First Author	Year	Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo Ivement
Aneese	2019	USA	60 internal medicine residents	Before-after	Classroom and clinically integrated. Duration: one year.	Modular programme. (1) monthly EBM workshop, (2) monthly journal club, (3) resident lead morning report (4) teaching rounds. Emphasis on critical appraisal	Satisfaction (via focus group), short term Knowledge and skills (modified Berlin test), long term application to clinical practice (Fresno test at start and end of year)	Statistically significant improvement reported in short term knowledge, skills: therapy workshops (N=25) median pre-test score of 8 (IQR): [6–9]) vs post-test 8 (IQR: [8–9]), (p=0.006); diagnosis (N=16) pre-test score of 6 (IQR: [3–6]) vs post-test 7 (IQR: [6–9]), (p=0.006); systematic	Level 2: Change in knowledge	Authors assumed an improvement in patient outcomes
Bastaninejad	2019	Iran	41 otolaryngology residents	Before-after	Workshop in 2 hospitals. Duration: 6 hours.	An EBM workshop in each hospital. Content practised in journal club.	Modified Fresno test 6 months later	The mean score of the modified Fresno test was 57.43 ± 22.07 before the workshop and 79.26 ± 22.48 after the workshop (P < 0.001).	Level 2	Not indicated
Bentley	2018	USA	53 emergency residents	Before-after	Classroom. Duration: one year	8 Modules - learning reinforced with journal club. Content based on JAMA Users' Guides	Berlin Questionnaire before and after curriculum. Self-rating task.	Median test pre scores 40%, median post scores 73.3% (p=0.002)	Level 2	Not indicated

First Author	Year		Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo lvement
Cartledge		2017	UK and Rwanda	31 residents	Before-after	Online module via Facebook. Duration: 5 weeks.	Distance learning module created using social media.	Columbia EBM Instrument, was used to measure outcome measures such as "comfort- level", "self- reported practice", and "knowledge" before and after the module.	12 residents (40%) engaged with the module. Knowledge of EBM did increase but was not attributed to the Facebook® group. Comfort of practising EBM and self- reported practice score increased slightly in those who completed course	Level 1: learners' reaction. Positive feedback of learning experience by those who engaged.	Not indicated
Goodarzi		2021	Iran	39 (active group) and 30 (Passive) residents	Before-After comparison of 2 cohorts	Integrated(pa ssive) learning for one year vs active learning (lectures) for 12 hours (6 weeks).	Two educational programs for residents. Active group: Weekly 2 hours EBP presentations with participation, covering all EBP steps. Passive group: EBM course for one year integrated into rounds, journal club, morning report.	Primary outcome: knowledge, attitudes, and behaviour, using EBP knowledge, attitude, behaviour questionnaire (EBP-KABQ) tool. Also, before-after ACE EBP competency test. Active group took questionnaires before and one month after intervention. Passive group took	Before the educational intervention, both groups had similar EBP-KABQ & ACE tool scores. ACE results: (4.14 ± 1.72 in the active group vs. 4.79 ± 0.94 in the passive group, p>0.05). Postintervention scores showed a significant difference between groups (8.86 ± 2.62 vs. 7.31 ± 2.92, p=0.029, in the active and	Level 2	Not indicated

First Author	Year	Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo lvement
							questionnaires before and one year after	passive group, respectively). Significant increase in ACE tool scores in both groups (p<0.000, in both groups). Active course produced higher scores in knowledge, attitude, decision, outco me, and behaviour.		
Korownyk	2020	Canada	Family medicine residents	retrospective review over 15 years of interventions.	Blended learning: workshop, lectures, integrated clinical settings. Duration: 2 years.	Multi-modal course. 2-day workshop, quarterly 1-hour didactic lectures, monthly journal clubs, a computerised EBP desktop and one-page summaries.	Modified rating scales to determine attitudes and comfort . Knowledge tests dropped previously as knowledge is known to increase	Scales change from year to year so cannot be compared. Question of whether improved knowledge & attitudes lead to behaviour changes.	Level 3: Self- reported behaviour changes	Authors stated their increased recognition of importance of shared decision making as a patient outcome in EBM.
Mlika	2019	Tunisia	20 family medicine trainees	Before-after	One-day workshop	Workshop consisted of didactic morning lecture and afternoon teamwork with focus on critical appraisal	Pre- and post- knowledge test and feedback form	Non-significant difference, p= 0.2. 10/17 participants improved theirscores. 5/17 participants had the same scores and 2/17participant	Level 1	Not indicated

First Author	Year	Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo lvement
								s decreased their scores. Positive feedback: majority happy with program & teaching methods		
Mousavi	2019	Iran	86 First year residents	Before-after	Classroom: 12 sessions of EBM based on Team- Based Learning (TBL)	Phase 1; Individual preparation; Individual Readiness Assurance Tests (IRATs) and Phase 2: Group Readiness Assurance Tests (GRATs); Phase 3: integration with real world scenario	Individual and team scores combined and compared. Satisfaction survey	Residents gained higher average grades in the team: individual (3.73 ± 2.33) and group (4.71 ± 2.29) stages (P-value < 0.02). Satisfaction questionnaire indicated the best scores belonged to group activities in TBL.	Level 2	Not indicated
Muzyk	2017	USA	51 psychiatry residents	After	Classroom integrated into 4-year psychiatry program	4 year Program of neurobiology, psychopharm acology, and EBM in conjunction with a Research Domain Criteria (RDoC) perspective. Active learning	Weekly and yearly attitude surveys	Residents reported increased confidence, understanding and ability to communicate evidence to others after learning sessions	Level 3	Participants mentioned increased ability to communicate evidence to patients

First Author	Year	Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo lvement
Nandiwada	201	7 USA	15 cardiology residents and 4 fellows. Also other teams of approx. 90 residents on general medicine rotations	After	EBM integrated with clinical care. Duration: 5 months	A multimodal pilot curriculum utilizing faculty and fellows as EBM coaches. Online module, an EBM template in e-health records, EBM presentations on rounds, and "coach" feedback on notes, principles of High Value Care (HVC) when communicating with specialist teams.	Post-curriculum survey (attitudes and self-reported behaviours) to assess curriculum activities. Small group debriefing sessions.	HVC curriculum affected clinical decisions, increased communication of evidence, and was educationally valuable. Residents could understand the cost and value of subspecialty consultations.	Level 3	Not indicated. SDM mentioned in reference to the consultant and resident, not resident/consul tant and patient.
Nelson	201	7 USA	60 first & second year paediatric residents at 2 institutions	Before-after	Classroom sessions. Duration: One year	Four 90-minute sessions using the methodology described in the book 'Studying a Study': MAARIE Framework. Activities included didactic sessions, and interactive	Validated knowledge test (not named) administered 3 times: baseline, during course, after course. Each group took turn as control.	Post curriculum, the fall group's scores improved 23% from baseline (M=10.3, SD=2.4) to (M=12.7, SD=3.0) students (t(26)=-3.29, p=0.0018) while the spring group improved by 41%	Level 2	Not indicated

First Author	Year	Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo Ivement
						review of abstracts andarticles. Emphasis on critical appraisal.		(M=10.0, SD=2.8) to (M=14.1, SD=2.2) students (t(32)=-6.46, p<0.0001). When re-tested 4-6 months later, the fall the fall group's scores did not decline.		
Oller	2020	USA	24 Residents in ambulatory clinic	After	Integrated with continuity clinic. Duration: 3 months.	Four Ambulatory Teaching Minute (ATM) exercises to deliver brief, case-based, faculty- facilitated teaching to residents. Didactic teaching with clinical application in ambulatory clinic.	Engagement survey modified from validated STROBE instrument.	Average engagement score: 3.8/5	Level 1	Not indic ated
Pammi	2017	USA	18 neonatal- perinatal subspecialty residents	Before-after study	Classroom: 7 one-hour meetings	Utilised concepts of self-direction, self- motivation, & individualized learning strategies into EBM course	Before EBM needs assessment survey & before-after neonatology- adapted Fresno test (NAFT)	Improvement in knowledge and skills: Mean test scores increased significantly (54 points, p < .001) in 14 learners after EBM course, indicating an increase in	Level 2	Not indic ated

First Author	Year	Country	Cohort	Design	Setting & Duration	Content & delivery	Outcome measures	Outcomes	Outcomes: NWKM*	Patient outcomes/invo lvement
								EBM-related knowledge and skills		
Ramaswamy	2020	USA	17 Geriatric and palliative care fellows	Before-after	Classroom and integrated. Duration: One year	Didactic, self-directed and peer learning with feedback. Also EBM worksheets, EBM case conferences, journal clubs.	Before-after surveys: Practice-Based Learning and Improvement (PBLI) competency rating	Self-assessed confidence increased. Use of worksheets least popular but did help to modify patient care plans.	Level 3	Auth ors assu med patie nt benef it from EBM interv entio n.
Tavarez	2020	USA	22 paediatric emergency fellows	Before-after study	Blended learning. EBM integrated into 2 years of a six-year fellowship programme.	Online modules, fellows lead face-to-face sessions, EBM worksheets for reinforcemen t. Emphasis on critical appraisal	In-Training Examination (ITE) scores to assess EBM knowledge and skills	Scores were 21 percentage points higher during the EBM curriculum period. EBM curriculum was associated with significantly higher scores on the "Core Knowledge in Scholarly Activities" section of the ITE.	Level 2	Not indic ated

First Author Year Country Cohort Design Setting & Content & Outcome Outcomes Outcomes: **Patient** Duration delivery NWKM* outcomes/invo measures **Ivement**

*NWKM: New World Kirkpatrick Model