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Mentoring as an intervention to promote gender equality in academic medicine: a systematic review*

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*Allan House, Naila Dracup, Paula Burkinshaw, Vicky Ward, Louise D Bryant (2021)

Background

- Concern for clinician-led research and teaching
 - Declining clinical academic workforce in medical schools
 - Around 80% of clinical professors are men
 - Around 25% of clinical academics aged over 55
- Athena Swan activity within medical schools often includes mentoring for women academics to support career development

Question: Do organised mentoring schemes reduce gender inequalities in academic medicine?

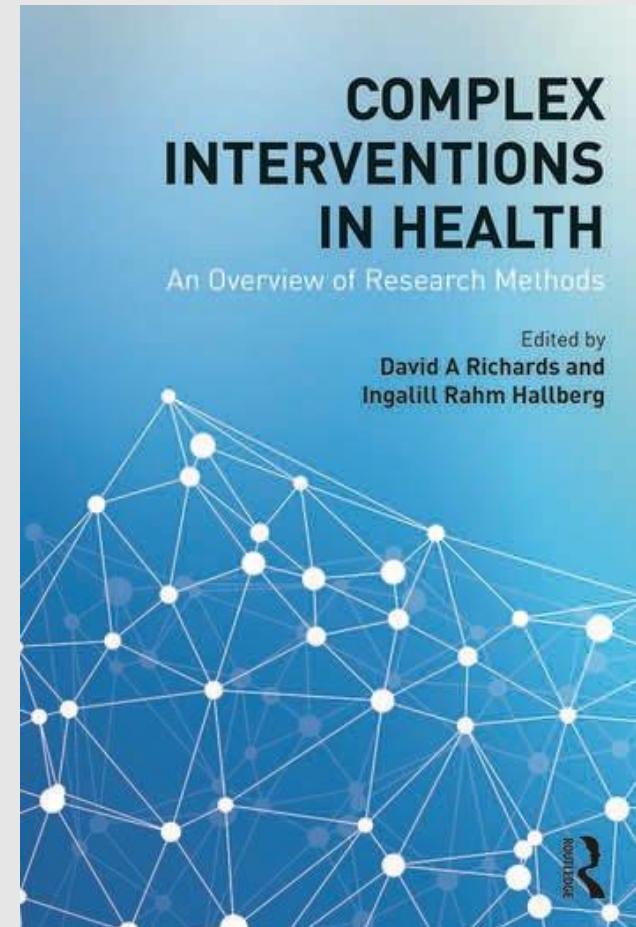
[Sambunjak D](#), [Straus, SE](#) & [Marušić, A](#). Mentoring in Academic Medicine: A Systematic Review *JAMA*. 2006;296(9):1103-1115. doi:10.1001/jama.296.9.1103

- Mentoring is perceived as an important part of academic medicine
- Evidence to support reduction of equalities is not strong.
- Evidence-based requires studies using more rigorous methods, addressing contextual issues, and using cross-disciplinary approaches

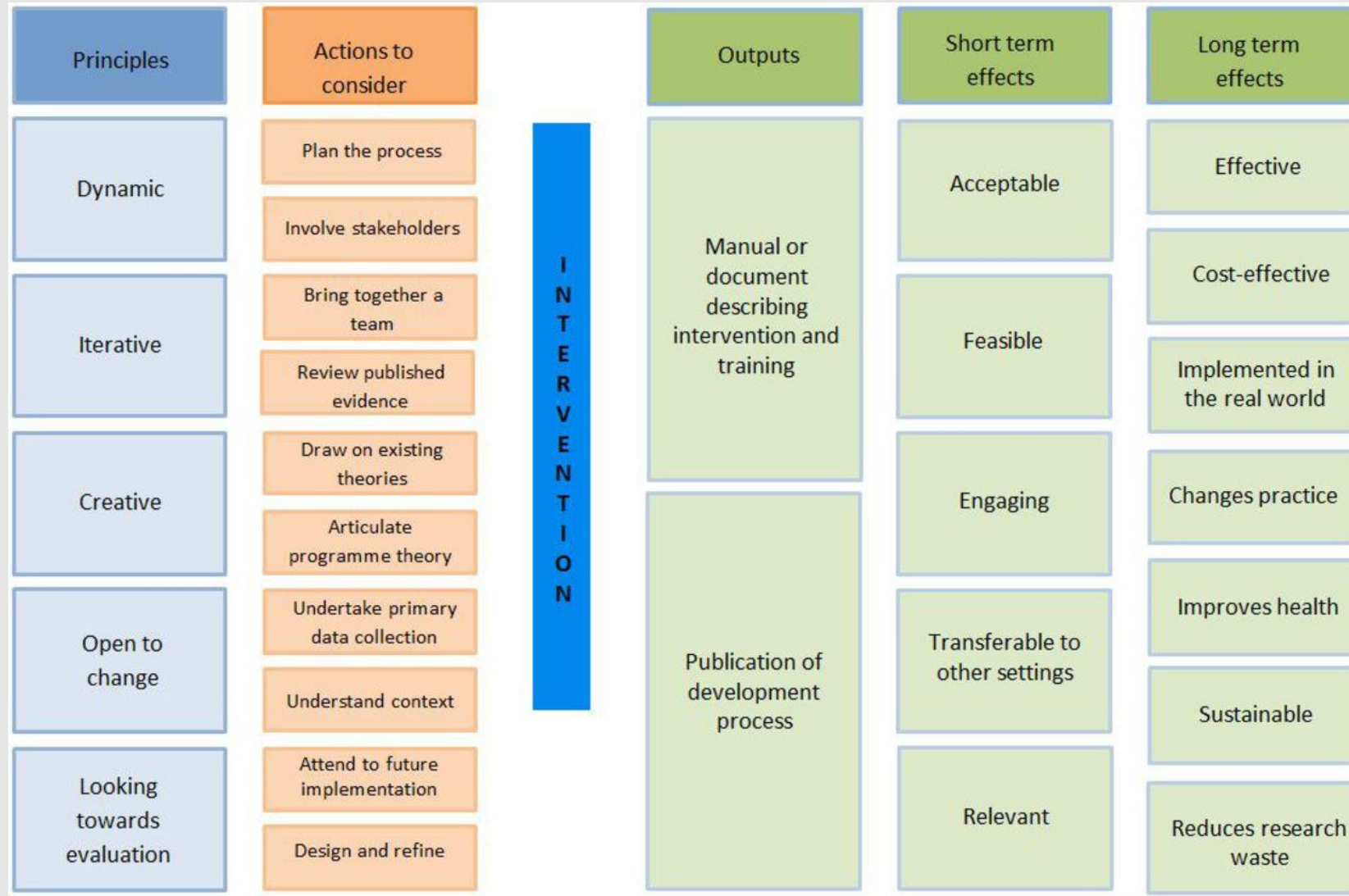
Viewing mentoring as a complex intervention

- Activities that contain a number of component parts
- Potential for interactions between parts
- When applied to target population, produce a range of possible and variable outcomes

Our starting position: Mentoring is a complex intervention – do we know what works, for whom in what circumstances and how?



Complex health interventions: logic model

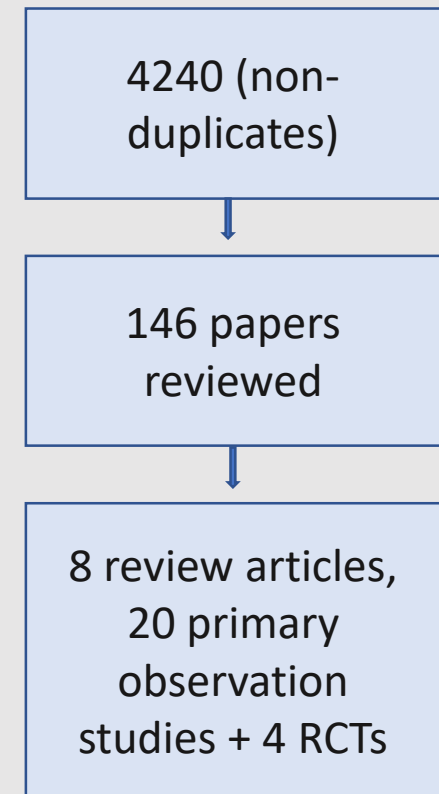


O'Cathain, Alicia, et al. "Guidance on how to develop complex interventions to improve health and healthcare." *BMJ open* 9.8 (2019): e029954.

Review methods:

Eligibility criteria

- Mentoring as a formally organised intervention
- Mentoring involved academic career support
- Mentoring was outside line management
- Contact occurred over extended period of time
- Outcomes reported



Characterising the component parts: TIDiER

TIDiER framework (Template for Intervention Description and Replication)*

Intervention name	
Why	Rationale, goals, theory
What	Materials, training
Who	Definition & selection of mentors, mentees & process for matching
How	Practicalities of running the scheme & mentoring meetings
Where, when & how much	Location, frequency and duration of meetings
Tailoring	Matching of mentors/mentees e.g. by gender, specialty
Modifications	Additional factors e.g. phone/in person
Adherence & fidelity	Recording of participation, frequency of meetings

*Hoffman, T., et al. "Better reporting of interventions: Template for intervention description and replication (TIDieR) checklist and guide. *BMJ*, 348, g1687." (2014).

Review findings

- Able to characterise mentoring as a complex intervention and break into component parts
- Unable to synthesise findings to satisfactorily answer research question due to lack of standardised approach to defining the intervention, delivery or outcomes
- Literature still dominated by observational studies, weak research designs, lack of RCTs
- No strong evidence for reducing gender pay gap, improving promotion, retention or academic performance (& no evidence that they don't)

Final thoughts

- Should we stop mentoring schemes??
 - Resource intensive: NHS context, extending to other protected characteristics
 - No strong evidence for benefits (or harms)
 - Work involved often falls to female colleagues
 - 'Fixing the women' not the system
- A supportive advisory work relationship can be helpful – mentoring is popular
- More specific interventions: What works, for whom, in what circumstances: is it mentoring, coaching, sponsorship, peer support.....
- Need for better quality research on these and all equality interventions