

Short Communication

## Perceived utility of journal club by residents of a private medical college of Central India

Saroshe S<sup>1</sup>, Khandelwal V<sup>2</sup>, Mehta S C<sup>3</sup>

<sup>1</sup>Assistant Professor, Community Medicine, MGM Medical College, Indore, <sup>2</sup>Resident, <sup>3</sup>Prof & Head, Department of Community Medicine, R.D.Gardi Medical College, Ujjain (MP), India.

### ABSTRACT

**Introduction-** Journal Club (JC) is an established academic exercise in the residency training curriculum to obtain critical appraisal skills, update knowledge on current literature and enhance proficiency in clinical practice.

**Objective -** To determine the effectiveness of journal clubs by seeking evidence of residents' satisfaction with journal club.

**Materials and Methods-** Study Type: Cross-Sectional Study; Study Period: November 2011; Study Site: R.D. Gardi Medical College, Ujjain, Madhya Pradesh, India.

**Method:** All the postgraduates student of 2<sup>nd</sup> and 3<sup>rd</sup> year of institute are included in study and interviewed by using a structured questionnaire. Responses to 13 questions were recorded on a 5-item Likert scale.

**Result-** The participants rated workshops as the most preferred method of continuing education. 60% of the respondents perceived a change in critical appraisal skill as a result of attending JC. To keep up with current literature was rated by the residents as the most important goal of journal club. 45.71% agreed to the fact that mock presentation is a valuable exercise while preparing for journal club.

**Conclusion-** Journal clubs can be effective in the training of residents to meet their core competencies. Educational value of preparing for journal club is the most rated utility of journal-club. They can enable residents to develop the knowledge; expertise and enthusiasm needed to undertake research plans enhancing their ability in critical thinking and scientific reading.

**Recommendation-** Currently the effectiveness of Journal-club meetings in postgraduate medical education is unreported. Present Study achieved greater than 95 percent response rate, yet the sample represents only one medical college of M.P. Therefore, generalization requires caution and further explorative studies are required in this direction. Improved faculty participation in the journal club is required.

**Journal Club, critical appraisal, workshop, faculty participation.**

### Introduction:

A journal club is a group of individuals who meet regularly to discuss critically the clinical applicability of articles in the current medical journals<sup>1</sup>. Journal Club (JC) is an established academic exercise in the residency training curriculum and a method of continuing medical education for over 100 years<sup>2,3</sup>. The concept of the JC originated in Europe, and in 1875, Sir William Osler organized the first North American JC at McGill University, Montreal<sup>3,4</sup>. This exercise was basically aimed at sharing the expense of costly periodicals with his colleagues. Today JC is an established method to train residents to obtain critical appraisal skills, update knowledge on current literature and enhance proficiency in clinical practice<sup>4,5,6</sup>.

Journal clubs helps students to stay current with medical literature to improvise acquisition of knowledge in clinical epidemiology, biostatistics, research design, and more recently in teaching critical appraisal skills<sup>7-11</sup>.

Many clinical disciplines have reported using journal clubs to train postgraduate trainees in relevant

specialties. At present journal clubs are found in Medicine (and allied fields of Internal Medicine, Palliative Care, Family Medicine, Emergency Medicine and Critical Care, Cardiology, Paediatrics, Ophthalmology, Physical Medicine and Rehabilitation), Surgery (and allied fields of Obstetrics and Gynaecology, Orthopaedics, Neurosurgery, Hand surgery), Psychiatry, Geriatrics, Nursing, and Health Care Management<sup>12-22</sup>. Benefits of a journal club exercise are even documented at medical undergraduate level<sup>22</sup>.

This study evaluated the effectiveness of successful journal clubs (2 years continuous existence and more than 50% attendance) by examining residents' satisfaction.

### Study objectives

The purpose of this study was to determine the effectiveness of journal clubs by seeking evidence of residents' satisfaction with journal club.

### Materials and Methods:

**Study Type:** Cross-Sectional Study.

**Study Period:** November 2011.

### Address for Correspondence:

Satish Saroshe, B-16 Sangam Nagar, Indore, MP 452006.

E mail ID: drsatishsaroshe@gmail.com

**Study Site:** R.D. Gardi Medical College, Ujjain, Madhya Pradesh, India.

**Method:**

All the postgraduates student of 2<sup>nd</sup> and 3<sup>rd</sup> year of institute are included in study and interviewed by using a structured questionnaire.

Inclusion criteria encompass all current Residents, who did not complete residency but who have attended journal club for at least one year and have presented at least thrice in the forum.

The questionnaire consisted of 23 questions. Responses to 13 questions were recorded on a 5-item Likert scale (1 = strongly disagree, 5 = strongly agree). Responses to the remaining 10 questions were to be chosen from 4 given options as well as a 5th "others" option. These questions were pertaining, for example, to the preferred method of continuing education, important reasons for attending JC and opinions regarding mock (practice) presentations and journal club coordination.

Data entry and analysis was carried out using spss using standard statistical analysis.

**Results:**

A total of 70 residents were included in the study, of these 53 (75.71 %) were males and 17 (24.28 %) were females. Mean age of study participants was 29.68 years.

Study included 36 (51.42 %) residents from 3<sup>rd</sup> year and 34 (48.57 %) residents from 2<sup>nd</sup> year.

Most of residents were from clinical branch 48 (68.57 %), followed by paraclinical 19 (27.14 %) and non clinical 3 (4.28 %).

**Table 1 -Characteristics of study subjects-**

Variable	No.	%
<b>Age</b>	29.68 (mean in years)	
<b>Sex</b>		
Male	53	75.71
female	17	24.28
<b>Year of residency</b>		
2 <sup>nd</sup> year	36	51.42
3 <sup>rd</sup> year	34	48.57
<b>Branch</b>		
Clinical	48	68.57
Paraclinical	19	27.14
Non clinical	03	04.28

**Preferred method of continuing education and reasons for attending-JC**

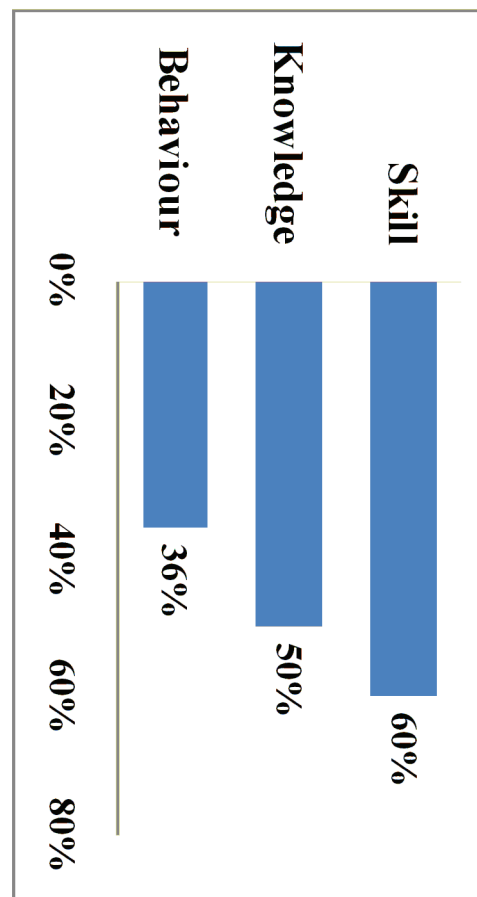
The participants rated workshops 25 (35.71%) as the most preferred method of continuing education, followed by courses offered by the department 20 (28.57 %), journal club 18 (25.71 %) and conferences 7 (10 %). Learning of critical appraisal skills 36 (51.4 %), keeping up with current literature 14 (20 %), to learn epidemiology/biostatistics 12 (17.14 %) and requirement of mandatory attendance 8 (11.42 %). were cited as the most important reasons for attending JC.

**Knowledge, skills and behavior assessment**

The respondents were asked to assess themselves in the areas of knowledge (keeping up with current literature), skills (confidence in the ability to critically evaluate the paper) and behavior (enhancement in reading habits as a result of participating in JC) as described in Figure 1.

42 (60 %) of the respondents perceived a change in critical appraisal skill as a result of attending JC, followed by an increase in knowledge 35 (50 %) and 25 (35.7 %) of the respondents thought that participation in JC was associated with improved reading behavior.

**Figure -1 - Self-assessed improvement in knowledge, skills and behaviour resulting from participation in journal club**



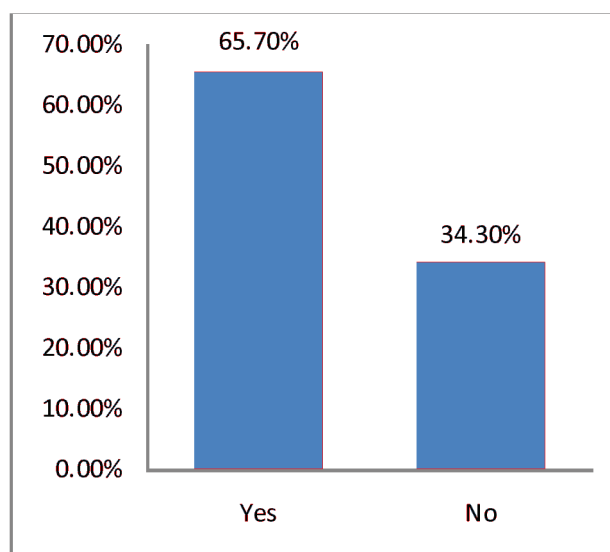
**Effectiveness of the journal club**

To keep up with current literature 56 (80 %) was rated by the residents as the most important goal of journal club followed by teaching critical reading skills 11 (15.7 %) and improving reading habits 3 (4.2 %).

Table 3 illustrates responses of survey participants on the value of the journal club with regard to the education/ learning experience. Majority of the participants have agreed with the educational value of attending and preparing for JC with agreement level of 71.4 % and 87.14 % respectively. In terms of provision of adequate literature review and stimulus for further reading the agreement level was 42.85 % and 44.28 % respectively. 41 (58.57 %) residents had ever presented a mock presentation before JC, and 32 (45.71 %) agreed to the fact that mock presentation is a valuable exercise while preparing for journal club. An overwhelming majority (92.5%) agreed with the idea of including a structured article review checklist in the current format.

19 (27.14 %) residents were ever assigned the responsibility of JC coordination 14 (20 %).

46 (65.7 %) residents responded that their research work /dissertation come out of a journal club presentation. [figure -2 ]



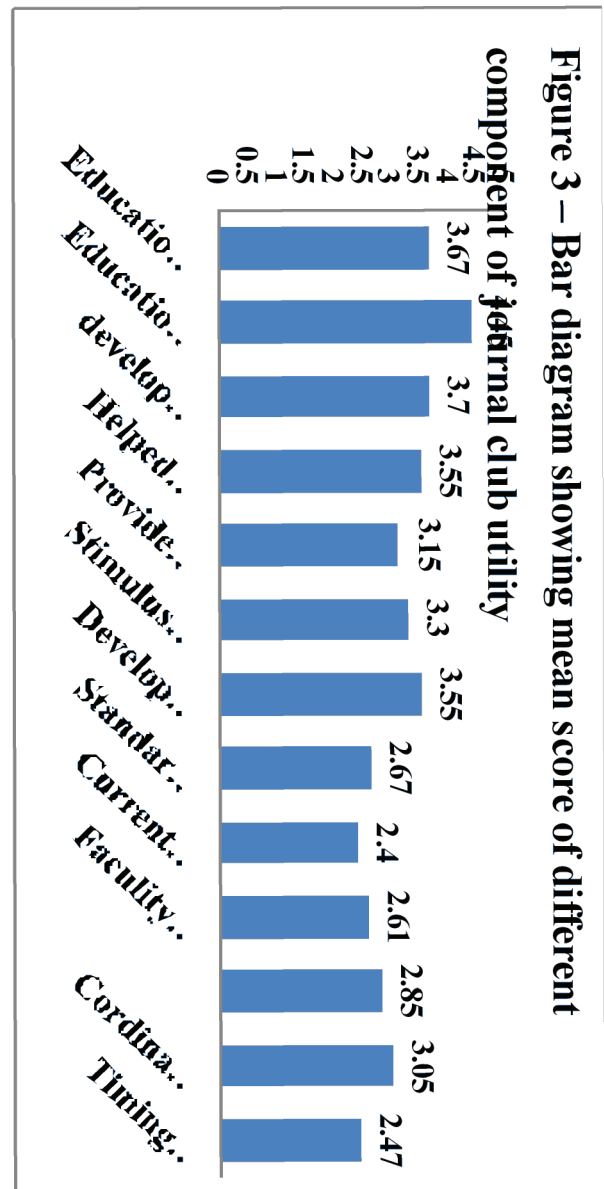
**Figure- 2** – Responses of residents to question, if their thesis came from Journal club or not.

**Table 2:** Effectiveness of JC conducted at a private in the opinion of residents.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
Educational value of attending journal club	0	19	1	32	18
Educational value of preparing for journal club.	0	9	0	11	50
Journal club helped in development of research protocols	0	10	21	19	20
Presentation at journal club helped in refining research work.	1	9	30	10	20
Journal club provides good review of related literature.	0	30	10	19	11
Journal club provides stimulus to further review a topic.	1	13	23	20	11
Journal club facilitate development of critical appraisal skills.	1	10	12	43	4
introduction of a standard check list for article review would be helpful.	12	32	5	19	2
The current format of journal club is satisfactory.	20	23	13	7	7
Departmental faculty participation in journal club satisfactory?	8	22	21	12	7
Mock presentation a valuable exercise in preparing for journal club.	12	23	3	27	5
Coordinating journal club was a helpful experience to your own residency training?	2	12	42	8	6
Timing of journal club) appropriate?	12	32	9	15	2

**Table 3** – Agreement and disagreement toward different component of Journal club utility

	% agree ment	% disag reem ent	mean
Educational value of attending journal club	71.40	27.14	3.67
Educational value of preparing for journal club.	87.14	12.8	4.45
Journal club helped in development of research protocols	55.71	14.28	3.7
Presentation at journal club helped in refining research work.	42.85	14.28	3.55
Journal club provides good review of related literature.	42.85	42.85	3.15
Journal club provides stimulus to further review a topic.	44.28	20	3.3
Journal club facilitate development of critical appraisal skills.	67.14	15.71	3.55
Introduction of a standard check list for article review would be helpful.	30	62.85	2.67
Current format of journal club is satisfactory.	20	61.42	2.4
Departmental faculty participation in journal club satisfactory	27.14	42.85	2.61
Mock presentation a valuable exercise in preparing for journal club.	45.71	50	2.857
Coordinating journal club was a helpful experience to your own residency training?	20	20	3.05
Timing of journal club) appropriate.	24.28	62.85	2.47





### Conclusion:

- Journal clubs can be effective in the training of residents to meet their core competencies.
- Educational value of preparing for journal club is the most rated utility of journal-club.
- Journal clubs can enable residents to develop the knowledge; expertise and enthusiasm needed to undertake research plans and can also enhance their ability in critical thinking and scientific reading.

### Recommendations:

- Currently the existence and effectiveness of Journal-club meetings in postgraduate medical education is unreported.
- Present Study achieved greater than 95 percent response rate, yet the sample represents only one medical college of M P .Therefore, generalization requires caution and further explorative studies are require in this direction.
- A majority of participants in this study have recommended improved faculty participation in the journal club.

### References:

1. Ebbert JO, Montori VM, Schultz HJ. The journal club in postgraduate medical education: a systematic review. *Med Teach.* 2001; 23: 455-61.
2. Linzer M, Brown JT, Frazier LM, DeLong ER, Siegel WC. Impact of a medical journal club on house staff reading habits, knowledge and critical appraisal skills. A randomized control trial. *JAMA.* 1988; 260: 2537-41.
3. Linzer M. The Journal Club and Medical Education: over 100 years of unrecorded history. *Postgrad Med J.* 1987; 63: 475-8.
4. Dirschl DR, Tornetta P, Bhandari M. Designing. Conducting and evaluating journal clubs in orthopedic surgery. *Clin Orthop Relat Res.* 2003; 413: 4657.
5. Sidorov J. How are internal medicine residency journal clubs organized, and what makes them successful? *Arch Intern Med.* 1995; 155: 1193-7.
6. Gibbons AJ. Organizing a successful journal club. *Br Med J.* 2002; 325: 137-8.
7. Sidorov J: How are internal medicine residency journal clubs organized, and what makes them successful? *Arch Intern Med.* 1995; 155: 1193-97.
8. Green ML: Graduate medical education training in clinical epidemiology, critical appraisal, and evidence-based medicine: a critical review of curricula. *Acad Med.* 1999; 74: 686-94.
9. Markert RJ: A research methods and statistics journal club for residents. *Acad Med.* 1989; 64: 223-4.
10. Kellum JA, Rieker JP, Power M, Powner DJ. Teaching critical appraisal during critical care fellowship training: a foundation for evidence-based critical care medicine. *Crit Care Med.* 2000; 28: 3067-70.
11. Letterie GS, Morgenstern LS. The journal club. Teaching critical evaluation of clinical literature in an evidence-based environment. *J Reprod Med.* 2000; 45: 299-304.
12. Lee AG, Boldt HC, Golinik KC et al. Structured journal club as a tool to teach and assess resident competence in practicebased learning and improvement. *Ophthalmology.* 2006; 113: 497-500.
13. Mazuryk M, Daeninck P, Neumann CM, Bruera E. Daily journal club: An educational tool in palliative care. *Palliat Med.* 2002; 16: 57-61.
14. Heiligman RM. Resident evaluation of a family practice residency journal club. *Fam Med.* 1991; 23: 152-3.
15. Jouriles NJ, Cordell WH, Martin DR et al. Emergency medicine journal clubs. *Acad Emerg Med.* 1996; 3: 872-8.
16. Moberg-Wolff EA, Kosasih JB. Journal clubs. Prevalence, format and efficacy in PM & R. *Am J Phys Med Rehabil.* 1995; 74: 224-9.
17. Spillane AJ, Crowe PJ. The role of journal club in surgical training. *Aust N Z J Surg.* 1998; 68: 288-91.
18. Thurnau GR, Fishburne JI Jr. Format of an obstetrics and gynecology journal club and four years' experience. *Am J Obstet Gynecol.* 1989; 60: 13-6.
19. Mobbs RJ. The importance of the journal club for neurosurgical trainees. *J Clin Neurosci.* 2004; 11: 57-8.
20. Melchor JA, Meals RA. The journal club and its role in hand surgery education. *J Hand Surg.* 1998; 23: 972-76.
21. Flarey DL. Journal club: a tool for health care management and development. *Health Care Superv.* 1993; 11: 53-8.
22. Edwards R, White M, Gray J et al. Use of a journal club and letter- writing exercise to teach critical appraisal to medicalundergraduates. *Med Educ.* 2001; 35: 691-4.