

Supplemental Digital Table 1

Quality Reporting of the 42 Quantitative Studies According to the Medical Education Research Study Quality Instrument (MERSQI) <sup>a</sup>

Study authors and date	Study design	Sampling: No. of institutions	Sampling: Response rate	Type of data	Validity: Internal structure	Validity: Content	Validity: Relationship to variables	Data analysis: Appropriateness	Data analysis: Complexity	Outcomes	Score
Adilman et al., 2016	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perceptions (1)	10
Barker et al., 2012	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	50-74% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perceptions (1)	10.5
Bensalem-Owen et al., 2011	single group, pre/post (1.5)	1 institution (0.5)	100% (1.5)	objective (3)	reported (1)	reported (1)	reported (1)	appropriate (1)	Beyond descriptive analysis (2)	knowledge, skills (1.5)	14
Ben-Yakov et al., 2015	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	behaviors (2)	11
Bergl et al., 2015	single group crosssectional or single group posttest only (1)	1 institution (0.5)	64.2% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	behaviors (2)	9.5
Bogoch et al., 2012	single group crosssectional or single group posttest only (1)	2 institutions (1)	58% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	behaviors (2)	10
Calderon et al., 2011	single group crosssectional or single group posttest only (1)	1 institution (0.5)	<50% or not reported (0.5)	assessment by study participant (1)	not reported (0)	not reported (0)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perceptions (1)	6

Colvin et al., 2018	single group, pre/post (1.5)	1 institution (0.5)	>75% (1.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	behaviors (2)	11.5
Chandawarkar et al., 2018	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	N/A	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	behaviors (2)	12
Cook et al., 2013	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	50-74% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perceptions (1)	10.5
Dawkins et al., 2017	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	behaviors (2)	12
Deloney et al., 2014	single group crosssectional or single group posttest only (1)	1 institution (0.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perceptions (1)	8
Desai et al., 2014	single group, pre/post (1.5)	1 institution (0.5)	>75% (1.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	behaviors (2)	10.5
Desai et al., 2012	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	N/A	objective (3)	reported (1)	reported (1)	reported (1)	appropriate (1)	descriptive analysis only (1)	attitude/ perceptions (1)	12.5
Diller et al., 2018	single group crosssectional or single group posttest only (1)	2 institutions (1)	50-74% (1)	assessment by study participant (1)	reported (1)	reported (1)	reported (1)	appropriate (1)	descriptive analysis only (1)	behaviors (2)	11
Farber et al., 2017	single group crosssectional or single group	> 2 institutions (1.5)	N/A	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	behaviors (2)	13.6

	posttest only (1)										
Galiatsatos et al., 2016	single group, pre/post (1.5)	1 institution (0.5)	50-74% (1)	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	behaviors (2)	13
George et al., 2014	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	reported (1)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	9
Ginory et al., 2012	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	9
Go et al., 2012	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	10
Go et al., 2012 (PDs)	nonrandomized 2 group (2)	2 institutions (1)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	not reported (0)	not reported (0)	inappropriate (0)	Beyond descriptive analysis (2)	attitude/ perception s (1)	8.5
Golden et al., 2012	single group crosssectional or single group posttest only (1)	1 institution (0.5)	N/A	objective (3)	reported (1)	not reported (0)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	9.5
Irfan et al., 2018	single group crosssectional or single group posttest only (1)	1 institution (0.5)	>75% (1.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	10
Jain et al., 2018	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	>75% (1.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	11

Jent et al., 2011	single group crosssectional or single group posttest only (1)	1 institution (0.5)	>75% (1.5)	assessment by study participant (1)	reported (1)	not reported (0)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	9
Khandelwal et al., 2015	single group, pre/post (1.5)	1 institution (0.5)	50-74% (1)	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	Knowledge/ skills (1.5)	12.5
Klee et al., 2015	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	9
Koontz et al., 2018	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	50-74% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	10.5
Langenfeld et al., 2016	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	9
Lefebvre et al., 2016	single group crosssectional or single group posttest only (1)	1 institution (0.5)	50-74% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	9.5
Liu et al., 2017	single group, pre/post (1.5)	2 institutions (1)	<50% or not reported (0.5)	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	Knowledge/ skills (1.5)	12.5
Matava et al., 2013	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	10
Loeb et al., 2013	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	9

Moubarak et al., 2011	single group crosssectional or single group posttest only (1)	1 institution (0.5)	50-74% (1)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	9.5
Nikolian et al., 2018	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	N/A	objective (3)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	11.5
Oyewumi et al., 2017	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	10
Ranschaert et al., 2016	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	descriptive analysis only (1)	attitude/ perception s (1)	9
Rivas et al., 2018	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	10
Salem et al., 2017	single group crosssectional or single group posttest only (1)	> 2 institutions (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	reported (1)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perception s (1)	11
Schweitzer et al., 2012	single group crosssectional or single group posttest only (1)	> 2 institution (1.5)	<50% or not reported (0.5)	objective (3)	not reported (0)	not reported (0)	not reported (0)	appropriate (1)	Beyond descriptive analysis (2)	behaviors (2)	11
Vasilopoul os et al., 2015	single group, pre/post (1.5)	1 institution (0.5)	N/A	objective (3)	reported (1)	reported (1)	reported (1)	appropriate (1)	beyond descriptive analysis (2)	Knowledge/ skills (1.5)	13.6

Wagner et al., 2018	single group crosssectional or single group posttest only (1)	> 2 institution (1.5)	<50% or not reported (0.5)	assessment by study participant (1)	reported (1)	reported (1)	reported (1)	appropriate (1)	Beyond descriptive analysis (2)	attitude/ perceptions (1)	11
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<sup>a</sup> Numbers in each cell in parentheses equate to the points acquired per criteria. The mean MERSQI score for the 42 quantitative studies was 10.48.