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## Title

*Workload and capacity support in self-management interventions for type 2 diabetes: A systematic review and meta-regression*

## Priority 1 (Research Category)

Diabetes and endocrine disease


## Presenters

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## Abstract

Context: Self-management for type 2 diabetes can create significant workload. Individuals' ability and resources to undertake this workload (capacity) may vary. Objective: This systematic review aims to identify self-management interventions for people with type 2 diabetes and explore whether workload of the intervention and the degree of capacity support influence the efficacy of these interventions in terms of change in HbA1c. Study design and analysis: Five electronic databases were searched to identify randomised controlled trials of self-management support in adults with type 2 diabetes. The primary outcome was change in HbA1c. Studies were screened by 2 independent reviewers. Data were extracted from relevant studies, recording changes in HbA1c. Similar interventions were grouped and the efficacy of each type of intervention was summarised using random effects meta-analysis. The workload and capacity support for each intervention was assessed by independent reviewers based on Burden of Treatment Theory and the Theory of Patient Capacity. Graders were blinded to the study outcome. The impact of these constructs on the efficacy was assessed using meta-regression. Population studied: Adults (≥18 years) with type 2 diabetes. Intervention: Self-management interventions compared to usual care. Results: There were 362 included trials. Interventions were grouped into group or individual education; self-monitoring of blood glucose; phone, text or app interventions; lifestyle modification and peer support. Except for peer support and education, each type of intervention showed similar efficacy in reducing HbA1c compared to usual care (e.g. pooled estimate -0.68%, 95%CI -0.85 to -0.60 for 118 group-based education trials, with similar effect sizes for other interventions). Interventions with greater workload were associated with greater reductions in HbA1c (p=0.024) but trial-level capacity support was not associated with a change in efficacy in terms of HbA1c (p=0.28). Conclusions: Many diverse interventions to support self-management demonstrate short-term effectiveness in controlling blood sugar compared to usual care. Interventions associated with the greatest efficacy tended to place higher workload on patients. The most suitable mode of delivery to

support self-management should be selected by patients and their clinician and should consider the potential impact of workload at an individual level.