

Undergraduate Teaching Curriculum in Obstetrics and Gynecology

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ABSTRACT

Background: Evaluation of teaching curriculum is extremely logical and is firmly recommended as a part of teaching-learning process. The utility of feedback from students to evaluate a teaching curriculum cannot be overemphasized.

Aim: The present study was conducted to evaluate the effectivity of undergraduate teaching curriculum in obstetrics and gynecology.

Materials and methods: We attempted to seek view point of a batch of 100 students in 9th semester to evaluate the effectivity of undergraduate teaching curriculum in obstetrics and gynecology through a pertinent and simple questionnaire.

Results and conclusion: Out of a batch of 100 students, there were 91 respondents. Majority of them were satisfied with lecture taking but desired that lectures be taken by senior faculty. Four most difficult topics to understand were related to labor followed by malignancies, operative procedures and dysfunctional uterine bleeding respectively. Shockingly, 91.20% students had not conducted even a single delivery, and 10.98% were yet to witness a cesarean section. A meager 2.19% devoted maximum time to study obstetrics and gynecology. Since this study involved a single batch of students, after obtaining further feedback from other batches, larger database will be assessed, and inferences used to evaluate the undergraduate teaching program.

Keywords: Undergraduate curriculum, Obstetrics and gynecology.

INTRODUCTION

Medical education performs a service in training doctors to meet need for medical care in society. Teachers have traditionally played a dominant and active role in education with students being a passive lot. But, with recent emphasis on the active role of learner, the teacher has become more of a facilitator of learning than a transmitter of information.¹ The ultimate controlling process of education is evaluation, which not only monitors the progress and achievements of students but also provides important feedback towards modification and improvement of the teaching-learning process. Here, through an anonymous feedback questionnaire, we have endeavored to gain an insight into the opinion of the ninth semester undergraduate students regarding teaching curriculum in obstetrics and gynecology.

MATERIALS AND METHODS

The study was conducted at a teaching medical college, University College of Medical Sciences (UCMS) and Guru Teg Bahadur Hospital, Delhi, India, after approval from institutional ethics committee. As per curriculum drafted by the academic committee of our college, each medical student from third to ninth semester is exposed to 74 hours of didactic lectures and 300 hours of clinical posting in Department of Obstetrics and

Gynecology. A 9th semester student attends ward teachings, OPD, operation theater, labor room and family planning postings along with his/her assigned units in the department. A total of 21 days is spent as a resident pupil in the labor room in which each student is expected to conduct and maintain a record of at least 10 cases of normal labor under supervision and assist/observe 10 other cases including operative deliveries. A survey document of 15 questions was drafted and distributed to 100 students belonging to a single batch of ninth semester. They were made to answer this questionnaire (Annexure 1) for an unbiased and anonymous feedback. Annexure 2 contains detailed analyzed response sheet of the respondents.

RESULTS

Out of a batch of 100 students of 9th semester, 91 responded to the questionnaire and the results were analyzed by calculating the percentage of response to each question. The analysis revealed the following results:

Ans. 1. Around 63.73% of students were satisfied with lecture taking and stated that most of them were taken regularly. Only 3.2% expressed their dissatisfaction.

Ans. 2. 61.53% respondents expressed their desire to be taught by senior faculty. 5.5% out-rightly rebuffed the concept of lecture taking.

Ans. 3. 79.12% had mixed response regarding comprehension and understanding of lectures. 3.2% students found lecture taking a “waste of time”.

Ans. 4. 50.54% pupils found practicals/ward teaching to be of utmost importance. 21.97% did not find clinical teaching of any significance.

Ans. 5. 24.17% students preferred video/powerpoint presentations, 21.97% wanted group discussions and a meager 2.19% desired to continue with conventional blackboard teaching. 33% desired practical-oriented clinical bedside teaching.

Ans. 6. Four most difficult topics to understand were related to labor followed by malignancies, operative procedures and dysfunctional uterine bleeding respectively.

Ans. 7. A surprising observation noted was that labor was the most interesting topic according to majority of students despite being most difficult to understand. Three other important topics of interest were contraception, hypertensive disorders of pregnancy and diabetes in pregnancy. Gynecological topics were not among the favorites.

Ans. 8. Overwhelming majority (48.35%) opined that all the areas of postings are important, whereas 26.37% thought that ward postings are most important. Only 2.19% gave maximum weightage to operation room postings.

Ans. 9. 63.73% of the students devoted maximum time to study surgery, and only a dismal 2.19% to obstetrics and gynecology.

Ans. 10. During their family planning and minor OT postings, 20.87% had seen only Copper-T (Cu-T) insertion, 1.09% had seen only MTP, and 19% only endometrial biopsy. 13.1% students had seen Cu-T insertion, MTP and tubal ligation. Only 2.19% students had hands-on in Cu-T insertion.

Ans. 11. Majority (32.96%) of students were confident in calculation of period of gestation as well as estimation of fetal lie, fundal height of uterus, and auscultation of fetal heart sounds. However, among the remaining 67%, the problem zone was correct assessment of the fetal lie and auscultation of the fetal heart sounds.

Ans. 12. As high as 91.20% students had not conducted even a single delivery, whereas only 7.69% had conducted one to three deliveries throughout their tenured posting.

Ans. 13. 17.58% were able to take pap smear, and about 2 to 10% could do at least two out of the four procedures which included conduct of delivery, artificial rupture of membranes, taking pap smear and suturing of episiotomy. As high as 35.16% were incapable of doing any of the above skills.

Ans. 14. 10.98% students had seen >10 vaginal deliveries, 37.36% between four and six deliveries, and 29.67% between one and three deliveries.

Ans. 15. 63.73% had seen one to three cesarean sections, 10.98% were yet to witness a cesarean section.

DISCUSSION AND COMMENTS

Every program needs to be revised and updated as per the increasing demands, problems, and constantly evolving knowledge and technology. This has stimulated us to re-evaluate our objectives, responsibilities and methods in educating our students. Our aim is to provide the student with an optimally productive learning experience. In this feedback evaluation, majority of students were satisfied with the regularity of lecture taking but desired that senior faculty should preferentially take their classes. Most of them had a mixed response regarding comprehension and understanding of lectures. Practical and clinical bedside teaching was preferred to theoretical learning. A practice-based approach by clinical bedside teaching reduces theory-practice gap and enhances students' experience. There is immediacy in application of theoretical contents leading to long lasting memory.² More than 24% students suggested that video and powerpoint presentations should be the mode of lecturing. Some preferred group discussions, and only small number of students desired to continue with the conventional blackboard teaching. Few (12.08%) also desired the lecturing hours be decreased. Oral communication has been the dominant medium for teaching-learning since time immemorial. The Chinese proverb “A picture is worth more than ten thousand words” succinctly summarizes the limitations of pure oral communication. It is easier to memorize to more than 70% if something is both seen and heard.³ Chalkboard is the most inexpensive, thus, most commonly available visual aid. But, the major handicap is that the teacher loses eye contact and student's interest may dampen in the lecture. Furthermore, the lecture cannot be preserved in totality for future use. Audiovisual aids have revolutionized the concept of teaching-learning process. It leaves a photogenic impression, and the contents can be recapitulated when required. Short presentations of video recordings followed by periods of discussion provide a highly effective educational experience. It can also be used for self instruction by playing back repeatedly. We suggest that there should be a departmental video library covering various topics in obstetrics and gynecology which would be an ideal supplement to the clinical teaching.

Overall, labor topics (58.24%) followed by gynecologic malignancies (44%, of which ovarian malignancies constitute 19.78%), operative procedures (41.75%) and dysfunctional uterine bleeding (27.47%) were four most difficult topics to understand. Although labor topics were most difficult to comprehend yet they were most interesting too. Contraceptives, hypertensive disorders of pregnancy and diabetes in pregnancy are the other three topics of interest in decreasing order of preference. Hence, greater emphasis is needed to teach child birth and its complications in a more comprehensive manner. Clinical concepts can be strengthened by more hands on patient's training and virtual dummies. Gynecological topics, in general were less favorites and can be taught in the form of case discussions with surgical component

being presented as video clippings for better understanding and sustaining interest.

Majority of respondents found that postings of all outlets of obstetrics and gynecology (wards, OPD, OT, labor room) are important. But some preferred only ward postings, and 2.19% opted exclusively for OT postings. At this stage of learning, it is not important to teach practical detailed surgical techniques in gynecology, but participation in operating room activities enhances their knowledge regarding asepsis, patient care, provides ample opportunity to witness gross pathology, and to better comprehend principles of pre- and postoperative care.⁴

As per guidelines of the curriculum, each student is required to assist/conduct 10 normal vaginal deliveries. A contrasting result was observed in our study where majority of them had not conducted even a single delivery. Hence, an imperative introspection is needed as how to improve their practical skills as this would help them to understand the topic better. This result is significant in acceptance of facts that teaching has to be more practical oriented with a need for more stringent implementation of the curriculum drafted for which periodic

evaluation is mandatory. Overwhelming majority of ninth semester students are males (90%) who probably do not want to pursue a career in obstetrics and gynecology which refrains them from acquiring in depth skills of the subject. Hence, objective testing of minimal surgical skills on dummies should be undertaken during examinations. Besides this, we also think that practical skills are not tested during professional examinations owing to which it gets neglected. Drife stated that reproductive medicine was seen as the only hospital specialty broad enough to claim a place at the core of undergraduate clinical curriculum.⁵ The obstetrician and gynecologist are gradually becoming the primary physician for women beyond puberty. It behooves us, therefore, to teach our students the care of women and not just disorder peculiar to women.⁴ Sadly, only 2.19% of our respondents devoted maximum time to study obstetrics and gynecology. If we accurately describe our discipline to young ears at the undergraduate level, an abundance of young men and women would enter obstetrics and gynecology. For this, we ought to strive to improve the curriculum and our mode of teaching.

ANNEXURE 1: Questionnaire for 9th Semester Students

1. Do you think that obstetrics and gynecology lectures are taken regularly?
 - a. Yes
 - b. Most of them
 - c. Very few
 - d. No
2. Who should take the lectures?
 - a. Senior residents
 - b. Lecturers
 - c. Senior faculty
 - d. No one should take
3. Obstetrics and gynecology lectures are
 - a. Easy and comprehensive
 - b. Difficult
 - c. Sometimes easy and sometimes difficult
 - d. Waste of time
4. Do you think that theoretical teaching is effective?
 - a. Yes
 - b. No
 - c. Can't say
 - d. Practical is more important
5. How can the mode of delivery of lecture be improved?
6. State four topics which are difficult to understand in obstetrics and gynecology.
7. State four topics of interest in obstetrics and gynecology.
8. Clinical posting at undergraduate level is important at which place?
 - a. Wards
 - b. OPD
 - c. OT (major OT and family planning OT)
 - d. Labor room
 - e. All of above
9. Maximum study hours in final professionals is devoted to which subject?
 - a. Obstetrics and gynecology
 - b. Surgery
 - c. Medicine
 - d. All equal
10. During my clinical posting in obstetrics and gynecology
 - a. I have seen Cu-T insertion
 - b. I have seen as well as done Cu-T insertion
 - c. I have seen MTP
 - d. I have seen tubal ligation
 - e. I have seen endometrial biopsy
11. At the end of my clinical obstetrics and gynecology posting, I am confident about (tick whichever is applicable)
 - a. Calculation of period of gestation
 - b. Estimation of lie of fetus
 - c. Estimation of fundal height of uterus
 - d. Auscultation of fetal heart sound
 - e. None of the above
12. Number of deliveries conducted by me
 - a. None
 - b. 1-3
 - c. 4-6
 - d. 7-10
 - e. >10
13. Following clinical obstetrics and gynecology posting which of the following procedure can be done by final year students (tick whichever is applicable)
 - a. Conduct of delivery
 - b. Conduct of ARM
 - c. Taking pap smear
 - d. Suturing of episiotomy
 - e. None of above
14. Number of deliveries seen during clinical obstetrics and gynecology posting
 - a. None
 - b. 1-3
 - c. 4-6
 - d. 7-10
 - e. >10
15. Number of LSCS seen during clinical obstetrics and gynecology posting
 - a. None
 - b. 1-3
 - c. 4-6
 - d. 7-10
 - e. >10

ANNEXURE 2: Answers to the Questionnaire

| | | | | |
|---------------|---|-------------|------------------------|------------------------|
| Q. 1. | a | 27 (29.67%) | a + c + d | 12 (13.1%) |
| | b | 58 (63.73%) | a + b + c + d | 5 (5.4%) |
| | c | 3 (3.2%) | a + c + d + e | 19 (20.87%) |
| | d | 3 (3.2%) | a + b + c | 2 (2.19%) |
| Q. 2. | a | 7 (7.7%) | b + c + d + e | 2 (2.19%) |
| | b | 23 (25.27%) | a + b + d | 1 (1.09%) |
| | c | 56 (61.53%) | a + d | 4 (4.39%) |
| | d | 5 (5.5%) | c + d | 3 (3.2%) |
| Q. 3. | a | 14 (15.38%) | all | 3 (3.2%) |
| | b | 2 (2.19%) | a + b + c + e | 2 (2.19%) |
| | c | 72 (79.12%) | d + e | 2 (2.19%) |
| | d | 3 (3.2%) | a + e | 2 (2.19%) |
| Q. 4. | a | 16 (17.58%) | c + d + e | 2 (2.19%) |
| | b | 20 (21.97%) | Question not attempted | 4 (4.39%) |
| | c | 9 (9.88%) | Q. 11. | a |
| | d | 46 (50.54%) | | b |
| Q. 5. | Practical bedside teaching—30 (33%) | | | c |
| | Video and powerpoint—22 (24.17%) | | | d |
| | Group discussion—20 (21.97%) | | | e |
| | Reduce time of lecture—11 (12.08%) | | | a + b + c + d |
| | Chalkboard—2 (2.19%) | | | b + c |
| | Evening posting—2 (2.19%) | | | a + b + c |
| | Question not attempted— (4.39%) | | | a + b |
| Q. 6. | Labor topics—53 (58.24%) | | | a + c + d |
| | Malignancies—40 (43.95%) | | | a + c |
| | Surgical procedure—38 (41.75%) | | | Question not attempted |
| | DUB—25 (27.47%) | | | 2 (2.19%) |
| Q. 7. | Labor topics—65 (71.42%) | | Q. 12. | a |
| | Contraceptives—28 (30.76%) | | | b |
| | Hypertensive disorders of pregnancy—27 (29.67%) | | | c |
| | Diabetes in pregnancy—21 (23.07%) | | | d |
| Q. 8. | a | 24 (26.37%) | | e |
| | b | 6 (6.59%) | | a + b + c + d |
| | c | 2 (2.19%) | | a + c |
| | d | 3 (3.2%) | | a + d |
| | e | 44 (48.35%) | | c + d |
| | a + b + d | 3 (3.2%) | | a + b + d |
| | a + b | 3 (3.2%) | | a + c + d |
| | b + c | 2 (2.19%) | | a + c |
| | a + c + d | 1 (1.09%) | | b + c |
| | a + c | 1 (1.09%) | | b + c + d |
| | a + d | 1 (1.09%) | | Q. 14. |
| | a + b + c | 1 (1.09%) | | a |
| Q. 9. | a | 2 (2.19%) | | b |
| | b | 58 (63.73%) | | c |
| | c | 13 (14.28%) | | d |
| | d | 18 (19.78%) | | e |
| Q. 10. | a | 19 (20.87%) | | Q. 15. |
| | b | 2 (2.19%) | | a |
| | c | 1 (1.09%) | | b |
| | d | 0 | | c |
| | e | 2 (2.19%) | | d |
| | a + c | 1 (1.09%) | | e |
| | a + c + e | 3 (3.2%) | | |

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