Critical Appraisal Skills Programme (CASP)

CASP bibliography
Nicola Pearce-Smith, Feb 2012

INTRODUCTION
A search was conducted to find articles specifically about CASP workshops or checklists. The search retrieved many articles about critical appraisal skills workshops in general, so it was decided to include these also. The relevant articles had to include some aspect of evaluation or analysis to be selected for the bibliography. The bibliography is listed at the end of this document, with articles categorised into one of four headings and listed in reverse chronological order. Each article has a link to full text or an abstract where available, and a key result or conclusion is highlighted.

METHODS
Search strategies
Medline (Ovid)
1. critical* apprais*
2. (skill* or training or workshop* or programme* or teach*)
3. (intervention* or method* or tool* or checklist*)
4. 2 or 3
5. (critical* apprais* adj2 (skill* or training or workshop* or programme* or teach* or (intervention* or method* or tool* or checklist*))))
6. CASP
7. (framework or programme* or criteria or tool*)
8. 1 or 7
9. 6 and 8
10.9 not protein*
11. Program Evaluation/
12. 1 and 11
13. 5 or 10 or 12
Cochrane (Wiley)
#1 (critical* apprais*):ti,ab NEAR/2 (skill* or training or workshop* or programme* or intervention* or method* or tool* or checklist* or teach*):ti,ab
#2 critical* apprais*:ti,ab and Program Evaluation:kw
#3 CASP
#4 (#1 OR #2 OR #3)

ERIC (ProQuest)
(su.Exact("program evaluation") AND all(critical* appraisal*)) OR ((ab(skill* OR training OR workshop* OR programme* OR teach* OR intervention* OR method* OR tool* OR checklist*) OR ti(skill* OR training OR workshop* OR programme* OR teach* OR intervention* OR method* OR tool* OR checklist*)) AND all(critical* appraisal*)) OR all(CASP) OR all(critical appraisal skills programme)

RESULTS

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<td>Embase (1990-wk5 2012)</td>
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<td><strong>TOTAL</strong></td>
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These 965 references were screened for mention of CASP or critical appraisal skills/workshops in general. 85 relevant references were found.

A Google search was also performed using the keywords:

**CASP**

critical appraisal skills programme*

critical appraisal skills workshop*

7 additional relevant references were identified from this search. 3 additional relevant references were identified by looking at references lists of relevant articles.

**TOTAL = 95**

These references were categorised into one of four headings (CASP, Checklists/tools, Journal Clubs and Training/teaching), and listed below.
CASP (9)


“The Critical Appraisal Skills Program (CASP) is a program at the NHS in United Kingdom and has helped to develop an evidence-based approach in health and social care. CASP appraisal tool for RCTs comprises 12 questions to help you make sense of them. The questions address three broad issues: 1) Is the trial valid?, 2) What are the results?, 3) Will the results help locally?” taken from abstract


“CASP’s aim is to enable decision makers and those who seek to influence them acquire skills to make sense of, and act on, the evidence. CASP has developed appraisal tools to help make sense of a variety of evidence (including randomised controlled trials, systematic reviews, qualitative research, cohort studies and economic evaluations) and through a variety of learning styles (including workshops, training sessions and paper- and computer-based open learning packages).”

p403-404


Print only, not available online.

“The Critical Appraisal Skills Programme offers easily accessible help to all health care decision-makers, so that they can acquire skills in critical appraisal. Skills training has been shown to improve knowledge and skills of participants” taken from abstract

No freely available online abstract or full text.


Print only, not available online.


“The evaluation of the CASP workshop technique suggests that it does improve knowledge of clinical effectiveness, but concerns remain about the viability and reliability of this approach as it rolls out training within Scotland” taken from abstract


“A half-day CASP workshop can produce a meaningful and statistically significant change in participants’ self-assessed knowledge” p67

Print only, not available online.

“The experience of the project shows that it is feasible to run CASP workshops for people who give health information to the public. Clearly, however, while such workshops are enjoyed and found useful, they cannot turn critical appraisal novices into experts. The workshops last only half a day and they deal with critical appraisal only in the wider context of evidence-based medicine and the Cochrane Collaboration. From anecdotal evidence, what we believe they can do is to help participants improve their knowledge and skills in this area…” p444

Full text: http://intqhc.oxfordjournals.org/content/8/5/439.full.pdf


"This paper describes a pilot programme of short workshops on the critical appraisal of review articles….The workshops were well received and were oversubscribed. Participants reported that they found them useful and that they raised their awareness of the place of evidence about effectiveness in decision-making. The challenge now is to evaluate the impact of such workshops more rigorously” taken from abstract


Checklists/tools (16)


“CATs are being developed while ignoring basic research techniques, the evidence available for design, and comprehensive validation and reliability testing. The basic structure for a comprehensive CAT is suggested that requires further study to verify its overall usefulness” taken from abstract


“The GATE systematic review checklist represents a useful tool for appraising systematic reviews, and the amended version produced from this study is better suited than the original for appraising systematic reviews.” e58


“If quality guidelines such as the CASP framework are used in the context of a thorough understanding of qualitative research design and data analysis, they can promote good practice and the systematic assessment of qualitative research” p201


“The CASP instrument makes for a fine training tool, but it can also skew students’ perceptions of what stands for quality in qualitative research....the CASP tool itself expresses this caveat, but the exercise can also leave students with an overly narrow view of what qualitative research is and is not. There is also the debate of whether or not students should be reading less than exemplary examples of qualitative research. Reading such articles can help students to learn the weaknesses as well as the strengths and hopefully, they will remember to embrace the strengths in their own work.” p59

Full text: http://www.nova.edu/ssss/QR/WQR/appraising.pdf

“Although the CASP tool is a popular appraisal instrument—most likely because it is a user-friendly alternative for novice researchers—it does not score particularly well in evaluating the intrinsic methodological quality of an original study when compared with other instruments” p1741


“The CADTH CAI provides a reliable means of determining the relative quality of search filters. Although it requires users to have some understanding of search filter methodologies, and particularly of recent developments in the nomenclature of the field and the controlled vocabularies of specific databases, this level of knowledge is not in excess of that possessed by most information specialists who work on systematic review teams" p217


“Recommendations to patients or within clinical practice guidelines should consider the quality of the evidence, the balance between desirable and undesirable effects, resource use, clinical experience, and patient preferences. Recently, an international collaboration (GRADE working group) has focused on defining common methods to grade recommendations clearly and consistently and has moved toward a system that integrates these factors to make either strong, weak, or no recommendation” taken from abstract


“The use of the Population Health Evidence Cycle ('ask', 'collect', 'understand', 'use') allows a simple and reproducible set of organizing criteria. It is suggested that this tool should be used to obtain an initial appraisal, but more detailed critical appraisal tools should be used to fill in any gaps in the detailed examination of methodology, particularly where details of the internal validity of studies are concerned” p95


“This article discusses the guidelines that have been developed to guide clinicians in assessing the validity and the relevance of published studies (randomized control trials, systematic reviews, cohort studies and case-control studies)” taken from the abstract


“Agreement in categorizing papers across the three methods [unprompted judgement based on expert opinion, a UK Cabinet Office quality framework and CASP, a Critical Appraisal Skills Programme tool] was slight...Structured approaches did not appear to yield higher agreement than that by unprompted judgement” taken from abstract


No abstract available.

Extract: [http://intl-pedsinreview.aappublications.org/content/28/4/132.extract](http://intl-pedsinreview.aappublications.org/content/28/4/132.extract)

“We have described a pedagogic aid: a flow diagram of an RCT, which has been developed over years of teaching residents. This diagram focuses on the steps in an RCT, and by drawing arrows, it highlights the biases possible at each step. This diagram serves as a framework on which the list of critical appraisal questions can be hung and is easy to remember.” p8

Abstract: http://europepmc.org/abstract/MED/16411579


“A major finding of our study was the volume and variation in available critical appraisal tools. We found no gold standard critical appraisal tool for any type of study design” p8


“….this report….demonstrates the feasibility of assessing residents’ critical appraisal skills using this type of instrument [consisting of a clinical scenario, the methods and results sections of a related manuscript, and an assessment form with instructions to appraise the validity of the information provided and interpret the results]. Finally, this tool may be able to identify residents whose critical appraisal skills have not yet reached an acceptable level of competence and who require additional instruction” p569

No abstract available.

“Two critical appraisal tools (CATs) are presented here, the first for any original clinical or health services research study and the second for research synthesis” taken from abstract


“This article presents a 10-point critical appraisal checklist for qualitative reports... The checklist represents a synthesis of the guidelines for best practice offered in the literature. The key issues are presented and discussed with little use of jargon to promote an understanding and use of qualitative methods in clinical epidemiological studies” p347


**Journal Clubs (23)**


“Seven studies met the inclusion criteria for assessment of teaching EBM and 8 studies....met criteria for assessment of journal club format. Overall, study quality was poor. Only 2 studies were randomized controlled trials. Five were before-after studies, which showed significant improvement in critical appraisal skills or statistical knowledge following an EBM course or journal club. The 2 randomized controlled trials (RCTs) compared teaching EBM or critical appraisal skills in lecture format or journal club to online learning. There was no significant difference in mean scores in 1 study whereas the other reported significantly better scores in the journal club format” taken from abstract


   “….from the current review it is not clear whether journal clubs are effective in supporting evidence based decision making and studies lack the detail needed to suggest that one format of journal club is superior to another" p4

   Full text: www.bemecollaboration.org/downloads/810/beme_review_final.pdf


   “The majority of 66 respondents agreed that vote cards can improve the overall quality of EBM journal clubs, may encourage active participation and improve critical appraisal skills” taken from abstract


   “Eighty-two general surgeons who were members of the Canadian Association of General Surgeons were randomized to either a control or intervention group….Those in the intervention group [moderated journal club] performed significantly better than those in the control group –Internet journal club] (mean 58% versus mean 53.7%; p=0.0001), with the size of the difference between the 2 groups being 1.06 SD units (where 0.8 units is generally considered a large effect size)” p773


   “Residents’ awareness in the application of information improved (P = 0.012), as well as research methodology (combined study design and application of information, P = 0.017). Their ability in critical appraisal did also significantly rise at the end of the course (P<0.001)” p139


   “There is no standard method for conducting journal clubs, evaluating knowledge uptake as a result of participation in journal clubs or tracking knowledge uptake through to knowledge implementation” p905


   “The results of this study suggest that the use of a journal club and letter-to-the-editor writing project may provide a means by which health care students can gain skills in critical appraisal. Further investigation into these methods should be undertaken” taken from the abstract


   “The objective in establishing a successful journal club is to build a forum for residents to formulate answers to their clinical questions through the development of essential critical appraisal skills” taken from the abstract


“The CMR-JC [Community Medicine (Public Health) Resident Journal Club] was regularly conducted. More than 95% of residents attended. (Total residents in the CMR-Programme: 32). Twenty-seven out of 29 current residents/alumni responded to the anonymous questionnaire. Acquisition of critical appraisal skills (23 respondents) and keeping up with current literature (18 respondents) were the two most important objectives achieved” taken from abstract


“Choosing a timely topic and then applying the newly acquired knowledge in an actual work situation, participants succeeded in making the JC [Journal Club] a valuable learning experience….A properly organized JC helps residents in delivering quality care to their patients…” p440


“A multicenter, randomized controlled trial of journal clubs is needed to assess whether journal clubs improve critical appraisal skills” taken from abstract


"Relatively few journal clubs utilized a ‘problem-based’ format, which fosters the teaching of critical appraisal skills" taken from abstract


"Student evaluation and outcomes, as judged by the submission and publication of letters in journals and on the Internet, were very positive. Further research is needed to evaluate the educational effectiveness of journal clubs and letter writing in teaching critical appraisal skills" p692


"We propose a new approach to teaching and learning in journal clubs, focusing on literature acquisition and critical appraisal skills. This approach will enable trainees to use journal clubs for personal professional development as well as for application of new knowledge in clinical medicine to improve patients' outcomes" taken from abstract


"Following the journal club, there remained no difference in performance between the two groups [journal club vs control group], although two-thirds of the journal club residents did show an improvement or no change, compared with one-third of the control residents." taken from abstract


    “Our study shows that it is feasible to change the traditional format of the journal club in order to encourage evidence-based medicine” p234


    “Residents exposed to critical appraisal techniques in a journal club report paying more attention to the methods and becoming more sceptical of the author’s conclusions” p351


    “We have found the journal club to be an excellent forum for promoting an appreciation of critical reading skills and an excellent opportunity for senior and junior surgical staff to enjoy an informal atmosphere together” p290


    “We analysed attendance, types of paper reviewed, impact on commissioning policy and publication of letters to editors and conclude that journal clubs can be an effective learning environment and further the Clinical Effectiveness Initiative” taken from abstract


“If residency journal club success is defined as having high attendance or long, continuous existence, then success is associated with smaller residency programs, making attendance mandatory, promoting a journal club independent of faculty, providing formal teaching of critical appraisal skills, making food available, and emphasizing original research articles” p1193


“This article identifies the nursing journal club as an important mechanism for the evaluation and utilization of nursing research. It explores the CNS's [Clinical Nurse Specialist] role in introducing critical appraisal skills and concepts of research utilization to staff" taken from the abstract


“Residents selected the improvement of critical appraisal skills as the most important journal club goal” taken from the abstract


“Residents improved their performances on objective testing of critical appraisal knowledge by 60% (p = 0.02). They reported improved ability to appraise original research articles critically (p = 0.01) and reported spending more useful time reading” taken from abstract

Teaching/Training (47)


“Postintervention scores for all sections [knowledge test, confidence in appraisal of the treatment study, confidence in appraisal of the systematic review, and confidence in appraisal of the clinical practice guidelines] were increased compared with preintervention scores (all p values <.001)” p45

Full text: http://www.healio.com/~/media/Journals/JCEN/2013/1_January/10_3928_00220124_20121101_51/10_3928_00220124_20121101_51.pdf


“Pre and post surveys of students found improvements in perceived knowledge of all key skills of critical appraisal [after students had received face-to-face and online teaching modules]” taken from abstract


“The main barrier for the non-involvement of healthcare librarians in the delivery of critical appraisal training related to organisational factors….Above all, it was the fact that the training was being delivered by others in the organisation, either by other librarians, other departments or by an external trainer. Five librarians said that critical appraisal was not in their organisational training programme, while others, in an attempt to get involved, had experienced difficulties in collaborating with colleagues within their organisation” p35-36


“We included three studies involving 272 people in this review. None of the included studies evaluated process of care or patient outcomes. Statistically significant improvements in participants' knowledge were reported in domains of critical appraisal (variable approaches across studies) in two of the three studies” taken from abstract


“Many [healthcare librarians] also believed that critical appraisal training ought not to be delivered in isolation but in conjunction with literature searching and therefore librarians are well placed to deliver it. Indeed, many saw literature searching as being part of the critical appraisal process and vice versa. Several librarians went further indicating that critical appraisal skills help to inform an effective search” p307


“A comparison of pre- and post-course grading [the level of evidence for each type of study design was based on the Oxford Centre for Evidence Based Medicine Levels of Evidence] demonstrates a statistically significant improvement in grading (from 39 to 74%), P = 0.002. For level 1 studies, grading improved from 42 to 75%; for level 2 studies, grading improved from 53 to 61%; for level 3 studies, grading improved significantly from 21 to 84%” p92-93


“The article offers information on the significance of critical appraisal in ensuring the reliability and efficiency of using research evidence in evidence-based medicine in Great Britain” taken from abstract


“EBM Conferences combined with small-group discussions enhance skills (NNI=13) [NNI = Number Needed to Intervention, a measure of the number of medical faculty members you would need to educate to reach pre-specified outcomes], knowledge (NNI = 3), and attitude (NNI=21) in medical faculty members after an 11-month follow-up period” p336


“Of the 20 items measuring post intervention self-efficacy, 19 showed significant (p > .05) improvement….In addition, the Wilcoxon signed rank test results…also supported the notion that participants significantly increased their research knowledge (p = .004) and, possibly because of enhanced knowledge, significantly increased their self-efficacy (p = .002)” p173


“This model [the TREAD Evidence-Based Practice model] emphasizes the use of standardized critical appraisal tools, such as the Critical Appraisal Skills Programme (CASP) or Appraisal of Guidelines for Research and Evaluation (AGREE), to facilitate user-friendly rapid appraisal of Level I evidence” taken from abstract


“Groups of students selected a priority area, categorized and critically appraised the evidence supporting the recommendation for change in health care practice, and compared the recommendation to actual practice. An oral and poster presentation of the project provided the opportunity to discuss the significance, influence, and strength of the evidence supporting the recommendation to change health care practice” taken from abstract


“At the end of the course [training in 3 steps of evidence-based practice--formulating a question, searching the evidence, and critically appraising the evidence], the students had a group examination in which they critically appraised a new scientific article. Most students reported that having learned steps one, two, and three involved in evidence-based practice was useful in critically appraising a scientific article. The results from the examination supported this” taken from abstract


        “After a one-time online tutorial, residents’ ability to recall what they had learned diminished relatively quickly, despite large initial knowledge gains and positive learner evaluations” p1168

Full text: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2517967/


        “Although the attendees rated the faculty and content highly, their intent to apply the findings to practice was limited" taken from abstract


        “Despite their overall satisfaction with residency training in CA/EBM, our respondents reported guilt and frustration regarding their inability to fully apply the skills learned, due largely to the time and financial pressures of clinical practice. Colleagues were their preferred information sources. Their self-reported clinical decision making for the evaluation of suspected pulmonary embolus was, at best, only possibly consistent with EBP" p29


“In linear regression modeling, critical appraisal skills and time spent on the interactive tutorial were associated with greater learning” taken from abstract


“Most PRHOs [pre-registration house officers'] (69%) felt medical school prepared them to use critical appraisal skills and perceived such skills as relevant (63%). Fewer felt that their clinical work was based on best available evidence (57%)” taken from abstract


“Before the training module, the residents achieved a mean score of 17% correct overall, showing that, on the average, they had little knowledge of EBM skills. Post intervention, the mean percentage of questions answered correctly increased to 63% with significant improvement in each EBM category.... the mean difference between pre and post-test number of questions answered correctly was 4.08 out of 9.00, a statistically significant result with a 95% CI of 3.44–4.72 (p < 0.0001)” p4

Full text: http://www.biomedcentral.com/content/pdf/1472-6920-6-1.pdf

“The mean scores for the examination in critical analysis were 62% for the EBM group [who had been randomised to receive group workshops and lectures] and 41% for the non-EBM group [received lectures not related to critical appraisal]. This difference is statistically significant ($t_{75}, P<.001$)” p660

Full text: [http://www.jaoa.org/content/106/11/658.full.pdf](http://www.jaoa.org/content/106/11/658.full.pdf)


“There were no statistical differences between the study groups for any of the outcomes......Overall, the results suggest that computer-assisted, self-directed learning offers a realistic alternative to an interactive workshop format in teaching EBM, although a single trial is insufficient to draw any firm conclusions about the intervention’s relative quality.” p1032-1033


“This framework [Bayesian approach] requires a clinical situation in which there are a limited set of plausible alternatives, and in which the clinician has some prior uncertainty about the correct decision, a response task that provides a measure of strength of preference between the alternatives and that can be repeated before and after exposure to evidence, and pieces of novel evidence of known or manipulated strength and soundness bearing on the decision. By comparing the clinician’s decision and belief before and after exposure to evidence, the subjective impact of the evidence can be inferred” p79


“At follow up overall knowledge score [mean difference: 2.6 (95% CI: 0.6 to 4.6)] and ability to appraise the results of a systematic review [mean difference: 1.2 (95% CI: 0.01 to 2.4)] were higher in the critical skills training group compared to control. No statistical significant differences in overall attitude towards evidence, evidence seeking behaviour, perceived confidence, and other areas of critical appraisal skills ability (methodology or generalizability) were observed between groups” taken from abstract

Full text: http://www.biomedcentral.com/content/pdf/1472-6920-4-30.pdf


“Both the value of the material covered and the quality of presentation were assessed, in each case on a simple five-point scale: excellent (1), very good (2), good (3), poor (4) and very poor (5). Responses indicate a high level of satisfaction, with 65% of evaluations of value being at the very good or excellent level and 67% of evaluations of quality falling in these categories. Only 8% of all responses were at the poor or very poor levels” p69-70


“....the mean score for the 22 residents who had undergone the epidemiologist led critical appraisal training was significantly higher than the 22 residents who had not (56.6% versus 49.3%, t^25 = 2.31, P = 0.02)” p121


   “Appraisal skills were reported as an outcome in 6/17 of the studies....The only randomized trial that reported this outcome did not find a significant improvement. Of the two controlled trials that reported this outcome, one found an improvement. One of the three before and after studies that reported on skills found an improvement” p78


   “It [the Pilot Project] has demonstrated that the appraisal tool, together with the workshop format, helped participants improve their understanding of research methods and their ability to use research to aid their decision making” p50


   “This paper aims to assist midwives' evidence based practice skills by presenting a critical appraisal of recent randomised controlled trials of postpartum debriefing. The approach proposed by Sackett et al (2000) to critically appraise a study about a therapy or intervention is used as a framework” p3

No abstract available.

"The educational challenge is to identify methods of imparting knowledge that are effective and efficient in equipping practitioners with the necessary skills to enable them to search and critically evaluate the evidence, so that the most appropriate plan of care can be outlined for their patients" p164.

No abstract available


"This experiential teaching method allowed students to participate directly in a simulated randomized controlled trial, thereby facilitating understanding of this type of study. Students reported that the experience was enjoyable and stimulated active engagement with critical appraisal of randomized trials" taken from abstract


"It was felt that medical statistics courses should focus on critical appraisal skills rather than on the ability to analyse data, which can be acquired by particular students when they need to do this" taken from abstract


“There was a poor correlation between participants’ perception of confidence in assessing evidence and their objective test scores. For specific literature appraisal issues, comparison of subjective scores with corresponding objective test scores revealed that the correlation ranged from ± 0.29 to 0.60" p93


“After the workshop, participants paid more attention to the design of articles (81% vs. 98%, P=0.02), a significant proportion no longer thought that original research was confusing (35% vs. 52%, P=0.0001), and significantly more of them felt confident their ability to assess research evidence (26% vs. 59%, P=0.05)….the knowledge score significantly improved by about 10 points from 47.3 (SD 12.2) to 57.9 (SD 9.0) (P=0.0001)” p12


“The intervention was associated with significant changes in students’ self-assessed skills and attitudes. MEDLINE and critical appraisal skills increased significantly in the intervention group [attended an EBM mini-course], relative to the control group [received more ‘traditional’ didactic teaching] (significance of between group differences: P=0.002 for MEDLINE and P=0.0002 for critical appraisal), as did students’ tendency to use MEDLINE and original research articles to solve clinical problems (significance of between group differences: P= 0.002 and P=0.0008, respectively)” taken from abstract


   “Six fellows completed both pre- and posttests. These paired results were analyzed separately, whereas results for another six fellows were conducted as an unpaired analysis. Mean scores increased both for the paired analysis (4.1+/-.7 vs. 5.1+-/0.5; p=.015) and for the unpaired analysis (4.3+/-.6 vs. 5.0+/-.5; p=.012). Self-reported confidence in critical appraisal also increased (2.5+/-.0.5 vs. 3.9+/-.0.7; p=.004 and 2.6+/-.0.5 vs. 3.9+/-.0.6; p<.001, respectively)” taken from abstract


   “After receiving the EBM course, the experimental group achieved significantly higher postcourse test scores (adjusted mean difference, 21%; 95% confidence interval, 13% to 28%; P<.001). Postcourse improvements were noted in three of the four EBM skill domains (formulating questions, searching, and quantitative understanding [P<.005 for all], but not in critical appraisal skills [P=.4])” taken from abstract


   “...this OSCE [objective structured clinical examination] station has enabled an assessment of the application of evidence in practice. The well-known effect of assessment on learning can be utilized to highlight the importance attached to critical appraisal and motivate students to view the interpretation and assimilation of evidence as a key to their professional development. This approach may address the concerns about the lack of effect of training described previously” p817


“We outline a proposal through which the skills and attitudes needed for the critical appraisal of published articles may be applied to all other aspects of clinical practice, from planning research projects to presenting results and guidelines and peer review of articles submitted for publication” taken from abstract


“The search produced 18 reports. The most common objective of the curricula described in the reports was improving critical skills; the most common format was resident-directed small-group seminar. The most common outcome-evaluation measure was a multiple-choice examination. Only seven of the reports evaluated the curricula’s effectiveness, and only four met a minimum methodologic standard of a pretest-posttest controlled trial. The impacts on critical appraisal skills of the curricula in those four reports ranged from no effect to a 23% net absolute increase in test scores” taken from abstract


“The mean improvement in test scores was 1.80 for the control group [traditional, monthly, unstructured journal club] and 1.53 for the intervention group [monthly journal club using an EBM approach to critical appraisal]; these values were not significantly different (P =.90). The difference in mean change in test score between the 2 groups was.27 points” taken from abstract


“We provide a series of student seminars that foster critical reading of the literature….Evidence-based ward rounds complement the experience. During the rotation, each student formally reviews one topic in women’s health using the US Preventive Services Task Force rating system. Although we lack a quantitative assessment of this approach, student feedback has been enthusiastic” taken from abstract


“Analysis showed that interventions implemented in undergraduate programs resulted in significant gains in knowledge, as assessed by a written test (mean gain 17.0%; standard deviation [SD] 4.0%). Conversely, studies at the residency level consistently showed a small change in knowledge (mean gain 1.3%; SD 1.7%)” taken from abstract


“The statistical analysis indicates that there is a significant difference (P=0.0001) in self-reported knowledge before and after the workshops” taken from abstract


“The students reading attitudes and critical appraisal skills were assessed through continuous assessment and a written final examination with questionnaire. All but three students [64/67] passed the final examination (mean score 74%, standard deviation 12%). All (73% strongly) agreed that critical reading skills were essential, but only 30% strongly agreed that they had, indeed, mastered the skills. Ninety-seven percent (56% strongly) disagreed that year three was too early to start critical reading” taken from abstract


“Experts and novices differed most in the identification of construct validity concerns and were most similar in the identification of internal validity concerns. Only one factor - content-specific expertise - was associated with differences in critiquing ability among the novices” p860

Full text: http://www.physicaltherapyjournal.com/content/74/9/853.full.pdf+html


“The effectiveness of teaching critical appraisal of the literature remains uncertain. More rigorous methods are needed in research in this area” taken from abstract

Abstract: http://www.cmaj.ca/content/148/6/945

“The results of this study show that these skills [library instruction and critical appraisal skills] can be effectively taught during the clinical years. Having library and clinical faculty coordinate instruction during a clinical clerkship may be more effective than preclinical instruction” p27

Full text: http://pubmedcentralcanada.ca/pmcc/articles/PMC225611/pdf/mlab00114-0041.pdf


“The curriculum prepared graduates to critically review research studies in the professional literature and translate valid conclusions into medical practice. Residents were able to identify potential areas of research interest and acquired additional skills that encouraged continuing education and professional growth” taken from abstract