

Perception About One Minute Preceptorship In Postgraduate Training of Ophthalmology

Mir Ali Shah, S H Waqar*

Department of Ophthalmology, Peshawar Medical College. Pakistan, *Department of General Surgery, Medical Education Pakistan Institute of Medical sciences Islamabad Pakistan

ABSTRACT

Objective: To evaluate the perception of postgraduate trainees of ophthalmology about One Minute Preceptorship.

Study Design: Mixed method study

Place and Duration of Study: Department of Ophthalmology Peshawar Medical College, Peshawar from Jun 2020 to Dec 2020.

Methodology: Ten post graduate FCPS trainees of Ophthalmology were included in this study. The participants were introduced to and practiced One Minute Preceptorship for a period of 01 month in the outpatient clinic. A questionnaire for study was filled anonymously after taking an informed consent, which included ten closed ended and three open ended questions to assess the efficacy of One Minute Preceptorship model in improving practical skills like focused history taking, case presentation, clinical diagnosis and devising an effective management plan.

Results: One Minute Preceptorship model is an effective learning and teaching tool for improving case presentation skills (90%), identifying disease presentation (70 %), clinical diagnosis (60%), identification of risk factors (80%) and understanding the management plan (70%). Qualitative analysis of One Minute Preceptorship model usage showed improved clinical evaluation skills, more efficient time consumption, prompt clinical diagnosis and provision of self-reflection to the learner.

Conclusion: OMP model can be employed as an effective learning and teaching tool in an outpatient clinical setting in postgraduate Ophthalmology training.

Keywords: Medical education, one minute preceptorship (omp), educational models, internship and residency.

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INTRODUCTION

A preceptor is a role model who can supervise, guide and facilitate the learning of a student.¹ The "One-minute Preceptor" (OMP) is a widely accepted teaching model that summarizes important tasks or "microskills."² The trainee assesses a patient and then the preceptor helps him in a framework of teacher student conversations making it particularly helpful for new faculty. It is easy to learn, short and improve main teaching skills and behaviors.^{3, 4}

The qualities of good preceptors from the student's perspectives are being empathic, respectful, warm, humorous, flexible, fair, dependable, consistent, enthusiastic, willing to work with a new trainee, easily adoptable teaching styles, supportive of the educational programme, equipped with the recent knowledge and clinical skills, encourage students to recognize their assumptions and develop effective communications with patients while focusing on their psychological aspects of care as well.⁵ Literature has shown that OMP is an effective clinical teaching

method. One-minute preceptor strategy is a 5-step teaching tool for use by the teaching faculty in a busy ambulatory clinic, which includes various micro skills such as Engage and get a commitment, probe for reasoning and supporting evidence, teach general rules, reinforce what was done right and correct mistakes.³⁻⁶

Practical learning skills are an essence to the medical profession. OMP model had been found to be an effective tool in teaching practical skills to specializing doctors in various specialties.⁷⁻¹⁰ OMP model had proven to be an effective tool which consists of 5 micro skills of getting an overview about a case from the learner, reasoning to elaborate the learner's understanding, teaching the general principles, giving a feedback and rectifying the learner's flaws.⁷⁻⁹ It has been employed in different clinical settings for teaching practical skills to doctors, medical students and other health professionals. OMP provides feedback about mistakes and learners get a chance to improve.³ A pilot quasi-experimental study was conducted to compare OMP and non OMP preceptors. Audio recordings of case presentations of 42 students were collected. In their study they concluded that OMP preceptors more frequently

Correspondence: Dr Mir Ali Shah, Department of Ophthalmology, Peshawar Medical College. Pakistan

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advised to the students to commit to an assessment & management plan, while the non OMP students more frequently started their probing and devising a treatment plan without prompting. It was recommended further research in needed in assessing the efficacy of the OMP Model as a clinical teaching tool.¹⁰

In order to work in line with the improvement of postgraduate training in Ophthalmology in Pakistan, this study was conducted to consider OMP model as a teaching tool in residents, assessing its efficacy in a clinic setting for diagnosis and management of patients, highlighting its usefulness as a teaching method in an ophthalmological outpatient clinical setting in Pakistan.

METHODOLOGY

This was a mixed methods study design study conducted at the outpatient clinics of the Ophthalmology Department of Peshawar Medical College, from June, 2020 to December, 2020 after obtaining approval from the ethical committee of the Peshawar Medical College (IRB Approval Number: Prime/IRB/ 2020-255). This study included 10 post graduate FCPS trainees of Ophthalmology, through non-probability convenience sampling.

The participants were introduced to and practiced OMP for a period of 1 month during their scheduled training program in the outpatient clinic. By the end of one month, the participants were asked to fill a questionnaire for study anonymously after taking an informed consent. Ten closed ended questions and 3 open ended questions were designed and incorporated into the survey questionnaire. Likert scale containing 7-point agreement was used to record an input to the open-ended questions which 4 being “neutral”, 1 as “strongly disagree” and 7 as “strongly agree”. The questionnaire questions were designed such that to assess the efficacy of OMP model in improving practical skills like history taking, clinical diagnosis, devising a treatment plan, time management, knowledge gain, decision making, problem solving, presentation skills and self-reflection.

IBM SPSS version 20 was used for data analysis. The results were described with descriptive analysis. Qualitative analysis of the open-ended questions was performed by NVIVO 10 to assess word frequency by text query analysis. Each question covered a core competency, with sub themes, the common verbatim by the participants was analyzed to assess word frequency by text query analysis.

RESULTS

In this study, total 10 participants were enrolled. The minimum age was 26 years while the maximum age was 29 years with mean age of 27.30±1.05 years. Five (50%) participants were male and 5(50%) were females. Similarly, 50% (n=5) participants were from 1st year while 50% (n=5) were from the 2nd year of their post graduate training. All the demographic data is shown in Table-I.

Table I: Demographics of Participants

Variable	Frequency	Percentage (%)	
Gender	Male	5	50
	Female	5	50
Year of study	1st year	5	50
	2nd year	5	50

Taking into account all the 3 levels of agreement of our questionnaire indicates that OMP model is an effective learning and teaching tool for improving case presentation skills (n=9, 90%), identifying disease presentation (n=7, 70%), clinical diagnosis (n=6, 60%), identification of risk factors (80%) and understanding the management plan (n=7, 70%). Qualitative analysis showed that the OMP model improves clinical evaluation skills, time is consumed more efficiently, a greater variety and number of cases are discussed in a lesser time, encourages prompt clinical diagnosis and goal oriented probing, enhances problem solving, improves decision making skills, helps to employ an effective treatment plan and gives a self-reflection of one’s understanding of the different diseases. However, some of our participants remarked that the OMP model provides lesser time for discussion and feedback from the teacher.

Results of the open-ended questions are presented in table II, which comprises of the number, frequency and percentages of the quantitative analysis of the different inputs regarding the various aspects of OMP model given by the participants of the study.

The results of the qualitative analysis of the 3 open ended questions being employed in this study with several sub features related to the respective domains of the OMP model are presented in table III.

DISCUSSION

A study conducted to assess the efficiency of OMP model in teaching emergency medicine showed similar results to our study, indicating that OMP model is applicable in improving clinical diagnosis, problem solving and prompt management. It can also

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be used as a tool for assessment and professional development changes.¹¹

remarkable improvement in the resident's ratings on "Teaching general rules", which is similar to our

Table-II: Analysis of The Likert Scale

Statement	Lickert Scale Rating						
	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
OMP has helped me in							
History taking assessment	0	1(10%)	1(10%)	0	3(30%)	3(30%)	2(20%)
More appropriate differential diagnosis	0	2(20%)	2(20%)	0	1(10%)	2(20%)	3(30%)
Presentation skills	0	1(10%)	0	0	3(30%)	2(20%)	4(40%)
Physical examination assessment.	0	1(10%)	2(20%)	0	3(30%)	2(20%)	2(20%)
Discussion of Physical findings in your case	0	2(20%)	1(10%)	0	2(20%)	3(30%)	2(20%)
Risk factors Identification	1	1(10%)	0	0	3(30%)	3(30%)	2(20%)
Discussion of investigations	0	2(20%)	1(10%)	0	3(30%)	1(10%)	3(30%)
Identifying disease presentation	0	1(10%)	2(20%)	0	4(40%)	2(20%)	1(10%)
Thorough instructor feedback	0	0	1(10%)	1(10%)	3(30%)	2(20%)	3(30%)
Assessment plan formulation	0	0	1(10%)	0	3(30%)	4(40%)	2(20%)
Understanding the Management plan	2(20%)	1(10%)	0	0	1(10%)	2(20%)	4(40%)
Encouragement to read more about the disease later	0	1(10%)	2(20%)	0	3(30%)	2(20%)	2(20%)

Table-III: Analysis of Themes and Sub Themes

Theme	Sub Theme	Participant's Common verbatim
Case presentation	History taking	Encourages focused history taking
	Physical examination	Revision of important signs to be noticed in a specific disease
	Clinical skill	Clinical evaluation skills improve
	Time management	More cases presented rapidly
	Knowledge	Exposure to a diversity of cases
Clinical diagnosis	Time	Less time consuming
	Findings	Encourages diagnosis oriented approach
	Problem solving	Improves problem solving skill
	Focused thinking	Goal oriented probing
	Exercise	Continuous revision of different disease
Treatment plan	Decision making	Quicker assessment of the findings to make a treatment plan.
	Time duration	Exposed to making decision in variety of cases in a short span.
	Discussion	Limited time for discussion
	Self-reflection	Evaluation of one's plan prior to discussion
	knowledge	Exposure to newer treatment modalities and options.

A randomized controlled trial conducted by Furney with OMP model as an interventional modality.³ In this trial all the micro skills were found to be improved after this intervention, however 'teaching general rules' did not improve. The reason noted for which a novice teacher (residents in this case). In our study, this issue was dealt with by asking some of the questions indirectly, such as physical examination, investigations, management plan and treatment.

Gallagher reported that residents are taught in different environments like inpatient, outpatient and operation theatres, hence the efficiency of the OMP model may vary in different settings.¹² Thus the instructional skills varies in different clinical settings. Another study to asses pre- and post-workshop survey which included 34 residents, showed a

study. Out of the five micro skills, "Teaching general rules" was found to be the most improved skill in the post-workshop survey. OMP model is a vital part of the 2nd domain of the three domains of the Academy of Medical Educators Professional Standards, which is "Teaching and facilitating learning". It encourages all the faculty members to have a sound understanding and awareness of the OMP model as in this study.¹³

We found that OMP model improves the various micro skills, however the qualitative analysis showed it to be providing an uneven distribution of the time variable. It was remarked that a greater deal of cases are presented in a lesser time, however the time for the discussion of the management plan and feedback from the teacher is not adequate. A similar study by Gulati HK, which comprised of teaching histology slides to resident pathologists like our findings showed that the

OMP model is an effective tool in improving the various skills with regards to time.¹⁴

Another study conducted by HakareVivek *et al*, to assess the effective use of the OMP model to teach clinical skills to medical undergraduates in otolaryngology department, found it be an effective teaching tool and showed agreement with respect the time variable as in our study.¹⁵

An interventional study to analyze the efficiency of the OMP model in a pediatric internship concluded it to be effective in improving the various skills, however due to the time constraints it cannot be considered an alternative to detailed case discussion as showed in our qualitative analysis that it does not provide adequate time for detail discussion.¹⁶

Its similarity in usefulness and efficacy is also shown in undergraduate students of Gynecology in Pakistan, though a higher number of participants was available in that study.¹⁷

The similarity of effectiveness of our study was in line with other studies.^{18,19}

The limitations of our study are its small number and less duration which decrease its generalizability. However, this study throws important light in the use of OMP model in postgraduate ophthalmology residents.

CONCLUSION

OMP as a teaching model can be employed as an effective learning and teaching tool in an outpatient clinical setting in postgraduate ophthalmology training. It helps to improve case presentation skills, prompt clinical diagnosis, identification of risk factors and devising an effective management plan. It encourages a focused history, goal oriented probing, greater number of cases discussed in a lesser time. It should be employed in all the hospitals providing postgraduate training in ophthalmology and its efficacy should be researched in other specialties.

Conflict of Interest: None.

Authors' Contribution

Following authors have made substantial contributions to the manuscript as under:

MAS & SHW: Study design, drafting the manuscript, data interpretation, critical review, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

REFERENCES

1. Jamieson J, Sadowick L, Fairholm D. Teaching Skills for community based Preceptors. Office for Faculty Development. UBC. 2010; 3.

2. Huang W. Office-based Teacher of Family Medicine. *Fam Med* 2003; 35(6): 391
3. Furney SL, Orsini AN, Orsetti KE, Stern DT, Gruppen LD, Irby DM. Teaching the one-minute preceptor: a randomized controlled trial. *J Gen Intern Med.* 2001 Sep; 16(9): 620-4.
4. Salerno SM, O'Malley PG, Pangaro LN, Wheeler GA, Moores LK, Jackson JL. Faculty development seminars based on the One-minute Preceptor improve feedback in the ambulatory setting. *J Gen Intern Med* 2002 Oct; 17(10): 779-87.
5. Henschen B, Liss D, Golden B, Cameron K, Bierman J, Ryan E et al. Continuity With Patients, Preceptors, and Peers Improves Primary Care Training. *Acad Med.*2020; 95(3): 425-34.
6. Natesan S, Bailitz J, King A, Krzyzaniak SM, Kennedy SK, Kim AJ et al. Clinical Teaching: An evidence-based guide to best practices from the Council of Emergency Medicine Residency Directors. *West J Emerg Med.*2020; 21(4): 985-98.
7. Gatewood E, De Gagne JC. The one-minute preceptor model: A Systematic Review. *J Am Assoc Nurse Pract.* 2019 Jan 1; 31(1): 46-57.
8. Arya V, Gehlawat VK, Verma A, Kaushik JS. Perception of one-minute preceptor (OMP) model as a teaching framework among pediatric postgraduate residents: A feedback survey. *Indian J Pediatr.* 2018 Jul 1; 85 (7): 598.
9. Farrell SE, Hopson LR, Wolff M, Hemphill RR, Santen SA. What's the evidence: a review of the one-minute preceptor model of clinical teaching and implications for teaching in the emergency department. *J Emerg Med.* 2016 Sep 1; 51(3): 278-83.
10. Lyons K, McLaughlin J, Wolcott M, Grandy R, Williams C. How Pharmacist Preceptors Foster Students' Therapeutic Reasoning Using the One-Minute Preceptor Method. *Am J Pharm Educ.* 2019; 83(8): 7212.
11. Rashid, P., Churchill, J. A., &Gendy, R. Improving clinical teaching for busy clinicians: Integration of the one-minute preceptor into mini-clinical examination. *ANZ J Surg.* 2017 ; 87(7-8): 535-6
12. Gallagher P, Tweed M, Hanna S, Winter H, Hoare K. Developing the one-minute preceptor. *Clin Teach.* 2012 Dec; 9(6): 358-62.
13. Academy of Medical Educators. Professional Standards for Medical, Dental and Veterinary Educators. 3rd ed. Cardiff: Academy of Medical Educators,2014;14.
14. Gulati HK. One minute preceptor-introduction and perception evaluation of a novel teaching tool for teaching routine histopathology slides to postgraduate students in pathology. *Indian J Pathol Oncol.* 2016 Jul; 3(3): 503-7.
15. Vivek H, Deosthale N, Dhoke P, Khadakkar S. Use of One Minute Preceptor (OMP) for effective clinical teaching in ENT for Final MBBS students. *P J Med Sci.* 2013 Dec; 2(3): 50-2.
16. Iyer CR, Nanditha G, Raman J. One minute preceptor as an effective teaching and learning method for pediatric internship: An interventional study. *Indian J Child Health.* 2017 Nov; 4(2): 184-7.
17. Moin M, Sadia S, Naqi SA. Student perspective about One Minute Preceptorship in a busy outpatient setting. *Pak Armed Forces Med J.* 2016 Feb 29; 66(1): 162-6.
18. Rajan S. Times Are Changing, So Is Medical Education In India. *BMH Med J.* 2020 Mar 30; 7 (2): 23-6.
19. Zeidman J, Baggett M, Hunt DP. Can One-Minute Preceptor and SNAPPS improve your inpatient teaching? *J Hosp Med.* 2015 Feb; 10 (2): 131-2.