

Telephone based self-management support for vascular conditions via non-healthcare professionals: a systematic review and meta-analysis

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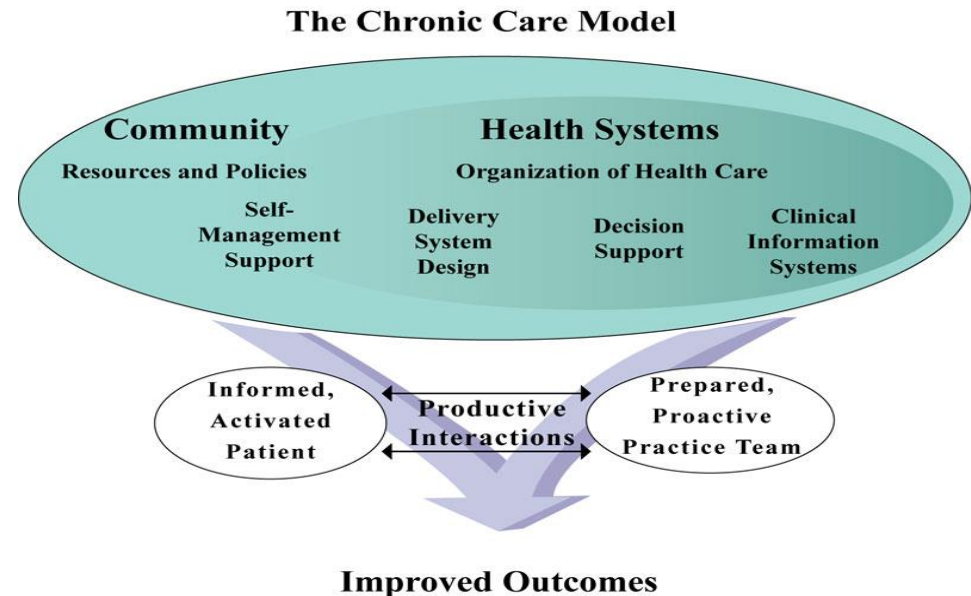
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Today

- Context
 - Vascular self-management support
 - CLAHRC Randomised Controlled Trial
- Systematic review
- Results
- Principal findings
- Implications
- Acknowledgements

Background

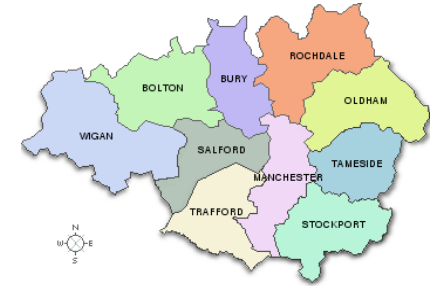
- Prevention of vascular disease
- Chronic Care Model
- Assessing cardiovascular risk
- Effective self-management support



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Self-management support via non-healthcare professionals

- Reach socially disadvantaged populations



Lay health workers “... *have no formal professional or paraprofessional education... broad in scope, includes community health workers, village health workers...*”

(Lewin, 2005)

Peer support workers “... *share salient target population similarities such as age or health concern...*” (Dale, 2009)



Telephone support

- Efficacy delivering self-management support via telephone
- 2 Cochrane reviews
- **Telephone support** (n = 7)
- Peer delivered to differing chronic + acute conditions
- Improvements in self-management outcomes
- **Telemedicine + telephone support** (n = 25)
- Peer + HCP delivered to chronic heart failure
- Reductions in hospitalisations + healthcare costs



Randomised Controlled Trial

- 2 Arm; CKD (Stage 3);
- 440 Patients from General Practices in Greater Manchester

‘Does a complex intervention improve self-management and blood pressure control compared to usual CKD management?’

Blickem et al. *Trials* 2013, **14**:28
<http://www.trialsjournal.com/content/14/1/28>



STUDY PROTOCOL

Open Access

The clinical and cost-effectiveness of the BRinging Information and Guided Help Together (BRIGHT) intervention for the self-management support of people with stage 3 chronic kidney disease in primary care: study protocol for a randomized controlled trial

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Abstract

Background: Improving the quality of care for people with vascular disease is a key priority. Chronic kidney disease (CKD) has recently been included as a target condition for general practices to add to registers of chronic conditions as part of the Quality and Outcome Framework. This paper outlines the implementation and evaluation of a self-management intervention involving an information guidebook, tailored access to local resources and telephone support for people with stage 3 chronic kidney disease.

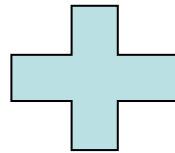
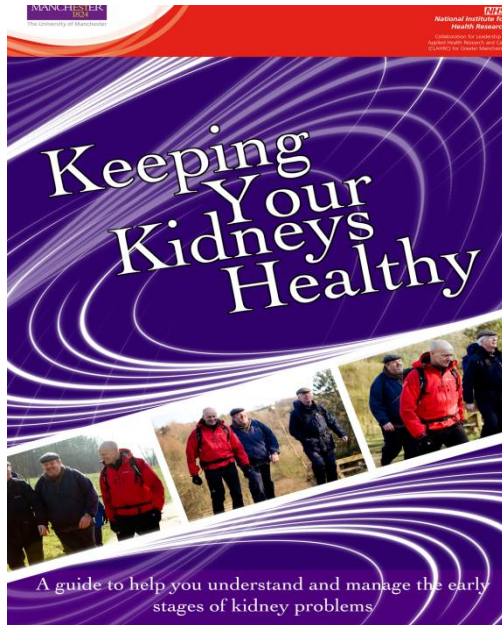
Methods/Design: The study involves a multi-site, longitudinal patient-level randomized controlled trial. The study will evaluate the clinical use and cost-effectiveness of a complex self-management intervention for people with stage 3 chronic kidney disease in terms of self-management capacity, health-related quality of life and blood pressure control compared to care as usual. We describe the methods of the patient-level randomized controlled trial.

Discussion: The management of chronic kidney disease is a developing area of research. The BRinging Information and Guided Help Together (BRIGHT) trial aims to provide evidence that a complementary package of support for people with vascular disease that targets both clinical and social need broadens the opportunities of self-management support by addressing problems related to social disadvantage.

Trial registration: Trial registration reference: ISRCTN45433299

Keywords: Vascular disease, Chronic kidney disease, Self-management, Randomized controlled trial, Social disadvantage, Social networks, Social prescribing, Minimally disruptive medicine

BRinging Information and Guided Help Together (BRIGHT) Self-Management Support Intervention



MRC Complex Intervention Framework

- Coherent theoretical basis
- Based on evidence
- Implementation
- Effective or cost-effective



Developing and evaluating complex interventions: new guidance

Prepared on behalf of the Medical Research Council by:

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www.mrc.ac.uk/complexinterventionsguidance

Aim

- **Systematic review** and **meta-analysis** to assess the evidence on the effectiveness and cost effectiveness of telephone self-management interventions for patients with vascular conditions via non-healthcare professionals

Method

- Established guidelines for reviews (Higgins, 2008)
- Brief RCT Search Strategy for CENTRAL
- Study quality (Risk of bias)
- Meta-analysis (Standardised mean difference)



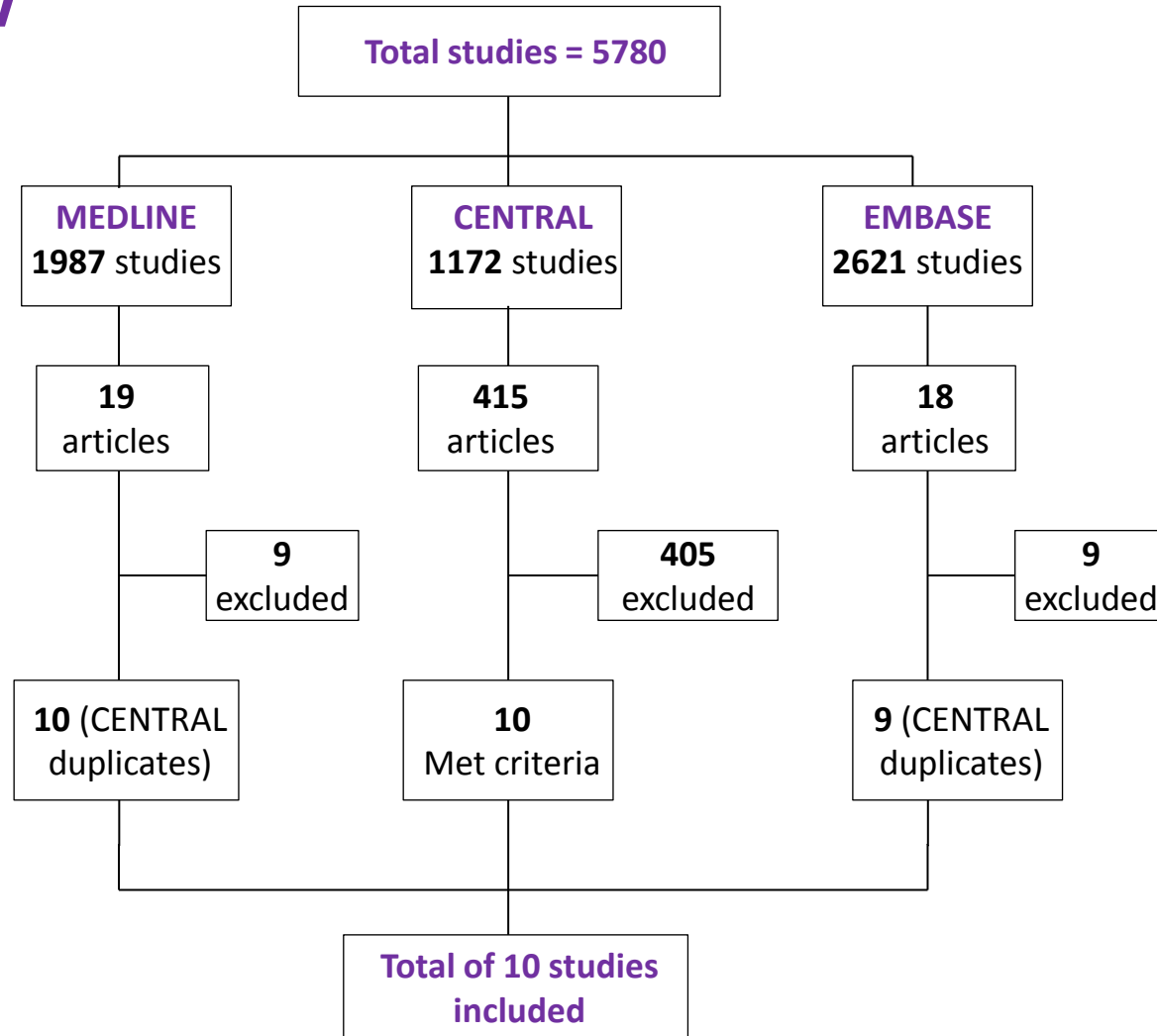
Criteria

- Randomised Controlled Trials
- Adults with vascular or associated vascular condition
- Structured self-management (DoH) telephone support based on **verbal communication** only
- Self-management telephone support was both **primary** (main component) + **distinct** (effects could be distinguished)
- Delivered via non-healthcare professional

- Calls not supportive in content
- Calls were patient initiated
- Telemedicine (e.g. storage + transmission of data)



Study flow



Characteristics

Included studies: 10

Published: 2005 - 2012

Country: 7 USA; 2 UK; 1 Canada

Design: 9 Individually randomised; 1 Clustered

Participants: 7 Diabetes; 2 Heart disease, 1 Hypertension

Interventions: 7 'peer'; 3 'lay health workers'

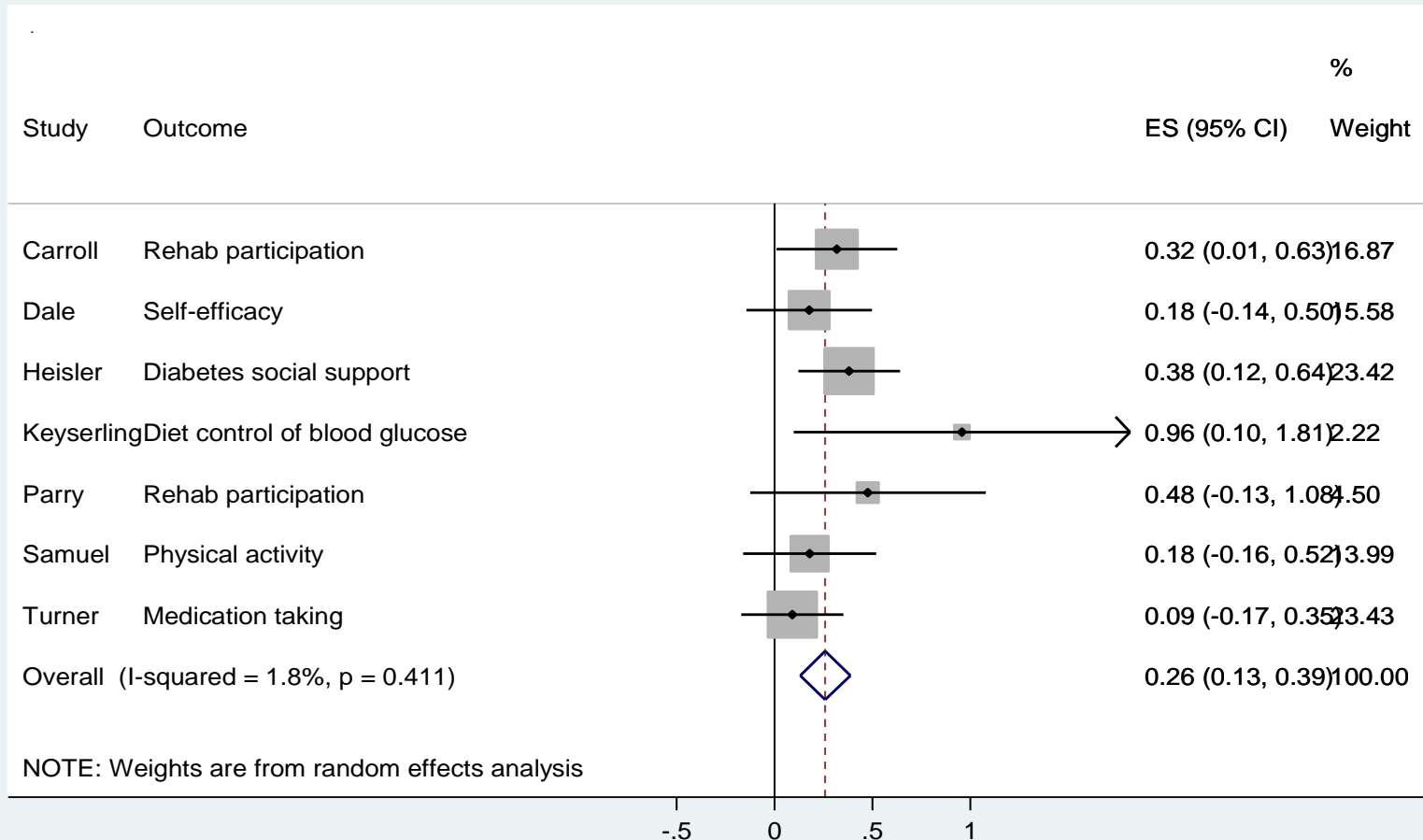
Training: 10 Motivational interviewing, behaviour change theory (self-efficacy, social support)



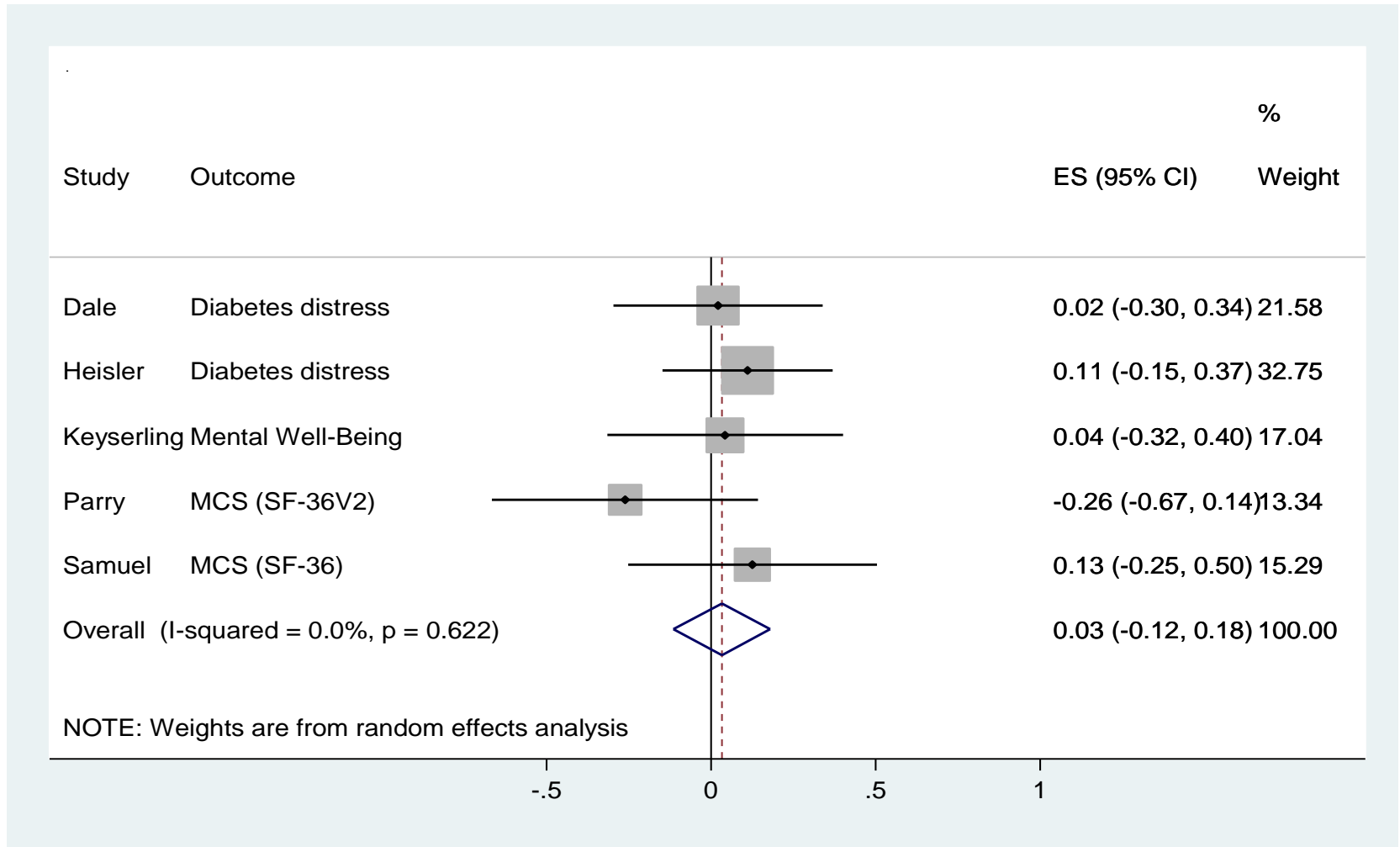
Study quality

	Random sequence	Allocation concealment	Blinding participants	Blinding outcome	Incomplete outcome	Selective reporting
Turner	(√)	(?)	(√)	(√)	(√)	(X)
Walker	(√)	(?)	(X)	(X)	(√)	(X)
Heisler	(√)	(√)	(X)	(?)	(√)	(X)
Dale	(?)	(X)	(X)	(?)	(?)	(X)
Samuel	(√)	(X)	(X)	(?)	(√)	(?)
Parry	(√)	(√)	(X)	(?)	(√)	(?)
Batik	(X)	(?)	(X)	(?)	(?)	(?)
Carroll	(?)	(?)	(X)	(?)	(?)	(?)
Young	(√)	(√)	(?)	(?)	(√)	(?)
Keyserling	(√)	(X)	(X)	(X)	(√)	(X)

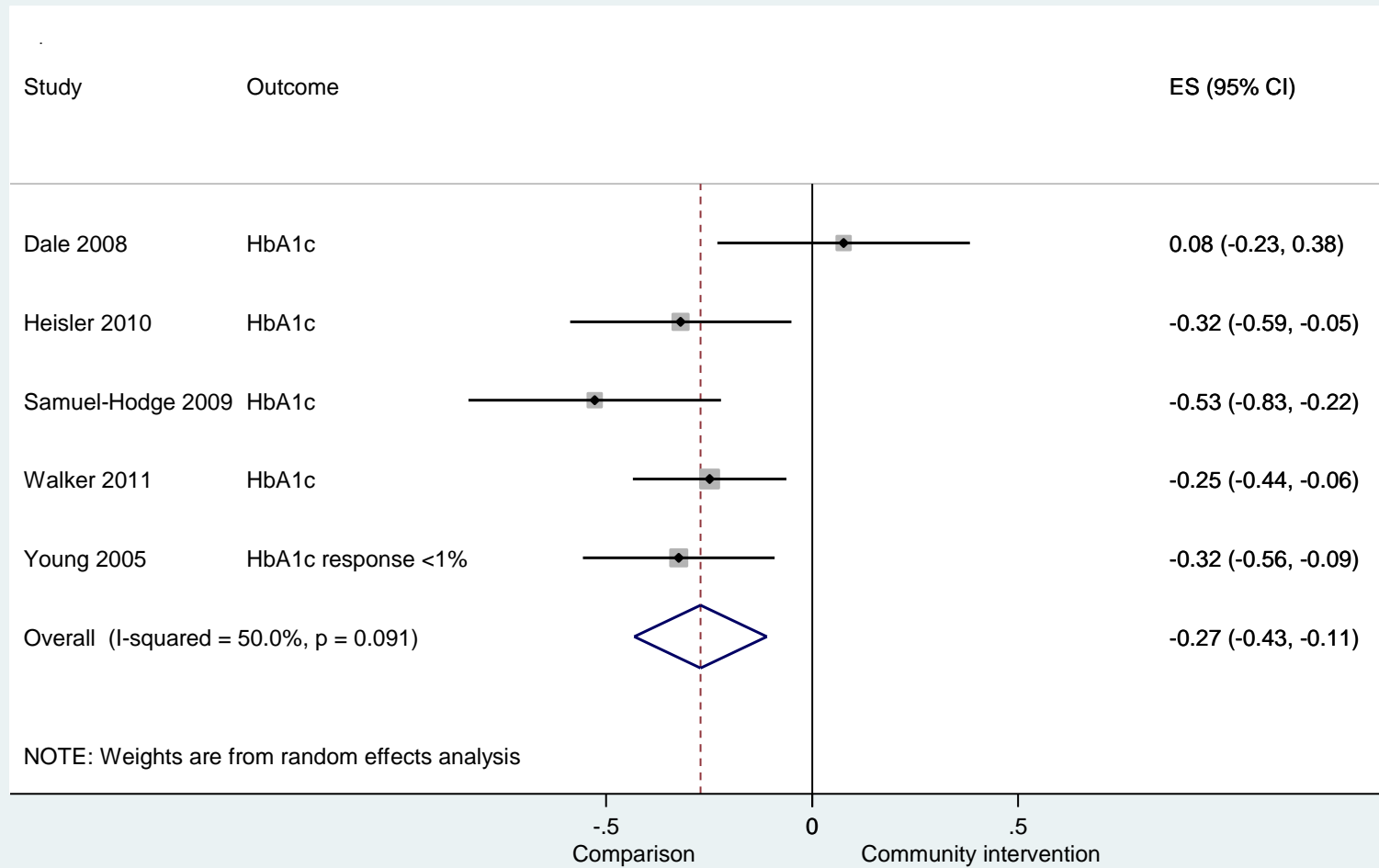
Self-management support



Mental health quality of life



Clinical (HbA1c)



Principal findings

- Primarily based in community settings; USA; Diabetes; 'Peer' support workers
- Small effects on self-management + HBA1c;
- No effect on mental health; Limited data on health care utilisation + cost-effectiveness
- Limited in scope + quality
- Unable to assess type or intensity of self-management support



Implications

- Assume commonalities across vascular disorders
- 40% Diabetes patients have associated CKD
- Limited evidence of impact on other outcomes
- Insufficient data to inform development of interventions to assess effect on outcomes
- Need for well designed trials in vascular population

- **Until then...** remain dependent on theoretical considerations + patient experience studies

Acknowledgements

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BRIGHT team: People with Long-Term Conditions Theme¹

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