STUDENT PERSPECTIVE ABOUT ONE MINUTE PRECEPTORSHIP IN A BUSY OUTPATIENT SETTING

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ABSTRACT

Objective: To evaluate the students' experiences about One Minute Preceptor (OMP) as an instructional tool.

Study Design: Case study.

Place and Duration of Study: Riphah International University, Islamic International Medical College Trust, Pakistan Railway Hospital, Rawalpindi from January 2013 to March, 2014.

Material and Methods: Non-probability convenience sampling of 75 final year medical students who had experienced OMP during their rotation in gynecology department was done. A survey questionnaire having 12 closed ended statements and 3 open ended questions regarding OMP was designed. The students were asked to fill in the forms at the end of their rotation using a 7 point agreement Lickert scale after taking informed consent. The survey form was filled in anonymously to protect the identity of the students. The questions included the efficacy of OMP in making concepts, time utilization, skills learnt, understanding the clinical diagnosis and management. Data analysis was done using IBM SPSS version 17 to calculate frequency analysis of the survey. Content analysis was done using NVIVO 10 by text query analysis to produce word frequency table, cluster analysis and word cloud.

Results: Quantitative analysis of our study show 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%). Qualitative analysis shows that it is a student friendly tool which provides instruction in a short period of time. Time was the most commonly used word in all the 7 themes including clinical skills, case presentation, decision making, problem solving, time management, organization and resources.

Conclusion: OMP is perceived as a good tool to improve presentation skills, clinical evaluation of the patient, making a plan of action and providing feedback in a short clinical encounter with the patient.

Keywords: Experience, Medical student, Outpatient clinic, Preceptorship.

INTRODUCTION

Instruction using the One-Minute Preceptor (OMP) model[1] was introduced for clinical teachers having busy outpatient clinics[2]. Its five micro skills used by the teacher to guide the teacher activity makes it an efficient tool for instruction[3]. A commitment of diagnosis or management is made by the student initially. Clinical evidence for this commitment helps the preceptor evaluate the thought process of the student. Certain general rules are taught by the teacher in relation to the case to improve the concepts of the student. Positive feedback is given and his deficiencies are pointed out using constructive feedback. Suggestions are given in the end to the student on how to make improvements in the future[4]. Faculty development in a teaching institution can also be done effectively using the OMP model[5]. Traditional teaching method[4] is being extensively used in current practice with no feedback. Shortage of time in the outpatient clinics is the most important factor in deciding how much to teach while managing the patients effectively. OMP model is very effective to address this problem of instruction in busy ambulatory setting[6] while teaching undergraduate[7] students. There is no current local literature on OMP and this study will help fill in the gaps in our teaching strategies and ensure quality patient care. Ad hoc clinical

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Received: 19 Aug 2014; revised received: 25 Nov 2014; accepted: 27 Nov 2014

instruction tends to be centered around the patient, with most of the trainee-preceptor interaction focusing on patient treatment issues rather than the trainee's educational needs. Presentation of the case by the learner may take and classically has minimal teaching and virtually no feedback. The clinical preceptor is able to find very little about the learner's comprehension of the patient's disease. The OMP technique of the ad hoc inquiry is

Table-1: Results of quantative analysis of survey as frequency table n=75.

Statement	**Lickert scale rating**						
OMP has helped me in:	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
Assessment of history taking skills	3 (4%)	1 1.3%)	1 (1.3%)	7 (9.3%)	19 (25.3%)	25 (33.3%)	19 (25.3%)
Making a broader differential diagnosis	1 (1.3%)	3 (4%)	3 (4%)	10 (13.3%)	19 (25.3%)	20 (26.7%)	19 (25.3%)
Presentation skills	3 (4%)	2 (2.7%)	3 (4%)	8 (10.7%)	17 (22.2%)	23 (30.7%)	19 (25.3%)
Assessment of physical examination skills.	5(6.7%)	2 (2.7%)	11 (14.7%)	10 (13.3%)	16 (21.3%)	22 (29.3%)	9(12%)
Discussion of Physical findings in your case	3 (4%)	2 (2.7%)	5 (6.7%)	9(12%)	17 (22.7%	22 (29.3%)	16 (22.6%)
Identification of risk factors of the disease	3 (4%)	3 (4%)	4 (5.3%)	13 (17.3%)	15 (20%)	24 (32%)	13 (17.3%
Discussion of Diagnostic tests	4 (5.3%)	0 (0%)	4 (5.3%)	7 (9.3%	15 (20%)	27 (36%)	18 (24%)
Understanding the presentation of disease in your case	3 (4%)	1 (1.3%)	2 (2.7%)	7 (9.3%)	16 (21.3%)	28 (37.3%)	18 (24%)
Through feedback of the instructor	3 (4%)	4 (5.3%)	0 (0%)	14 (18.7%)	12 (16%)	23 (30.7%)	19 (25.3%)
Formulation of an assessment plan	2 (2.7%)	2 (2.7%)	3 (4%)	11 (14.7%)	13 (17.3%)	28 (37.3%)	16 (21.3%)
Understanding the treatment of the disease	2 (2.7%)	3 (4%)	3 (4%)	4 (5.3%)	12 (16%)	34 (45.3%)	17(22.7%)
Encouragement to read more about the disease later	2 (2.7%)	1 (1.3%)	6 (8%)	8 (10.7%)	10 (13.3%)	24 (32%)	24 (32%)

fifty percent of the time, probing by the clinical preceptor regarding patient information takes up another quarter of the time, and discussion of the patient and plan for management of case utilizes the time which is left. The history and examination phase in the traditional model is driven by the diagnosis, as the clinical preceptor collects the information required to adequately diagnose the disease of the patient. The teaching encounter lasts from 3–6 minutes centered around the learner, and as opposed to the traditional model, consists of five specific micro skills which focus on the issues of feedback and comprehension of the disease by the trainee.

The rationale of this study was to identify a teaching strategy which is useful in busy outpatient setting where there are serious time constraints which need a balance between teaching the students and treating the patients

effectively. This was done by recording the experiences of medical students in gynecology about one minute preceptorship as an instructional tool.

MATERIAL AND METHODS

This was a case study conducted at Riphah International University, Islamic International Medical College Trust, Pakistan Railway Hospital, Rawalpindi from January 2013 to March, 2014, after taking approval from the institutional review committee. Students of final year MBBS attending the outpatient department of Obstetrics and Gynecology were taught in the outpatients department using the OMP model for 4 weeks during their clinical rotation by teachers trained in OMP.

Through non-probability convenience sampling a sample of 75 medical students who had experienced OMP was taken. A survey questionnaire having 12 closed ended statements and 3 open ended questions regarding OMP was designed. The students were asked to fill in the forms at the end of their rotation using a 7 point agreement Lickert scale

Table-2: Results of qualitative analysis of open ended questions.

Themes	Major Sub-themes	Selected comments verbatim
Clinical Skills	Time Skills Patients History Simulated patients	a. Diverse types of diseases discussed in a short period of time b. Strongly build history taking skills and presentation skills c. Clinical skills can be practiced on multiple patients d. It teaches how to take better focused histories e. Examination should be done on simulated patients as well
Case Presentation	Skills Presentation History Helps Confidence	a. Improves skills and presentation b. Presentation skills are all improved c. Learning history skills. d. It helps in history taking skills. e. They give us a lot of confidence
Decision Making	Diagnosis Brainstorming Diagnose Findings Quick Thinking	a. You can pick the findings and give diagnosis. b. Brain storming you can pick the findings c. give diagnosis in limited time d. pick findings and take history e. Develop quick thinking and diagnose patients
Problem Solving	Brainstorming Discussion Problem Solving Case Exercise	a. quick assessment, brain storming,easy to memorize b. not detailed discussion about the topic c. helps in problem solving quickly d. case is not covered thoroughly e. time saving, good recall exercise
Time Management	Time Short Discussed Patients Knowledge	a. many cases are conducted in a short time and it exposes us to various presentations of same disease b. too short time for discussion c. treatment is discussed too rapidly at times d. exposure to large no of patients in a short time e. quick knowledge
Organization	Students OPD Patients Participation Organized	a. less students per teacher b. it is very good, depending upon who is incharge of OPD c. Patients should cooperate d. individual participation is important e. It should be more structured and organized.
Resources	OPD Less Small Space	a. less teachers in opd b. There should be less students in small OPD c. Space is very small in OPD

after taking informed consent with 1 being "strongly disagree", 4 as "neutral" and 7 being "strongly agree". The survey form was filled in anonymously to protect the identity of the student. The questions included the efficacy of OMP in making concepts, time utilization, skills learnt, understanding the clinical diagnosis and management.

Data analysis was done using IBM SPSS version 17. Descriptive statistics were used to describe the results. Content analysis was done using NVIVO 10 by text query analysis to produce word frequency table, cluster analysis and word cloud.

RESULTS

Seventy five medical students completed the survey. The results of the first 12 closed ended questions are given in table-1. The results of qualitative analysis of the 3 open ended questions is shown in table-2 as word fig-1 frequencies in 7 different themes and word cloud respectively.

DISCUSSION

Adult learning principles have been so effectively incorporated in the OMP model that it has gradually become very popular in clinical teaching as a time saving and effective teaching method[8-10]. The sum of all 3 levels of agreement on the survey questionnaire in our study show 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%). Qualitative analysis shows that it is a student friendly tool which provides instruction in a short period of time. Time was the most commonly used word in all the 7 themes including clinical skills, case presentation, decision making, problem solving, time management, organization and resources. Qualitative analysis showed that many cases are discussed in a short time, table-2, (theme 5, comment a) which exposed the students to a variety of cases. But some students felt that discussion on the case was too short for them, table-2, (theme 5, comment b). Furney et al[11] conducted a study using a randomized controlled trial with the OMP as a brief intervention; they found improvements in each micro skill except 'teaching general rules'. Being a novice teacher was the explanation for this deficiency (trainees in this study). In our study this question was asked indirectly. The students agreed to varying degrees that the physical findings (74.6%), diagnostic test (80%), assessment plan (75.9%) and treatment (84%) were discussed and the key points were included in the discussion. Salerno et al[5] used audio recording of OMP teaching sessions and surveys of preceptor and trainee satisfaction. They found that the five micro skills were being used more. These included increased use of feedback and especially specific feedback. Two recent studies have provided a comparison between the traditional model (TM) and the OMP models of teaching during the ad hoc encounter. Irby et al[4] found that the OMP model moved teaching points away from general skills toward disease specific instruction. Aagaard et al[12] showed that clinical teachers using the OMP model were equally or better able to correctly diagnose patients' medical problems compared with those using the TM.

Figure-1: Word cloud of open ended questions.

Gallagher et al[13] found that trainees learn in different physical locations and these various settings need separate sets of instructional skills. They as faculty educational developers joined with clinicians to improve their role as preceptors within busy clinical settings. In our study all teachers did not have the same impact

of the OMP technique. This was due to the fact that some teachers were in the learning phase of the technique (table-2, theme 6, comment b). Moreover the students also felt that the OMP requires more space in the outpatient department to be practiced comfortably (table-2 theme 7,b,c).

Molodysky[14] in his review article on OMP discusses that traditionally, the patient is not present when the trainer makes an 'ad hoc' outpatient enquiry of their teacher. This teaching scenario helps the supervisor to make sure that the educational impact is not hampered by the briefness of the encounter. We found that OMP was not very focused on teaching the physical examination skills because the teacher was not present during the time the student examined the case. There were only 12% students who strongly agreed that this tool was useful in assessment of physical examination skills.

There are some limitations to this study. It was confined to only one medical college in which OMP was newly introduced strategy for 3 years. Moreover purposive sampling was done in only one specialty of obstetrics and gynecology. These factors decrease the generalizability of findings.

The strength of this study is that the perspective of the medical student about OMP was thoroughly examined. Moreover the medical students went through multiple experiences of OMP during their 4 week rotation before completing the survey.

CONCLUSION

The experiences of students about OMP as a tool of instruction in this study indicate that it is felt to be a good tool to improve their presentation skills, clinical evaluation of the patient, making a plan of action and providing them feedback in a short clinical encounter with the patient. OMP needs to be introduced in all medical colleges in our country and similar studies with large sample size should be carried out to assess its utility.

CONFLICT OF INTEREST

The authors of this study reported no conflict of interest.

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