THE PERCEPTION OF MINI CLINICAL EVALUATION EXERCISE (MINI CEX) BY POST GRADUATE STUDENTS AS A LEARNING TOOL: QUALITY MEDICAL EDUCATION- THE NEED OF THE HOUR
M. Vijaya Sree

1 Professor and HOD, Department of Obstetrics and Gynaecology, Mamata Medical College, Khammam, Telangana.

ABSTRACT

BACKGROUND
Assessment of the clinical skills has an important role in the evaluation of students. So, Mini CEX has been formulated to assess the residents within their clinical situations for their improvement.

Aim of the Study- To find out the perception of Mini Clinical evaluation Exercise by postgraduate students as a learning tool.

MATERIALS AND METHODS
It was an Observational Study done involving Post Graduate Students in OBG department over a period of 5 Months. Sixteen students were given an exercise on history taking, physical examination and counselling the patient. Observation was done for 15 minutes by using Mini CEX method followed by feedback for 5 minutes. Later a questionnaire was given to them to know their perception regarding Mini CEX. The results were noted and analysed.

RESULTS
All the 16 students were given patients who are ambulatory. Most of the second-year students were lacking in professionalism and organization, whereas third-year students performed better in all the aspects. Mini CEX was satisfactory for 14 residents. For one resident it was just satisfactory, On the other extreme one resident was highly satisfied. Residents views were - asset for university exams for time management (6), useful for rectifying themselves and for future practice (4), excellent method for assessment and improvement (3), wanted multiple exposures from UG course itself (3).

CONCLUSION
The Mini- CEX has good overall utility for assessing aspects of the clinical encounter in postgraduate setting. Strengths included formative observation and feedback for improvement of the student for a long-term outcome.

KEYWORDS
Mini CEX, Perception, Assessment.


BACKGROUND
Assessment of the Clinical skills has a very important role in the evaluation of the Health Professions. We really do not assess the students’ clinical skill after teaching them until the final examination. So, we need a tool to assess their performance throughout their course, so that there will be a scope for betterment. The American board of internal medicine ABIM has recommended the use of traditional clinical evaluation exercise or CEX as one form of assessment for residents, especially first-year students. The traditional CEX takes about two hours and residents are assessed during their first year of training. However, the traditional CEX has been criticized as an evaluation instrument because the results are unlikely to be generalized beyond the observed encounter.3-6 Physician performance is case specific and CEX assesses the resident with only one patient. So, mini CEX has been formulated. Here, We assess the residents in a broad range of clinical situations than traditional CEX. Produced scores are more reliable than traditional CEX and offered the residents more opportunity for observation and feedback. It is done as 15 to 20 minutes patient encounters throughout the year.3-9 So, I have taken up this study to know the perception of mini CEX by postgraduate students in our hospital.

Aim of the Study
To find out the perception of mini clinical evaluation exercise (MINI CEX) by postgraduate students as a learning tool in the department of OBG.

MATERIALS AND METHODS
Study Design
Observational Study.
Study Sample
Second and Third year Post Graduate Students.

Setup
Conducted in the Department of OBG.

Study Period
5 Months (May 2015 to September 2015).

Post graduate students were given an exercise on history taking, physical examination and counselling the patient. Observation was done by using mini CEX method for assessing them with the help of a check list. For each encounter (observation for 15 minutes and feedback for 5 minutes), I have recorded the date, the patient’s problem, the sex of the patient, the type of visit – new or old, the setting – out patient department or the inpatient department, the number of minutes spent observing the encounter and the number of minutes spent giving feedback. I also noticed whether the focus is on data gathering, diagnosis, treatment or counselling. Using a 9-point scale-in which 1 to 3 would be unsatisfactory, 4 would be marginal, 5 and 6 would be satisfactory and 7 to 9 would be superior. I have rated the resident on interviewing, physical examination, professionalism, clinical judgement, counselling, organization and efficiency and overall competence. I also noted my own satisfaction on a 9-point scale where 1 would be dis-satisfied and 9 would be very satisfied. Post graduate students were approached and feedback on their strengths and weakness was given orally, later a questionnaire was given to them to know their perception regarding Mini-CEX in improving their competence. The results were noted and analysed by appropriate method.
The competencies that can be evaluated using the mini-CEX are defined as follows:

- **Medical Interviewing Skills**: Facilitates the patient’s story-telling through effective use of questions/directions in order to obtain accurate and required information; responds appropriately to affect and non-verbal cues.
- **Physical Examination Skills**: Shows efficiency and a logical sequence; balances screening/diagnostic steps towards problem; informs the patient and is sensitive to the patient’s comfort and modesty.
- **Humanistic Qualities/Professionalism**: Shows respect, compassion, empathy, establishes trust; attends to the patient’s needs for comfort, modesty, confidentiality and information.
- **Clinical Judgment**: Selectively orders/perform appropriate diagnostic investigations/tests, considers risks and benefits.
- **Counseling Skills**: Explains rationale for tests/treatment, obtains patient’s consent, educates/counsels patient on the proposed management.
- **Organization/Efficiency Skills**: Prioritizes actions; uses time efficiently; is succinct.
- **Overall Clinical Competence**: Demonstrates judgment, synthesis, caring, effectiveness, efficiency.

**Evaluation**

Evaluation was done by questionnaire given to the students regarding the perception of the conduct of mini-CEX and also their perception of mini CEX as an assessment tool in the Department of Obstetrics and Gynaecology using Kirkpatrick model of evaluation and also outcome matrix.

**RESULTS**

A total of 16 post graduate students participated in this exercise – 9 students from second year and 7 students from third year. All the students were given OPD patients who are ambulatory with moderate complexity. Results noted were - Most of the second years were lacking in professionalism and organisation, score was between 6 to 8 - average was 7 whereas third year students performed better in all the aspects. Almost all the residents were very happy with the Mini CEX and their score ranged from 7 to 9 – average was 8. For one resident it was just satisfactory with score 5, On the other extreme - Another resident found it to be above 9 giving the highest score. Table -1. Residents views on mini CEX - Asset for university exams for time management, Useful for rectifying themselves and for future practice, Excellent method for assessment and improvement, Wanted multiple exposures, Wanted it from UG course itself (1). Table-2.

<table>
<thead>
<tr>
<th>Residents Perception of Mini CEX (N=16)</th>
<th>No. of Students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent - Score 7-9 (average 8)</td>
<td>14</td>
<td>87.5%</td>
</tr>
<tr>
<td>Just satisfactory - Score 5</td>
<td>6</td>
<td>6.25%</td>
</tr>
<tr>
<td>Highly satisfactory - Score 9</td>
<td>6</td>
<td>6.25%</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table -1. Residents Perception of Mini CEX (N=16)
DISCUSSION
In the literature study done by Norcini JJ et al found that the Mini-CEX had three limitations:1) The resident being assessed with only one patient. Clinical performance being case specific, a broader sample of patients is required in order to have a valid and reliable assessment. 2) The resident is being assessed by only one faculty. A strict or lenient assessor may introduce error into the assessment. 3) The two hour interaction is not representative of routine real life patient-doctor interactions which are of shorter duration, demanding focused history taking and examination skills. In my study the limitation was similar to Norcini et al – I had only one patient encounter with each postgraduate, since my study period was limited and also the students were on rotation to the other units every three months. In my study I alone assessed the student due to limited number of staff and their non-cooperation, they were not ready to spend extra time for my study. Another limitation in my study was all the cases were of moderate complexity randomly picked up from the outpatient department and of shorter duration. I could not assess a patient with severe complexity admitted in the intensive care unit.

Durning SJ et al in their study found four major advantages of mini-CEX as compared to traditional CEX:1) Assessment in a variety of clinical settings and 2) Shorter duration. 3) Increased content validity and reliability. 4) Focused patient evaluation which is more representative of real life scenario. In my study I could also focus on encounters on real life scenarios and give them immediate feedback to improve themselves. It took an extra 40 minutes from my side for completion of each encounter: mini CEX performance by student 20 minutes, feedback by me -10 minutes and feedback form to be filled by student regarding their perception on this exercise -10 minutes. I have got good response from my postgraduates.

Studies published by Wilkinson JR et al have reported mini-CEX to be of formative educational value as it provides opportunities for performance under direct supervision with inbuilt feedback from the supervisor / faculty.10 In my study I have done only perception of the mini CEX, but it is definitely a valuable tool for assessment also to evaluate the students’ performance.

Many studies have gathered evidences regarding the feasibility of mini-CEX using one or more of the following three criteria i.e. the time required for each encounter, the practical possibility of achieving the target encounters in the study, and acceptability. Similar to those studies it was also very feasible for me to conduct mini CEX especially post graduates since they are posted with me in our unit for continuously for three months and they are also ready to accept it since it would be helpful for them in near future.

Satisfaction of faculty or trainees regarding mini-CEX. Studies have shown high satisfaction rates of faculty and trainees for mini-CEX. The challenge of scheduling mini-CEX for trainees due to lack of time has been found to be one of the issues hindering the practicality.10 This may be resolved by encouraging more informal encounters which may alleviate the need for formal scheduling. In our study also students do face many informal encounters throughout their course. Both the faculty and the students have high satisfaction rate in my study.

CONCLUSION
The mini-CEX has good overall utility for assessing aspects of the clinical encounter in a postgraduate setting. Strengths include formative observation and feedback for improvement of the student for a long-term outcome.

Acknowledgements
I would like to extend my sincere thanks to Dr. Anuradha., HOD., Dept. of Microbiology., Dr. Koteshwara Rao., Dean., MMC., Management of Mamata Medical College., HOD., Dept. of OBG., my colleagues, junior assistant in the Dept. of OBG and the students for encouraging and helping me in completing the study.

A special thanks to Nadella Tejaswi PG in OBG for her active participation in my study.

REFERENCES


