Supplementary Online Content


eFigure 1. Full MEDLINE Query

eFigure 2. PRISMA Flow

eTable 1. Summary of the Methodological Quality of the Studies

This supplementary material has been provided by the authors to give readers additional information about their work.
eFigure 1. Full MEDLINE query

1 exp Skin Diseases/ not exp breast diseases/ (559868)
2 Dermatology/ (12759)
3 Dermoscopy/ (1530)
4 exp Melanoma/ (70395)
5 Venereology/ (507)
6 (skin disease* or skin disorder* or skin cancer or skin neoplasm* or skin lesion* or dermatolog* or melanoma*).mp. (275765)
7 or/1-6 (659148)
8 exp Education/mt (72822)
9 ed.fs. (210385)
10 exp Teaching/ (64450)
11 exp Educational Technology/ (84107)
12 exp Students/ (75946)
13 models, educational/ (7311)
14 ((teaching or instruction* or education*) adj2 (method* or model* or modalit* or delivery or strateg* or technique* or module* or design or intervention*)].mp. (32023)
15 (tutorial* or training or teaching or education* or clerkship or residency or internship).ti. (212768)
16 or/8-15 (527475)
17 diagnosis/ or delayed diagnosis/ or exp diagnosis, computer-assisted/ or diagnosis, differential/ or "diagnosis, dual (psychiatry)"/ or exp diagnostic errors/ or exp "diagnostic techniques and procedures"/ or exp early diagnosis/ (5610113)
18 di.fs. (1897260)
19 canc(3653967)
20 or/17-19 (8106249)
21 Clinical Competence/ (61129)
22 Educational measurement/ (26427)
23 (comparative study or evaluation studies or randomized controlled trial).pt. (2014748)
24 (random* or control group or "before and after" or pretest or posttest or post-test or performance or proficiency or competenc* or accuracy or accurate].mp. (2051485)
25 evaluation studies as topic/ or program evaluation/ (162890)
26 observer variation/ (29909)
27 or/21-26 (3576608)
28 7 and 16 and 20 and 27 (626)
29 Animals/ (5170284)
30 Humans/ (12921776)
31 29 not (29 and 30) (3762326)
32 28 not 31 (609)
33 Audiovisual Aids/ (6085)
34 Photography/ (19683)
35 33 or 34 (25454)
36 7 and 8 and 20 and 35 (18)
37 32 or 36 (616)
Literature search
Databases: MEDLINE, EMBASE, CINAHL, ERIC, PsycINFO, BIOSIS
Previews

Records identified through database searching (n = 2704)

Additional records identified through other sources: 77

Records after duplicates removed (n = 2758)

Records screened (n = 2758)

Records excluded (n = 2508)

Full-text articles assessed for eligibility (n = 250)

Full-text articles excluded

- 141: The educational objective was not to improve participants’ ability to detect, classify, or identify skin lesions.
- 34: No comparison group was used.
- 20: Sufficient information to calculate an effect size was not available.
- 18: Sufficient information to classify the educational practice was not available.

Studies included in meta-analysis (n = 37)
**eTable 1. Summary of the methodologic quality of the studies.**

<table>
<thead>
<tr>
<th>Methodological dimension</th>
<th>Medical Education Research Study Quality Instrument (MERSQI) typology</th>
<th>Modal MERSQI score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study design</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-group posttest only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-group pretest – posttest</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-randomized 2 group</td>
<td></td>
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<tr>
<td></td>
<td>Randomized control trial</td>
<td>Randomized control trial</td>
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<tr>
<td><strong>Sampling</strong></td>
<td>No. of institutions studied</td>
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<tr>
<td></td>
<td>Response rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Type of data</strong></td>
<td>Assessment by study participant</td>
<td>Objective measurement</td>
</tr>
<tr>
<td></td>
<td>Objective measurement</td>
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</tr>
<tr>
<td><strong>Validity of evaluation instrument</strong></td>
<td>Internal structure</td>
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<td></td>
<td>Content</td>
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<tr>
<td></td>
<td>Relationships to other variables</td>
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<td><strong>Data analysis</strong></td>
<td>Appropriateness of analysis</td>
<td>Appropriate</td>
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<td></td>
<td>Complexity of analysis</td>
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<tr>
<td><strong>Outcomes</strong></td>
<td>Satisfaction, attitudes, perceptions, opinions, general facts</td>
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</tr>
<tr>
<td></td>
<td>Knowledge, skills</td>
<td>Knowledge, skills</td>
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<tr>
<td></td>
<td>Behaviors</td>
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<tr>
<td></td>
<td>Healthcare outcomes</td>
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