

# Engaging with virtual group interventions for preventing and managing common chronic conditions: a systematic review

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## Background

Many common chronic conditions can be **prevented** and **managed** using behavioural interventions and education that support lifestyle changes, such as adopting a healthier diet<sup>1</sup>.



Virtual group formats have been used to deliver these interventions in conditions such as type 2 diabetes mellitus<sup>2-4</sup>. These interventions involve regular group meetings over **videoconferencing** software, led by a trained facilitator, often within **primary care** and community settings. They aim to initiate behaviour change by providing **education** and **support**.

The **aim** of this review was to explore participant **engagement with** and **experiences** of these interventions. This poster focuses on **engagement**.



## Methods

Search **databases**: CINAHL, PsycINFO, Embase, and MEDLINE

Article **screening** – title and abstract and full text, including **virtual group interventions** only (video-based interventions)

Data **extraction** – study and participant characteristics, methods, key findings on engagement with interventions, risk of bias assessments

*Convergent integrated synthesis*: quantitative data is **transformed** into qualitative themes, then themes are synthesised<sup>5</sup>.

**Inclusion criteria**  
Any type of study focusing on a **virtual group intervention** for managing **common chronic physical conditions** in **adults**

6559 studies screened (title and abstract)  
↓  
207 studies screened (full text)  
↓  
19 studies included  
↓  
17 interventions included

## Results at a glance

### Participant engagement: key findings

There were differences in engagement between intervention groups and other groups, such as in-person groups, with **intervention groups having higher engagement** rates in many cases



**75%** Most virtual group interventions had an average attendance of **over 75%**; some were as low as **18%**

**Reasons for not participating** included scheduling conflicts, medical reasons, and lack of internet access



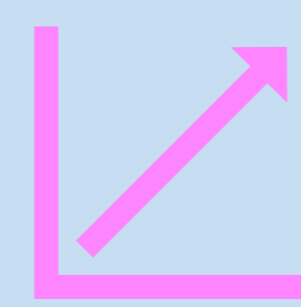
**Barriers to engaging during sessions** included technical problems and language barriers

Post-enrolment **non-completion rates** were low in most studies (under 25%), with one study having a 0% dropout rate



### Participant engagement by key characteristics:

**Participant engagement** was found to be associated with participant characteristics in many studies. There was **limited consistency** between studies, with many studies contradicting one another for example:



**Older age** was linked to increased engagement in two studies, to decreased engagement in two studies, and was not linked to engagement in four studies.

**Health status**: One study found that higher baseline BMI was linked to poorer engagement with the intervention. Another study found no such association.



**Risk of Bias**: 50% of studies were rated as low/no concerns, 43% some concerns, 7% high concerns

## Summary and next steps

The results from this review demonstrate the varied ways in which participants engage with virtual group interventions. This review explored interventions targeting many conditions, which may help to explain the diversity of results between studies. The remainder of this review examines participant experience of these interventions, to help understand these findings more deeply. This will also be explored in participant interviews, the next stage of this project.

References: (1) Papadakis A, et al., Ann Fam Med. 2021;19(3):258–61. (2) Das SK, et al., Am J Clin Nutr. 2021; 114(4):1546–59. (3) Bisno DI, et al., J Diabetes Sci Technol. 2022; 16(6):1419–27. (4) Mariano TY, et al., J Telemed Telecare. 2021; 27(4):209–16. (5) Stern C et al., JBI Evid Synth. 2020; 18(10):2108–18.

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