

# DID YOU KNOW?

- The majority of farm machine safety interventions are education-focused
- Most frequently used BCTs are Instruction on how to perform the behaviour & incentive (outcome)
- Intervention content is rarely clearly reported in the farm safety literature



## Interventions to reduce machine-related accidents on farms: A systematic review and analysis of behavioural components

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### INTRODUCTION

- For decades, the fatality rate on farms has been higher than in other workplaces.
- Farm machinery is the leading cause of injury.
- The success of an intervention is reliant on behaviour modification.
- No prior studies examined the behavioural components of machine safety interventions.

### AIM

- Identify & examine existing interventions that aim to reduce machine related accidents on farms.
- Investigate the behavioural change techniques employed.

### METHOD

- Searched seven databases in November 2021 and screened 3927 articles.
  - 9 studies met the eligibility criteria
- Eligibility criteria:
- ✓ Describe at least one intervention component aimed at preventing machines related accidents among farmworkers.
  - ✓ Analysed the impact of the intervention on machine safety.
  - Quality of studies assessed using the Cochrane Risk of Bias tools.
  - Identification of intervention functions using the Behaviour Change Wheel.
  - Behaviour change techniques (BCT) coded using the BCT Taxonomy(v1).
  - Narrative review to synthesis findings.

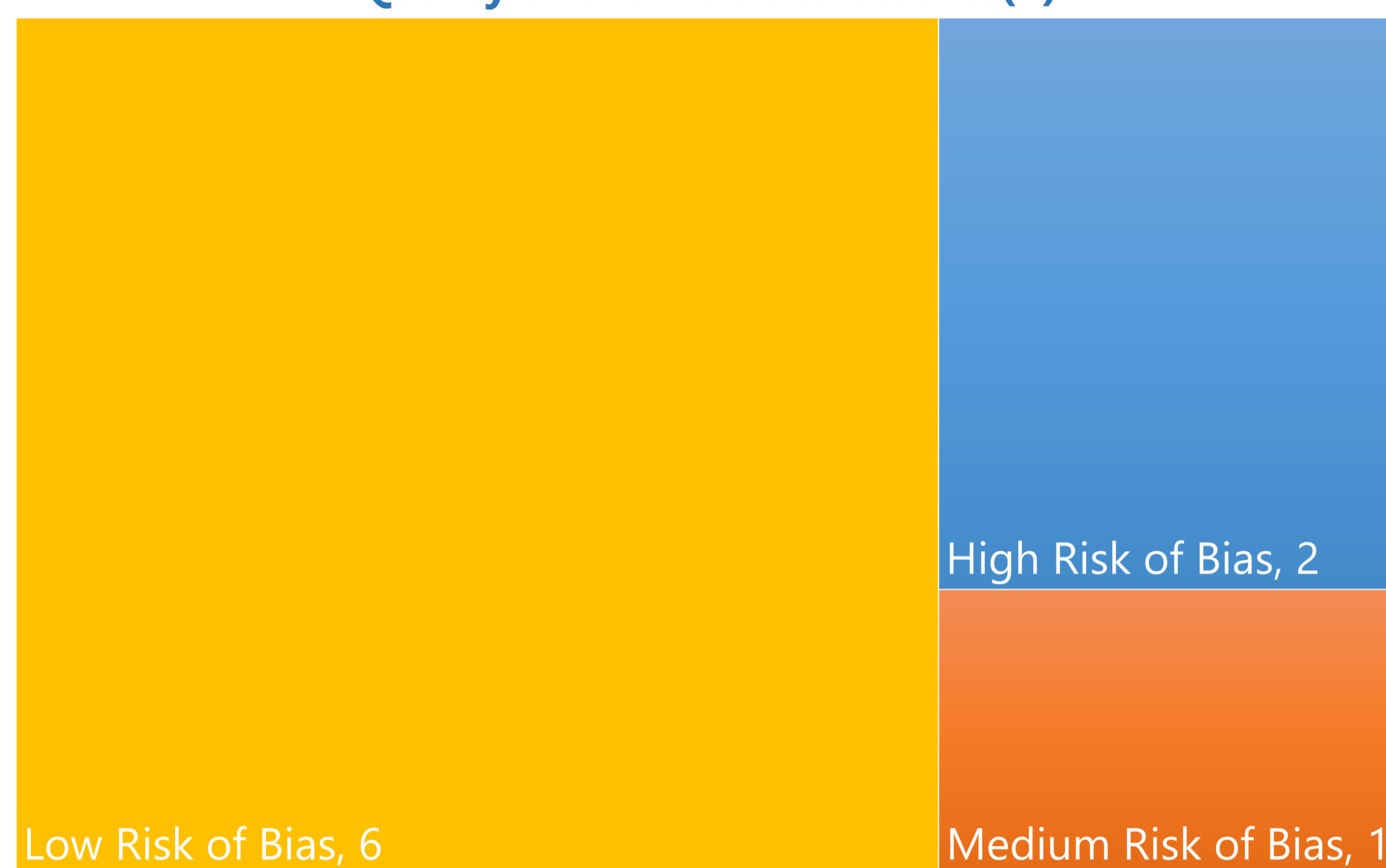
### RESULTS

- 8 of 9 intervention functions were identified across studies.
- 19 BCTs were identified across studies.
- Most frequently used intervention functions are Education and Incentivization.
- Most frequently used BCTs are Instruction on how to perform the behaviour and incentive(outcome)

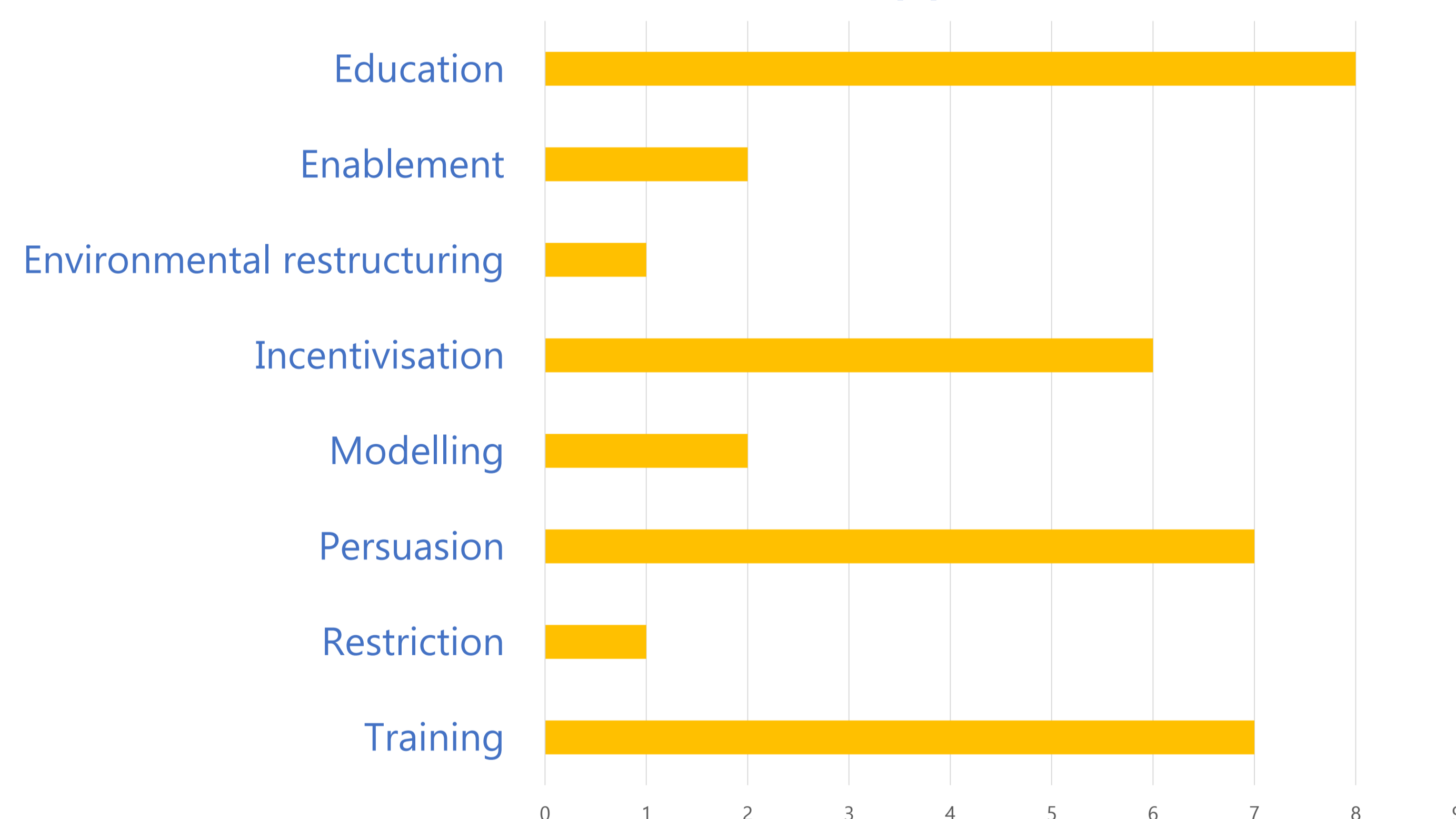
### CONCLUSION

- Despite the growing evidence of the influence of psychosocial risk factors, farm safety initiatives continue to rely on safety education and the adoption of technological innovations.
- There is a gap in farm safety research in reporting the components of the intervention and evaluating the effectiveness of these components.
- The findings of this review provide guidance for research that aims to focus on developing the behavioural-based interventions.

Quality of the included studies(#)



Frequency of of Intervention functions across the included studies(#)



Frequency of BCTs across the included studies(#)

