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Original Research Article

Study on assessment of awareness about concepts in undergraduate pharmacology curriculum among clinicians in a tertiary care teaching hospital

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ABSTRACT

Background: Rational prescribing forms the corner stone of successful implementation of rational drug use. To boost the cause of rational use of Medicine, the P-drug concept was given in late nineties. The idea was to make Physicians familiar with few personal drugs chosen from National Essential drug list based on efficacy, safety, suitability and cost. The present study was conducted to assess the awareness of clinicians about basic pharmacological concepts.

Methods: It is a cross sectional study with a study population of 100, conducted in RRMCH for a period of one month. It is a questionnaire based study involving clinicians and post graduates working in this hospital. Descriptive statistical analysis has been carried out in the present study.

Results: In our study, 38% of physicians were aware of the term Essential drugs and 26% of doctors prescribed drugs from National Essential drug list. 56% of respondents were aware of term rational drug use but only 1/3 of them were aware of adverse effects, drug interactions of the drugs they prescribed. Majority of physicians (85%) used standard text book as the source of drug information.

Conclusions: Lack of knowledge among physicians about new concepts like p-drug, rational drug use and essential drugs points towards need for having more CMEs on basic pharmacological concepts.

Keywords: Essential drugs, P-drug, Rational drug use

INTRODUCTION

In the past 30 yrs, we have moved from Essential Medicines to personal drugs via rational use of medicines and Evidence based Medicine.[1] The selection of essential medicines is only one step towards the improvement of the quality of health care: the selection needs to be followed by appropriate use. Rational prescribing forms the corner stone of successful implementation of rational drug use.[2] To boost the cause of Rational use of Medicine, the P-drug concept was given in late nineties.[3] The idea was to make Physicians familiar with few personal drugs chosen from National Essential drug list based on efficacy, safety, suitability and cost, with regard to the population they cater.[4] The concept of P-drug for the undergraduate practical curriculum is a good

instrument to promote the practice of rational therapeutics with the objective to promote use of cost effective, safe and suitable medicines.[5]

The main areas where developing countries are still lagging behind are problem based pharmacotherapy training in the undergraduate curriculum, continuing in-service medical education as a licensure requirement, independent information on medicines and avoidance of perverse financial incentives.[6,7] If at all CME is conducted, it is mostly sponsored by drug houses having their own market interests. More importantly, Physicians rely on drug information provided by Medical Representatives.

The present study is conducted to assess the awareness of the concepts of rational use of Medicine, Essential Medicine, P-drugs and source of drug information among clinicians in a tertiary care teaching Hospital.

Objective of the study was to assess the awareness of clinicians about essential medicine, P-drugs and rational use of Medicine in a tertiary care teaching Hospital.

METHODS

It is a cross sectional study with a study population of 100 which conducted in RRMCH for a period of one month, after taking approval from Institutional Ethical Committee.

Clinicians and post graduates from different disciplines working in this hospital, who gave consent to participate in the study, were given a preformed questionnaire to be filled in the presence of an investigator at that particular time, just to ensure that nobody got a chance to consult books or other relevant materials.

In all, questionnaire had 26 questions which were on personal information of clinicians, Essential Medicine, Concept of P-drugs, rational use of medicine and sources of drug information. At the end of the study, all the data were pooled and results were analyzed in percentage and averages.

Inclusion criteria

- Doctors working in Clinical disciplines in this hospital.

Exclusion criteria

- Doctors working in pre and para clinical disciplines.

RESULTS

The questionnaire had 26 questions, 4 questions on personal details of the participants, 14 on essential drugs, p-drugs and rational use of medicines, 8 on sources of drug information.

Table 1: Background characteristics of respondents.

Age in yrs	n = 100
<40	56 (56%)
>40	44 (44%)

Table 2: Gender distribution.

Gender	Percentage
Male	58 (58%)
Female	42 (42%)

Table 3: Educational qualification.

Qualification	Percentage
MD	88 (88%)
Diploma	12 (10%)

Table 4: Questions on essential medicines, rational drug use.

Question/ statement	Response - no of yes/ right responses (%)
Are you aware of term essential drugs?	38 (38%)
Are you aware of term essential medicines	28 (28%)
Do you take care to prescribe an essential medicine	26 (26%)
Do you have National model EDL at your work place	10 (10%)
How many drugs are included in Indian EDL	0
Are you aware of term rational use of medicine	56 (56%)
If yes do you practice rational use of medicine	54 (54%)
Can you name parts of prescription	30 (30%)
If yes name parts of prescription	26 (26%)
Are of aware of term P-drugs	23 (23%)
If yes do you practice it?	20 (20%)
Do you always have full knowledge of the ingredients of the medications you prescribe?	37 (37%)
Are you always aware of the adverse effects , drug interactions and contraindications of the drugs prescribed	38 (38%)

Table 5: Questions on sources of drug information.

Question/statement	Responses no (%)
Sources of drug information you refer Articles in journals Drug indices Standard text books Information from Medical representatives Internet	75 (75%) 83 (83%) 85 (85%) 10 (10%) 25 (25%)
No of journals subscribed	83 (0.83% per individual)
No of CMEs/Conferences attended in last one year in life	204 (2.04%)
No of CMEs/conferences attended in life	546 (5.46)
No of oral /poster presented in last one year	56 (0.56%)
No of oral/poster presented in life	92 (0.92%)
No of articles published in last one year	71 (0.71%)
No of articles published in life	358 (3.58%)

During our study period, 100 clinicians were contacted. Out of 100, 60 were clinicians with PG degree, 40 were PG students.

The age of study participants ranged from 24-46 yrs. Out of 100, 58 were males and 42 were females. A majority of respondents had MD degree (90), remaining (10) was diploma.

DISCUSSION

In our study, we are making an attempt to assess the level of understanding among working clinicians, regarding prevalent concepts in pharmacology like essential medicines, rational drug use and P-drugs.

It was observed in our study that 38% of physicians were aware of the term Essential drug; whereas only 28% of them were aware of new term essential medicine which is used now instead of Essential drug. This point towards the need for more continued medical education programs on these topics. Prescribing drugs from National Model Essential Medicine list was followed by only 26% of the respondents, surprisingly none of them were aware about the exact number of drugs/drug combinations included in the National Model Essential Medicine list. Among the participants 56% doctors claimed that they were aware of term rational use of medicine but only 1/3 of them were aware of adverse effects, drug interactions and contraindications of the drugs they prescribed. This shows rational use of medicine concept is getting limited to the text books. Practicing what we teach remains a big challenge.[8] It is important to bring about awareness about rational use of medicines among physicians and motivate them to follow rational drug therapy.

When we questioned them about the sources of drug information, their interest in publishing articles it was observed that, majority (85%) of the physicians used standard text books as the source of drug information. About 25% of them admitted that they rely on internet. The average number of journals subscribed individually by physicians was only 0.83% per individual. The number of presentations and publications during the last one year was only 0.56% and 0.71% per individual respectively. Physicians are not seemed to have much interest in research. It is important to motivate them to do research publications and also subscribe more journals to update their knowledge.

CONCLUSION

New concepts like rational use of medicine, p-drug concept, and Essential medicines are getting limited to UG curriculum in text books. Lack of knowledge among physicians about these new concepts points towards the need for having more CMEs on basic pharmacological concepts.

Physicians should also be motivated to take up research in their respective field and do more research publications.

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