

Interns opinion on 'bedside pharmacology clinics' and its incorporation in undergraduate curriculum

Sir,

The rational prescribing of drugs is an essential skill of medical doctors. Clinical pharmacology plays an important role in the development of these skills by teaching clinical pharmacology and therapeutics to undergraduate medical students. The primary objective of teaching pharmacology is to enable undergraduate medical students to take rational therapeutic decisions in clinical practice. However, this objective is not adequately met by the prevailing curricula.^[1] As the subject is taught with high factual information rather than therapeutic skills. Therefore, a pilot survey was carried out to determine the opinion of interns regarding the bedside pharmacology teaching, and its incorporation in undergraduate curriculum.

A structured pre-validated 21 point questionnaire containing both open and closed ended questions with two to six options was given to each of them. They were asked to tick the option/s which they felt was/were the best. Interns were allowed to offer their own suggestions for certain important items in addition to the available options.

Ninety-seven interns participated in the "Interns' Opinion Poll" and each of them had a different opinion regarding current pharmacology teaching as shown in Table 1. About

Table 1: Interns opinion on current pharmacology teaching

Options	Yes (%)	No (%)	Somewhat (%)
Thorough knowledge of drugs/pharmacology is must before starting the internship.	94.85	–	5.15
Drug of choice/drug treatment of most common diseases is known to before starting your internship.	65.98	6.19	27.83
Knew the rationale for a particular drug used in a particular disease.	37.11	9.28	53.61
Pharmacology knowledge will help in deciding the end point of therapy and to decide when to switch over to alternate therapy.	92.78	–	7.22
Come across confusion regarding route of administration, dose, and drug of choice of a particular drug in a particular disease.	54.64	9.28	36.08
Satisfied with current pharmacology teaching programme.	67.01	32.99	–
There is need to change current pharmacology teaching.	57.73	42.27	–
Apart from II MBBS, pharmacology should be taught in or after III MBBS.	77.32	22.68	–

Table 2: Opinion of interns regarding bedside pharmacology clinics

Options	Yes (%)	No (%)
Would be helpful for understanding of rational use.	75.26	23.71
Would have advantage over classroom pharmacology lectures.	64.95	31.96
Would be helpful for greater retention of pharmacology knowledge.	79.38	20.62
Would decrease the unnecessary burden of memorizing drug data.	64.95	35.05
Would help in deciding the end point of therapy and to decide when to switch over to alternate therapy.	72.17	25.77
Would help in decreasing confusion regarding route of administration, dose, and drug of choice of a particular drug in a particular disease.	82.47	5.15
Would help to advice/to give instructions to patients regarding the use of drugs.	97.94	1.03

32.11% interns were not satisfied with current because they thought that current pharmacology teaching programme is monotonous to theoretical learning, not helpful for retaining the knowledge of number of drugs and there is no correlation between theoretical teaching of a drug and its practical application while prescribing. We also feel that at present teaching involves importing information on drugs. The first clinical year student who joins the pharmacology class is not familiar with most diseases and teaching at this stage poses a challenge to the teacher. Evaluation of students' knowledge regarding drugs utilizes memory recall without involving intellectual skills such as analysis, application, and problem solving abilities.

Like our study, in a students poll, students wanted introduction of case studies and treatment as part of the regular teaching schedule and as many as 81% opined that pharmacology lectures should be more clinically oriented and case studies and treatment protocols to be added as a part of regular teaching in pharmacology,^[2] while in interns doctors feedback study 32% interns pointed that incorporation of clinical pharmacology should be bed side learning.^[3]

Interns differed in their opinion regarding bed side pharmacology teaching statements given to them [Table 2]. About 73.20% interns suggested that apart from II year MBBS teaching, bed side pharmacology teaching

should be included in III MBBS curriculum as bedside pharmacology clinics and it should be started after 6 month of basic pharmacology (i.e., after 6 month of II MBBS) and should be continued till the completion of the final year was suggested by 48.45% interns. In our poll, we come across advantages of bed side pharmacology clinics as shown in Table 2; apart from this some interns also thought that bedside pharmacology teaching would create a visual impact that increases the confidence level and ultimately would help in their clinical practice and would help for better understanding of adverse effects and drug interactions. We also feel that because of visual impact of prescription along bedside pharmacology clinics, it may helpful for increasing the confidence level of learning doctors. Like our study, a study conducted in New Delhi, India, showed that 80.46% students and 87.50% teachers were in favor of bedside teaching of clinical pharmacology.^[4] In a pilot survey conducted by Vasundara *et al.*, the majority of the interns (95%) felt necessity for bedside clinical case study and the necessity of integrating pharmacology teaching with clinical subjects in MBBS phase-III, i.e. context learning–gaining of knowledge and skills simultaneously.^[5]

Several strategies have been suggested in WHO policy perspective for the rational use of medicine, one of these problem-based training in pharmacotherapy in undergraduate teaching. Therefore for the development of skills related to rational prescribing, we suggest that

pharmacology should be taught in two parts. First part including basic and experimental pharmacology taught during II MBBS and second part comprising clinical pharmacology and therapeutics can be taught during III MBBS. In this study implementation of bedside teaching was not done to see the impact of bedside teaching. Hence we suggest that more studies to include opinions of second and third year students and teachers on the concept of bedside pharmacology teaching, and studies assessing the practical impact of bedside clinics would be required to know the actual impact of bedside pharmacology clinics.

Thus from our study it is concluded that interns have suggested that pharmacology would be better taught as bedside pharmacology clinics and should be included in undergraduate curriculum for better knowing and retaining the subject and application of this in future practice.

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