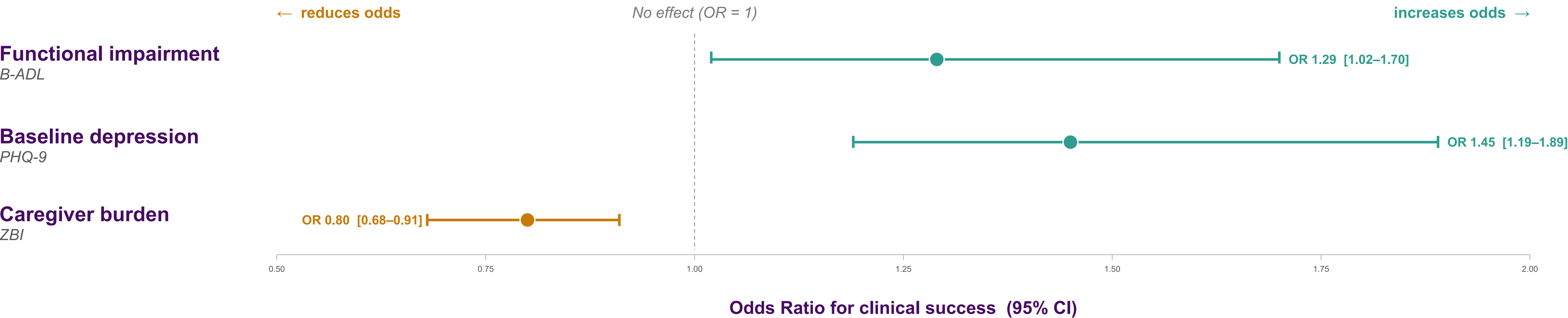
NOMAD helped caregivers with high depressive symptoms and those managing advanced dementia — but weak systemic support can pose a barrier to success.

High caregiver burden was a significant **negative predictor** of improvement: where burden is high, psychosocial support alone is not enough to improve wellbeing.

Known drivers of burden in LMICs — access to respite, education and support, and stigma — must be addressed, or caregivers stay too exhausted to fully benefit.

Policy change and stronger dementia-care infrastructure in North Macedonia are needed to maximise the impact of multicomponent interventions.

● Baseline predictors of clinical success



● Contact & Study

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NOMAD: a cluster-RCT delivering 4 home visits by interprofessional mobile teams (psychoeducation + care planning) to dementia caregivers.



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