



Establishing an Effective Journal Club: A Postgraduate Educational Tool

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ABSTRACT

The Journal clubs are used as a standard teaching tool for the post graduates. They help the post graduates to learn the critical appraisal skills, recent trends in the field of medicine which in turn will have an impact on improving the quality of health care delivery. By doing literature review, the purpose of this article was to suggest criteria to be followed to carry out effective journal clubs as it is a part of academic activity of postgraduate teaching curriculum. Recent systematic reviews, looking at the effectiveness of journal clubs have reported increased confidence in critical appraisal skills, improvements in reading behaviour and the ability to use the findings in clinical practice. Overall journal clubs improve educational outcomes and enhance lifelong learning.

KEYWORD

Research design
Critical appraisal
Clinical decision making
Medical statistics

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Introduction

Journal clubs today are recognized international teaching tool for post-graduates in academic medicine (PG) [1]. Over the years it has helped health professionals to keep up with the medical literature, by teaching research design, medical statistics, putting theory into practice, and lately critical appraisal skills which altogether enables lifelong learning [2-6].

They bridge the gap between research and practice thus facilitating better practice of evidence based medicine [7-12]. Lately online discussions are becoming the main stay of journal clubs [13, 14]. Usually journal clubs begin on regular basis and slowly irregularity sets in, because of lack of time, goals, interest, participation, insufficient preparation

etc...Irregularity is renewed when new set of postgraduates join [15,5]. Yet, they continue to be a part of PG teaching curriculum because of their educational diversity, adaptability and topic pertinence [16].

Journal clubs help the postgraduates in acquiring, disseminating, and applying new medical information. They teach critical appraisal skills and prepares the postgraduates for reading and writing a scientific paper. They also improve reading habits and provide an interactive opportunity for peer to peer learning [17].

Thus, to have an effective, established and a sustainable journal club activity as PG teaching programme, we would like to propose the pre-requisites for conducting and sustaining journal clubs, factors to be considered while choosing an

article for presentation and the method of presenting the chosen article.

Process of Journal Club

Pre-requisites

Journal clubs should be conducted in seminar room/conference hall with seating arrangement in the form of a circle or horse – shoe pattern (promotes eye to eye contact and increases the chance of active participation) [18, 19]. Appropriate time of the day at regular intervals with mandatory attendance for participants (same discipline and similar interest) has to be considered.

A trained faculty (guide) should help the PG choose the correct article for presentation. Guide can be changed from session to session. Provide access to statistician so as to get assistance in preparation for the journal club and answering the questions that may arise during discussion. Incentives in the form of refreshments can be considered [16].

Preparation

Choosing the right article for presentation is not an easy task, it could be tedious one/time consuming.

Emphasis should be laid on: Original research article from the list of current journals. Article of public health importance/of interest/ongoing research project/frequently encountered cases in the centre [20]. Articles published in last 3-5 years in indexed journals. Articles which draw editorial comments (generally good quality articles, worthy of presentation come from well known institutions or are presented by respected authors).

Prospective and retrospective studies provide better information compared to reviews, editorials, viewpoints. Retrospective studies raise more questions while prospective studies answer those questions. Therefore, prospective studies provide more information compared to retrospective studies which in turn provide better

information than reviews, editorials, etc. Hence, as far as possible choose prospective studies than retrospective studies for journal club presentations [21].

Note: Periodically revise the selection of the journals in order to increase the value of educational process. Before presenting, the article has to be distributed to the participants of the journal club

Presentation

Presentation should include the rationale for choosing the article for presentation [1], should be in the regular fashion (introduction, methods, results, discussion and conclusion) [20].

- Introduction – Purpose for carrying out the research and clear mention of questions to be answered.
- Methods – Type of study (observational/experimental), Inclusion and exclusion criteria defined, sample size adequate, appropriate statistical tests used.
- Results and Discussion – Correlating the results with other studies by defending the findings, any confounding variables leading to bias, adequate follow up, mention of attrition rate of study subjects.
- Conclusion – Does the conclusion support the findings in the study?
- Summarize Strength – Is the information helpful in practice (EBM), does it provide any ideas for future research [21]. And a mention about weaknesses/ limitations and unanswered questions should be made.

Post Presentation phase

Once the presentation is over, there should be in-depth analyses, critiques, questions, comments, etc. about an article. This will be facilitated by a leader. The effectiveness of the journal club increases with the presence of a leader. The leader should be trained suitably for selecting

articles which can help postgraduates in learning various dimensions of their subject. Leader should be able to initiate and guide the discussion and give conclusion. Leader should also encourage other audience to participate in the discussion.

Evaluation of the journal club

The journal club should be evaluated about its structure, process and outcome. It should be checked if the journal clubs being conducted are of any help to the postgraduates.

To follow a systematic methodology for presentation and discussion, there should be some criteria/ checklist/ questionnaire which should be answered either anonymously or by self assessment. This will also make the journal club more effective. These checklist/questionnaire should be regularly modified to improve the evaluation. One such example of questionnaire for evaluating the effectiveness of individual's learning is developed by Morrison et al [22].

The evaluation should see if the journal clubs are relevant, whether they are adequate for the purpose of learning. A proper and regular evaluation will make the journal clubs effective. Periodic evaluation helps to improve the educational experience of the journal club, irrespective of its format [23].

Newer Approaches

Apart from presenting the paper a newer approach to a good journal club presentation should be to look at the papers it cited, how often those papers were cited and has the work been replaced by newer methods [24].

Another approach is to garner and summarise the information pertaining to the article from its references. This summarising helps the postgraduates to have overview of the information available, results obtained by other authors about the topic under discussion and thereby help them to have better and more informed knowledge.

Stange et al suggest an approach which will help to make a journal club and its discussion to be more comprehensive, systematic and effective. This approach is named by the authors as RADICAL. It is an acronym and it stands for

- Read the article critically
- Ask the key questions for yourself
- Discuss the meaning and shared interpretation
- Inquire into other sources of knowledge and insight.
- Collaborate with others who know or care about the issues.
- Act by sharing a TRACK (which is the online discussion forum of the journal) posting and working to change practice, policy, training, or research.
- Learn from what others share on TRACK and from your actions and collaborations and restart the cycle [25].

Conclusion

Success of journal clubs depends on factors associated with sustainability, mandatory attendance, participation, trained guide and perceived educational value by the coordinator. They are educationally diverse and facilitate principles of adult learning. Journal clubs significantly influences participants' uptake of new knowledge and skills. They are a fruitful area for educational research and for teaching basic sciences [16].

Implications

It promotes awareness on current research findings, improves patient outcomes (EBM) by networking with other healthcare providers and specialities, stimulates interest among postgraduates to read more on reading critically and to conduct own research.

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