

Appendix 3: Quality assessment details

Randomised control trial

The single eligible randomised control trial had a low risk of bias for random sequence generation, blinding of outcome assessment, and incomplete outcome data items.²⁷ Participant blinding showed a high risk of bias as participants knew which groups they were assigned to. A risk of recruitment bias was also evident due to the cluster-randomised design. Allocation concealment and selective outcome reporting were unclear.²⁷

Case-control studies

One of the two identified case-control study was rated medium to high quality for all items.⁴¹ The other case-control study was of lower overall quality as it demonstrated a high risk of selection bias for intervention participant selection, and no methodological or analytical adjustments were made for comparing intervention and control groups.²⁶

Cohort studies

The majority of the 25 included cohort studies had representative intervention populations,^{19 21 22 24 25 29-35 37-40 43 44 46-48} appropriate control groups,^{19 21-25 29 30 32-40 42 44-47} high quality outcome assessment methods,^{19 21 24 29-31 34 36-38 40 45-47} and long follow-up periods.^{19 21-25 29-32 34-36 38-40 42-44 46 47} However, comparability was mostly deemed poor as groups were often unmatched.^{19 22 25 29 31 32 35 37-39 42 45-47} Only one study demonstrated high quality on all items,²⁴ whilst two studies scored positively on eight out of nine items, but failed to provide cohort follow-up information.^{21 40} There were additional identified risks in group selection as several studies incorporated pre-selected or highly motivated populations for intervention groups (for example, Dannels et al.²³).

Qualitative methodology studies

The majority of qualitative studies were of high quality for demonstrating congruity between the research methodology used and the: i) research question,^{49-56 58-62 64} ii) data collection methods,^{49-56 58-61 64 65} iii) data analysis and presentation,^{49-56 58 60 61 64} and iv) interpretation of results.^{49-56 58-62 64 65} However, inadequate reporting of important information was frequent with studies failing to provide statements relating to the relationship between the researchers and research itself.^{49 52 54-61 64 65} Only one study demonstrated high quality on all items of the quality assessment tool.⁵³

Realist evaluation

The realist evaluation study was rated medium to high quality on the majority of the criteria.⁶³ Only three aspects of the evaluation were deemed inadequate, which all related to incomplete methodological reporting, especially surrounding data analysis.⁶³

Mixed methods studies

The two controlled mixed methods studies were deemed high quality on the majority of criteria.^{20 28} Notably, Campion et al.,²⁰ demonstrated a lack of reporting for complete outcome data and failed to provide high quality methodological approaches for both the qualitative and quantitative components of the study. Guevara et al.,²⁸ failed to provide a rationale for using a mixed methods design. Finally, it was unclear whether the intervention was conducted as intended in both studies.^{20 28}

