

BOOK REVIEW

KRISHAN K. AGARWAL : PROBLEM BASED LEARNING OF CLINICAL PHARMACOLOGY. GHAZIABAD, INDIA, 2000. pp 107, Rs. 120.00

The concept of problem based learning (PBL) is not new in medical education. Traditional bedside teaching has always been problem based. However, three main features distinguish PBL curricula from the conventional curricula. First, PBL curricula use problem-based learning as the sole (almost) instrument in the teaching-learning process. Secondly, PBL curricula present problems to students in a systematic sequence. Finally, PBL curricula spend up to a week on a single problem so that students learn from each problem much more than in conventional curricula. Although more than 100 medical schools in the world have now adopted PBL, it has yet to make a significant entry into medical education in India. However, in our close neighbour, Nepal, PBL is a significant component of the curriculum, and it is while working in that country in the College of Medical Sciences at Bharatpur that the author has been inspired to write this book.

A discipline-based book on problem based learning like the present one, in a way, contradicts the philosophy of PBL. First, PBL presumes integrated learning, and is therefore incompatible with a discipline-based approach. Secondly, PBL lays great emphasis on self-learning; hence, to provide ready-made solutions to problems violates a basic feature of PBL. Therefore, contrary to what one might expect, students in PBL schools depend on the same textbooks and other resource materials as those in conventional schools. In order to resolve various issues emanating from a problem, they consult literature in all the disciplines that seem appropriate, and then, through their own efforts, integrate the knowledge

so gained to understand the problem better. This is why there is hardly any textbook on PBL, and even the few books using the case-based approach are not used by PBL schools as a substitute for conventional books. In fact, case-based books are not used much by PBL schools even as a source of 'problems' because it has been observed that the program runs best if the teachers feel involved in it. The involvement comes only if the 'problems' evolve through cooperative efforts of teachers from various disciplines using case histories of patients admitted to their own hospital. Therefore every school using PBL as a major instrument of learning develops its own 'problems'. How, then, has Professor Agarwal written a book on PBL? In my opinion, the title of the book is a misnomer. The book under review is actually a collection of 67 problem solving exercises (PSE), which is not the same as PBL. For solving the exercises in the collection, knowledge of pharmacology is more critical than that of other disciplines. The solutions have also been provided in the book. Just 67 problems discussed in 107 pages cannot exhaust, or even 'cover' pharmacology. Therefore, as the author says in the preface, this book is not a substitute for a textbook of pharmacology. However, these 67 problems do traverse a vast area, and would be very useful to the student for revising some of the most important facts of pharmacology in an interesting manner.

While Dr. Agarwal has made a commendable effort, most of the problems are too simple and obvious. Not much has been left for the student to work out the solution, or a few likely solutions,

to 'the problem'. Every problem has just one solution, and that is clearly visible in the question itself. For example, there is a problem each on organophosphorus poisoning and mushroom poisoning (pp. 10-13). Although there is an overlap in symptoms, the history very clearly tells which problem is which – in one case, it was a farmer exposed to a chemical spray in the field, and in the other they were guests at a party who all had mushrooms. Many of the problems are just short answer questions rendered interesting by providing the context of a clinical situation. For example, "A 23 years (*sic*) old woman presented with a urinary tract infection causing cystitis", is followed by a few questions on management of the patient (p. 52).

The book abounds in loose, inaccurate terms, e.g. "eye drugs" (p. 13) and "worm infection" (p. 49). The chapter heading on p. 15 is just "haemopoetic" (*sic*), the fact that the word refers to a system has been taken for granted. The language is too informal and colloquial. For example, the problem on p. 2 begins "Married F 29 years of age" "F" for female is a popular but not standard abbreviation; secondly, what is acceptable while filling up a form is not acceptable in a book. It would have been more correct, and polite, to refer to the patient at least as a woman (if not a lady), rather than as a female. But the biggest surprise is that in the solution to the problem (p. 4), the same patient is referred to as Mrs. F. The style, at times, is

needlessly dogmatic: for example, "is a clear-cut case of" (p. 4), and "is definitely due to" (p. 5). Every page is littered with grammatical and spelling errors. In the preface, the author has requested the readers to bring such errors to his notice. But not enough care seems to have been taken to avoid them in the first place. The layout is amateurish, possibly because the book has not been published by a professional publisher. That should have, at least, made it possible to keep the price down. But at Rs. 120 for a small slim volume without illustrations, the book is rather expensive. Finally, with all regards for the primal sound, 'Om', the symbol seems out of place on the cover of the book.

In spite of all these problems with the book, the author manages to convey what he wants to say, and he has many important things to say. The book can provide a quick and relaxing revision to the students near the exams, and fix in their minds some of the most important facts in pharmacology as applied to clinical practice. The teachers may also find the book a handy source of ready-made problem solving exercises and interesting short answer questions. In several schools using PBL, assessment is still discipline-based, with a few problem solving exercises thrown in to test the students on the PBL component. Thus the book provides a convenient examination-oriented resource to students and teachers, and therefore has the potential for achieving immense popularity.

R. L. BIJLANI

*Department of Physiology,
All India Institute of Medical Sciences,
New Delhi – 110 029*