

Non-pharmacological interventions in dementia: The current evidence and methodological trends and gaps in research

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Background

The UK Medical Research Council (MRC) framework proposes a pluralistic approach and methods, extending beyond efficacy and effectiveness to emphasise understanding underlying mechanisms of change, societal impact, and intervention sustainability (Figure 1).

However, it persists a predominant reliance on Randomised Controlled Trials (RCTs) for evidence in dementia research. RCTs often overlook contextual factors and the dynamic complexities in dementia care settings, thus limiting insights into the mechanisms underlying changes.

To address these gaps, the **METHODEM project** aims at:

- discussing methodological gaps in research on non-pharmacological interventions for dementia
- providing a state-of-the-art overview of methodologies and methods used across the MRC framework phases.



OPINION PAPER:
Bartels, S. L., Stephens, N., D'Andrea, F., Handley, M., Markaryan, M., Nakakawa Bernal, A., ... & Graff, M. (2024). Discussing methodological gaps in psychosocial intervention research for dementia: an opinion article from the INTERDEM Methodology Taskforce guided by the MRC framework. *Frontiers in dementia*, 3, 1458023.

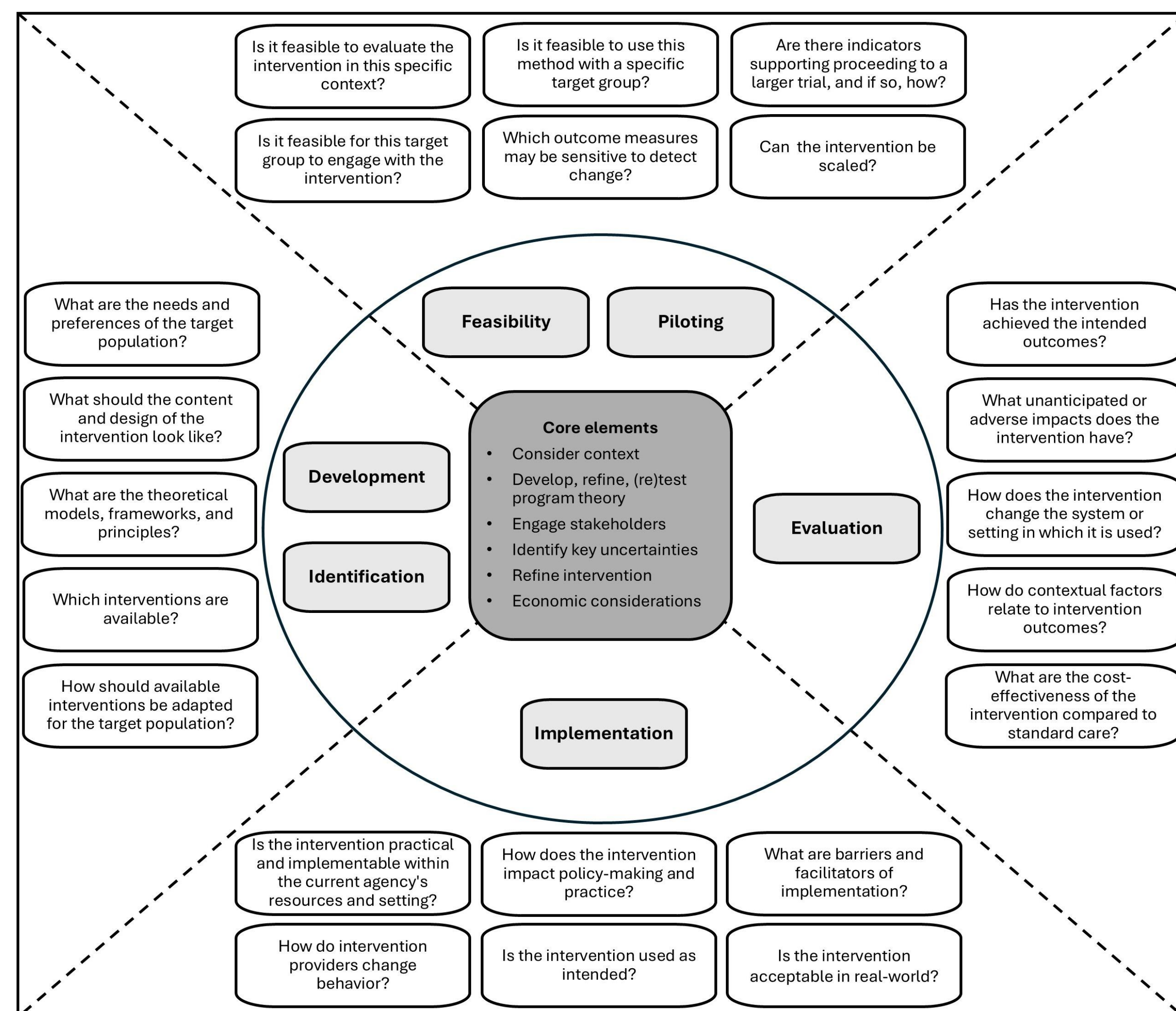


Figure 1. Visualization of the core elements and phases for research on psychosocial interventions for dementia, adapted from the MRC framework, including examples of research questions

Aims

- Identifying trends and gaps in the methods and methodologies** used to develop, evaluate, and implement psychosocial interventions for people with dementia and unpaid carers.
- Exploring if and how the core elements of the MRC framework** are considered in psychosocial dementia research.

Methods

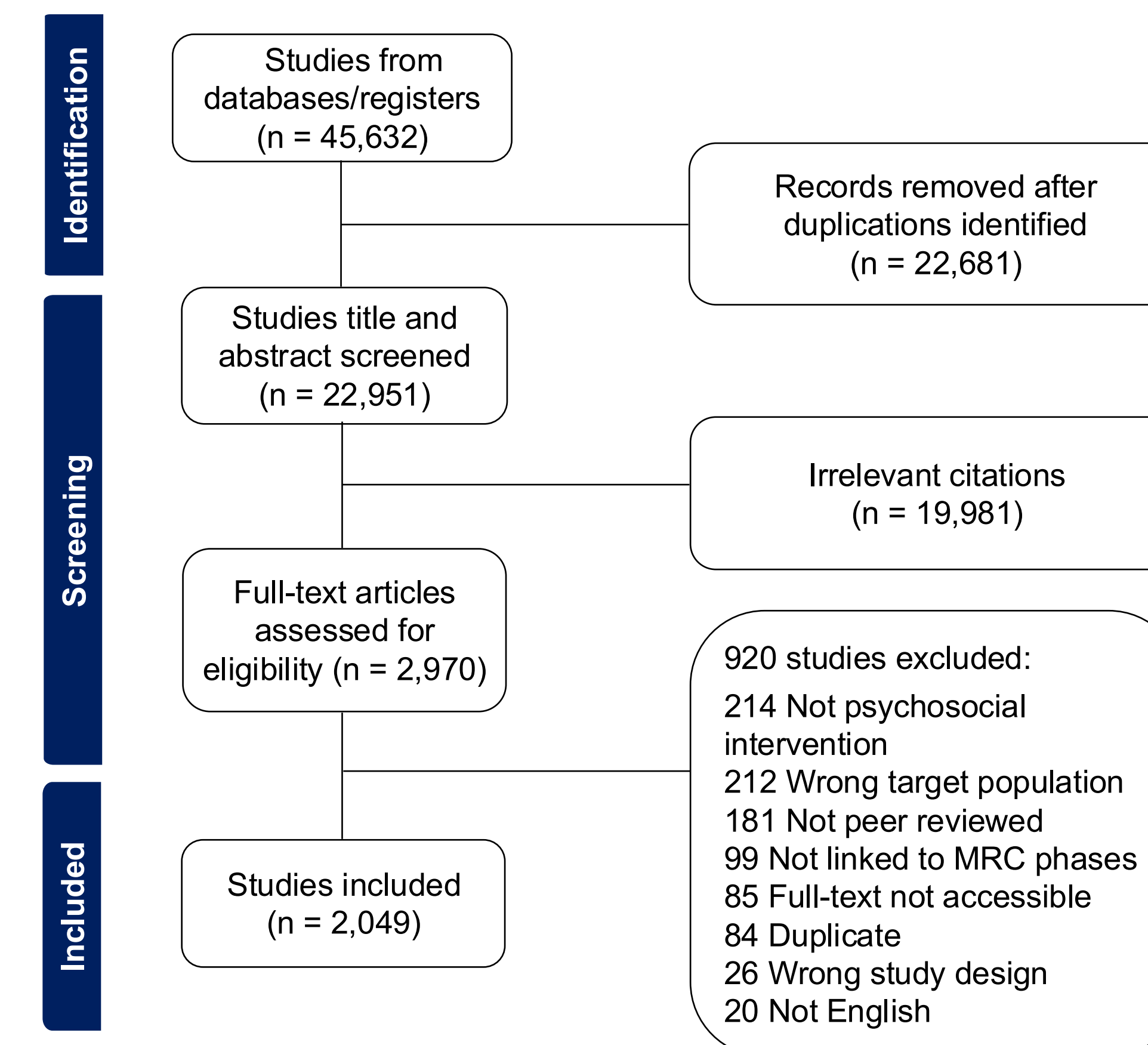
- Databases: Ovid Medline, Embase, PsycINFO, CINAHL, Web of Science, Cochrane Library
- Studies published from 2015
- English language restriction was applied
- Covidence and ASReview (AI tool) are used for screening
- ASReeview stopping criteria: 250 consecutive irrelevant articles



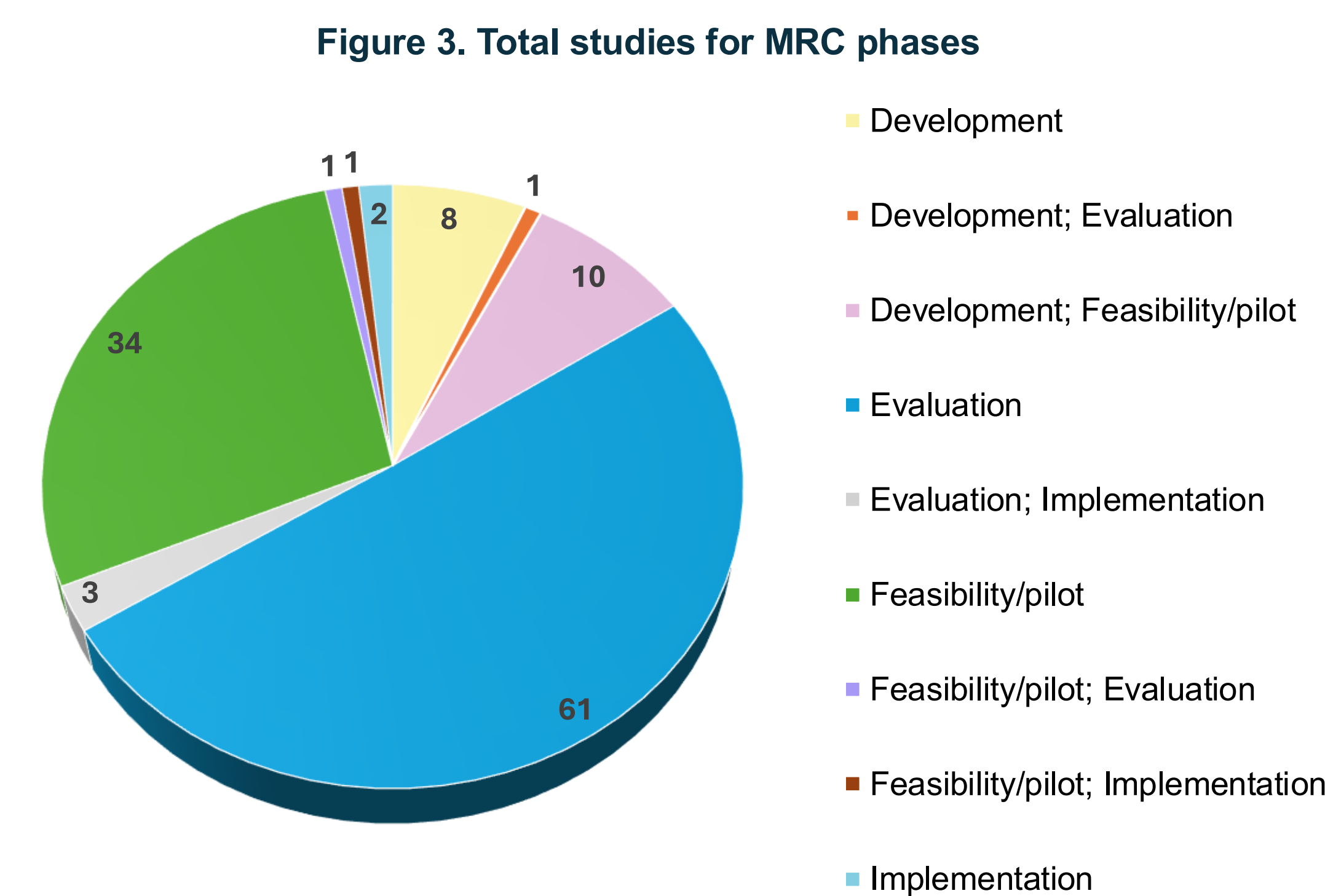
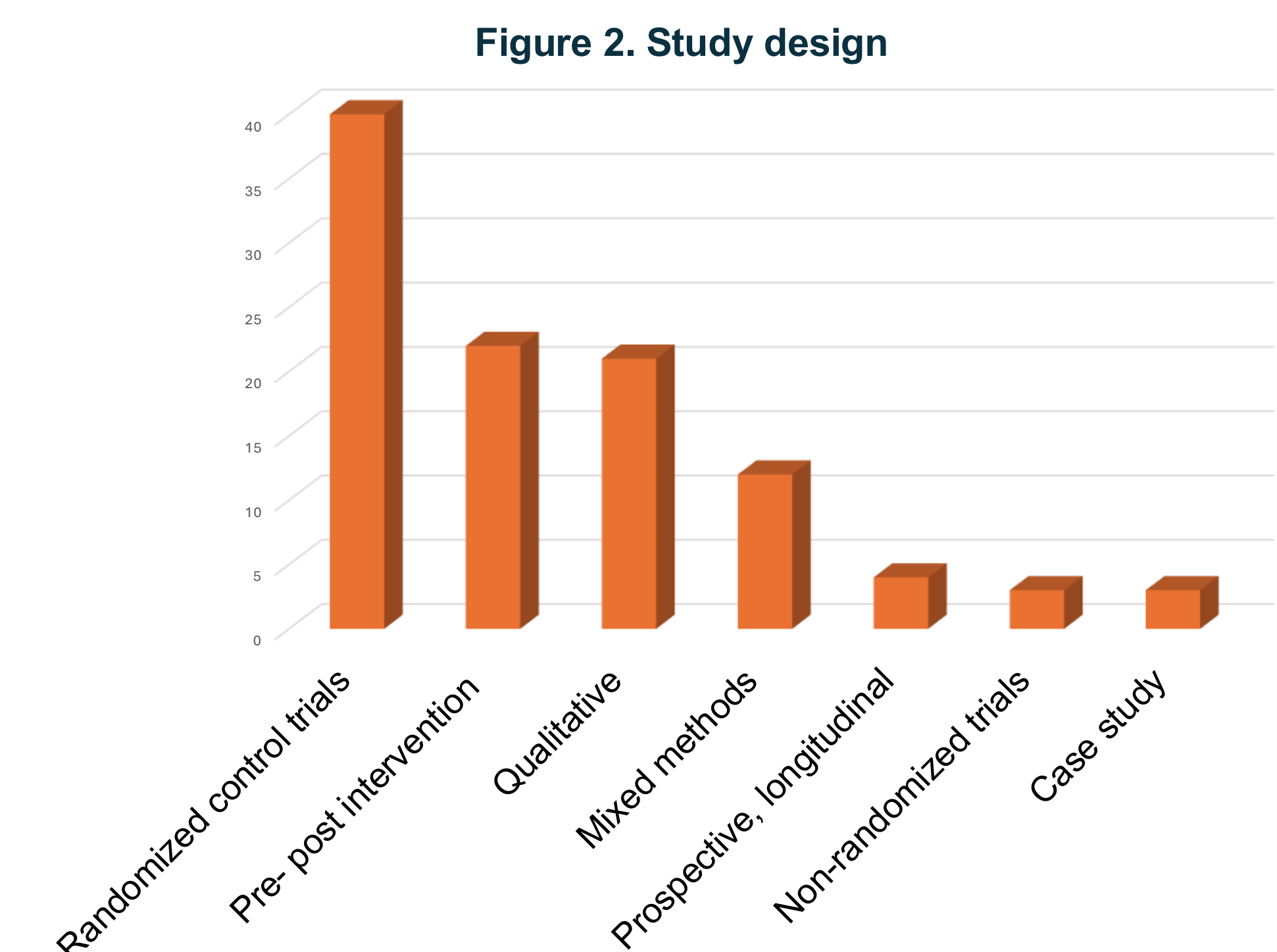
SCAN THE QR CODE FOR THE STUDY PROTOCOL

Results

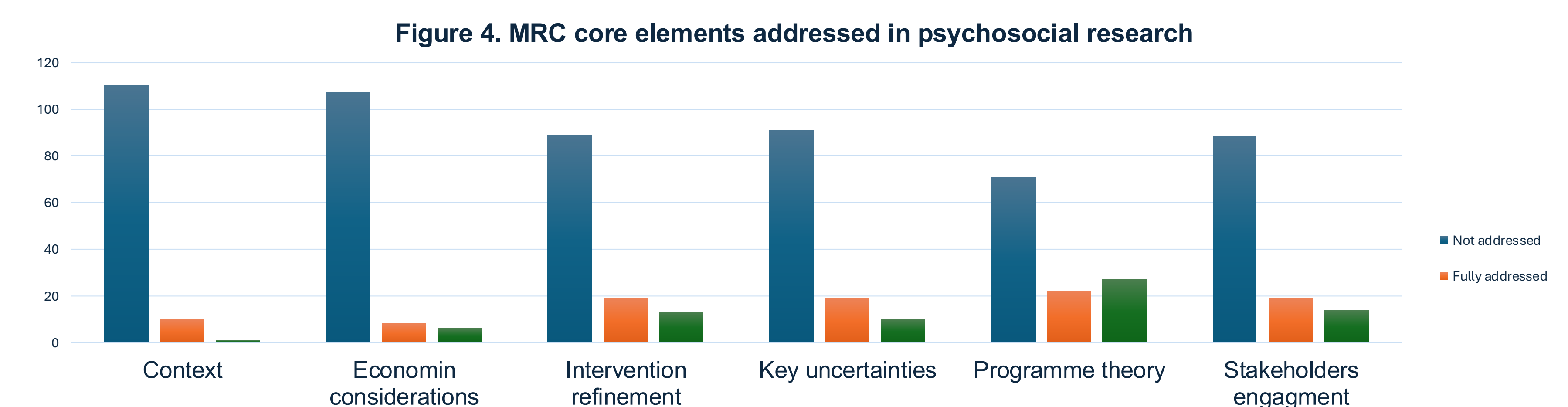
The search identified 22,951 records after deduplication. Following title/abstract screening, 2,970 full-text studies were assessed, with 2,049 included; data extraction was completed for 121 studies.



- 121 included studies covered a wide range of interventions (e.g., cognitive stimulation therapy, music therapy, virtual reality, psychoeducational, physical exercise)
- Most studies were RCTs (48.4%) or pre- post intervention design (26.62%) (Fig. 2)



- 61 studies (73.81%) focused on intervention evaluation (Fig. 3).
- Across all included studies, most did not address the MRC core elements, with only a minority fully or partially addressing them (Fig. 4)



Conclusions

This scoping review will be the first to systematically map methodologies and methods used in dementia psychosocial intervention research and align them with the MRC framework's core elements. The findings will inform a Delphi consensus study on appropriate methods/ methodologies for these interventions.

