Reducing Students’ Doubts in Evidence-Based Medicine

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Background

Evidence-Based Medicine (EBM)

- EBM – A systematic approach to clinical problem solving using the best available evidence, clinical expertise and patient values (Figure 1)
- EBM is known to require expertise and to be time constraining
- The importance of EBM knowledge in medical students can be seen in the increased inclusion of EBM-courses within medical school curricula
- Of all the EBM-courses offered, only one has been student led, despite studies showing peer-teaching as an acceptable mode of delivery
- Although mainly offered to students in their clinical years, some courses are offered to pre-clinical students with the aim of improving self-directed and lifelong study habits, which are essential to practising EBM in the future

What is NICE Evidence Search?

- NICE Evidence Search is a free e-resource developed by the UK’s National Institute for Health and Care Excellence (NICE) in 2009
- NICE Evidence Search provides access to many sources of quality-reviewed evidence (e.g. Cochrane Systematic Reviews and NICE guidelines)
- NICE launched the Student Champions Scheme to improve the awareness and use of this resource. This scheme involves student-led teaching sessions surrounding the NICE Evidence Search resource

Aims

1. To explore pre-clinical students’ perceptions of EBM
2. To explore perceptions of the NICE Evidence Search teaching sessions
3. To establish whether student-led EBM-teaching is acceptable

The Evidence-Based Medicine Triad

- Best External Evidence
- Individual Clinical Expertise
- Patient Values & Expectations

Methods

- Two focus groups were conducted, consisting of 12 pre-clinical medical students who had previously attended the aforementioned NICE Evidence Search teaching sessions
- Resulting transcripts were analysed using Framework Analysis.

Results

Awareness of EBM

- Most students lacked conceptual awareness of EBM, but recognised the importance of searching for and critically appraising evidence
- Students believed the NICE Evidence Search sessions increased their information-technology and literature searching skills
- Students found peer-taught EBM-sessions were acceptable
- Students supported an early introduction of EBM-courses, and recommended that they are taught in context
- Students stated that an early introduction would reduce stresses imposed on them upon commencement of clinical years

Barriers to Engaging in EBM

- Lack of literature searching and critical appraisal skills
- Lack of awareness of and access to suitable resources
- Time constraints

Seeking Simplicity

- Although reliability of evidence is important, ease of access of sources such as Wikipedia was often preferential, despite reliability being compromised.
- Students lauded how up-to-date and relevant the evidence within NICE Evidence Search was and also the ease of access and time-saving nature of the resource.
- Students stated they would consider using sources which pre-assessed the reliability of evidence, such as NICE Evidence Search and its accompanying accreditation scheme.

Future use of EBM

- Students believed that they would use more reliable sources, particularly NICE Evidence Search, when searching for evidence in their clinical years and as doctors.

Strategic Approach to Studies

- Students used less reliable sources for less important pieces of work, such as PBLs, and vice versa.

Conclusion

- Pre-clinical medical students had limited experience and awareness of EBM and they also doubted their own EBM expertise
- Students suggested an early introduction of EBM-teaching maybe beneficial
- Students welcomed the NICE Evidence Search teaching sessions, which reduced doubts and taught practical EBM-related skills
- Students found peer-led EBM-teaching to be an acceptable form of teaching

Take Home Message

- Pre-clinical medical students lack awareness of EBM
- Pre-clinical medical students doubt their own EBM expertise
- NICE Evidence Search teaching sessions are perceived to improve awareness to EBM, as well as improving EBM-related skills
- Peer-led EBM teaching is an acceptable mode of teaching

References