University Hospitals Bristol NHS
NHS Foundation Trust

Medical Education

Evidence Update

December 2017

(Quarterly)

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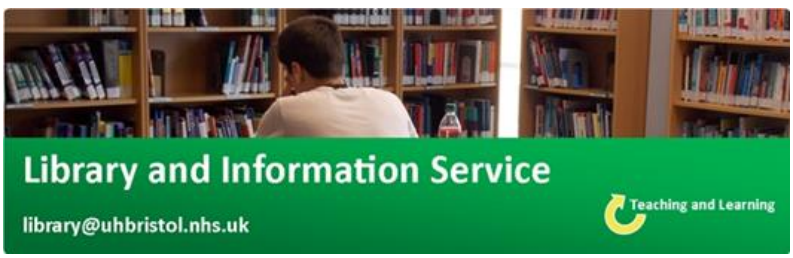

Lunchtime Drop-in Sessions

All sessions last one hour

December (12.00-13.00)

7th (Thu)	Statistics
14th (Thu)	Literature Searching
20th (Wed)	Critical Appraisal

January (13.00-14.00)

4th (Thu)	Statistics
8th (Mon)	Literature Searching
18th (Thu)	Critical Appraisal
24th (Wed)	Statistics

February (12.00-13.00)

1st (Thu)	Literature Searching
9th (Fri)	Critical Appraisal
12th (Mon)	Statistics
20th (Tue)	Literature Searching
28th (Wed)	Critical Appraisal

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Contents

Journals: Tables of Contents

Click on journal title (+ Ctrl) for hyperlink
If you require full articles please email: library@uhbristol.nhs.uk

Medical Education
December 2017; Volume 51, Issue 12

The Clinical Teacher
December 2017; Volume 14, Issue 6

BMJ: Education
At a glance: Current topics

BMJ Simulation and Technology-Enhanced Learning
October 2017; Volume 3, Issue 4

Latest Evidence

NICE National Institute for Health and Care Excellence

Supporting junior doctors in safe prescribing
Source: Royal College of Physicians of London - RCP - 06 September 2017 - Publisher: Royal College of Physicians (RCP)
The aim of this guidance is to give postgraduate medical education leads and those responsible for quality and safety within trusts a framework to address these issues.

Descriptors for unprofessional behaviours of medical students: a systematic review and categorisation
Source: PubMed - 15 September 2017 - Publisher: Bmc Medical Education
BACKGROUND: Developing professionalism is a core task in medical education.

The state of pre and post-graduate medical recruitment in England, September 2017 [PDF]
Source: British Medical Association - BMA - 21 September 2017 - Publisher: British Medical Association (BMA)
This briefing examines the current state of medical recruitment in England, with additional UK-wide data for the foundation programme.

Medical Training Initiative guide 2017 [PDF]

06 July 2017 - Publisher: Academy of Medical Royal Colleges

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1. Clinical medical education in rural and underserved areas and eventual practice outcomes: A systematic review and meta-analysis.

Author(s): Raymond Guilbault, Ryan William; Vinson, Joseph Alexander

Source: Education for health (Abingdon, England); 2017; vol. 30 (no. 2); p. 146-155

Publication Type(s): Journal Article

Abstract: BACKGROUND Undergraduate medical students are enrolled in clinical education programs in rural and underserved urban areas to increase the likelihood that they will eventually practice in those areas and train in a primary care specialty to best serve those patient populations. METHODS MEDLINE and Cochrane Library online databases were searched to identify articles that provide a detailed description of the exposure and outcome of interest. A qualitative review of articles reporting outcome data without comparison or control groups was completed using the Medical Education Research Study Quality Instrument (MERSQI). A meta-analysis of articles reporting outcome data with comparison or control groups was completed with statistical and graphical summary estimates. RESULTS Seven hundred and nine articles were retrieved from the initial search and reviewed based on inclusion and exclusion criteria. Of those, ten articles were identified for qualitative analysis and five articles included control groups and thus were included in the quantitative analysis. Results indicated that medical students with clinical training in underserved areas are almost three times as likely to practice in underserved areas than students who do not train in those areas (relative risk [RR] = 2.94; 95% confidence interval [CI]: 2.17, 4.00). Furthermore, medical students training in underserved areas are about four times as likely to practice primary care in underserved areas than students who do not train in those locations (RR = 4.35; 95% CI: 1.56, 12.10). DISCUSSION These estimates may help guide medical school administrators and policymakers to expand underserved clinical training programs to help relieve some of the problems associated with access to medical care among underserved populations.

2. Mindfulness interventions in medical education: A systematic review of their impact on medical student stress, depression, fatigue and burnout.

Author(s): Daya, Zahra; Hearn, Jasmine Heath

Source: Medical teacher; Nov 2017 ; p. 1-8

Publication Type(s): Journal Article

Abstract: INTRODUCTION Mindfulness-based interventions (MBIs) have gained popularity in medical education. A systematic review was conducted to determine the effectiveness of MBIs for reducing psychological distress in undergraduate medical students. METHODS A search protocol was conducted using online databases Embase, PubMed, PsycINFO, and MEDLINE. Articles were required to meet the following criteria to be included: (1) describe a MBI or use of mindfulness exercises as part of an intervention, (2) include at least one of: stress, burnout, fatigue, or depression, as an outcome, (3) include quantitative outcomes, and (4) published in English in a peer-reviewed journal. RESULTS Twelve articles were reviewed. Seven studies reported improvements in at least one targeted outcome. Four of seven studies exploring the impact on stress reported improvements. Five articles studying depression reported reductions. One study exploring burnout reported a decrease on a single subscale. Only one study measured the impact on fatigue (no change reported). Half of studies reviewed included predominantly female samples. CONCLUSIONS Mixed evidence was found for the use of MBIs for reducing psychological distress in undergraduate medical students. Future work should aim to clarify the impact of mindfulness on burnout and fatigue, and explore the replicability of improvements in male medical students alone.

3. Eye-tracking technology in medical education: A systematic review.

Author(s): Ashraf, Hajra; Sodergren, Mikael H; Merali, Nabeel; Mylonas, George; Singh, Harsimrat; Darzi, Ara

Source: Medical teacher; Nov 2017 ; p. 1-8

Publication Type(s): Journal Article

Abstract: BACKGROUND Eye-tracking technology is an established research tool within allied industries such as advertising, psychology and aerospace. This review aims to consolidate literature describing the evidence for use of eye-tracking as an adjunct to traditional teaching methods in medical education. METHODS A systematic literature review was conducted in line with STORIES guidelines. A search of EMBASE, OVID MEDLINE, PsycINFO, TRIP database, and Science Direct was conducted until January 2017. Studies describing the use of eye-tracking in the training, assessment, and feedback of clinicians were included in the review. RESULTS Thirty-three studies were included in the final qualitative synthesis. Three studies were based on the use of gaze training, three studies on the changes in gaze behavior during the learning curve, 17 studies on clinical assessment and six studies focused on the use of eye-tracking methodology as a feedback tool. The studies demonstrated feasibility and validity in the use of eye-tracking as a training and assessment method. CONCLUSIONS Overall, eye-tracking methodology has contributed significantly to the training, assessment, and feedback practices used in the clinical setting. The technology provides reliable quantitative data, which can be interpreted to give an indication of clinical skill, provide training solutions and aid in feedback and reflection. This review provides a detailed summary of evidence relating to eye-tracking methodology and its uses as a training method, changes in visual gaze behavior during the learning curve, eye-tracking methodology for proficiency assessment and its uses as a feedback tool.

4. From Design to Dissemination: Conducting Quantitative Medical Education Research.

Author(s): Abramson, Erika L; Paul, Caroline R; Petershack, Jean; Serwint, Janet; Fischel, Janet E; Rocha, Mary; Treitz, Meghan; McPhillips, Heather; Lockspeiser, Tai; Hicks, Patricia; Tewksbury, Linda; Vasquez, Margarita; Tancredi, Daniel J; Li, Su-Ting T

Source: Academic pediatrics; Nov 2017

Publication Type(s): Journal Article Review

Abstract: Rigorous medical education research is critical to effectively develop and evaluate the training we provide our learners. Yet, many clinical medical educators lack the training and skills needed to conduct high quality medical education research. This paper offers guidance on conducting sound quantitative medical education research. Our aim is to equip readers with the key skills and strategies necessary to conduct successful research projects, highlighting new concepts and controversies in the field. We utilize Glassick's criteria for scholarship as a framework to discuss strategies to ensure that the research question of interest is worthy of further study and how to use existing literature and conceptual frameworks to strengthen a research study. Through discussions of the strengths and limitations of commonly used study designs, we expose the reader to particular nuances of these decisions in medical education research and discuss outcomes generally focused upon, as well as strategies for determining the significance of consequent findings. We conclude with information on critiquing research findings and preparing results for dissemination to a broad audience. Practical planning worksheets and comprehensive tables illustrating key concepts are provided in order to guide researchers through each step of the process. Medical education research provides wonderful opportunities to improve how we teach our learners, to satisfy our own intellectual curiosity and ultimately, to enhance the care provided to patients.

5. Physical examination in undergraduate medical education in the field of general practice - a scoping review.

Author(s): Moßhammer, Dirk; Graf, Joachim; Joos, Stefanie; Hertkorn, Rebekka

Source: BMC medical education; Nov 2017; vol. 17 (no. 1); p. 230

Publication Type(s): Journal Article

Available at BMC Medical Education - from BioMed Central

Available at BMC Medical Education - from Europe PubMed Central - Open Access

Available at BMC Medical Education - from EBSCO (MEDLINE Complete)

Abstract: BACKGROUND Physical examination (PE) is an essential clinical skill and a central part of a physician's daily activity. Teaching of PE has been integrated into medical school by many clinical disciplines with respective specific examination procedures. For instance, PE teaching in general practice may include a full-body examination approach. Studies show that PE-skills of medical students often need enhancement. The aim of this article was to scope the literature regarding the teaching and research of PE within general practice during undergraduate medical education. We evaluated a wide breadth of literature relating to the content, study design, country of research institution and year of publication. METHODS Literature search in Medline along the PRISMA-P protocol was performed by search syntax ("physical examination" AND "medical education" AND "undergraduate" AND general practice) considering Medline MeSH (Medical Subject Heading)-Terms

and Medline search term tree structure. Independent title, abstract and full-text screening with defined inclusion and exclusion criteria was performed. Full texts were analyzed by publication year, country of origin, study design and content (by categorizing articles along their main topic according to qualitative content analysis of Mayring).RESULTS One-hundred seven articles were included. The annual number of publications ranged from 4 to 14 and had a slightly rising trend since 2000. Nearly half of the publications originated from the United States (n = 54), 33 from Canada and the United Kingdom. Overall, intervention studies represented the largest group (n = 60, including uncontrolled and controlled studies, randomized and non-randomized), followed by cross-sectional studies (n = 29). The 117 studies could be assigned to five categories "teaching methods (n = 53)", "teaching quality (n = 33)", "performance evaluation and examination formats (n=19)", "students' views (n = 8)" and "patients' and standardized patients' views (n=4)".CONCLUSIONS The present work shows a wide spectrum of teaching and research activities and a certain level of evidence for the effectiveness of individual teaching methods. It can be used as orientation and impulse generator for the further development of medical education in the field of PE.

6. Struggle and failure on clinical placement: a critical narrative review.

Author(s): Davenport, Rachel; Hewat, Sally; Ferguson, Alison; McAllister, Sue; Lincoln, Michelle

Source: International journal of language & communication disorders; Nov 2017

Publication Type(s): Journal Article Review

Abstract: BACKGROUND Clinical placements are crucial to the development of skills and competencies in speech-language pathology (SLP) education and, more generally, a requirement of all health professional training programmes. Literature from medical education provides a context for understanding how the environment can be vital to all students' learning. Given the increasing costs of education and demands on health services, students who struggle or fail on clinical placement place an additional burden on educators. Therefore, if more is known or understood about these students and their experience in relation to the clinical learning environment, appropriate strategies and support can be provided to reduce the burden. However, this literature does not specifically explore marginal or failing students and their experience. AIMS To review existing research that has explored failing and struggling health professional students undertaking clinical placements and, in particular, SLP students. METHODS & PROCEDURESA critical narrative review was undertaken. Three electronic databases, ProQuest, CINAHL and OVID (Medline 1948-), were searched for papers exploring marginal and failing students in clinical placement contexts across all health professions, published between 1988 and 2017. Data were extracted and examined to determine the breadth of the existing research, and publications were critically appraised and major research themes identified. MAIN CONTRIBUTION Sixty-nine papers were included in the review. The majority came from medicine and nursing in the United States and United Kingdom, with other allied health disciplines less well represented. The review identified key themes with the majority of papers focused on identification of at risk students and support and remediation. The review also highlighted the absence of literature relating to the student voice and in the allied health professions. CONCLUSIONS & IMPLICATIONS This review highlighted the limited research related to failing/struggling student learning in clinical contexts, and only a handful of papers have specifically addressed marginal or failing students in allied health professions. The complexity of interrelated factors in this field has been highlighted in this review. Further research needs to include the student's voice to develop greater understanding and insights of struggle and failure in clinical contexts.

7. Adequacy of postgraduate medical training: views of different generations of UK-trained doctors.

Author(s): Smith, Fay; Goldacre, Michael J; Lambert, Trevor William

Source: Postgraduate medical journal; Nov 2017; vol. 93 (no. 1105); p. 665-670

Publication Type(s): Journal Article

Available at Postgraduate Medical Journal - from BMJ Journals - NHS

Available at Postgraduate Medical Journal - from BMJ Journals

Abstract: BACKGROUND Over the last decade, many changes have taken place in the UK, which have affected the training that doctors receive. AIM To assess doctors' views on quality and adequacy of postgraduate training. METHODS Questionnaires about training sent to UK-trained doctors who graduated between 1974 and 2012.RESULTS Among trainees towards the end of their first year of medical work and training, 36% agreed that in their first year "Training was of a high standard"; 21% disagreed; 43% neither agreed nor disagreed. Only 16% agreed "I had to perform clinical tasks for which I felt inadequately trained".Among doctors 12 years into their careers, 83% agreed "My training has been long enough, and good enough, to enable me to practise adequately when I first become/became a consultant or GP". Among senior hospital doctors aged in their 50s or

60s, 21% agreed that "These days, the training of specialist doctors in the NHS is sufficient to enable them to practise adequately when they first become consultants"; 38% disagreed, and the rest neither agreed nor disagreed. Of senior GPs, 41% agreed "These days, the training of GP trainees in the NHS is sufficient to enable them to practise adequately when they first become GPs"; 28% disagreed. CONCLUSIONS Views on early career training were mixed, but few felt exposed to clinical situations beyond their ability. Most newly appointed consultants and GPs felt adequately trained for practice, though many senior doctors were unsure that this was the case.

8. Surgical safety checklist training: a national study of undergraduate medical and nursing student teaching, understanding and influencing factors.

Author(s): Kilduff, Caroline Laura Stephanie; Leith, Thomas Oliver; Drake, Thomas M; Fitzgerald, J Edward F

Source: Postgraduate medical journal; Nov 2017

Publication Type(s): Journal Article

Available at Postgraduate Medical Journal - from BMJ Journals - NHS

Available at Postgraduate Medical Journal - from BMJ Journals

Abstract: INTRODUCTION Use of the WHO surgical safety checklist is consistently recognised to reduce harm caused by human error during the perioperative period. Inconsistent engagement is considered to contribute to persistence of surgical Never Events in the National Health Service. Most medical and nursing graduates will join teams responsible for the perioperative care of patients, therefore appropriate undergraduate surgical safety training is needed. AIMS To investigate UK medical and nursing undergraduate experience of the surgical safety checklist training. METHODS An eight-item electronic questionnaire was distributed electronically to 32 medical schools and 72 nursing schools. Analysis was conducted for the two cohorts, and responses from final year students were included.RESULTS87/224 (38.8%) of medical students received teaching on the surgical safety checklist, compared with 380/711 (52.0%) of nursing students. 172/224 (76.8%) of medical students and 489/711 (66.9%) of nursing students understood its purpose and 8/224 (3.6%) medical students and 54/711 (7.4%) nursing students reported never being included in the Time Out. After adjusting for confounding factors, provision of formal teaching in checklist use increased understanding significantly (OR 50.39 (14.07 to 325.79, P<0.001)), as did routine student involvement in time outs (OR 5.72 (2.36 to 14.58, P<0.001)). DISCUSSION Knowledge of perioperative patient safety systems and the ability to participate in safety protocols are important skills that should be formally taught at the undergraduate level. Results of this study show that UK undergraduate surgical safety checklist training does not meet the minimum standards set by the WHO.

9. Training tomorrow's doctors to explain 'medically unexplained' physical symptoms: An examination of UK medical educators' views of barriers and solutions.

Author(s): Joyce, Emmeline; Cowing, Jennifer; Lazarus, Candice; Smith, Charlotte; Zenzuck, Victoria; Peters, Sarah

Source: Patient education and counseling; Nov 2017

Publication Type(s): Journal Article

Abstract: OBJECTIVE Co-occuring physical symptoms, unexplained by organic pathology (known as Functional Syndromes, FS), are common and disabling presentations. However, FS is absent or inconsistently taught within undergraduate medical training. This study investigates the reasons for this and identifies potential solutions to improved implementation. METHODS Twenty-eight medical educators from thirteen different UK medical schools participated in semi-structured interviews. Thematic analysis proceeded iteratively, and in parallel with data production. RESULTS Barriers to implementing FS training are beliefs about the complexity of FS, tutors' negative attitudes towards FS, and FS being perceived as a low priority for the curriculum. In parallel participants recognised FS as ubiquitous within medical practice and erroneously assumed it must be taught by someone. They recommended that students should learn about FS through managed exposure, but only if tutors' negative attitudes and behaviour are also addressed. CONCLUSION Negative attitudes towards FS by educators prevents designing and delivering effective education on this common medical presentation. Whilst there is recognition of the need to implement FS training, recommendations are multifaceted. PRACTICE IMPLICATIONS Increased liaison between students, patients and educators is necessary to develop more informed and effective teaching methods for trainee doctors about FS and in order to minimise the impact of the hidden curriculum.

10. Parental leave policies in graduate medical education: A systematic review.

Author(s): Humphries, Laura S; Lyon, Sarah; Garza, Rebecca; Butz, Daniel R; Lemelman, Benjamin; Park, Julie E

Source: American journal of surgery; Oct 2017; vol. 214 (no. 4); p. 634-639

Publication Type(s): Journal Article Review

Available at American journal of surgery - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract: BACKGROUND A thorough understanding of attitudes toward and program policies for parenthood in graduate medical education (GME) is essential for establishing fair and achievable parental leave policies and fostering a culture of support for trainees during GME.METHODSA systematic review of the literature was completed. Non-cohort studies, studies completed or published outside of the United States, and studies not published in English were excluded. Studies that addressed the existence of parental leave policies in GME were identified and were the focus of this study. RESULTS Twenty-eight studies addressed the topic of the existence of formal parental leave policies in GME, which was found to vary across time and ranged between 22 and 90%. Support for such policies persisted across time. CONCLUSIONS Attention to formal leave policies in GME has traditionally been lacking, but may be increasing. Negative attitudes towards parenthood in GME persist. Active awareness of the challenges faced by parent-trainees combined with formal parental leave policy implementation is important in supporting parenthood in GME.

11. A review of antimicrobial stewardship training in medical education.

Author(s): Silverberg, Sarah L; Zannella, Vanessa E; Countryman, Drew; Ayala, Ana Patricia; Lenton, Erica; Friesen, Farah; Law, Marcus

Source: International journal of medical education; Oct 2017; vol. 8 ; p. 353-374

Publication Type(s): Journal Article Review

Available at International Journal of Medical Education - from Europe PubMed Central - Open Access

Abstract: Objectives We reviewed the published literature on antimicrobial stewardship training in undergraduate and postgraduate medical education to determine which interventions have been implemented, the extent to which they have been evaluated, and to understand which are most effective. Methods We searched Ovid MEDLINE and EMBASE from inception to December 2016. Four thousand three hundred eighty-five (4385) articles were identified and underwent title and abstract review. Only those articles that addressed antimicrobial stewardship interventions for medical trainees were included in the final review. We employed Kirkpatrick's four levels of evaluation (reaction, learning, behaviour, results) to categorize intervention evaluations. Results: Our review included 48 articles. The types of intervention varied widely amongst studies worldwide. Didactic teaching was used heavily in all settings, while student-specific feedback was used primarily in the postgraduate setting. The high-level evaluation was sparse, with 22.9% reporting a Kirkpatrick Level 3 evaluation; seventeen reported no evaluation. All but one article reported positive results from the intervention. No articles evaluated the impact of an intervention on undergraduate trainees' prescribing behaviour after graduation. Conclusions This study enhances our understanding of the extent of antimicrobial stewardship in the context of medical education. While our study demonstrates that medical schools are implementing antimicrobial stewardship interventions, rigorous evaluation of programs to determine whether such efforts are effective is lacking. We encourage more robust evaluation to establish effective, evidence-based approaches to training prescribers in light of the global challenge of antimicrobial resistance.

12. The Use of the Delphi and Other Consensus Group Methods in Medical Education Research: A Review.

Author(s): Humphrey-Murto, Susan; Varpio, Lara; Wood, Timothy J; Gonsalves, Carol; Ufholz, Lee-Anne; Mascioli, Kelly; Wang, Carol; Foth, Thomas

Source: Academic medicine : journal of the Association of American Medical Colleges; Oct 2017; vol. 92 (no. 10); p. 1491-1498

Publication Type(s): Journal Article Review

Abstract: PURPOSE Consensus group methods, such as the Delphi method and nominal group technique (NGT), are used to synthesize expert opinions when evidence is lacking. Despite their extensive use, these methods are inconsistently applied. Their use in medical education research has not been well studied. The authors set out to describe the use of consensus methods in medical education research and to assess the reporting quality of these methods and results. METHOD Using scoping review methods, the authors searched the Medline, Embase, PsycInfo, PubMed, Scopus, and ERIC databases for 2009-2016. Full-text articles that

focused on medical education and the keywords Delphi, RAND, NGT, or other consensus group methods were included. A standardized extraction form was used to collect article demographic data and features reflecting methodological rigor. RESULTS Of the articles reviewed, 257 met the inclusion criteria. The Modified Delphi (105/257; 40.8%), Delphi (91/257; 35.4%), and NGT (23/257; 8.9%) methods were most often used. The most common study purpose was curriculum development or reform (68/257; 26.5%), assessment tool development (55/257; 21.4%), and defining competencies (43/257; 16.7%). The reporting quality varied, with 70.0% (180/257) of articles reporting a literature review, 27.2% (70/257) reporting what background information was provided to participants, 66.1% (170/257) describing the number of participants, 40.1% (103/257) reporting if private decisions were collected, 37.7% (97/257) reporting if formal feedback of group ratings was shared, and 43.2% (111/257) defining consensus a priori. CONCLUSIONS Consensus methods are poorly standardized and inconsistently used in medical education research. Improved criteria for reporting are needed.

13. The role of radiology in anatomy teaching in UK medical schools: a national survey.

Author(s): Sadler, T J; Zhang, T; Taylor, H L; Brassett, C

Source: Clinical radiology; Oct 2017

Publication Type(s): Journal Article

Abstract: AIMS To investigate the current use of radiology in anatomy teaching across the UK, and to determine the level of interest expressed in expanding its role in medical education. MATERIALS AND METHODSA 22-question electronic survey was distributed to the organisers of anatomy teaching at 35 UK medical schools. The questionnaire explored the use of radiology in their anatomy course, the different kinds of available resources, and attitudes towards integrating radiology into anatomy teaching. RESULTS Responses were received from 29/35 (83%) medical schools. Among the respondents, radiological anatomy featured in all but one of their curricula. Of those schools using radiology to aid anatomy teaching, 20/28 expressed a wish for more radiology in the curriculum. Timetabling constraints constituted one of the main difficulties in further implementation. In addition, 22/28 medical schools had already fostered collaborative links with local radiology departments, with 18 of these expressing a wish for further cooperation. Of the remaining six schools without current collaboration, four would like to establish connections. CONCLUSION Compared with previous studies, this national survey shows a definite increase in radiological anatomy in medical school curricula with a stronger presence of radiologists in anatomy teaching. Despite this, most anatomy departments still express a desire to increase the radiological component in their courses.

14. Domestic violence teaching in UK medical schools: a cross-sectional study.

Author(s): Potter, Lucy C; Feder, Gene

Source: The clinical teacher; Oct 2017

Publication Type(s): Journal Article

Abstract: BACKGROUND Domestic violence and abuse (DVA) is a leading contributor to the physical and mental ill health of women. Recent international guidance recommends that undergraduate medical curricula should include DVA. We do not know what is currently taught about DVA to medical students in the UK. Recent international guidance recommends that undergraduate medical curricula should include DVA METHOD: Teaching leads from all UK medical schools (n = 34) were invited to participate in an 18-item online survey about what DVA education is provided, their views of this provision and any feedback provided by students. Descriptive statistics were used to analyse the data. RESULTS A total of 25 out of 34 medical schools participated in the survey (74%). All respondents felt that there should be formal teaching on DVA in the medical curriculum. Eighty-four per cent of respondents reported that there was some formal teaching in their medical school, and 90% of these reported that it was mandatory. Of those who delivered some teaching, 52% reported that the provision was 0-2 hours in total. Most commonly content was delivered in year 4. DVA teaching was delivered in different modules, by different methods and delivered by a range of different providers. Seventy-five per cent of respondents reported that they felt the provision at their medical school was inadequate or not enough. Barriers to providing DVA education identified included time constraints, failure to perceive it as a medical problem and the assumption that it will be covered elsewhere. CONCLUSION Most medical students in the UK receive a small amount of teaching on DVA towards the end of the curriculum. This is perceived as inadequate.

15. Bridging the education-action gap: a near-peer case-based undergraduate ethics teaching programme.

Author(s): Kong, Wing May; Knight, Selena

Source: Journal of medical ethics; Oct 2017; vol. 43 (no. 10); p. 692-696

Publication Type(s): Journal Article

Available at Journal of Medical Ethics - from BMJ Journals - NHS

Available at Journal of Medical Ethics - from BMJ Journals

Abstract: Undergraduate ethics teaching has made significant progress in the past decade, with evidence showing that students and trainee doctors feel more confident in identifying and analysing ethical issues. There is general consensus that ethics education should enable students and doctors to take ethically appropriate actions, and nurture moral integrity. However, the literature reports that doctors continue to find it difficult to take action when faced with perceived unethical behaviour. This has been evident in recent healthcare scandals, in which care has fallen below acceptable ethical standards, despite the presence of professional ethical guidelines and competencies. The National Foundation Training Programme forms the first 2 years of training for new UK doctors. We designed a Foundation Doctor (FD)-led teaching programme in which medical students were invited to bring cases and experiences from clinical placements for small group discussion facilitated by FDs. The aim was to enable students to act ethically in practice through developing moral sensitivity and moral identity, together with skills in ethical reasoning and tools to address barriers to taking ethical action. FDs were chosen as facilitators, based on the evidence that near-peer is an effective form of teaching in medicine and may provide positive role models for students. This article reviews the background rationale for the programme and its design. Important themes emerging from the case discussions are explored. Student and FD facilitator feedbacks are evaluated, and practical challenges to the implementation of this type of programme are discussed.

16. Medical students' unique experience of army leadership training: a qualitative study.

Author(s): Earis, John; Garner, J; Haddock, D; Jenkins, J; Jha, V

Source: Journal of the Royal Army Medical Corps; Oct 2017; vol. 163 (no. 5); p. 329-332

Publication Type(s): Journal Article

Abstract: OBJECTIVES To assess the interactive experience of first year medical students attending the leadership and management course hosted by a British Army Reserve Field Hospital developed in partnership with Liverpool University.METHODS244 students submitted a 1000-word structured reflective learning assignment about their reaction to, learning from and any behaviour and attitude changes as a result of, the training. The assignments were thematically analysed to identify how aspects of the training had impacted upon the students' understanding of leadership and teamwork. Their comments relating to the army were analysed to gain insight into their views and experience of the training. RESULTS Students were surprised at how enjoyable and useful they found the course. Initially they expressed scepticism about what they could learn in an army-based environment. However, the training, particularly command and planning tasks, helped them appreciate and understand the different skills individuals can bring to a team environment, and the importance of everyone contributing. While some students were challenged by aspects of the course, with support and encouragement from team-mates and the army personnel, they learned they could achieve more together. CONCLUSIONS Teaching leadership and management skills to medical students is a challenge which can be effectively addressed by adapting and developing army training resources. Students overcame initial scepticism about participating, and learned a lot about themselves and each other. In addition, the army developed a better understanding of the doctors of the future. The expertise of the army in delivering this training was crucial to its success as the medical school could not have provided this experience unsupported.

17. Hand-held Ultrasound Scanners in Medical Education: A Systematic Review.

Author(s): Galusko, Victor; Khanji, Mohammed Yunus; Bodger, Owen; Weston, Clive; Chambers, John; Ionescu, Adrian

Source: Journal of cardiovascular ultrasound; Sep 2017; vol. 25 (no. 3); p. 75-83

Publication Type(s): Journal Article Review

Available at Journal of Cardiovascular Ultrasound - from Europe PubMed Central - Open Access

Abstract: Background Ultrasound imaging devices are becoming popular in clinical and teaching settings, but there is no systematic information on their use in medical education. We conducted a systematic review of hand-held ultrasound (HHU) devices in undergraduate medical education to delineate their role, significance, and

limitations. Methods We searched Cochrane, PubMed, Embase, and Medline using the strategy: [(Hand-held OR Portable OR Pocket OR "Point of Care Systems") AND Ultrasound] AND (Education OR Training OR Undergraduate OR "Medical Students" OR "Medical School"). We retained 12 articles focusing on undergraduate medical education. We summarised the patterns of HHU use, pooled and estimated sensitivity, and specificity of HHU for detection of left ventricular dysfunction. Results Features reported were heterogeneous: training time (1-25 hours), number of students involved (1-an entire cohort), number of subjects scanned (27-211), and type of learning (self-directed vs. traditional lectures + hands-on sessions). Most studies reported cardiac HHU examinations, but other anatomical areas were examined, e.g. abdomen and thyroid. Pooled sensitivity 0.88 [95% confidence interval (CI) 0.83-0.92] and specificity 0.86 (95% CI 0.81-0.90) were high for the detection of left ventricular systolic dysfunction by students. Conclusion Data on HHU devices in medical education are scarce and incomplete, but following training students can achieve high diagnostic accuracy, albeit in a limited number of (mainly cardiac) pathologies. There is no consensus on protocols best-suited to the educational needs of medical students, nor data on long-term impact, decay in proficiency or on the financial implications of deploying HHU in this setting.

18. Palliative Care in Undergraduate Medical Education-How Far Have We Come?

Author(s): Fitzpatrick, Danielle; Heah, Rebecca; Patten, Simon; Ward, Helena

Source: The American journal of hospice & palliative care; Sep 2017; vol. 34 (no. 8); p. 762-773

Publication Type(s): Journal Article

Abstract: PURPOSE There is an increasing demand for quality palliative care teaching within undergraduate medical education. Studies suggest that many junior doctors feel underprepared to perform end-of-life care. Previous systematic reviews on palliative care teaching within medical schools have identified significant variability and lack of consistency in teaching. This review aims to update the literature on the current status of palliative care teaching to undergraduates within medical schools. METHOD A systematic review was undertaken on articles published from December 2001 to November 2015 on palliative care teaching for undergraduate medical students. In all, 650 abstract citations were obtained, of which 126 were relevant to the research questions. Thematic analysis was performed on remaining articles according to whether they discussed content and/or methodology of palliative care education, and data collated. RESULTS There is greater consistency in the content being delivered as part of end-of-life care education within medical schools. The most frequently taught topics include attitudes to death and dying, communication skills, and pain management. Pediatric care and religious/cultural issues are less frequently addressed. Teaching institutions are also utilising a broader range of teaching modalities. CONCLUSION There is significant progress in palliative care education within medical schools. Ongoing challenges relate to correlating our current practice in medical education to professional recommendations and the expressed needs of junior doctors to practice competent end-of-life care.

19. Comparing alternative and traditional dissemination metrics in medical education.

Author(s): Amath, Aysah; Ambacher, Kristin; Leddy, John J; Wood, Timothy J; Ramnanan, Christopher J

Source: Medical education; Sep 2017; vol. 51 (no. 9); p. 935-941

Publication Type(s): Journal Article Review

Abstract: CONTEXT The impact of academic scholarship has traditionally been measured using citation-based metrics. However, citations may not be the only measure of impact. In recent years, other platforms (e.g. Twitter) have provided new tools for promoting scholarship to both academic and non-academic audiences. Alternative metrics (altmetrics) can capture non-traditional dissemination data such as attention generated on social media platforms. OBJECTIVES The aims of this exploratory study were to characterise the relationships among altmetrics, access counts and citations in an international and pre-eminent medical education journal, and to clarify the roles of these metrics in assessing the impact of medical education academic scholarship. METHODS A database study was performed (September 2015) for all papers published in Medical Education in 2012 (n = 236) and 2013 (n = 246). Citation, altmetric and access (HTML views and PDF downloads) data were obtained from Scopus, the Altmetric Bookmarklet tool and the journal Medical Education, respectively. Pearson coefficients (r-values) between metrics of interest were then determined. RESULTS Twitter and Mendeley (an academic bibliography tool) were the only altmetric-tracked platforms frequently (> 50%) utilised in the dissemination of articles. Altmetric scores (composite measures of all online attention) were driven by Twitter mentions. For short and full-length articles in 2012 and 2013, both access counts and citation counts were most strongly correlated with one another, as well as with Mendeley downloads. By comparison, Twitter metrics and altmetric scores demonstrated weak to moderate correlations with both access and citation counts.CONCLUSIONSWhereas most altmetrics showed limited correlations with readership (access counts) and impact (citations), Mendeley downloads correlated strongly with both readership and impact indices for

articles published in the journal Medical Education and may therefore have potential use that is complementary to that of citations in assessment of the impact of medical education scholarship.

20. Feedback for Learners in Medical Education: What Is Known? A Scoping Review.

Author(s): Bing-You, Robert; Hayes, Victoria; Varaklis, Kalli; Trowbridge, Robert; Kemp, Heather; McKelvy, Dina

Source: Academic medicine : journal of the Association of American Medical Colleges; Sep 2017; vol. 92 (no. 9); p. 1346-1354

Publication Type(s): Journal Article Review

Abstract: PURPOSE To conduct a scoping review of the literature on feedback for learners in medical education. METHOD In 2015-2016, the authors searched the Ovid MEDLINE, ERIC, CINAHL, ProQuest Dissertations and Theses Global, Web of Science, and Scopus databases and seven medical education journals (via OvidSP) for articles published January 1980-December 2015. Two reviewers screened articles for eligibility with inclusion criteria. All authors extracted key data and analyzed data descriptively.RESULTS The authors included 650 articles in the review. More than half (n = 341) were published during 2010-2015. Many centered on medical students (n = 274) or residents (n = 192); some included learners from other disciplines (n = 57). Most (n = 633) described methods used for giving feedback; some (n = 95) described opinions and recommendations regarding feedback. Few studies assessed approaches to feedback with randomized, educational trials (n = 49) or described changes in learner behavior after feedback (n = 49). Even fewer assessed the impact of feedback on patient outcomes (n = 28). CONCLUSIONS Feedback is considered an important means of improving learner performance, as evidenced by the number of articles outlining recommendations for feedback approaches. The literature on feedback for learners in medical education is broad, fairly recent, and generally describes new or altered curricular approaches that involve feedback for learners. High-quality, evidence-based recommendations for feedback are lacking. In addition to highlighting calls to reassess the concepts and complex nature of feedback interactions, the authors identify several areas that require further investigation.

21. Log In to Experiential Learning Theory: Supporting Web-Based Faculty Development.

Author(s): Omer, Selma; Choi, Sunhea; Brien, Sarah; Parry, Marcus

Source: JMIR medical education; Sep 2017; vol. 3 (no. 2); p. e16

Publication Type(s): Journal Article

Available at JMIR Medical Education - from Europe PubMed Central - Open Access

Abstract: BACKGROUND For an increasingly busy and geographically dispersed faculty, the Faculty of Medicine at the University of Southampton, United Kingdom, developed a range of Web-based faculty development modules, based on Kolb's experiential learning cycle, to complement the faculty's face-to-face workshops. OBJECTIVE The objective of this study was to assess users' views and perceptions of the effectiveness of Web-based faculty development modules based on Kolb's experiential learning cycle. We explored (1) users' satisfaction with the modules, (2) whether Kolb's design framework supported users' learning, and (3) whether the design principle impacts their work as educators. METHODS We gathered data from users over a 3-year period using evaluation surveys built into each of the seven modules. Quantitative data were analyzed using descriptive statistics, and responses to open-ended questions were analyzed using content analysis. RESULTS Out of the 409 module users, 283 completed the survey (69.1% response rate). Over 80% of the users reported being satisfied or very satisfied with seven individual aspects of the modules. The findings suggest a strong synergy between the design features that users rated most highly and the key stages of Kolb's learning cycle. The use of simulations and videos to give the users an initial experience as well as the opportunity to "Have a go" and receive feedback in a safe environment were both considered particularly useful. In addition to providing an opportunity for reflection, many participants considered that the modules would enhance their roles as educators through: increasing their knowledge on various education topics and the required standards for medical training, and improving their skills in teaching and assessing students through practice and feedback and ultimately increasing their confidence. CONCLUSIONS Kolb's theory-based design principle used for Web-based faculty development can support faculty to improve their skills and has impact on their role as educators. Grounding Web-based training in learning theory offers an effective and flexible approach for faculty development.

22. Medical research and audit skills training for undergraduates: An international analysis and student-focused needs assessment.

Author(s): Fitzgerald, J E; STARSurg Collaborative

Source: Postgraduate medical journal; Sep 2017

Publication Type(s): Journal Article

Available at Postgraduate Medical Journal - from BMJ Journals - NHS

Available at Postgraduate Medical Journal - from BMJ Journals

Abstract: INTRODUCTION Interpreting, performing and applying research is a key part of evidence-based medical practice, however, incorporating these within curricula is challenging. This study aimed to explore current provision of research skills training within medical school curricula, provide a student-focused needs assessment and prioritise research competencies. METHODS A international, cross-sectional survey of final year UK and Irish medical students was disseminated at each participating university. The questionnaire investigated research experience, and confidence in the Medical Education in Europe (MEDINE) 2 consensus survey research competencies. RESULTS Fully completed responses were received from 521 final year medical students from 32 medical schools (43.4% male, mean age 24.3 years). Of these, 55.3% had an additional academic qualification (49.5% Bachelor's degree), and 38.8% had been a named author on an academic publication. Considering audit and research opportunities and teaching experience, 47.2% reported no formal audit training compared with 27.1% who reported no formal research training. As part of their medical school course, 53.4% had not performed an audit , compared with 29.9% who had not participated in any clinical or basic science research. Nearly a quarter of those who had participated in research reported doing so outside of their medical degree course. Low confidence areas included selecting and performing the appropriate statistical test, selecting the appropriate research method, and critical appraisal. Following adjustment, several factors were associated with increased confidence including previous clinical research experience (OR 4.21, 2.66 to 6.81, P<0.001), additional degrees (OR 2.34, 1.47 to 3.75, P<0.001), and male gender (OR 1.90, 1.25 to 2.09, P=0.003). Factors associated with an increase in perceived opportunities included formal research training in the curriculum (OR 1.66, 1.12 to 2.46, P=0.012), audit skills training in the curriculum (OR 1.52, 1.03 to 2.26, P= 0.036) and research methods taught in a student selected component (OR 1.75, 1.21 to 2.54, P=0.003).DISCUSSION Nearly one-third of students lacked formal training on undertaking research, and half of students lacked formal audit training and opportunities to undertake audit as part of their medical school course. The presence of research training in the cirriculum was associated with an increase in perceived opportunities to participate in MEDINE2 research competencies. Female gender and a lack of previous research experience were significant factors influencing confidence and participation in research.

23. Evaluation of a collaborative project to develop sustainable healthcare education in eight UK medical schools.

Author(s): Walpole, S C; Mortimer, F

Source: Public health; Sep 2017; vol. 150 ; p. 134-148

Publication Type(s): Journal Article Evaluation Studies

Abstract: INTRODUCTION Environmental change poses pressing challenges to public health and calls for profound and far-reaching changes to policy and practice across communities and health systems. Medical schools can act as a seedbed where knowledge, skills and innovation to address environmental challenges can be developed through innovative and collaborative approaches. OBJECTIVES The objectives of this study were to (1) explore drivers and challenges of collaboration for educational development between and within medical schools; (2) evaluate the effectiveness of a range of pedagogies for sustainable healthcare education; and (3) identify effective strategies to facilitate the renewal of medical curricula to address evolving health challenges. STUDY DESIGN Participatory action research. METHODS Medical school teams participated in a nine-month collaborative project, including a one-day seminar to learn about sustainable healthcare education and develop a project plan. After the seminar, teams were supported to develop, deliver and evaluate new teaching at their medical school. RESULTS New teaching was introduced at seven medical schools. A variety of pedagogies were represented. Collaboration between schools motivated and informed participants. The main challenges faced related to time pressures. Educators and students commented that new teaching was enjoyable and effective at improving knowledge and skills. CONCLUSIONS Collaborative working supported educators to develop and implement new teaching sessions rapidly and effectively. Collaboration can help to build educators' confidence and capacity in a new area of education development. Different forms of collaboration may be appropriate for different circumstances and at different stages of education development.

24. Teaching, learning and assessment of medical ethics at the UK medical schools.

Author(s): Brooks, Lucy; Bell, Dominic

Source: Journal of medical ethics; Sep 2017; vol. 43 (no. 9); p. 606-612

Publication Type(s): Journal Article

Available at Journal of Medical Ethics - from BMJ Journals - NHS

Available at Journal of Medical Ethics - from BMJ Journals

Abstract: OBJECTIVES To evaluate the UK undergraduate medical ethics curricula against the Institute of Medical Ethics (IME) recommendations; to identify barriers to teaching and assessment of medical ethics and to evaluate perceptions of ethics faculties on the preparation of tomorrow's doctors for clinical practice. DESIGN Questionnaire survey of the UK medical schools enquiring about content, structure and location of ethics teaching and learning; teaching and learning processes; assessment; influences over institutional approach to ethics education; barriers to teaching and assessment; perception of student engagement and perception of student preparation for clinical practice. PARTICIPANTSThe lead for medical ethics at each medical school was invited to participate (n=33).RESULTS Completed responses were received from 11/33 schools (33%). 73% (n=8) teach all IME recommended topics within their programme. 64% (n=7) do not include ethics in clinical placement learning objectives. The most frequently cited barrier to teaching was lack of time (64%, n=7), and to assessment was lack of time and suitability of assessments (27%, n=3). All faculty felt students were prepared for clinical practice .CONCLUSIONS IME recommendations are not followed in all cases, and ethics teaching is not universally well integrated into clinical placement. Barriers to assessment lead to inadequacies in this area, and there are few consequences for failing ethics assessments. As such, tomorrow's patients will be treated by doctors who are inadequately prepared for ethical decision making in clinical practice; this needs to be addressed by ethics leads with support from medical school authorities.

25. Reflection as a Learning Tool in Graduate Medical Education: A Systematic Review.

Author(s): Winkel, Abigail Ford; Yingling, Sandra; Jones, Aubrie-Ann; Nicholson, Joey

Source: Journal of graduate medical education; Aug 2017; vol. 9 (no. 4); p. 430-439

Publication Type(s): Journal Article Review

Abstract: BACKGROUND Graduate medical education programs employ reflection to advance a range of outcomes for physicians in training. However, the most effective applications of this tool have not been fully explored. OBJECTIVE A systematic review of the literature examined interventions reporting the use of reflection in graduate medical education. METHODS The authors searched Medline/PubMed, Embase, Cochrane CENTRAL, and ERIC for studies of reflection as a teaching tool to develop medical trainees' capacities. Key words and subject headings included reflection, narrative, residents/GME, and education/teaching/learning. No language or date limits were applied. The search yielded 1308 citations between inception for each database and June 15, 2015. A total of 16 studies, encompassing 477 residents and fellows, met eligibility criteria. Study quality was assessed using the Critical Appraisal Skills Programme Qualitative Checklist. The authors conducted a thematic analysis of the 16 articles. RESULTS Outcomes studied encompassed the impact of reflection on empathy, comfort with learning in complex situations, and engagement in the learning process. Reflection increased learning of complex subjects and deepened professional values. It appears to be an effective tool for improving attitudes and comfort when exploring difficult material. Limitations include that most studies had small samples, used volunteers, and did not measure behavioral outcomes. CONCLUSIONS Critical reflection is a tool that can amplify learning in residents and fellows. Added research is needed to understand how reflection can influence growth in professional capacities and patient-level outcomes in ways that can be measured.

26. Utility of selection methods for specialist medical training: A BEME (best evidence medical education) systematic review: BEME guide no. 45.

Author(s): Roberts, Chris; Khanna, Priya; Rigby, Louise; Bartle, Emma; Llewellyn, Anthony; Gustavs, Julie; Newton, Libby; Newcombe, James P; Davies, Mark; Thistlethwaite, Jill; Lynam, James

Source: Medical teacher; Aug 2017 ; p. 1-17

Publication Type(s): Journal Article

Abstract: BACKGROUND Selection into specialty training is a high-stakes and resource-intensive process. While substantial literature exists on selection into medical schools, and there are individual studies in postgraduate settings, there seems to be paucity of evidence concerning selection systems and the utility of selection tools in postgraduate training environments. AIM To explore, analyze and synthesize the evidence

related to selection into postgraduate medical specialty training. METHOD Core bibliographic databases including PubMed; Ovid Medline; Embase, CINAHL; ERIC and PsycINFO were searched, and a total of 2640 abstracts were retrieved. After removing duplicates and screening against the inclusion criteria, 202 full papers were coded, of which 116 were included. RESULTS Gaps in underlying selection frameworks were illuminated. Frameworks defined by locally derived selection criteria, and heavily weighed on academic parameters seem to be giving way to the evidencing of competency-based selection approaches in some settings. Regarding selection tools, we found favorable psychometric evidence for multiple mini-interviews, situational judgment tests and clinical problem-solving tests, although the bulk of evidence was mostly limited to the United Kingdom. The evidence around the robustness of curriculum vitae, letters of recommendation and personal statements was equivocal. The findings on the predictors of past performance were limited to academic criteria with paucity of long-term evaluations. The evidence around nonacademic criteria was inadequate to make an informed judgment.CONCLUSIONS While much has been gained in understanding the utility of individual selection methods, though the evidence around many of them is equivocal, the underlying theoretical and conceptual frameworks for designing holistic and equitable selection systems are yet to be developed.

27. Medical students' views of clinical environments.

Author(s): Roberts, Ruby; Cleland, Jennifer; Strand, Pia; Johnston, Peter

Source: The clinical teacher; Aug 2017

Publication Type(s): Journal Article

Abstract: BACKGROUND Monitoring the quality of clinical learning environments (CLEs) is immensely important in medical education. Objective indicators of the quality of the CLE can be used to measure learner perceptions and to inform educational improvements; however, many established tools were not designed for use in clinical settings and are not theoretically grounded. Our aim was to apply a new tool to the new context of a UK setting to explore the perceptions of senior medical students in a number of different CLEs. Monitoring the quality of clinical learning environments is immensely important in medical education METHODS: The four-factor Undergraduate Clinical Education Environment Measure (UCEEM) was translated into English, and used to gather final-year medical students' perceptions of four different specialties they had rotated through: Emergency Medicine (EM), General Surgery (GS), Medicine for the Elderly (ME), and Obstetrics and Gynaecology (O&G). The UCEEM was distributed in paper form. Students were asked to complete it in relation to two of the four specialties. RESULTS /FINDINGSYear-5 medical students (n = 132) returned a completed UCEEM. For opportunities to learn in and through work experience EM was reported the most positively. ME was perceived to be the most prepared for student entry. Students reported being well received by staff and made to feel part of the team within GS, EM and ME, but less so in O&G.DISCUSSIONUCEEM appears to be a useful tool for evaluating medical student perceptions of CLEs. Theoretically robust, UCEEM is straightforward to administer and to score. It has the potential to be used by time-pressured educators to collect baseline and comparative data for evaluation and improvement purposes.

28. Getting the right balance? A mixed logit analysis of the relationship between UK training doctors' characteristics and their specialties using the 2013 National Training Survey.

Author(s): Rodriguez Santana, Idaira; Chalkley, Martin

Source: BMJ open; Aug 2017; vol. 7 (no. 8); p. e015219

Publication Type(s): Journal Article

Available at BMJ Open - from HighWire - Free Full Text

Available at BMJ Open - from Europe PubMed Central - Open Access

Abstract: OBJECTIVE To analyse how training doctors' demographic and socioeconomic characteristics vary according to the specialty that they are training for.DESIGN Descriptive statistics and mixed logistic regression analysis of cross-sectional survey data to quantify evidence of systematic relationships between doctors' characteristics and their specialty. SETTING Doctors in training in the United Kingdom in 2013.PARTICIPANTS27 530 doctors in training but not in their foundation year who responded to the National Training Survey 2013.MAIN OUTCOME MEASURES Mixed logit regression estimates and the corresponding odds ratios (calculated separately for all doctors in training and a subsample comprising those educated in the UK), relating gender, age, ethnicity, place of studies, socioeconomic background and parental education to the probability of training for a particular specialty. RESULTS Being female and being white British increase the chances of being in general practice with respect to any other specialty, while coming from a better-off socioeconomic background and having parents with tertiary education have the opposite effect. Mixed results are found for age and place of studies. For example, the difference between men and women is greatest for

surgical specialties for which a man is 12.121 times more likely to be training to a surgical specialty (relative to general practice) than a woman (p-value<0.01). Doctors who attended an independent school which is proxy for doctor's socioeconomic background are 1.789 and 1.413 times more likely to be training for surgical or medical specialties (relative to general practice) than those who attended a state school (p-value<0.01). CONCLUSIONS There are systematic and substantial differences between specialties in respect of training doctors' gender, ethnicity, age and socioeconomic background. The persistent underrepresentation in some specialties of women, minority ethnic groups and of those coming from disadvantaged backgrounds will impact on the representativeness of the profession into the future. Further research is needed to understand how the processes of selection and the self-selection of applicants into specialties gives rise to these observed differences.

29. Balancing health care education and patient care in the UK workplace: a realist synthesis.

Author(s): Sholl, Sarah; Ajjawi, Rola; Allbutt, Helen; Butler, Jane; Jindal-Snape, Divya; Morrison, Jill; Rees, Charlotte

Source: Medical education; Aug 2017; vol. 51 (no. 8); p. 787-801

Publication Type(s): Journal Article

Abstract: CONTEXT Patient care activity has recently increased without a proportionate rise in workforce numbers, impacting negatively on health care workplace learning. Health care professionals are prepared in part by spending time in clinical practice, and for medical staff this constitutes a contribution to service. Although stakeholders have identified the balance between health care professional education and patient care as a key priority for medical education research, there have been very few reviews to date on this important topic. METHODS We conducted a realist synthesis of the UK literature from 1998 to answer two research questions. (1) What are the key workplace interventions designed to help achieve a balance between health care professional education and patient care delivery? (2) In what ways do interventions enable or inhibit this balance within the health care workplace, for whom and in what contexts? We followed Pawson's five stages of realist review: clarifying scope, searching for evidence, assessment of quality, data extraction and data synthesis. RESULTS The most common interventions identified for balancing health care professional education and patient care delivery were ward round teaching, protected learning time and continuous professional development. The most common positive outcomes were simultaneous improvements in learning and patient care or improved learning or improved patient care. The most common contexts in which interventions were effective were primary care, postgraduate trainee, nurse and allied health professional contexts. By far the most common mechanisms through which interventions worked were organisational funding, workload management and support. CONCLUSION Our novel findings extend existing literature in this emerging area of health care education research. We provide recommendations for the development of educational policy and practice at the individual, interpersonal and organisational levels and call for more research using realist approaches to evaluate the increasing range of complex interventions to help balance health care professional education and patient care delivery.

30. The utility of mini-Clinical Evaluation Exercise (mini-CEX) in undergraduate and postgraduate medical education: protocol for a systematic review.

Author(s): Mortaz Hejri, Sara; Jalili, Mohammad; Shirazi, Mandana; Masoomi, Rasoul; Nedjat, Saharnaz; Norcini, John

Source: Systematic reviews; Jul 2017; vol. 6 (no. 1); p. 146

Publication Type(s): Journal Article

Available at Systematic Reviews - from BioMed Central

Available at Systematic Reviews - from Europe PubMed Central - Open Access

Abstract: BACKGROUND One of the most frequently used assessment tools that measure the trainees' performance in workplace is the mini-Clinical Evaluation Exercise (mini-CEX), in which an expert observes and rates the actual performance of trainees. Several primary studies have evaluated the effectiveness of mini-CEX by assessing its educational and psychometric properties. The objective of this BEME review is to explore, analyze, and synthesize the evidence considering the utility of the mini-CEX for assessing undergraduate and postgraduate medical trainees. METHODS Studies reporting on mini-CEX performed in undergraduate and postgraduate medical education and providing some empirical data for mini-CEX in relation to one or more of the validity, reliability, educational impact, acceptability, and cost of mini-CEX will be included in the review. No restrictions on study design or publication date or language will be handled. To ensure comprehensiveness of our search, we will use different approaches and methods. In addition to electronic search in bibliographic databases, we will conduct forward and backward searching. We will also contact leading authors in the field of

mini-CEX and will search for the gray literature. Data extractions will be done independently by two coders based on a form. If there is any discordance, a third author will resolve it. The quality assessment will be also done independently by two team members, based on critical appraisal checklists. In attempting to answer our original research questions, we will use meta-analysis or meta-synthesis. DISCUSSION The findings of this study can be transferred to the medical education stakeholders such as administrators of medical schools, residency program directors, and faculty members. We also hope that publication of this review will encourage stakeholders who have already adopted the mini-CEX to evaluate and report its different characteristics. Lastly, we expect that we can identify gap of knowledge in this field and suggest areas for future research.

31. Provision of medical education for foundation junior doctors: A national observational study

Author(s): Lewis T.L.; Sagmeister M.L.; Miller G.W.; Abrahams Peter H.; Boissaud-Cooke M.A.

Source: Clinical Anatomy; Jul 2017; vol. 30 (no. 5); p. 664-665

Publication Type(s): Conference Abstract

Abstract: There are concerns regarding the anatomy knowledge amongst medical school graduates and foundation doctors. Clinical procedures performed without relevant anatomical knowledge could result in serious harm to patients. The primary objective of this study was to quantitatively assess medical education provision in the domains of anatomy, radiology, and practical procedures for foundation year doctors in the first 2 years of training (FY1, FY2) in England, United Kingdom. A national observational study of acute hospital trusts in England was conducted. Each trust completed a proforma relating to medical education provision for foundation year doctors between 6/8/2014 and 4/8/2015. A total of 95/161 (59%) acute hospital trusts in England responded. The mean number of teaching was 55.6 hr/year (Standard Deviation [SD] 19.0) for FY1 and 57.3 hr/year (SD 30.4) for FY2. Anatomy education was provided in eight trusts with a mean of 2.3 hr/year (SD 1.0) for FY1 and 2.7 hr/year (SD 2.0) for FY2. The mean provision of practical procedure education was 2.2 hr/year (SD 1.3) for FY1 and 2.7 hr/year (SD 4.4) for FY2. The mean provision of radiology education was 10.5 hr/year (SD 18.7) for FY1 and 7.8 hr/ year (SD 14.2) for FY2. Reasons for lack of teaching include: lack of time, facilities, teaching staff, financial resources, and absence of specific educational domains in foundation curriculum. Medical education provision for foundation doctors is highly variable and highlight a lack of anatomy education for foundation doctors. There is wide variation in postgraduate procedural skill training and radiology education.

32. Competency-Based Medical Education and Assessment of Training: Review of Selected National Obstetrics and Gynaecology Curricula

Author(s): Garofalo M.; Aggarwal R.

Source: Journal of Obstetrics and Gynaecology Canada; Jul 2017; vol. 39 (no. 7); p. 534

Publication Type(s): Article

Abstract: There are global variations in obstetrics and gynaecology (OBGYN) training curricula, both in length and in their structure and content. The ultimate goal for all residency programs is to ensure a skilled, competent physician, capable of independent practice by the end of his or her training. An online search was used for nationally recognized OBGYN training curricula. The curricula of Australia, Canada, the Netherlands, the United Kingdom, and the United States were individually reviewed and evaluated for their use of competency-based medical education and methods of assessment, including simulation. These were also compared to the World Federation for Medical Education's Global Standards for postgraduate medical education. Comparing the OBGYN curricula of these five countries led to quite similar results. Even though curricula reviewed have or will be integrating competency-based medical education into their residency program, there is a need to develop adequate assessment tools, including simulation, to train competent physicians capable of independent practice. Standardization of curricula leads to a decrease in the variability and an increase in the quality of training and allows for measurements and comparisons across centres. Ultimately, modifications to the curricula or even consensus for an international standard, including a standardized national simulation curriculum, may potentially increase the quality and efficiency of training, which could have a direct impact on patient safety and quality of care.

33. Evaluation of feedback given to trainees in medical specialties.

Author(s): Tham, Tony Ck; Burr, Bill; Boohan, Mairead

Source: Clinical medicine (London, England); Jul 2017; vol. 17 (no. 4); p. 303-306

Publication Type(s): Journal Article

Available at Clinical medicine (London, England) - from EBSCO (MEDLINE Complete)

Available at Clinical medicine (London, England) - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract: The aim of this study was to evaluate the quality of feedback provided to specialty trainees (ST3 or higher) in medical specialties during their workplace-based assessments (WBAs). The feedback given in WBAs was examined in detail in a group of 50 ST3 or higher trainees randomly selected from those taking part in a pilot study of changes to the WBA system conducted by the Joint Royal Colleges of Physicians Training Board. They were based in Health Education Northeast (Northern Deanery) and Health Education East of England (Eastern Deanery). Thematic analysis was used to identify commonly occurring themes. Feedback was mainly positive but there were differences in quality between specialties. Problems with feedback included insufficient detail, such that it was not possible to map the progression of the trainee, insufficient action plans made and the timing of feedback not being contemporaneous (feedback not being given at the time of assessment). Recommendations included feedback should be more specific; there need to be more options in the feedback forms for the supervisor to compare the trainee's performance to what is expected and action plans need to be made.

34. To the point: medical education, technology, and the millennial learner.

Author(s): Hopkins, Laura; Hampton, Brittany S; Abbott, Jodi F; Buery-Joyner, Samantha D; Craig, LaTasha B; Dalrymple, John L; Forstein, David A; Graziano, Scott C; McKenzie, Margaret L; Pradham, Archana; Wolf, Abigail; Page-Ramsey, Sarah M

Source: American journal of obstetrics and gynecology; Jun 2017

Publication Type(s): Journal Article Review

Abstract: This article, from the "To The Point" series that was prepared by the Association of Professors of Gynecology and Obstetrics Undergraduate Medical Education Committee, provides an overview of the characteristics of millennials and describes how medical educators can customize and reframe their curricula and teaching methods to maximize millennial learning. A literature search was performed to identify articles on generational learning. We summarize the importance of understanding the attitudes, ideas, and priorities of millennials to tailor educational methods to stimulate and enhance learning. Where relevant, a special focus on the obstetrics and gynecology curriculum is highlighted.

35. Striving for Better Medical Education: the Simulation Approach.

Author(s): Sakakushev, Boris E; Marinov, Blagoi I; Stefanova, Penka P; Kostianev, Stefan St; Georgiou, Evangelos K

Source: Folia medica; Jun 2017; vol. 59 (no. 2); p. 123-131

Publication Type(s): Journal Article Review

Available at Folia Medica - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract: Medical simulation is a rapidly expanding area within medical education due to advances in technology, significant reduction in training hours and increased procedural complexity. Simulation training aims to enhance patient safety through improved technical competency and eliminating human factors in a risk free environment. It is particularly applicable to a practical, procedure-orientated specialties. Simulation can be useful for novice trainees, experienced clinicians (e.g. for revalidation) and team building. It has become a cornerstone in the delivery of medical education, being a paradigm shift in how doctors are educated and trained. Simulation must take a proactive position in the development of metric-based simulation curriculum, adoption of proficiency benchmarking definitions, and should not depend on the simulation platforms used. Conversely, ingraining of poor practice may occur in the absence of adequate supervision, and equipment malfunction during the simulation can break the immersion and disrupt any learning that has occurred. Despite the presence of high technology, there is a substantial learning curve for both learners and facilitators. The technology of simulation continues to advance, offering devices capable of improved fidelity in virtual reality simulation, more sophisticated procedural practice and advanced patient simulators. Simulation-based training

has also brought about paradigm shifts in the medical and surgical education arenas and ensured that the scope and impact of simulation will continue to broaden.

36. Using Contribution Analysis to Evaluate Competency-Based Medical Education Programs: It's All About Rigor in Thinking.

Author(s): Van Melle, Elaine; Gruppen, Larry; Holmboe, Eric S; Flynn, Leslie; Oandasan, Ivy; Frank, Jason R; International Competency-Based Medical Education Collaborators

Source: Academic medicine : journal of the Association of American Medical Colleges; Jun 2017; vol. 92 (no. 6); p. 752-758

Publication Type(s): Journal Article Evaluation Studies

Abstract: Competency-based medical education (CBME) aims to bring about the sequential acquisition of competencies required for practice. Although it is being adopted in centers of medical education around the globe, there is little evidence concerning whether, in comparison with traditional methods, CBME produces physicians who are better prepared for the practice environment and contributes to improved patient outcomes. Consequently, the authors, an international group of collaborators, wrote this article to provide guidance regarding the evaluation of CBME programs.CBME is a complex service intervention consisting of multiple activities that contribute to the achievement of a variety of outcomes over time. For this reason, it is difficult to apply traditional methods of program evaluation, which require conditions of control and predictability, to CBME. To address this challenge, the authors describe an approach that makes explicit the multiple potential linkages between program activities and outcomes. Referred to as contribution analysis (CA), this theory-based approach to program evaluation provides a systematic way to make credible causal claims under conditions of complexity. Although CA has yet to be applied to medical education, the authors describe how a six-step model and a postulated theory of change could be used to examine the link between CBME, physicians' preparation for practice, and patient care outcomes.The authors argue that adopting the methods of CA, particularly the rigor in thinking required to link program activities, outcomes, and theory, will serve to strengthen understanding of the impact of CBME over time.

Dispelling the nice or naughty myth: retrospective observational study of Santa Claus (Park, J.J, Kennedy, B. G.T, et al , BMJ 2016; 355, 6355)

OBJECTIVES To determine which factors influence whether Santa Claus will visit children in hospital on Christmas Day.

DESIGN Retrospective observational study.

SETTING Paediatric wards in England, Northern Ireland, Scotland, and Wales.
PARTICIPANTS 186 members of staff who worked on the paediatric wards (n=186) during Christmas 2015.

MAIN OUTCOME MEASURES Presence or absence of Santa Claus on the paediatric ward during Christmas 2015. This was correlated with rates of absenteeism from primary school, conviction rates in young people (aged 10-17 years), distance from hospital to North Pole (closest city or town to the hospital in kilometres, as the reindeer flies), and contextual socioeconomic deprivation (index of multiple deprivation).

RESULTS Santa Claus visited most of the paediatric wards in all four countries: 89% in England, 100% in Northern Ireland, 93% in Scotland, and 92% in Wales. The odds of him not visiting, however, were significantly higher for paediatric wards in areas of higher socioeconomic deprivation in England (odds ratio 1.31 (95% confidence interval 1.04 to 1.71) in England, 1.23 (1.00 to 1.54) in the UK). In contrast, there was no correlation with school absenteeism, conviction rates, or distance to the North Pole.

CONCLUSION The results of this study dispel the traditional belief that Santa Claus rewards children based on how nice or naughty they have been in the previous year. Santa Claus is less likely to visit children in hospitals in the most deprived areas. Potential solutions include a review of Santa’s contract or employment of local Santas in poorly represented regions.

Exercise: Creating a Search Strategy

Scenario: A 64 year old obese male who has tried many ways to lose weight presents with a newspaper article about 'fat-blazer' (chitosan). He asks for your advice.

1. **What would your PICO format be?**

Population/problem	
Intervention/indicator	
Comparator	
Outcome	

2. **What would your research question be?**

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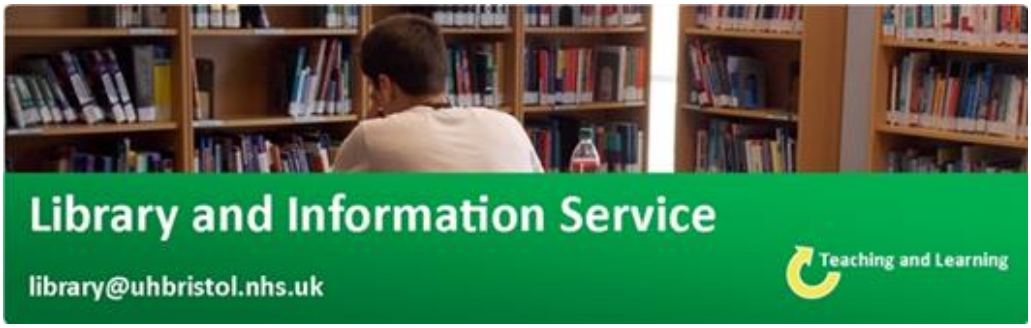
PICO: P = obese patients; I = chitosan; C = placebo; O = decrease weight
Research question: In obese patients, does chitosan, compared to a placebo, decrease weight?



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