

**Introduction and Acceptance of One Minute Preceptor (OMP) as a teaching tool for postgraduate resident doctors in department of Obstetrics and Gynaecology at a tertiary health care centre, South Gujarat.**

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**Abstract**

**Background:** Postgraduate courses in the medical field are conducted in the institutes which render tertiary care to the community. Due to heavy patient load, mostly teacher-student interactions are focused on patient management with often unstructured learning outputs. The student-teacher interaction regarding patient management can be converted in to a structured teaching like One Minute Preceptor-OMP, hence we would like to introduce this OMP model in our department and study its acceptance, impact and gather perception amongst residents and faculties.

**Aim and Objectives:** To gather acceptance and perception of OMP as a teaching tool in post-graduate students and teachers in Obstetrics and Gynecology department.

**Methodology:** This educational interventional study was conducted in obstetrics & gynecology department, government medical college, Surat over a period of 6 months. After permission of Institutional Ethics

Committee (IEC) OMP sessions were conducted on 26 residents by 11 faculties (6 sessions/resident) after a prior sensitization session, an anonymous feedback through a pre validated structured questionnaire based on 5 point Likert scale was collected from residents and faculties regarding perception about OMP and analyzed.

**Findings:** All 26 residents (100%) perceived that OMP sessions stimulates them to think more about topic, improved their clinical reasoning skills and better understanding of the topic. There were 24 (96.1%) residents agreed for OMP should be incorporated into PG teaching. All faculties (11) were agreed that they were ready to incorporate/adopt OMP as a teaching method in routine.

**Conclusions:** Residents and faculty exhibited their willingness to incorporate OMP sessions for post-graduation in the department of Obstetrics and Gynecology.

**Keywords:** OMP, Checklists and Criticism.

## Introduction

Currently in Gujarat the postgraduate courses in the medical field are conducted in the institutes which render tertiary care to the community. Due to heavy patient load, mostly teacher-student interactions are focused on patient management with often unstructured learning outputs.

Training of resident doctors is a critical issue. The regular teaching activities in department of Obstetrics and Gynecology (ObGyn) are typically in form of bedside teaching, case discussions, seminars and group discussions on common cases in classroom in the scheduled post graduate (PG) teaching programme and in the operation theatre in the form of teaching and assisting the operative procedures. The student-teacher interaction regarding patient management can be converted in to a structured teaching like OMP.

One Minute Preceptor (OMP) is an innovative method of teaching and learning activity which involves standard process with checklists and criticism. The model of OMP was first proposed by Neher et al. in 1992. This model defines each component of the One Minute Preceptor and provides opportunities to practice five micro skills for clinical teaching.<sup>(1)</sup>

- Get a commitment
- Probe for supporting evidence
- Teach general rules
- Reinforce what was right
- Correct mistake

It is a five step “microskill” method of clinical teaching which provides a framework on which daily teacher – student conversations can be ordered properly and converted in to useful teaching sessions.

In 2001, Scott L Furney et al conducted a randomized controlled trial on teaching the One Minute Preceptor

and concluded that the OMP model is a brief and easy to administer intervention that provides modest improvements in resident’s learning skills.<sup>(2)</sup>

The key principles of OMP are:

- Choose a topic that occurs as a matter of course in routine clinical practice;
- Explore the students thinking in relation to the selected topic
- Present the student with one or two core principles;
- Reinforce positive behaviours;
- Identify areas for improvement or development.<sup>(3)</sup>

There is a scarcity of evidence of its use in PG teaching, especially in Gujarat, hence we would like to introduce this concept in our department and to study its acceptance, impact and gather perception amongst residents and faculties.

## Aim & Objectives

**Aim:** To gather acceptance and perception of OMP as a teaching tool in postgraduate students and teachers in Obstetrics and Gynecology department

## Specific Objectives-

1. To introduce One Minute Preceptor-OMP as a teaching tool in Post graduate students and teachers in OBGYN department.
2. To gather and analyze perception of OMP in PG students.
3. To gather and analyze perception of Faculties about OMP.

## Methodology

This educational interventional study was conducted in obstetrics & gynecology department, government medical college, Surat over a period of 6 months.

All consenting 26 residents and 11 faculties were enrolled in the study after taking permission of Institutional Ethics Committee (IEC). The participation

was voluntary and a written informed consent was taken for the same.

In the beginning, an informative session was conducted to sensitize all residents and faculty about OMP. All residents and faculties were shown role play about the difference between traditional method and OMP and how to cover all 5 micro skills during OMP sessions.

OMP sessions were conducted by faculties on common Ob Gyn clinical diagnoses using five micro skills including 26 residents (6sessions/resident) over a period of 6 months.

After the stipulated period, residents were asked to give anonymous feedback through a pre-validated, structured,

self-made questionnaire on 5 point Likert scale (5-stronglyagree,4-agree,3-neutral,2-disagree,1-stronglydisagree)consisting of different aspects of OMP and it was analyzed .

Faculty perception regarding OMP and whether to include it as a teaching tool in practice was also accessed through a pre-validated structured self-made questionnaire on 5 point Likert scale.

Data was entered in Microsoft Excel and analysis was done in SPSS 23 version.

**Observations and Results**

In this study, total number of residents was 26 and faculties were 11.

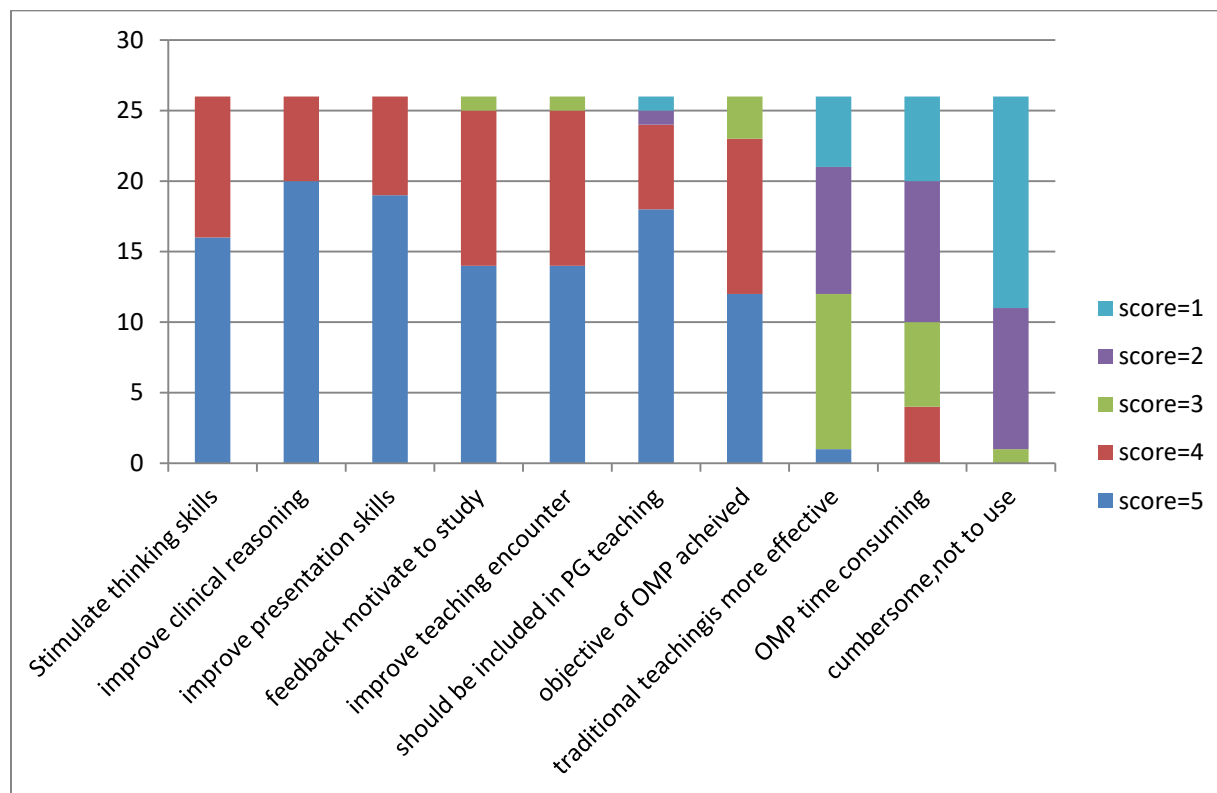
Table 1: Distribution of Likert scale scores for the one-minute preceptor perception questionnaire items (N= 26)

SN.	Likert items	Score 1	Score 2	Score 3	Score 4	Score 5	Mean score ± SD
1	OMP sessions stimulated me to think more about the subject /topic	0	0	0	10 (38.5%)	16 (61.5%)	4.6 ± 0.5
2	OMP sessions improved my clinical reasoning skills and better understanding of the topic	0	0	0	6 (23.1%)	20 (76.9%)	4.7±0.4
3	OMP sessions helped me to improve presentation skills	0	0	0	7 (26.9%)	19 (73.1%)	4.7±0.4
4	OMP sessions provide feedback to increase my motivation to study and correct mistakes	0	0	1 (3.8%)	11 (42.3%)	14 (53.8%)	4.5±0.6
5	OMP sessions improves efficiency and overall effectiveness of teaching encounter	0	0	1 (3.8%)	11 (42.3%)	14 (53.8%)	4.5±0.6
6	This method should be incorporated into PG teaching in my department.	1 (3.8%)	1 (3.8%)	0	6 (23.1%)	18 (69.2%)	4.5±0.9
7	The teachers were effective in helping me to achieve the objective of OMP	0	0	3 (11.5%)	11 (42.3%)	12 (46.2%)	4.3±0.7
8	Traditional teaching is more effective than OMP	5 (19.2%)	9 (34.6%)	11 (42.3%)	0	1 (3.8%)	2.3±0.9

9	OMP sessions are time consuming	6 (23.1%)	10 (38.5%)	6 (23.1%)	4 (15.4%)	0	2.3±1.0
10	OMP is cumbersome and should not be used as a teaching tool	15 (57.7%)	10 (38.5%)	0	1 (3.8%)	0	1.5±0.7

(Score coding: strongly agree=5, agree=4, neutral=3, disagree=2, strongly disagree=1)

Figure 1: Distribution of Likert scale scores for the one-minute preceptor perception questionnaire items (N= 26)



### Feedback of postgraduate residents about one-minute preceptor

Table 1, Shows the distribution of scores in each of the questionnaire items. After the OMP sessions, all 26 residents (100%) perceived that OMP sessions stimulates them to think more about the subject /topic, improved their clinical reasoning skills and better understanding of the topic and helped them to improve presentation skills.

Out of total resident, 25 residents (96.1%) perceived that OMP sessions provides feedback to increase their motivation to study, correct mistakes and improves

efficiency and overall effectiveness of teaching encounter.

There were 24 (96.1%) residents agreed for OMP method should be incorporated into PG teaching in department whereas 7.6% residents were disagree for that.

Out of total, 23 (88.5%) residents were agreed for statement that teachers were effective in helping me to achieve the objective of OMP. However, 3 residents (11.5%) were neutral for above statement.

In this study, 14 (53.8%) residents were disagree for statement of traditional teaching is more effective than

OMP and 11 (42.3%) residents were neutral whereas 1 resident was agree for that.

In this study, 4 (15.4%) residents felt that OMP sessions are time consuming whereas 6 (23.1%) residents were neutral and 16 (61.6%) residents were disagree for this statement.

Majority of residents (96.2%) were disagree for statement of OMP is cumbersome and should not be used as a teaching tool only 1 resident (3.8%) was agree.

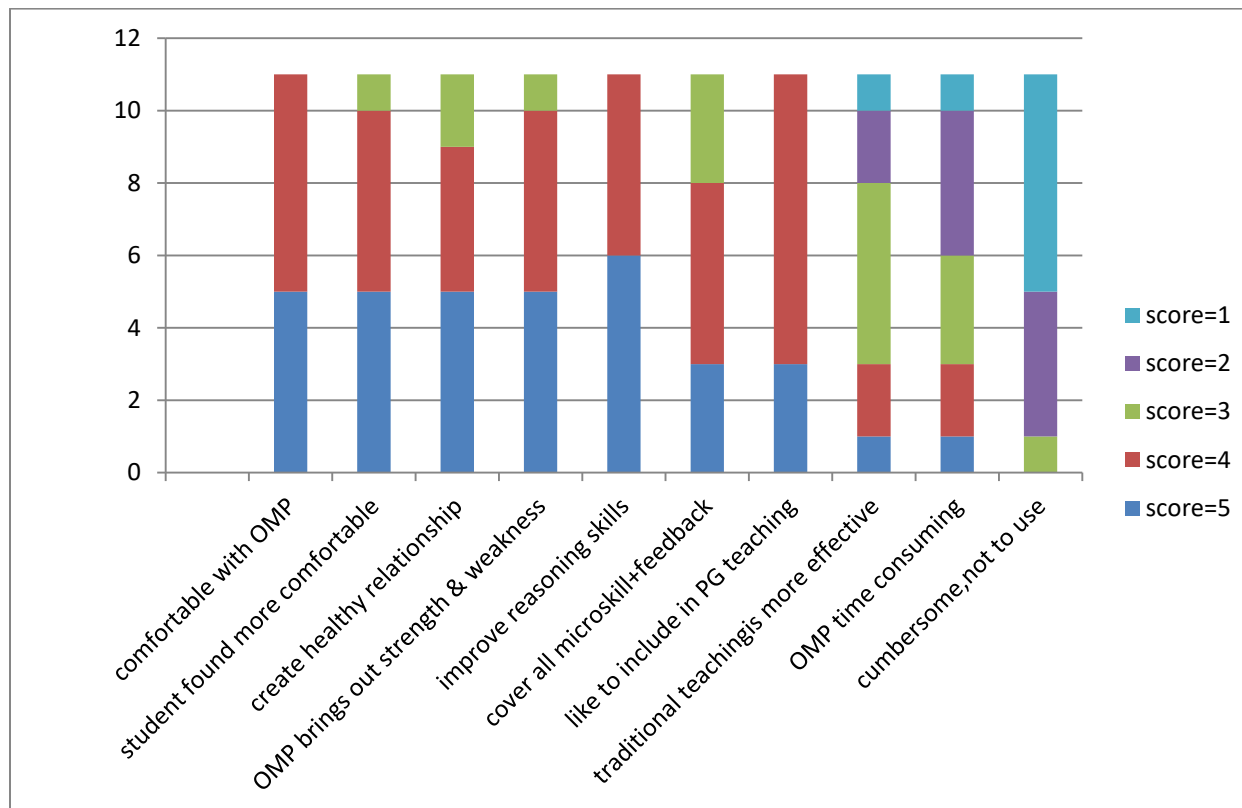
By apply ANOVA test to see difference in perception score among 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>-year residents found that There was no significant difference in the perception scores among the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>-year residents for all likert items (p>0.05)

Table 2: Distribution of Likert scale scores of faculties for the one-minute preceptor perception questionnaire items (N= 11)

Sn.	Likert items	Score 1	Score 2	Score 3	Score 4	Score 5	Mean score ± SD
1	You were comfortable with this method of OMP	0	0	0	6 (54.5%)	5 (45.5%)	4.4 ± 0.5
2	You found students to be more comfortable with OMP then traditional method	0	0	1 (9.0%)	5 (45.5%)	5 (45.5%)	4.3±0.7
3	OMP creates healthy relationship between teacher and learner	0	0	2 (18.2%)	4 (36.4%)	5 (45.5%)	4.2±0.8
4	OMP brings out strength and weakness of students	0	0	1 (9.1%)	5 (45.5%)	5 (45.5%)	4.3±0.7
5	OMP improves reasoning skills of students and raise overall performance of the students	0	0	0	5 (45.5%)	6 (54.5%)	4.5±0.5
6	You have covered all microskills including feedback	0	0	3 (27.2%)	5 (45.5%)	3 (27.3%)	4.0±0.8
7	You would like to incorporate /adopt OMP as a teaching method in routine.	0	0	0	8 (72.7%)	3 (27.3%)	4.2±0.5
8	Traditional teaching is more effective than OMP	1 (9.1%)	2(18.2%)	5(45.5%)	2 (18.2%)	1 (9.1%)	3±1.2
9	OMP sessions are time consuming	1 (9.1%)	4 (36.4%)	3 (27.3%)	2 (18.2%)	1 (9.1%)	2.8±1.2
10	OMP is cumbersome and should not be used as a teaching tool	6 (54.5%)	4 (36.4%)	1 (9.1%)	0	0	1.5±0.7

(Score coding: strongly agree=5, agree=4, neutral=3, disagree=2, strongly disagree=1)

Figure 2: Distribution of Likert scale scores of faculties for the one-minute preceptor perception questionnaire items (N=11)



### Feedback of faculties in obstetrics and gynecology Department about one-minute preceptor

Table 2, Shows the distribution of scores in each of the questionnaire items. After the OMP sessions, all 11 faculties (100%) perceived that they were comfortable with OMP sessions, 10 faculties (91%) perceive that even students were also more comfortable with OMP than traditional method and 9 (82%) faculties perceive that OMP sessions helped to create healthy relationship between teacher and learner.

Out of total faculties, 10 faculties (91%) perceived that OMP sessions were able to bring out strength and weakness of students and all faculties (100%) perceived that OMP sessions improves reasoning skills of students and raise overall performance of the students.

There were 8 (72.8%) faculties who felt that he/she covered all microskills including feedback whereas 27.2% faculties were neutral for that.

All faculties (11) were agreed for statement that they were ready to incorporate/adopt OMP as a teaching method in routine. In this study, 5 faculties (45.5%) were neutral for statement of traditional teaching is more effective than OMP whereas in remaining faculties, 27.3% disagree and 27.3% agree for above statement.

In this study, 5 (45.5%) faculties were disagree for the statement that OMP sessions are time consuming whereas 3 (27.3%) faculties were neutral and 3 (27.3%) faculties were agree for this statement.

Most of faculties (91%) were disagree for statement of OMP is cumbersome and should not be used as a teaching tool.

Table 3: Compare mean Likert score of residents and faculties for the one-minute preceptor perception questionnaire items and test significant level by independent t-test

Sn.	Likert items	Mean score of residents	Mean score of faculties	Mean difference	Independent t-test	p-value	95% CI of difference	
							Lower	Upper
1	This method should be incorporated into PG teaching in my department.	4.5	4.2	0.3	1.3	0.2	-0.17	0.8
2	Traditional teaching is more effective than OMP	2.3	3	-0.7	1.8	0.07	-1.37	0.06
3	OMP sessions are time consuming	2.3	2.8	-0.5	1.34	0.18	-1.28	0.26
4	OMP is cumbersome and should not be used as a teaching tool	1.5	1.5	0	0.18	0.8	-0.55	0.46

By applying independent t- test to check significant difference in mean perception score among residents and faculties found that there was no significant difference in the perception scores among residents and faculties for comparable 4likert scale items of OMP perception questionnaire (p value>0.05).

**Summary of results**

Feedback of postgraduate resident showed that OMP sessions stimulates them to think more about the subject /topic, improved their clinical reasoning skills and better understanding of the topic and helped them to improve presentation skills. Most of the residents agreed for OMP method should be incorporated into PG teaching.15.4%residents felt that OMP sessions are time consuming. This may be due to the shorter span in which the study conducted which may need more exposure of OMP and even better execution of OMP sessions by faculties. There was no significant difference in the

perception scores among the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>-year residents for all likert items.

All faculties perceived that they were comfortable with OMP sessions and were willing to ready to incorporate/adopt OMP as a teaching method in routine, which shows a positive attitude towards acceptance of a new method like OMP.

**Discussion**

In this study, from perception of residents after OMP session we observed that OMP sessions stimulates them to think more about the subject /topic, improved their clinical reasoning skills, presentation skills, better understanding of the topic (100%), provides feedback to increase their motivation to study, correct mistakes, improves efficiency and overall effectiveness of teaching encounter (96.1%).

Moin et al 2016, in their study found that OMP is a useful instructional tool for improving presentation skills (78.2%), providing feedback (72%), formulation of an

assessment plan (75.9%) and encouragement to read more about the disease (77%).<sup>(4)</sup>

Aggarwal et al 2018, in their study showed that the residents perceived OMP as an effective teaching tool in improving their clinical reasoning skills (100%) and enhancing their confidence (92.2%) and motivation for further study (100%).<sup>(5)</sup>

There were 24 (96.1%) residents agreed for OMP method should be incorporated into PG teaching in our department. All faculties (11) were agreed for statement that they were ready to incorporate/adopt OMP as a teaching method in routine. Similar finding seen in Aggarwal et al study for residents and faculties that OMP was an effective teaching method and advocated its routine use in PG teaching.<sup>(5)</sup>

Waiker et al 2015, their study observed that both students and faculties perceived that OMP method improved Clinical Reasoning, state general rules, prioritize learning, positive feedback, improved thinking process, patient examination skills and teaching efficiency.<sup>(6)</sup>

Similarly, in our study, there was no significant difference in perception score regarding OMP methods in residents and faculties.

In present study and other studies we found that OMP is effective teaching tool for residents.

#### **Outcomes: What this study adds**

Getting small teaching learning pearls through discussion regarding patients in OPD or ward rounds is strongly appreciated by students as well as faculties.

This study will definitely add a new dimension to the teaching learning methodology in my department. The positive perception of the students and their wish for more such sessions and also willingness of faculties to incorporate OMP will enrich teaching- learning in our department for sure.

#### **Limitations**

OMP is a new microteaching tool for our department, so naturally it requires some time for all faculties and students to get accustomed. Also, during the stipulated time period, it was difficult to ensure good number of OMP sessions by all faculties in the most correct and proper way. Hence feedback showed some felt perception like session are time consuming and neutral responses whether to incorporate as a teaching method in department were collected. For the short study period and the small number of participants, it is suggested that larger and longer studies including other departments need to be conducted so that the results are generalizable.

#### **Conclusions**

The experience of faculties and students about OMP as a useful tool to improve thinking skills, presentation skills, clinical evaluation, and most importantly feedback in a short clinical encounter justifies its incorporation in medical education.

#### **Implications**

More detailed study on a large scale is required to consolidate utility and long-term impact of OMP on medical teaching especially in clinical branches with heavy patient load.

#### **Acknowledgment**

I would like to thank my entire department –all faculties and students for their cooperation especially our HOD for constant support.

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