

**DISSERTATION REPORT ON**

**To EVALUATE UTILITY OF CME IN**

**GENERAL SURGERY IN TEARMS OF**

**KNOWLEDGE IMPROVEMENT OF**

**CANDIDATE**

**Post Graduate Diploma in Hospital & Health Management**

**By**

**Dr. Heena Bishnoi**

**PG/13/026**



**International Institute of Health Management Research**  
**Plot No-3, Sector-18A Dwarka, New Delhi-110075**



International Institute of Health Management Research  
Plot No-3, Sector-18A Dwarka, New Delhi-110075

MAY, 2015

**Completion of Dissertation from NBE**

The certificate is awarded to

**Dr. Heena Bishnoi**

In recognition of having successfully completed his  
Internship in the department of

**CME**

and has successfully completed his Project on

**To evaluate utility of CME in general surgery in terms of knowledge improvement of  
candidate**

He comes across as a committed, sincere & diligent person,  
Who has a strong drive & zeal for learning

We wish him all the best for future endeavors

A handwritten signature in blue ink, appearing to read 'B.N. Khatri'.

**B.N KHATRI**  
Deputy Director

To Whomsoever It May Concern

Date:

This is to certify that Dr. HEENA BISHNOI in recognition of having successfully completed his internship in the department of "CONTINUING PROFESSIONAL DEVELOPMENT" and successfully completed her project  
On Evaluation of Utility of CME Workshops Among DNB Trainees



B.N. KHATRI

Deputy Director

National Board of Examinations

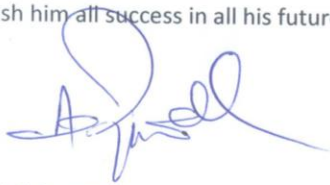
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This is to certify that **Dr. Heena Bishnoi** student of **Post Graduate Diploma in Hospital and Health Management (PGDHM)** from **International Institute of Health Management Research; New Delhi** has undergone Internship training at **National Board of Examinations** from **09/02/2015 to 09/05/2015**.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.



Dr.A.K.Agarwal  
Dean, Academics and student Affairs  
IIHMR, New Delhi



**DIYA AGGARWAL**  
Name of the mentor  
IIHMR, New Delhi

### Certificate of Approval

The Following Dissertation Titled "**To evaluate utility of CME in general surgery in terms of knowledge improvement of candidate**" at National Board Of Examinations is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its Acceptance as a prerequisite for the award of Post Graduate Diploma in Health and Hospital Management for which it has been submitted . It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for purpose it is submitted.

Dissertation Examination Committee for Evaluation of dissertation

Name

Signature

S.V. Adhikari

D.V. K. Kumbhar

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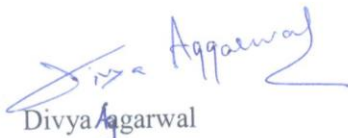
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Divya Aggarwal

IIHMR, New Delhi

## **Feedback Form**

**Name of the Student:** Dr. Heena Bishnoi

**Dissertation Organisation:** National Board Of Examinations

**Area of Dissertation:** Continuing Professional Development

**Attendance:** Complete

**Objectives achieved:** Completion of task with sincerity and timely  
Completion of projects assigned

**Deliverables:** To evaluate utility of CME in General Surgery in  
Terms of knowledge improvement of candidates

**Suggestions of improvement:**



**Signature of the Officer-in-Charge**

**Date:** बी०एन० खत्री / B.N. KHATRI  
उप निदेशक / Deputy Director  
राष्ट्रीय परीक्षा बोर्ड / National Board of Examinations  
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**NATIONAL BOARD OF EXAMINATIONS**

(Ministry of Health & Family Welfare, Govt. of India)

**Certificate from Dissertation Advisory Committee**

This is to certify that **Dr. Heena Bishnoi**, a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. He is submitting this dissertation titled **"To evaluate utility of CME in General Surgery in terms of knowledge improvement of candidate"** in partial fulfillment of the requirements for the award of the Post- Graduate Diploma in Health and Hospital Management.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Divya Aggarwal  
IIHMR New Delhi

Dr Bipin Batra  
Executive Director  
National Board Of Examinations

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## Certificate by Scholar

This is to certify that the dissertation titled **TO EVALUATE UTILITY OF CME IN GENERAL SURGERY IN TERMS OF KNOWLEDGE IMPROVEMENT OF CANDIDATES** and submitted by **Dr Heena Bishnoi** Enrollment No. **PG/13/026** under the supervision of **Divya Aggarwal** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 09 February 2015 to 01 May 2015 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Dr. Heena Bishnoi  
Signature

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## **ABSTRACT**

CME is an educational activity that serves to maintain, develop, or increase the knowledge, skills performance and physician uses to provide services for patients, public or the profession. Understanding what CME tools and techniques are most effective in disseminating and retaining medical knowledge is critical to improving the effectiveness of CME and thus diminishing the gap between evidence and practice.

The study was “To evaluate utility of CME in General Surgery in terms of knowledge improvement of candidate” taken with prime objective to measure the knowledge gained by the delegates on current practices in Surgery. Questionnaire was forwarded to last three years surgery trainees with sample size of 300. study result have shown positive result indicating that trainees are able to increase their knowledge, skills, and performance to provide services for patients. Trainees are able to learn about new and developing areas of their field. It is evident to conduct CME to update the knowledge of health performance.

## **ACKNOWLEDGEMENTS**

I owe my sincere gratitude to many people who helped and supported me during the course of this project.

I would like to express my heartfelt gratitude and deep appreciation to my esteemed mentor Dr. BIPIN BATRA, Executive Director, NBE for his excellent guidance, constant support and encouragement without which the successful completion of this project would have been a distant reality. His critical approach, guidance, unflinching support and constant encouragement have helped me to bring this project to a successful completion.

It is with immense pleasure and deep appreciation to my esteemed professor and guide DIVYA AGGARWAL, for guiding and correcting various documents of mine with attention and care. I really appreciate all the pain she took to go through the project and suggesting necessary corrections as and when needed. Her tireless pursuit for perfection and professional insight were a source of constant inspiration to me.

I would like to extend my sincere thanks and profound gratitude to Mr. B.N. KHATRI, Deputy Director, Mr. DINESH CHAND, Deputy Director, Mrs. SUNITA KAPOOR, Assistant Director, NBE providing me with a good environment and facilities to complete this project.

I would also like to thank the Dean of my institute Dr. A. K. AGGARWAL and my faculty members without whom this project would have been a distant reality.

Dr Heena Bishnoi

Research associate

National Board Of Examinations

## **LIST OF SYMBOLS & ABBREVIATIONS**

NBE- National Board of Examinations

DNB-Diplomate of National Board

CET- Centralized Entrance Test

CME- Continuing Medical Education

OSCE- Objective Structured Clinical Examination

EEC- Examination Ethics Committee

AIPGMEE- All India Post Graduate Medical Entrance Examination

DNB CET- Diplomat of National Board

FMGE- Foreign Medical Group of Examination

CRISIS- Convenience Relevance Individualization Self-Assessment And Specialization

EPC- Evidence-Based practice Center

AHRQ- Agency of Health Care Research& Quality

ACCP- American College of Chest Physicians

DARE- Database of Abstracts of Reviews of Effects

ERIC- Educational Resource Information Centre

IRIA- Indian Radiology and Imaging Association

## Introduction

Continuing medical education (CME) is defined as educational activities that serve to maintain, develop, or increase the knowledge, skills, performance, and relationships a physician uses to provide services for patients, the public, or the profession. Despite the broad range of CME aimed at educating practicing physicians, researchers have found that physicians commonly overuse, under use, and misuse therapeutic and diagnostic interventions. It has been suggested that CME may not be effective enough to significantly narrow the gap between what is done in clinical practice and what should be done based on current evidence. Understanding what CME tools and techniques are most effective in disseminating and retaining medical knowledge is critical to improving the effectiveness of CME and thus diminishing the gap between evidence and practice. To date, relatively little has been done to comprehensively and systematically synthesize evidence regarding the effectiveness of CME and the comparative effectiveness of differing instructional designs for CME in terms of impact on knowledge, attitudes, skills, practice behavior, and clinical practice outcomes. Review of evidence elucidating the value of CME (and ways the activities could be improved, if appropriate) could yield tremendous value to policy makers and professional organizations seeking to make recommendations regarding the optimal delivery of medical care. (1)

Medical sciences change rapidly with new scientific information and technology (2) therefore; continuing education plays a vital role in presenting ever-growing knowledge, modern technology, and new orientation for the heart care providers. To perform their professional responsibilities, physicians need to participate in continuing medical education (CME) (3). CME has been the focus of many studies conducted by medical teachers and health managers throughout the world. Convenience, Relevance, Individualization, Self-assessment, Interest and Speculation (CRISIS) were recommended to improve the effectiveness and quality of continuing medical education programs (4).

On the other hand, the quality control and establishment of effective continuing medical education programs have been under consideration from long ago and the need for their evaluation has repeatedly been cited (5-7). Nevertheless, the evaluation methods used have defects including lack of objectivity, repeatability, and feedback to learners and compatibility. Existing evidence suggests that CME programs in Iran have rarely been evaluated, and most of them end up only with an



opinion poll. As a result, re-examination in the procedure and qualitative control of these programs is a well recognized requirement.

Comprehensive evaluation of CME programs needs sufficient time, energy and resource for planning and organizing evaluation. That's why the evaluation methods mostly focus on opinion evaluation. Although the effect of CME on behavior change has been investigated (8), there are some evidence of investigating the knowledge and or opinions of the participants of CME program using question test before and after the educational sessions (9), a questionnaire along with open discussion at the end of a symposium (6), a test and a questionnaire approving an increase in physician's self-confidence confronting with clinical and psychosocial symptoms (10), psychometric evaluation of participants taking part in an intensive 5-year continuing education program (11), and mailed questions on the topic of the educational package on the knowledge of etiology, diagnosis and the treatment of incontinency (12).

In an investigation of the status of CME of the Iranian Medical Society, it was concluded that in most CME programs complaints, violations and problems with medical documentation and the society's culture are not considered. The main objection of the participants in the program was lack of harmony among the professional needs of the participants and clinical problems of the physicians with the subjects raised in the continuing educational programs (13). In another research project, the relationship between the subjects attending the continuing educational programs and health requirements and needs of the country was investigated. The researchers concluded that in most cases there is no harmony between the society's needs and the length of time spent to teach and train the physicians in this regard (14).

Presently, CME is presented in most of the main universities and service providing centers of the country. This has been immensely expensive. Evidence suggests that in most cases, the evaluation of these programs is only conducted using the opinions of the participants which indeed cannot be illustrative of different aspects of evaluation (15). Considering the feasible methods of evaluation in the above-mentioned research projects, the present research aims at evaluating a training program held in Shiraz.

## ORAGANIZATION PROFILE

The national board of examination was established in 1975 on the basis of the report of a working group set up by them prime Minster Smt. Indira Gandhi Since 1982 the board has been functioning as an independent autonomous body established under societies registration Act.

The Board conducts following activities.

1. Examination: The National Board of Examinations conducts in a planned and scientific manner in regard to evaluation, assessment.

The following exams are conducted by NBE.

I. CENTRALIZED ENTRANCE TEST (CET): There is a common CET for all broad specialties. Candidates who have completed their compulsory internship After gradation are eligible to tale CET examination. Centralized Entrance Test (Super-Specialties) and Centralized Entrance test (Post Diploma)

II. FINAL THEORY EXAMINTION consists of 4 papers of 3 hours duration on Each consisting of 10 short answer/essay type questions. A total 3056 and 4324 Candidates appeared and 1011 and 1743 passed in the DNB final examination during the year 2009-2010 and 2010-2011 respectively (exam conducted twice a year at exam centers all across country)

III. POST DOCTRAL FELLOSHIP PROGRAMMES: India has expertise in Various sub-specialty areas, with centers having high equipment and trained Man power performing exceptional quality work. There are many young Medical post graduates with aptitude for higher learning. Considering the need to increase man power that can render highest degree of profession Work the national board the started postdoctoral Fellowship courses in 16 Specialties.

#### IV. SCREENING TEST FOR FOREIGN MEDICAL GRADUATES: The

Government of India has entrusted the conduct of screening test regulation 2002 for the candidates who have undergone medical training abroad to National Board. The purpose of screening test of quality for registration as medical practitioner with the MCI or any state medical council. Exam is conducted twice a year since year 2002.

#### 2. ACCREDITATION

The board is the prime national level organization that has a set a mechanism for imparting post graduate teaching and training in the sphere of higher medical education. Leading centers of excellence and in public. Private and defense institutes all over the country that have been accredited by NBE for imparting training based on the defined accreditation criteria.

#### 3. CONTINUING MEDICAL EDUCATION PROGRAMME/WORKSHOPS:

National board is the prime national level organization that has a set a mechanism for imparting post graduate teaching and training in the sphere of higher medical education. Leading centers of excellence and in public, private and defense institutes all over the country that have been accredited by NBE imparting training based on the defined accreditation criteria.

- I. E-learning-satellite based interactive sessions are conducted using television broadcast on Gyan Darshan channel every Thursday. This session provide two-way audio communicated and one-way video communication between the facility and the DNB students. NBE also conducts interactive sessions in FM radio every Thursday from 5:00 PM to 6:00 PM on Gyan Vani.
- II. NBE has also set up a repository of electronic content in medical education covering all board and super specialties through titles available DVD volumes. These titles cover wide range of issue as a part of the post graduate curriculum in modern medicine from common topics to esoteric areas of Knowledge which otherwise are not easily available as learning resource.

III. Workshops in research methodology.

NBE in its continuing endeavor to strengthen research and facilities capacity building in research methodology periodically conducts workshops for benefits of Post graduate candidates and faculty members.

4. SPECIALITY ADVISORY BARDS: NBE has constituted specialty advisory boards for various disciplines in which examinations are conducted.

The experts from all over the country drawn from various institutes in various disciplines are member of these boards.

5. Diplomate of National Board (DNB) is the title awarded by the National Board of Examinations (NBE), an autonomous academic body under the Ministry of Health and Family welfare, Government of India to candidates who successfully complete their postgraduate or postdoctoral medical education under it.

6. The Board sustains its activities through following means:

Income from examination fees etc (operational activities)-Examination fees and accreditation fees are charged from applicant institute/candidates to cover the recurrent operational expenditure and creation of infrastructure of NBE such as regional offices and extending the activities of NBE.

Plan development/capital expenditure is supported by ministry of health by giving bulk grant.

## **1.2 Research Area**

.Working as Research Associate in Training & Monitoring at National Board Of Examinations, New Delhi

### **1.2.1 Area of Engagement**

1. Conducting of Objective Structured Clinical Examination (OSCE)
2. Conducting of Examination Ethics Committee (EEC)
3. Conducting CME/Workshop
4. Making Appraisal report for exams (AIPGMEE, DNB CET, FMGE)

### **1.2.2 Managerial Tasks**

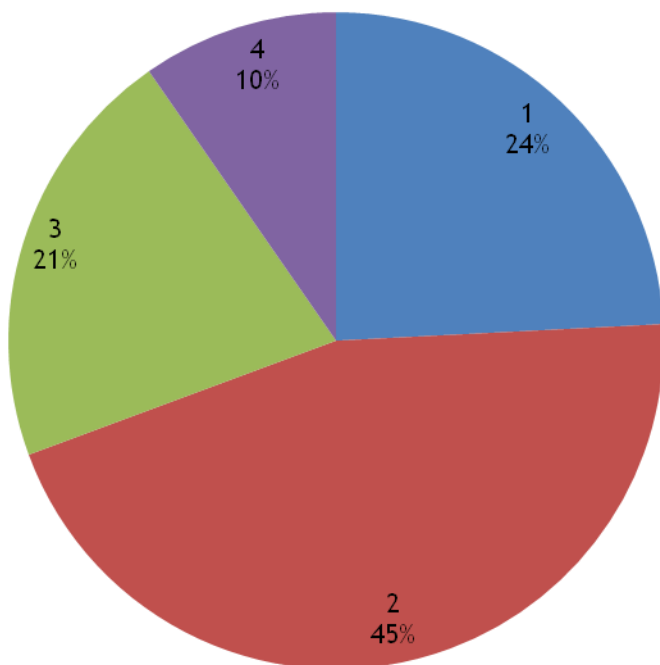
1. Coordinated meeting
2. Coordinated CME On'' current practices in pediatrics''
3. General Tasks in the Training & Monitoring Department.

### **1.2.3 Reflective learning**

1. Organizing CME's
2. Preparation of Impersonator Booklet
3. Resolving case of Peeping/Cheating as per reports provided by authorize agency.
4. Preparing official document's
5. Prioritizing of work
6. Time management

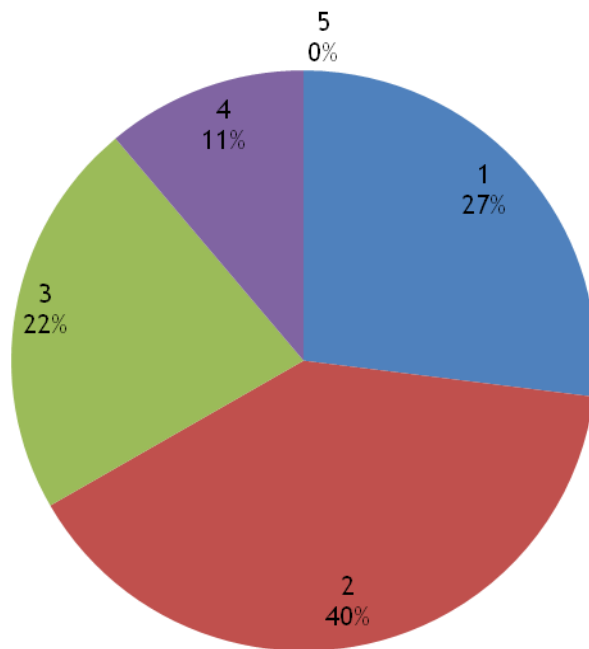
#### 4. The Content of CME's s as per my expectations

Answer Choices	Responses
Strongly Disagree	15
Agree	28
disagree	13
Neutral	06



## I Gained Sustainably from CME Workshops

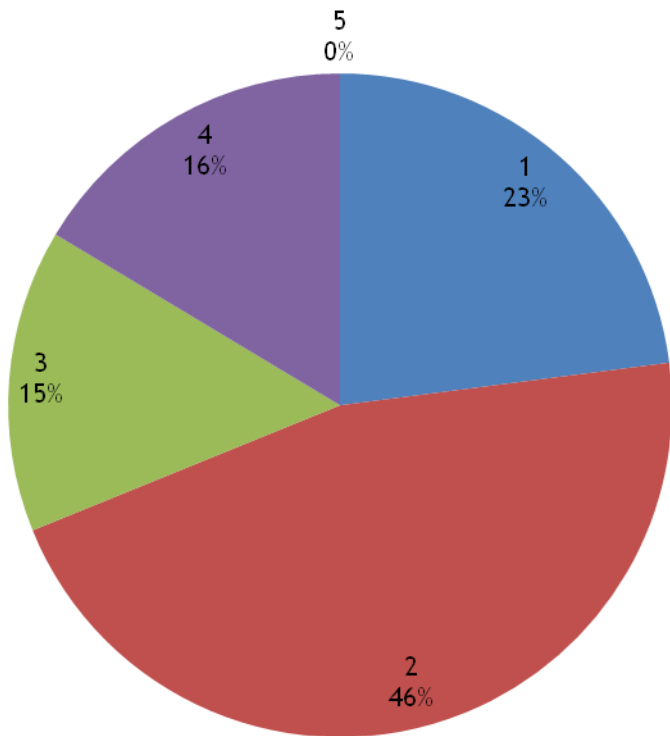
Answer Choices	Responses
Strongly agree	17
Agree	25
Disagree	14
Neutral	7
Strongly disagree	0





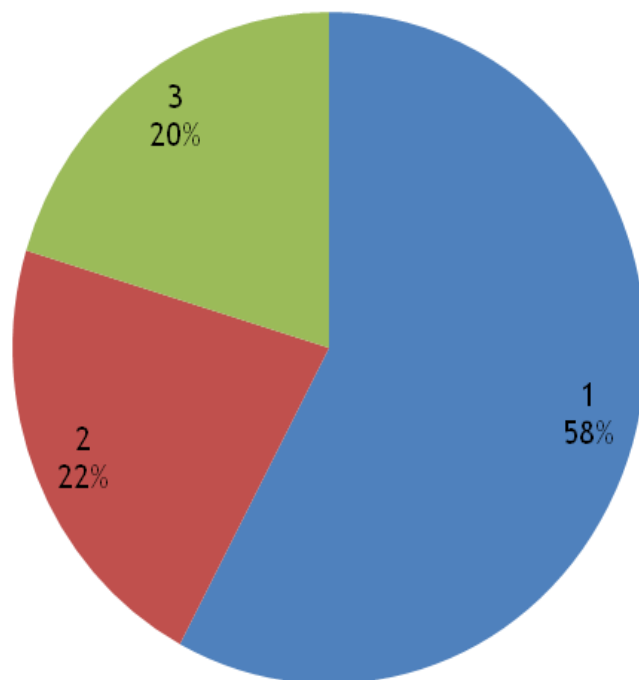
CME helped me Improve my Teaching Skills

Answer Choices	Responses
Strongly agree	14
Agree	28
disagree	09
Neutral	10
Strongly disagree	0



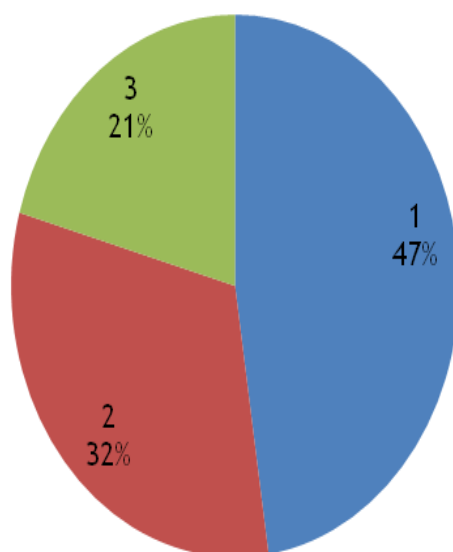
Time Allotted during CME Sessions was

Answer Choices	Responses
Adequate	37
Less than required	14
Inadequate	13



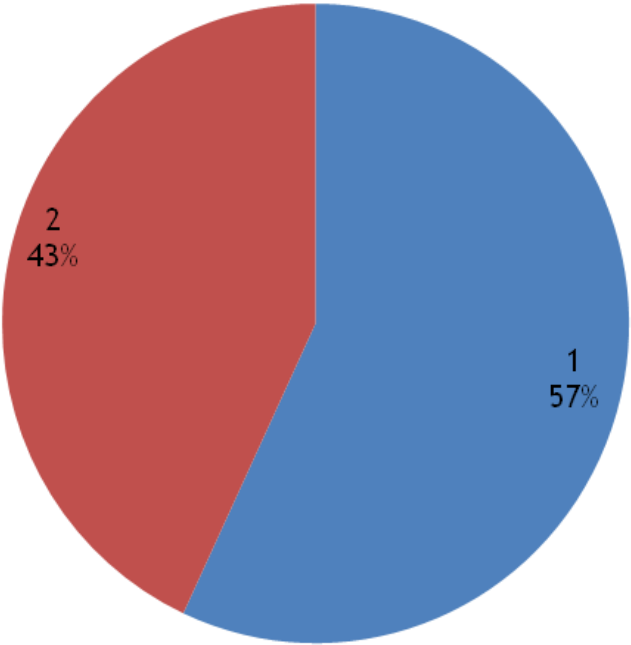
Time Allotted for Doubt Session was adequate

Answer choices	Responses
Adequate	30
Less than required	20
Inadequate	13



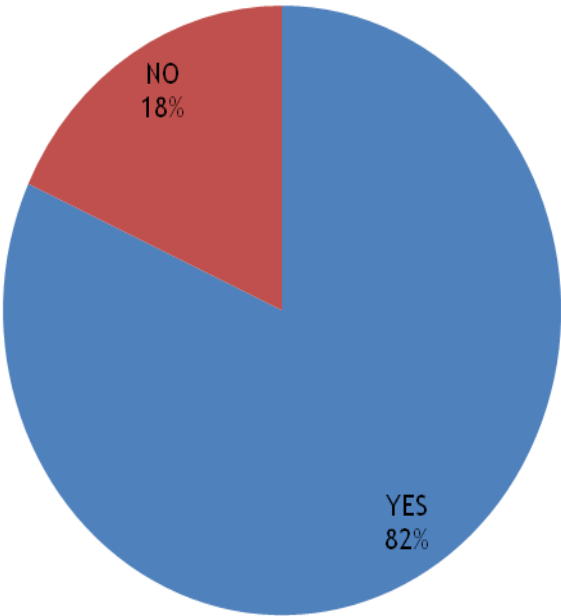
Reading Material was given in advance

Answer choices	Responses
Yes	37
No	28



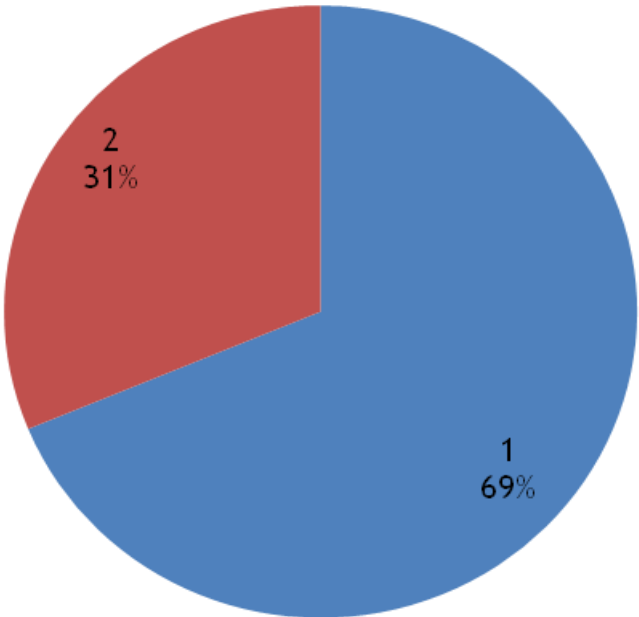
Improved Skills

Answer Choices	Responses
Yes	27
No	6



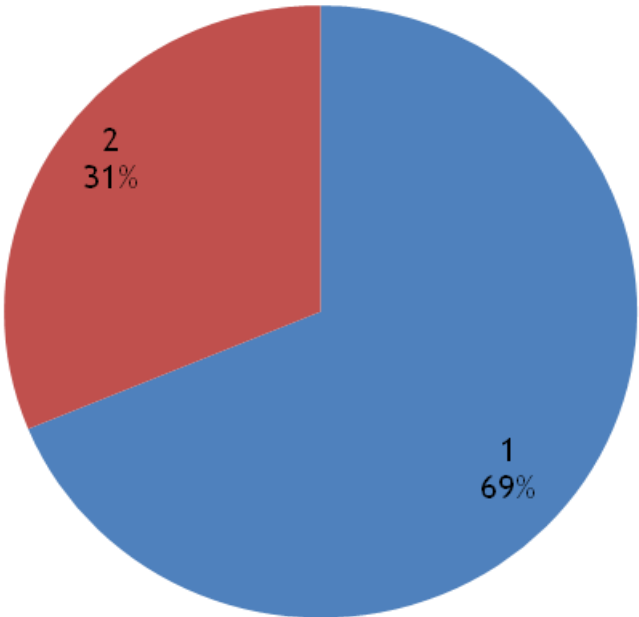
CME presentations given were adequate

Answer Choices	Responses
Yes	44
No	20



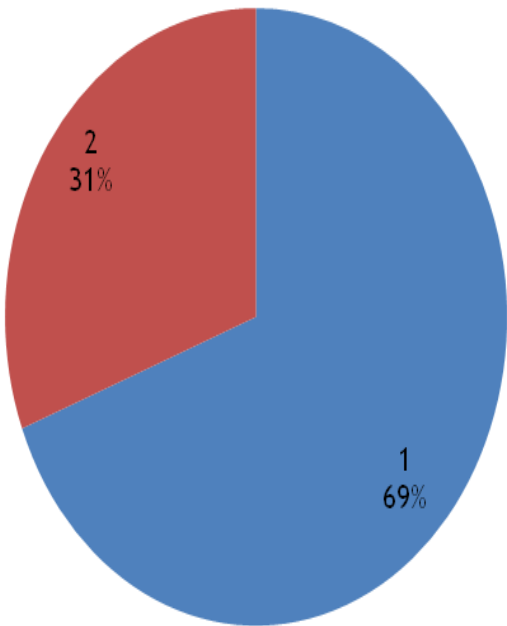
CME presentations given were adequate

Answer Choices	Responses
Yes	44
No	20



Will Suggest others to attend CME

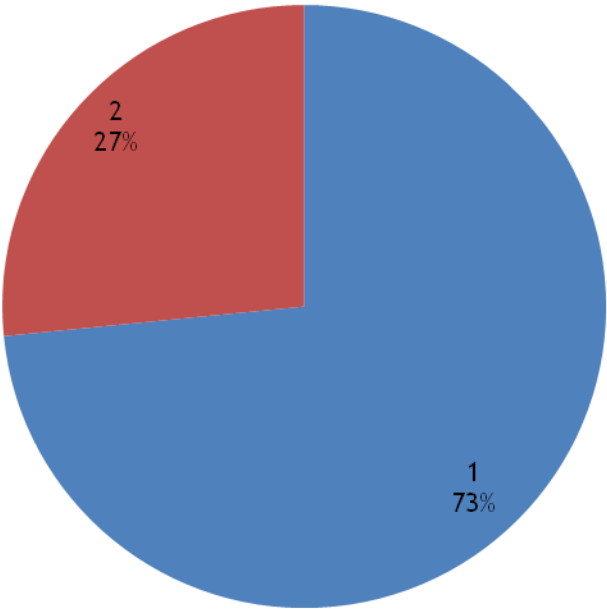
Answer Choices	Responses
Yes	47
No	21





Wish to attend more CME's in Future

Answer Choices	Responses
Yes	47
No	17



## Title of the study

“To Evaluate utility of CME in General Surgery in terms of knowledge improvement of candidate”

## OBJECTIVES

- To evaluate the benefits gained by trainees by CME Workshops.
- To provide set of recommendations to improve technical training for Surgeons in Practice.
- To generate evidence on impact of CME.
- Qualitative assessment of effectiveness of CME.

## Methodology

### Study Area

Study was conducted at National Board of Examinations, New Delhi where questionnaire was circulated to DNB General Surgery trainees.

### Study Design

Cross sectional study was designed.

### Study Sample

Total 300 delegates from General Surgery residents have participated from all over India of different DNB training institute.

### Tools and Technique

A questionnaire comprising total 10 questions was administered to resident doctors in General Surgery.

\

## Limitation of study

- The study reviewed only the knowledge aspect of trainees to prove the effectiveness of CME.
- Skills gained and change in Surgeons attitude.
- Behavior and clinical practice outcomes were not evaluated in study.
- Time constraint prevented the evaluation of data from other specialties.

## Recommendation

- More time for interactive sessions should be enhanced.
- Participation should be encouraged.
- CME should provide opportunity for follow up sessions.
- Pre circulation of contents.

## Discussion

### Study result suggests:

45% of total candidates agree that contents were as per their expectation but 21% disagreed for same.

Maximum candidates gained substantial knowledge around 40 % were agreed with it.

Out of total 46% candidates teaching skills were improved with the help of CME's.

Time allotment for candidates doubts and CME session were 58%

Presentation given at the time of CME was sufficient for candidate to get the subject.

Candidates 73 % are much more interested in attending more CME as they are finding it helpful.

**ANSWER QUESTION IN SPACE PROVIDED. SELECT STRONGLY DISAGREE(SD),DISAGREE(D),NEUTRAL(N),AGREE(A),STRONGLY AGREE(SA)**

**•Yes(Y) No (N)**

- 1) The content of CME's was as per my expectation
- 2) I gained substantially from the workshops
- 3) CME shall help me in improve my teaching abilities in near future
- 4) Reading material given in advance
- 5) Presentation adequate
- 6) Time allotted for CME's sessions
- 7) Time allotted for Doubt session was adequate
- 8) Improved skills
- 9) Wish to attend more CME'S in future
- 10) Will suggest others to attend CME'S

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