

**ORIGINAL RESEARCH**

# Enhancing Clinical Skill Acquisition in Postgraduate Orthopaedic Training through the One Minute Preceptor (OMP) Method: An Educational Intervention Study

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**ABSTRACT**

The One Minute Preceptor (OMP) method is a learner-centered, micro-teaching tool designed to enhance clinical learning, particularly at the postgraduate level. In postgraduate orthopaedic education, which is largely procedure-focused, clinical reasoning skills often receive limited attention due to time constraints and high workloads. This study introduced OMP as a teaching-learning approach to improve the clinical skill development of postgraduate students in orthopaedics. **Methodology:** This interventional study took place in the Department of Orthopaedics at PGIMS Rohtak, following ethical approval. Faculty and students were first oriented to the OMP model, and each student participated in 12 OMP sessions. Feedback from both students and faculty was collected through a mix of open-ended and close-ended questions, rated on a five-point Likert scale. **Results:** Around 92% (n=54) of the 60 postgraduate students found OMP valuable in enhancing their clinical skills, while 85% (n=48) reported an increase in their confidence in clinical practice. Faculty members unanimously observed that OMP not only helped in assessing residents' clinical knowledge but also in addressing specific areas for improvement in clinical skills. **Conclusion:** OMP is a feasible and effective teaching method in demanding clinical settings, fostering significant improvements in the clinical skills of postgraduate orthopaedic students.

**Keywords:** Postgraduate, Clinical skills, One-minute preceptor, Orthopaedics, OMP

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**INTRODUCTION**

Postgraduate teaching in clinical specialties like Orthopaedics faces challenges due to time constraints and heavy workloads. Traditional teaching approaches, such as seminars, lectures, and journal clubs, often emphasize theoretical knowledge, leaving clinical skill development inadequately addressed.

Clinical skill teaching typically relies on case presentations, which demand significant dedication and engagement from both learners and faculty.<sup>1</sup>

The One-Minute Preceptor (OMP) model, a five-step "microskill" teaching approach, offers a concise yet impactful method for clinical teaching (Neher et al., 1992).<sup>2</sup> The five microskills are:

1	<b>Get a Commitment</b>	Prompt the learner to suggest a diagnosis or plan.
2	<b>Probe for Supporting Evidence</b>	Explore the learner's reasoning and depth of knowledge.
3	<b>Teach a General Rule</b>	Provide key, actionable insights for use in future cases.
4	<b>Reinforce What Was Done Well</b>	Deliver positive feedback on effective actions.
5	<b>Correct Mistakes</b>	Offer constructive feedback and guidance for improvement

The strength of OMP lies in its ability to incorporate case-based learning into clinical settings, such as outpatient departments and wards, fostering productive interactions between learners and teachers without significantly affecting patient care. In its original description, Neher et al. (1992) noted that all respondents found the model helpful, with 58% of faculty rating it as “extremely helpful” for clinical teaching. Subsequent studies have reported mixed but generally positive perceptions of OMP’s effectiveness.<sup>3,4,5</sup>

Given the potential of OMP to address gaps in clinical skill teaching, this study aimed to introduce the One-Minute Preceptor model for postgraduate orthopaedic students and explore the factors influencing learner satisfaction with this teaching method.

### OBJECTIVES

- To implement the ONP model as a teaching approach for postgraduate orthopaedic students.
- To evaluate the feasibility and acceptability of the OMP method within the department of Orthopaedics.
- To assess postgraduate students’ perceptions of OMP in enhancing their clinical learning experience.

### METHODOLOGY

This prospective, non-randomized intervention study was conducted in the Department of Orthopaedics at PGIMS Rohtak after obtaining institutional clearance. The study aimed to implement the One Minute Preceptor (OMP) method for postgraduate students in Orthopaedics. Sensitization sessions for faculty and students were conducted using PowerPoint presentations and interactive discussions. A total of 60 postgraduate students and 14 faculty members participated, with each student undergoing 12 OMP sessions conducted by different faculty members on various clinical topics, such as Dressing, cast application, swelling examination, and external fixators. Each session was recorded on a countersigned form by both the faculty member and the student. At the end of the 12 sessions, students filled out a validated feedback questionnaire containing both open-ended and closed-ended questions, using a five-point Likert scale to assess their perceptions of the OMP method. Faculty members also completed a separate, validated structured questionnaire to evaluate the usefulness and feasibility of OMP as a regular teaching tool. The feedback forms were filled after each session, with a total of 720 session records collected. Data were analyzed using SPSS, with categorical variables summarized in percentages and frequencies, while continuous data were analyzed using means and standard deviations. Additionally, qualitative feedback from both students and faculty was analyzed using thematic analysis.

### RESULTS

Total 720 OMP sessions were conducted in which each resident underwent 12 sessions. Besides the presenter, session was observed by other residents and faculty available for better learning and acclimatization about OMP.

Approximately 92% (n=55) of postgraduate students found the One Minute Preceptor (OMP) method to be an effective tool for learning clinical skills, while 85% (n=51) felt more confident in their clinical abilities after using OMP. However, only 50% (n=30) of students felt that the time dedicated to OMP sessions was adequate, and 58% (n=35) reported difficulty in finding time for OMP sessions due to their busy schedules. There was no consensus among students regarding the effectiveness of OMP in assessing their capabilities as orthopaedic practitioners. Faculty perceptions remained consistent throughout the study.

#### Satisfaction Index

The satisfaction index for students ranged from 36.7% to 92%, while for faculty, it varied between 15.8% and 90.3%. Among students, the lowest satisfaction score (28.7%) was related to the effectiveness of OMP in assessing their capabilities as Orthopaedicians. Conversely, faculty reported the highest satisfaction score (90.3%) for the role of OMP in facilitating the development of robust clinical skills.

### DISCUSSION

This study, conducted in the Department of Orthopaedics at PGIMS Rohtak, aimed to evaluate the perceptions of postgraduate residents and faculty regarding the One Minute Preceptor (OMP) teaching model in an ambulatory clinical setting. The findings revealed that the OMP model was perceived as an effective teaching tool for enhancing clinical reasoning skills, boosting confidence, and increasing motivation for further learning among residents.

A median of 55 residents agreed or strongly agreed to 6 out of 9 items in the study questionnaire, with 85% advocating for the routine use of OMP in postgraduate teaching. Similar positive perceptions have been reported in previous studies. For instance, in a comparative study by Teherani et al., 164 medical students favored the OMP model over traditional teaching methods in videotaped teaching encounters, giving significantly higher ratings for clinical reasoning, knowledge base, feedback quality, decision-making involvement, and overall teaching effectiveness.<sup>6</sup>

Comparable findings were observed in other specialties, such as gynecology, where residents reported enhanced learning experiences with OMP-based teaching in a study conducted by Machado (2020).<sup>7</sup> These results may stem from the learner-centered nature of OMP, which differs from traditional didactic approaches that some students are more accustomed to. Similarly, Kachewar et al. highlighted the benefits of OMP in radiology training,

and Miura et al. reported its effectiveness in nursing education.

Faculty perceptions in the present study were also positive, with 70% agreeing that OMP improved their confidence in assessing students' knowledge and identifying learning needs. These results align with a multicentric study by Aagaard et al., where 116 preceptors, after reviewing videotaped teaching encounters, reported greater confidence in evaluating students' presentation skills, clinical reasoning, and knowledge. Faculty development programs in previous research have also highlighted positive perceptions of OMP among teaching staff.<sup>10</sup>

Time management emerged as a challenge in this study, with 50% of residents and 58% of faculty members finding the time allocated for each session inadequate. This may be attributed to inexperience with the OMP model and the tendency to revert to traditional teaching methods that emphasize exhaustive discussions of cases.

The primary goal of OMP is to provide focused, need-based clinical insights to learners, enhancing their clinical reasoning skills rather than merely expanding their theoretical knowledge base. Over time, as OMP becomes routinely integrated into postgraduate teaching, its benefits are likely to become more evident.

## CONCLUSION

The study concludes that OMP is a feasible and valuable teaching-learning tool for postgraduate education in Orthopaedics. Both residents and faculty acknowledged its effectiveness and practicality in outpatient teaching settings. When used alongside traditional teaching methods, OMP can serve as a valuable supplement to enhance the analytical and clinical reasoning skills of postgraduate residents. Additionally, faculty members regarded OMP as an effective approach for formative assessment.

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