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## Careers

# Are journal clubs an essential tool in postgraduate education?

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## Abstract

**Sophie Cook** argues, yes

Sir William Osler started the first formal journal club for undergraduates at McMaster University in 1877. His objectives were to “afford opportunities, which after graduating you never obtain, of learning how to prepare papers and express your ideas correctly.” He also hoped the meetings would secure “a training in the difficult science of debate.”<sup>1</sup> These objectives remain largely the essence of journal clubs today.

A common recollection of journal clubs is of bleary eyed, tired junior doctors dozing off while a colleague haphazardly presents an article hurriedly chosen the night before. Sadly, this is probably representative of many journal clubs, leading to debate surrounding their educational value. However, when journal clubs are well structured, they can be stimulating and educational and their benefits have been documented.<sup>234</sup> Having survived over a century in a rapidly changing medical world, journal clubs have become an educational institution.

## The multifunctional journal club

It's a struggle to keep up with medical literature at the current rate of publication. According to a recent *BMJ* editorial, you need a machine to do so.<sup>5</sup> Evidence based medicine, defined as the “conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients”<sup>6</sup> has become a clinical mantra over the past two decades. Adherence to evidence based practice requires up to date knowledge and a sound understanding of critical appraisal to navigate the minefield of medical literature. Sadly, doctors often begin clinical life deficient in these skills owing to poor coverage in the undergraduate curriculum. The aims of face to face, and more recently online, journal clubs are threefold: to teach and develop critical appraisal skills, to increase exposure to rapidly evolving medical literature, and to inform clinical practice. These principles are the essence of evidence based medicine. Journal clubs offer rare protected teaching time to facilitate better knowledge and literature awareness through group discussion with peers. They provide a unique opportunity to

promote interest in research, while learning from experts about knowledge gaps and future research questions. Remove journal clubs from postgraduate training, and there are few alternatives that capture so many of these fundamental skills.

## Evidence supporting journal clubs

Studies examining educational interventions are problematic, owing to difficulties standardising interventions and the use of short term, self reported outcomes. This makes their quality questionable, and there are currently no studies reporting the clinical impact of journal clubs. The first randomised controlled trial looking at the impact of journal clubs on knowledge and critical appraisal was done in 1988. Medical interns received either journal club teaching or a series of seminars. Eighty six per cent of the journal club group reported improvements in their reading habits compared with 0% in the control group. Journal club participants also obtained greater knowledge scores.<sup>4</sup> One systematic review concluded that overall, journal clubs may improve reading habits, knowledge of epidemiology and statistics, and use of medical literature in practice. This review identified six small studies which observed improvements in critical appraisal skills as a result of journal club attendance, but it concluded that further studies are required to confirm or refute this association.<sup>2</sup> A recent systematic review looking at whether journal clubs are effective in supporting evidence based decision making included studies which reported increased confidence in critical appraisal, improved test scores on critical appraisal, improvements in reading behaviour, and increased ability to use findings in clinical practice.<sup>3</sup> However, the heterogeneity of journal club interventions and self reported outcome measures made it difficult to conclude overall whether journal clubs are effective in supporting evidence based decisions.

## Alternatives to journal clubs

Evidence suggests journal clubs facilitate greater knowledge and improved reading habits, but the jury remains undecided as to whether they definitively improve critical appraisal skills. Sceptics might therefore suggest alternative teaching methods are required to refine critical appraisal. Didactic sessions, formal assessments, or integrated evidence based medicine teaching are the most obvious alternatives. But will these modalities facilitate an interest in research and evidence based reading in the way that journal clubs have demonstrated? It is this research interest that fuels evidence based medicine, and provision of a medium that stimulates discussion and debate is important. The focus should be on combining new evidence based medicine teaching methods with journal clubs rather than initiating the demise of the oldest tool, which has both supporting evidence and longevity on its side.

## Rise of the modern journal club

Rarely can we cite an educational intervention in medicine that has retained prominence for so long. Guidance and recommendations are emerging on how to improve the success of journal clubs.<sup>378</sup> These include taking emphasis away from statistics and epidemiology towards the clinical query and implications for practice, and moving away from a one size fits all approach towards clubs tailored to reflect the career level of the participants.

There is huge potential to make journal clubs dynamic, modern, and interactive, keeping them alive but dispelling outdated perceptions of sleeping juniors attending under duress. The evidence is there: journal clubs improve knowledge and reading habits while keeping the momentum of medical knowledge going and creating enthusiasm for research. With little to rival this repertoire, journal clubs remain essential in postgraduate medical education.

## Footnotes

- Competing interests: None declared.

## References

1. Cushing H. *The life of Sir William Osler*. Vol 1, page 154. [http://books.google.co.uk/books?id=Vo01Mhanh64C&pg=PR9&dq=the+life+of+sir+william+osler+volume+1&hl=en&ei=ESsfTbrLEs60hAfu\\_m2Dg&sa=X&oi=book\\_result&ct=result&resnum=1&ved=0CCKQ6AEwAA#v=onepage&q=periodicals&f=false](http://books.google.co.uk/books?id=Vo01Mhanh64C&pg=PR9&dq=the+life+of+sir+william+osler+volume+1&hl=en&ei=ESsfTbrLEs60hAfu_m2Dg&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCKQ6AEwAA#v=onepage&q=periodicals&f=false).
2. Ebbert JO, Montori VM, Schultz HJ. The journal club in postgraduate medical education: a systematic review. *Medical Teacher* 2001;**23**:455–61.
3. Harris J, Kearley K, Heneghan C, Meats E, Roberts N, Perera R, et al. Are journal clubs effective in supporting evidence based decision making? A systematic review. BEME guide No. 16. *Medical Teacher* 2011;**33**:9-23.
4. Linzer M, Trig Brown J, Frazier LM, DeLong ER, Siegel WC. Impact of a medical journal club on house staff reading habits, knowledge, and critical appraisal skills. *JAMA* 1988;260:2537-41.
5. Smith R. Strategies for coping with information overload. *BMJ* 2010;**341**:7126.
6. Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *BMJ* 1996;**312**:71.
7. Phillips R, Glasziou P. What makes evidence based journal clubs succeed? *Evid Based Med* 2004;**9**:36-7.
8. Atzema C. Presenting at journal clubs: a guide. *Ann Emerg Med* 2004;**44**(2):169-74.

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