COMPETENCY BASED CURRICULUM IN THE PRIMARY PREVENTION OF OBSTRUCTURED LABOUR

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SUMMARY

Rupture of the uterus subsequent to obstructed labour is encountered frequently in our country. Data from this area reflects a gross discrepancy in under-graduate education and functional requirements of obstetrical practice. Hence an attempt has been made to bring about relevant changes in the training of undergraduates in Obstetrics and Gynaecology at Jimper, Pondicherry, within the existing curriculum. In this study, we present the evaluation of part of the curricular changes relevant to management of labour, detection of deviation from normal and referral of cases to specialists. Ninety-five final year students who had completed the labour room posting participated in the study. They responded to a structured questionnaire. It was found that 90% of the students were aware of the functions they will be required to perform and had performed obstetrical examination in 10 to 35 cases each. Ninety-three students (98%) felt confident of managing normal labour. An important observation was that 92 of them had seen the cases they delivered from time of admission. They had plotted partograms and were aware of cervical stasis as an early indicator of obstructed labour. From this study, we feel that in a country like ours the challenge to prevent obstructed labour and its sequelae underlines the need to improve education for health professionals, especially doctors. This calls for a change from subject centered curricular model to a competency based one.

Introduction

Rupture of uterus is a grave obstetrical emergency. Most commonly it occurs as a sequel to obstructed labour and is largely a preventable catastrophe. During the final year of MBBS (graduation in medicine), the students are posted in the Department of Obsetrics and Gynaecology for 3 months. Of this period, they spend one month in the labour room and are required to conduct 15 deliveries and assist in 5 deliveries (MCI - Minimum Graduate Recommendations, 1983). With a rapid increase in the number of medical

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graduates, one would expect a decline in the incidence of rupture of uterus. However, three studies from Pondicherry (Jimper and Government Maternity Hospitals which cater to a population from 40-80 km radius) showed that the incidence varied from 1 in 156 deliveries to 1 in 286 deliveries with no clear temporal trends (Prabhavati and Mukherjee, 1963; Oumachigui, 1980). In a recent study, it was found that of 253 cases of obstructed labour, in 121, doctors were consulted. Interference in the form of use of oxytocics and application of obstetrical forceps/vaccum extraction was noted in 72 cases. This data reflects that there is something drastically wrong in the training of doctors. It highlights the discrepancy that exists between the medical curriculum and the functional requirements of obstetrical practice. Hence, we undertook this study to implement a competency based curriculum to train the undergraduates within the existing constraints (McGaghie *et al.* 1978).

Materials and Methods

Ninety-five final year students from January 1986 to December 1987 participated in this study. All of them had been posted in the labour room for one month and were required to conduct 15 deliveries and assist in 5. Objectives in term of what the students should be able to do were defined. Objective is a statement of what the student should be able to do at the end of a learning period that he could not do beforehand (Guilbert, 1987). In this paper, we restrict ourselves to the three objectives pertaining to the management of labour viz. -

1. Detect the normal fetopelvic relation at the time of admission.
2. Manage normal labour and be aware of the intrapartum factors affecting the mother and the fetus.
3. Recognise the deviation of labour from its normal course with the help of a partogram.

On the first day the students were made aware of the instructional objectives. Tutorials were organised on, detection of normal fetopelvic relation, the mechanism of labour in occipito-anterior position and the management of normal labour with the help of a partogram. The students were required to examine the cases from the time of admission (abdominally and vaginally) along with Senior Residents/Junior Residents who checked their physical findings. Similarly, they monitored the cases during labour and plotted the findings on a partogram for each case.

At the end of the posting, all the 95 students responded to the following structured questionnaire.

1. Clarity of instructional objectives.
2. Number of cases they had examined (a) abdominally and (b) vaginally.
3. Number of cases they had seen from the time of admission to delivery.
4. Confidence they had developed to diagnose labour.
5. Number of partograms plotted.
6. Ability to recognise the deviation of labour from its normal course with the criteria laid down (cervical stasis for 4 hours).
7. Concern they felt for pain relief and maintenance of patient's hydration and nutrition.

The students were not required to write their names on the questionnaire sheets to maintain anonymity and to encourage negative responses. The answers to the questionnaire were analysed by the statistician.

Results

Of the 95 students, 87 (91%) were aware that they had to achieve the objectives. Only 8 felt that teachers should achieve them. Ninety-two (98%) students had seen the cases they had delivered from the time of admission. The details of the number of cases followed by the students from admission to delivery, the number of cases examined abdominally and the number of cases examined vaginally are depicted in Tables I, II and III, respectively.

TABLE - I
NUMBER OF CASES MONITORED BY EACH STUDENT

No. of students	*No. of cases followed from admission to delivery*
22	20 - 25
48	10 - 15
22	5 - 10
3	0

TABLE - II
NUMBER OF CASES EXAMINED BY EACH STUDENT

No. of students	*No. of cases examined abdominally*
16	30 - 35
37	20 - 25
32	10 - 15
10	<10

TABLE - III
NUMBER OF VAGINAL EXAMINATION PERFORMED BY EACH STUDENT

No. of students	*No. of cases examined vaginally*
2	>30
69	25 - 30
16	20 - 25
8	<10

The number of partograms plotted was recorded. Seventy-two had plotted 10 to 20; 12 had plotted more than 20 and 11 had plotted 5 to 10.

Ninety-three students were confident that they could diagnose labour and follow the progress with the help of a partogram. Seventy-one students were extremely concerned about pain relief and 76 about hydration and nutrition. Nine students were not bothered. The other students were concerned to some extent.

Seventy-five students said that they would detect the deviation of labour from its normal course with the help of cervical dilatation. Of these, 25 said that cervical dilatation should be recorded in relation to time. Twenty students said that they would consider both cervical dilatation and the descent of head in relation to time. Sixteen students were aware that the use of "Alert Line" and "Action Line" would be effective in detecting abnormal labour.

Discussion

In all the medical colleges in India, the final year students of MBBS are posted in labour room for a month (Internship). During this period they are required to conduct 15 normal deliveries and assist in 5 (MCI - Minimum Graduate Recommen-

dations, 1983). It has been found that most of them conduct the labour only in the 2nd stage i.e. they deliver the baby. They are expected to monitor the labour, if at all, abdominally. The students are instructed not to perform vaginal examination. This results in their inability to assess cervical dilatation and monitor labour with the objective criteria i.e. cervical dilatation and descent of fetal head in the pelvis in relation to time (Friedman, 1978).

From our study we note that more than 90% of the students were aware of what they had to achieve during the labour room posting. This is an important factor which encouraged students' involvement. Otherwise, it is solely the teachers' responsibility to complete the syllabus.

In this study, 90% of students have achieved proficiency in obstetrical examination and management of normal labour and most importantly, the recognition of deviation of labour from its normal course. They seemed to have acquired adequate skills and knowledge to refer a patient to a specialist utilising objective criteria. They developed favourable attitudes towards pain relief and fluid and electrolytes imbalance that could occur in obstructed labour. Many of our students felt that senior teachers should spend more time with them in the labour room and some of them wanted partograms to be discussed with them in more details.

The study presented here emphasises the stress on 'mastery learning'. The medical colleges in our country have subject centered curricular models and contact with patients is not adequate and is not necessary to pass the undergraduate examination. The limitations of subject centered curricular models are obvious. The most common response has been the revision of curriculum content or "syllabus". What is required is a competency based curricular model which is organised around functions required for proper practice of obstetrics. It requires a clear definition of tasks, statment of objectives and thorough assessment of the student achievement like we have done. This model requires a flexible time schedule but we could introduce competency-based learning within the existing situation. It requires a lot of commitment on the part of the teachers. The examinations should be relevant and should evaluate the predefined objectives so that learning becomes more meaningful (Oumachigui, 1984). No change in the curriculum will be effective unless the examination is changed (Simpson, 1972).

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