



# Traditional Journal Club: A Continuing Problem

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## Abstract

**Objective :** To evaluate the pattern, motivation and facilities for choosing journal club topics by residents in two medical institutions in India.

**Method :** A self-appraisal questionnaire was used to compare motivation for choice of topics, availability of infrastructure, sites and type of articles accessed and formal training in computer based literature search in two medical institutions- a postgraduate institute (PGI) and medical college (MC) which provided mainly specialty and superspecialty training respectively.

**Results :** One hundred and fifty five out of two hundred and fifty five residents responded to the questionnaire. Super-specialty training was pursued by 58 and specialty training by 97 residents. The residents in PGI more frequently selected journal articles which they considered good and in MC, faculty guidance determined the choice of journal club topics. The super-specialty residents, however, more frequently selected patient management related topics compared to specialty residents. MEDLINE and MD Consult were more frequently accessed by PGI residents where infrastructure and training in literature search were superior to MC.

**Conclusion :** In both the institutions surveyed, journal clubs were of traditional type. Better infrastructure and training at PGI were not reflected in quality of journal club. Successful journal club should focus on current, real patient's problem of most interest to the group. ©

## INTRODUCTION

Advances in information technology and medicine need to be integrated into practice for the welfare of patients. The integration of knowledge and practice in medical schools is achieved through evidence-based medicine (EBM). Evidence based medicine concerns with explicit and judicious use of the best external evidence in making decisions about the care of individual patient.<sup>1</sup> In medical schools, the venues for teaching EBM are journal club, ward rounds, grand round, out patient department (OPD), lectures and seminars. Journal clubs are established means of medical education<sup>2</sup> which increase familiarity with latest medical literature, improve reading habit, promote critical review of author's conclusion, develop "roundsman ship ammunition" and promote skill in clinical epidemiology.<sup>3-8</sup> Traditional journal clubs are poorly structured because the article selection is literature driven, based on the interest of presenter or moderator, and poorly facilitated, archived or disseminated. The EBM journal club emanates from patient related problems involving a small group of keen faculty, facilitator and learner. EBM journal club integrates most valid evidence with clinical skill and patient values.

It helps in compilation, dissemination and updating critically appraised topics. In a review by Glasius *et al*,<sup>9</sup> successful journal clubs were felt to highlight on current and real patients problems of most interest to the group. However, there remains considerable variability even in the developed countries where EBM revolution has persisted for several years, in the manner in which journal clubs are conducted in Post Graduate education.<sup>10</sup> There is no information available from India on effect of availability of computers in academic medical institutions and the quality of postgraduate journal club. In this communication we report the results of a survey evaluating the pattern of journal club in two leading teaching medical institutions.

## SUBJECTS AND METHODS

This study was conducted by sending a self appraised questionnaire to compare motivation for choice of topics, availability of infrastructure, sites accessed, types of article accessed and formal training in computer and literature search in two medical institutions. The details of the questionnaire are given in Table 1. The questionnaire was given or sent to specialty and super-specialty residents who belonged to Medical College and PGI. Medical College mostly provided specialty training (MD or MS) with some super-specialty courses whereas PGI provided mostly super-specialty (DM and MCh) training with some specialty programs. A

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**Table 1 : Questionnaire**

- How do you choose articles for Journal club rate 1-10 scale based on frequency of choice
  - Availability of good articles
  - Topic allotted by moderator/faculty
  - Problem in diagnosis or treatment of patient
  - Topics likely to appear in examination
- Does your institute provide computer facility (Yes/No)
- Do you get sufficient time on the internet (Yes/No)
- Where do you make computer search
  - Home
  - Institute
  - Cyber cafe
- Which sites you access (1-10 scale base or frequency of use)
  - Google
  - Medline
  - Cochrane
  - MD consult
  - Science Direct
  - Oxford Data Base
  - Others
- Have you been taught about computer based electronic literature search (Yes/No)

If yes-      Occasional lectures  
Systematic curriculum  
How many of training  
Was the training assessed?

good participant rate to a survey questionnaire format is usually estimated to be >65% response rate.<sup>10</sup> The residents therefore were reminded telephonically twice at the interval of one week if the responses were not received after first reminder. The responses were evaluated on a 10 point Likert's scale. Good article was defined on the basis of presenter's subjective assessment. The responses were tabulated and the relationship of different variables to the choice of journal club topics was evaluated employing parametric and non parametric tests using SPSS 10.0 software.

## RESULTS

Our results are based on 155 responses (60.8%) out of 255 residents approached. In our study group, 78 residents belonged to PGI and 77 to MC. 58 residents pursued super-specialty and 97 specialty courses; of them 138 were males. The choice of journal club articles was most commonly based on availability of a good article ( $6.14 \pm 3.38$ ), faculty guided ( $6.08 \pm 3.39$ ), examination related topics ( $3.98 \pm 3.09$ ) and patient related problems ( $3.98 \pm 3.09$ ). On comparing the choice of journal club articles between two institutions, residents in PGI more commonly chose articles for journal club based on availability of a good article ( $p=0.0001$ ); whereas the choice of article in MC was significantly influenced by the faculty guidance ( $p=0.0001$ ). The choice of articles related to patient management problems ( $p=0.90$ ) and topics considered important for examination ( $P=0.59$ ) were not different between the two groups. Comparison of motive for choice of journal club

article between super-specialty and specialty residents revealed similar findings. Female residents more frequently though insignificantly chose articles related to patient management and examination oriented topics compared to males however the number of female residents was too few to derive any valid conclusion. The residents in medical specialty significantly chose patient management related articles compared to their surgical counterparts ( $P<0.047$ ).

MEDLINE ( $P=0.001$ ) and MD Consult ( $P=0.0001$ ) were more commonly accessed by the PGI residents compared to MC. The choice of Google, Oxford Data Base, Science Direct and Cochrane did not reveal any difference between the two groups.

Infrastructure facility was better at PGI i.e. library opened for 24 hours round the year, availability of computers at workplace, free internet facility and institutional subscription to a number of paid websites. Whereas in MC there were limited computer facility and library opened only for 10 hours daily. Paucity of computers at MC, however, did not reveal a significant difference in computer based literature search because a significant number of MC residents had internet connection at home. The important difference between the two institutions was a 2 weeks formal training in computer based electronic literature search at PGI, which is assessed at the completion of training. The variables related to choice of journal club articles in two institutions are given in Table 2a,b.

## DISCUSSION

In our study, the choice of journal club article was mainly based on the choice of the presenter at PGI, whereas in MC it was based on faculty guidance. This

**Table 2a : Comparison of choice of journal club topics and other variables between residents in postgraduate institute and medical college**

Baseline Characteristics	PGI (78)	Medical College (77)	P
Superspecialty/specialty	50/28	8/69	0.0001
Surgery/medicine	21/57	15/62	0.34
Male /female	71/7	67/10	0.45
Formal training +/-	76/2	45/32	0.0001
Internet near/far	64/14	71/6	0.09
Frequency of choice of journal club topic			
Good article	$7.59 \pm 2.42$	$4.69 \pm 3.61$	<0.0001
Faculty guided	$5.08 \pm 3.35$	$7.10 \pm 3.14$	<0.0001
Management related	$4.01 \pm 3.01$	$3.95 \pm 3.21$	0.90
Examination related	$3.85 \pm 3.03$	$4.12 \pm 3.17$	0.59
Frequency of sites accessed			
Google	$7.74 \pm 2.70$	$7.40 \pm 3.10$	0.47
MEDLINE	$8.58 \pm 2.00$	$6.68 \pm 3.32$	0.001
Cochrane	$1.96 \pm 2.04$	$2.03 \pm 2.05$	0.85
MD consult	$3.78 \pm 2.94$	$1.60 \pm 1.50$	0.0001
Science direct	$3.36 \pm 2.91$	$2.57 \pm 2.61$	0.08
Oxford data base	$1.82 \pm 2.13$	$1.66 \pm 1.74$	0.61

**Table2b : Frequency of choice of article based on specialty, gender and discipline**

Frequency of choice of article	Super specialty N=58	Specialty N=97	P value
Good article	7.16±0.45	5.55±3.45	0.004
Faculty guided	5.40±3.48	6.49±3.29	0.05
Management related	3.62±2.88	4.20±3.22	0.27
Examination related	3.84±3.18	4.06±3.06	0.67
	Male (n=138)	Female (n=17)	P value
Good article	6.14±3.37	6.24±3.61	0.91
Faculty guided	6.09±3.36	6.00±3.77	0.91
Management related	3.93±3.13	4.35±2.84	0.60
Examination related	3.93±3.10	4.35±3.04	0.60
	Medicine (n=119)	Surgical (n=36)	P value
Good article	6.34±3.31	5.53±3.59	0.21
Faculty guided	6.17±3.25	5.81±3.88	0.58
Management related	4.25±3.08	3.08±3.04	0.47
Examination related	4.16±3.08	3.39±3.11	0.19

difference in the choice of journal club articles can be attributed to difference in curriculum, infrastructure available, training of the residents and other socio-cultural factors.

In PGI 64.1% residents were pursuing super-specialty training and in MC 89.6% were taking specialty courses. The super-specialty residents are generally more mature, had higher curricular demands and research needs, which probably made them more independent regarding the choice of journal club articles. In contrast, the specialty residents in MC completing their basic medical degree work under closer faculty guidance, which was reflected in the choice of articles for journal club. Comparison of super-specialty and specialty residents in PGI revealed a similar pattern of choice of journal club, again reflecting autonomy of super specialty residents compared to specialty. It has been reported that neither the trainees nor the faculty want participation of faculty member in the journal club as it reduces the opportunity of efficient and effective use of medical literature.<sup>11,12</sup> The studies on the success of journal club in medical residency programmes have revealed that making attendance mandatory, promoting journal club independent of faculty, providing formal teaching of critical evaluation, availability of snacks and emphasizing original research articles are responsible for the success of journal clubs.<sup>9,11</sup>

Other reasons for the difference in journal club in two institutions can be due to difference in infrastructure and training. In PGI, Intranet and Internet with broadband connectivity are available free of cost, the computers are available in the work place such as in wards, OPD, laboratory, library and resident room. Moreover in PGI a large number of websites such as MD Consult, Science Direct etc are subscribed. Whereas in the MC, there were few computers located at central place and no free access to websites forcing residents to search literature

at cyber cafe. Availability of infrastructure and personal computers does increase access, analysis and application of information.<sup>13</sup> Residents in PGI more frequently accessed MEDLINE and MD Consult, whereas residents in MC accessed MEDLINE and Google. The difference in sites accessed may be due to institutional subscription to a number of sites by PGI, which were available to residents as free library service.

Patient management related problems did not significantly differ in the residents of 2 institutions as a trigger for choice of journal club topics. It is ironical that in spite of infrastructure and formal training in PGI also the choice of journal club topics did not originate from patient management problems. Many physicians in practice<sup>14,15</sup> and in training<sup>16</sup> prefer to read traditional narrative review articles rather than original research studies.

There is increasing awareness and recommendations to include systematic reviews to be included in the journal club. The systematic reviews organize the medical literature and provide an interface between the physician and original research.<sup>17</sup> As per our results the journal clubs seem to be traditional in both the institutions studied and is far from ideal. In a systematic review on learning in practice, it was found that although standard teaching programs improve knowledge but not the skill, attitude or behavior, hence the EBM training should be integrated into clinical training.<sup>18</sup> The training of EBM should be initiated early and integrated into clinical teaching for optimal results. The EBM journal club involves converting the knowledge gap into a focused answerable question. The next step is to effectively search the literature and select the evidence which best answers the question, critical appraisal of the evidence for its validity and usefulness, finally integrating the results into practice.<sup>1</sup> After the article has been selected, the resident presents it usually in 1-hour journal club in which he describes the clinical scenario, search strategy and a brief discussion on the methodological and statistical issues. The methodological strength and weakness of the evidence are discussed and overall validity of evidence established and finally the conclusion is presented in a clinical context. After the conference, the evidence is summarized into CAT (critically appraised topic), stored and disseminated. Many countries in South East Asia are currently adopting EBM methods in medical education. A recent paper describes successful journal clubs have been conducted and evaluated as per international norms in community medicine residents in Pakistan.<sup>19</sup>

Our study though for the first time evaluates the journal clubs in two medical institutions in India, is limited by sub optimal response of 60.8%, traditional format, absence of CAT, poor access to internet in MC. It is important that the EBM training should be integrated into medical curricula early for optimal results.

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## Obituary



### Dr. TN Mehrotra

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(1937-2007)

Dr. TN Mehrotra, one of the most illustrious National President of IMA and a pioneer with a soothing personality among the medical fraternity has died on 29<sup>th</sup> January 2007. Born on 15<sup>th</sup> June, 1937, Dr. Mehrotra did his MBBS from Lucknow University in the year 1959. In 1962, he passed MD (Medicine) from the same university. He subsequently became MRCP (in 1963) from London and Edinburgh, then became FRCP from both in 1978. He also took fellowships like FIAMS (1985), FICP (1989), FAIID (1990), FICN (1995), FIACM (1996) and FGSI (1998). Due to his solid grassroot organizational ability, Dr. Mehrotra became the Vice-President of the Association of Physicians of India in 1996-1998. He was associated with various Medical organisations all over India.

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