

# Assessment of reporting of evidence-based health care (EBHC) e-learning interventions in included studies of a Campbell systematic review

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# Conflicts of interest

I have no actual or potential conflict of interest in relation to this presentation.

# Background

- Campbell review on e-learning of EBHC



Campbell Collaboration  
Education Coordinating Group

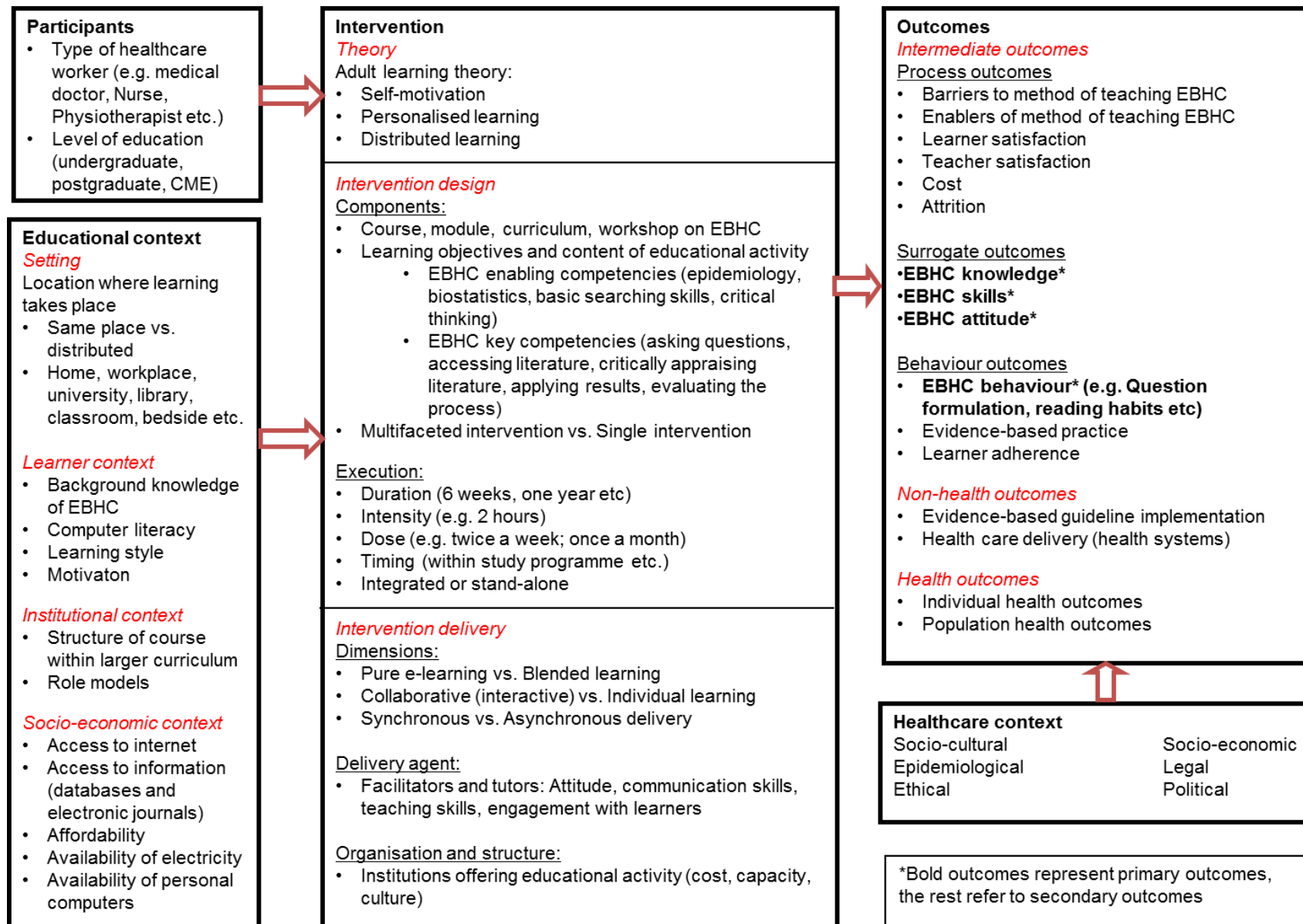
**E-learning of evidence-based health care (EBHC)  
to increase EBHC competencies in healthcare  
professionals: a systematic review**

Anke Rohwer, Nkengafac Villyen Motaze, Eva Rehfuess, and Taryn Young

A Campbell Systematic Review  
2017:4

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# Logic Model



# Objectives

- To assess reporting of EBHC e-learning interventions for studies included in our review using the guideline for reporting evidence-based practice educational interventions and teaching (GREET)

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BMC Medical Education

RESEARCH ARTICLE

Open Access



## Development and validation of the guideline for reporting evidence-based practice educational interventions and teaching (GREET)

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# Methods

- Two authors assessed reporting of EBHC e-learning interventions of included studies (n=24)
- GREET checklist with judgement for each item: yes/no/unclear
- GREET 2016 explanation and elaboration paper
- Descriptive analysis

**BRIEF NAME**

1. INTERVENTION: Provide a brief description of the educational intervention for all groups involved [e.g. control and comparator(s)].

**WHY - this educational process**

2. THEORY: Describe the educational theory (ies), concept or approach used in the intervention.

3. LEARNING OBJECTIVES: Describe the learning objectives for all groups involved in the educational intervention.

4. EBP CONTENT: List the foundation steps of EBP (ask, acquire, appraise, apply, assess) included in the educational intervention.

**WHAT**

5. MATERIALS: Describe the specific educational materials used in the educational intervention.

Include materials provided to the learners and those used in the training of educational intervention providers.

6. EDUCATIONAL STRATEGIES: Describe teaching / learning strategies (e.g. tutorials, lectures, online modules) used in educational intervention.

7. INCENTIVES: Describe any incentives or reimbursements provided to the learners.

**WHO PROVIDED**

8. INSTRUCTORS: For each instructor(s) involved in the educational intervention describe their professional discipline, teaching experience / expertise. Include any specific training related to the educational intervention provided for the instructor(s).

**HOW**

9. DELIVERY: Describe the modes of delivery (e.g. face-to-face, internet or independent study package) of the educational intervention. Include whether the intervention was provided individually or in a group and the ratio of learners to instructors.

**WHERE**

10. ENVIRONMENT: Describe the relevant physical learning spaces (e.g. conference, university lecture theatre, hospital ward, community) where the teaching / learning occurred.

**WHEN and HOW MUCH**

11. SCHEDULE: Describe the scheduling of the educational intervention including the number of sessions, their frequency, timing and duration.

12. Describe amount of time learners spent face to face with instructors and any designated time spent in self-directed learning activities.

**PLANNED CHANGES**

13. Did educational intervention require specific adaptation for learners? If yes, please describe adaptations made for the learner(s) or group(s).

**UNPLANNED CHANGES**

14. Was the educational intervention modified during the course of the study? If yes, describe the changes (what, why, when, and how).

**HOW WELL**

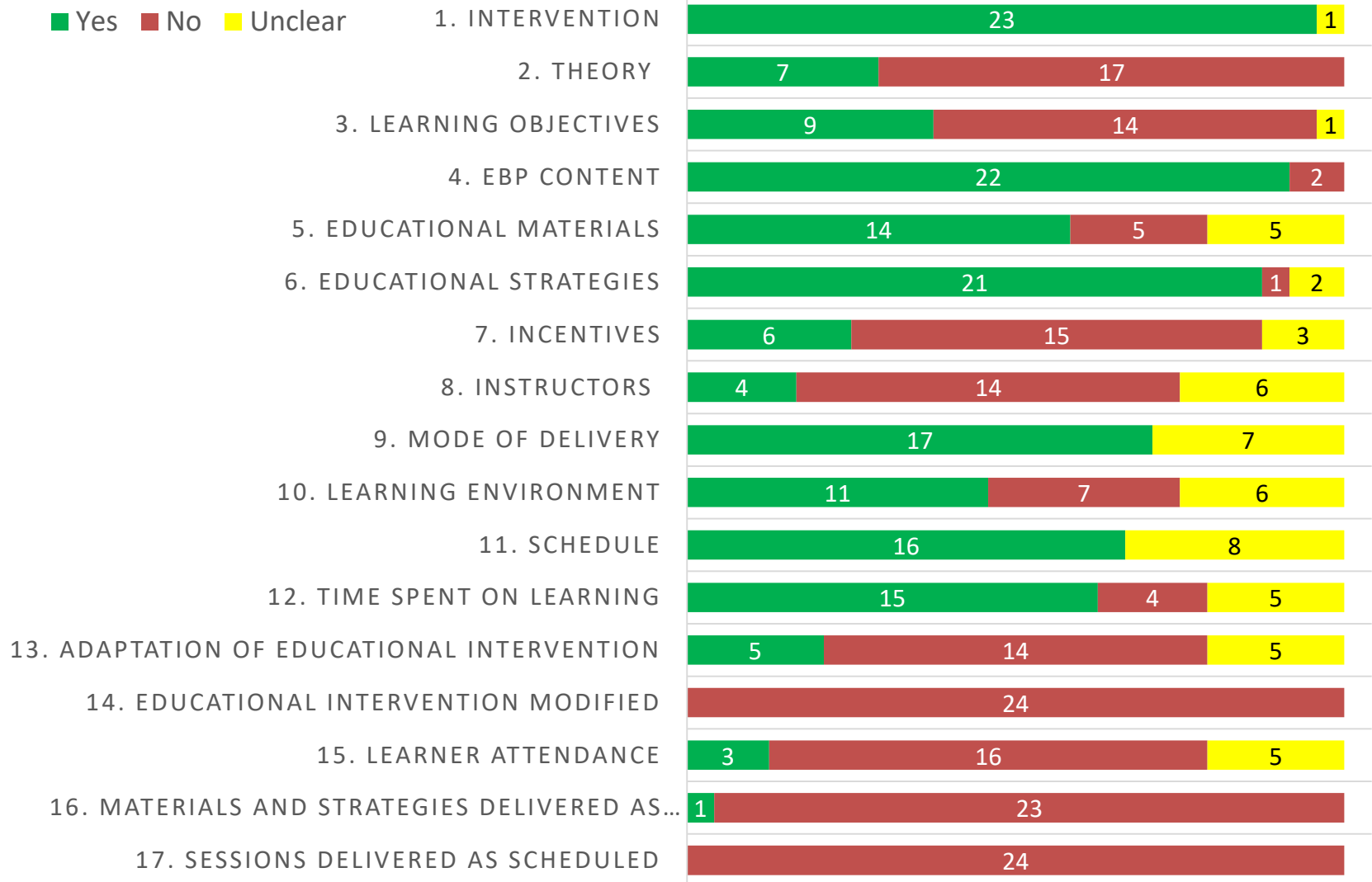
15. ATTENDANCE: Describe the learner attendance, including how this was assessed and by whom. Describe any strategies that were used to facilitate attendance.

16. Describe any processes used to determine whether the materials (item 5) and the educational strategies (item 6) used in the educational intervention were delivered as originally planned.

17. Describe the extent to which the number of sessions, their frequency, timing and duration for the educational intervention was delivered as scheduled (item 11).

# Results (n=24)

■ Yes ■ No ■ Unclear



NUMBER OF INCLUDED STUDIES





GREET item	Yes	No	Unclear
1. Intervention	23	0	1
2. Theory	7	17	0
3. Learning objectives	9	14	1
4. EBP content	22	2	0
5. Educational materials	14	5	5
6. Educational strategies	21	1	2
7. Incentives	6	15	3
8. Instructors	4	14	6
9. Mode of delivery	17	0	7
10. Learning environment	11	7	6
11. Schedule	16	0	8
12. Time spent on learning	15	4	5
13. Adaptation of educational intervention	5	14	5
14. Educational intervention modified	0	24	0
15. Learner attendance	3	16	5
16. Materials and strategies delivered as planned	1	23	0
17. Sessions delivered as scheduled	0	24	0

# Conclusion

- Poor reporting of EBHC e-learning interventions in included studies
- GREET items mapped well onto logic model
- Unable to address secondary objectives of systematic review
- Questions that remain:
  - Which dimensions of e-learning are most effective in increasing EBHC knowledge and skills?
  - How does educational context influence EBHC e-learning?
  - What is the best way to implement EBHC e-learning?

Thank You

# Results (n=24)

GREET item	Yes	No	Unclear
1. INTERVENTION: Provide a brief description of the educational intervention for all groups involved	23	0	1
2. THEORY: Describe the educational theory, concept or approach used in the intervention	7	17	0
3. LEARNING OBJECTIVES: Describe the learning objectives for all groups involved in the educational intervention.	9	14	1
4. EBP CONTENT: List the foundation steps of EBP (ask, acquire, appraise, apply, assess) included in the educational intervention.	22	2	0

# Results cont.

GREET item	Yes	No	Unclear
5. MATERIALS: Describe the specific educational materials used in the educational intervention. Include materials provided to the learners and those used in the training of educational intervention	14	5	5
6. EDUCATIONAL STRATEGIES: Describe the teaching/learning strategies (e.g. tutorials, lectures, online modules) used in the educational intervention.	21	1	2
7. INCENTIVES: Describe any incentives or reimbursements provided to the learners	6	15	3
8. INSTRUCTORS: For each instructor(s) involved in the educational intervention describe their professional discipline, teaching experience/expertise. Include any specific training related to the educational intervention provided for the instructor(s).	4	14	6

# Results cont.

GREET item	Yes	No	Unclear
9. DELIVERY: Describe the modes of delivery (e.g. face-to-face, internet or independent study package) of the educational intervention. Include whether the intervention was provided individually or in a group and the ratio of learners to instructors.	17	0	7
10. ENVIRONMENT: Describe the relevant physical learning spaces (e.g. conference, university lecture theatre, hospital ward, community) where the teaching/learning occurred	11	7	6
11. SCHEDULE: Describe the scheduling of the educational intervention including the number of sessions, their frequency, timing and duration.	16	0	8
12. Describe the amount of time learners spent in face to face contact with instructors and any designated time spent in self-directed learning activities.	15	4	5

# Results cont.

GREET item	Yes	No	Unclear
13. Did the educational intervention require specific adaptation for the learners? If yes, please describe the adaptations made for the learner(s) or group(s).	5	14	5
14. Was the educational intervention modified during the course of the study? If yes, describe the changes (what, why, when, and how).	0	24	0
15. ATTENDANCE: Describe the learner attendance, including how this was assessed and by whom. Describe any strategies that were used to facilitate attendance.	3	16	5
16. Describe any processes used to determine whether the materials (item 5) and the educational strategies (item 6) used in the educational intervention were delivered as originally planned.	1	23	0
17. Describe the extent to which the number of sessions, their frequency, timing and duration for the educational intervention were delivered as scheduled (item 11).	0	24	0