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STUDY OF KNOWLEDGE OF PRESCRIPTION WRITING AMONGST SECOND YEAR MBBS STUDENTS, INTERNS AND CLINICIANS AT A TERTIARY HEALTH CARE CENTRE.

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Abstract

AIM AND OBJECTIVES: To assess and compare the knowledge of prescription writing between second year MBBS students, interns and clinicians at tertiary health care center and medical college.

MATERIALS AND METHODS: A cross sectional, three armed questionnaire based comparative study was conducted after approval of institutional ethics committee. A questionnaire comprising of 25 questions was designed and validated by experts to assess the knowledge regarding prescription writing amongst second year MBBS students, interns and clinicians. Maximum score of the questionnaire was 25. Statistical analysis: total marks scored was analyzed by "student's t-test" Percentages of correct answers were analyzed by "chi-square test".

RESULTS: Excellent grade (marks between 19-25) was scored by 12% of Second year students, 24% of interns and 20% of clinician participants.

Good grade (marks between 12-18) was scored by 56 % of second year students, 63% of interns and 55% of clinicians

Average grade (marks below 12) was obtained by 32% of second year student, 13% by Interns and 25% by clinicians.

The difference between the levels of knowledge about Prescription writing between second year MBBS students, Interns and clinicians was found to be statistically significant ($p < 0.014$)

Few doctors avoid writing prescription to their patients and they ask their junior's to do so. Thus though being clinically advanced but may have less of exposure to theoretical knowledge.

CONCLUSION: We concluded from the study that the knowledge about prescription writing was better in interns than the clinicians and the second year students.

Few interventions like regular seminars and workshops on Prescription writing should be organized for MBBS students and also for clinicians who can be conducted at appropriate forums as a part of continuing medical education. Conducting well timed prescription audit at OPD and IPD level can go a long way in achieving this goal.

Introduction:

Once a patient with a clinical problem has been evaluated and a diagnosis has been reached, the practitioner can often select from a variety of therapeutic approaches. Medication, surgery, psychiatric treatment, radiation, physical therapy, health education, counseling, further consultation, and no therapy are some of the options available. Of these options, drug therapy is by far the one most frequently chosen. In most cases, this requires the writing of a prescription.

Prescribing is the process whereby a doctor authorizes use of medications or treatments for a patient and provides instructions about how and when those treatments should be used. Although the term commonly refers to orders for medicines, the concept can equally encompass laboratory tests, medical imaging, psychological treatments, eye glasses, eating and exercise regimes or other instructions to help optimize health and wellbeing.[1, 2]

Prescriptions are a way for prescribers to communicate with pharmacists or others who in turn fill the prescription. Prescribers include doctors of various types and, in some countries, nurse practitioners, physician's assistants, dentists, podiatrists, optometrists, clinical psychologists and clinical pharmacists also write prescriptions[3, 4] but this is not applicable in our country.

The prescription is one of the most important therapeutic transactions between physician and patient[5]. The word 'prescription', derives from 'pre' (before) and 'script' (writing, written), which denotes that it is an order that must be written down before or for the preparation and administration of a drug. Commonly, the term prescription is used to mean an order to take certain medications.[5-7]

All prescriptions must include the following information: prescriber name with contact details; date of prescription; patient name and registration number, age of patient, preferring generic name, dosage strength with appropriate units; route of administration or dosage form like tablet; frequency of administration or dosing interval like three times a day or every 6 hours; duration of therapy or duration of supply; signature and initials of prescriber, any advice or special precautions to be taken by the patient and should avoid abbreviations.

Prescription writing is a crucial task and suggests prescriber's responsibility toward the clinical care and the safe monitoring of the patient thus also carries legal implications. [8-11] It is a written order for the medication to be used for diagnosis, prevention and treatment of specific patient directed by physician.[12, 13]

AIM AND OBJECTIVES

A study to assess knowledge on prescription writing between second year MBBS students, interns and clinicians at tertiary care center and medical college .

MATERIALS AND METHODS

- Study design :

A cross sectional, three armed questionnaire based comparative study was conducted after approval of institutional ethics committee.

A questionnaire comprising of 25 questions was designed and validated by experts to assess the knowledge regarding prescription writing amongst second year MBBS students, interns and clinicians.

Written informed consent was taken from the study participants. Maximum score of the questionnaire was 25.

Statistical analysis: total marks scored was analyzed by"student's t-test"

Percentage correct answers were analyzed by "chi-square test".

- Eligibility criteria :

➢ Inclusion criteria

Students and clinicians who were willing to participate in the study and gave written informed consent.

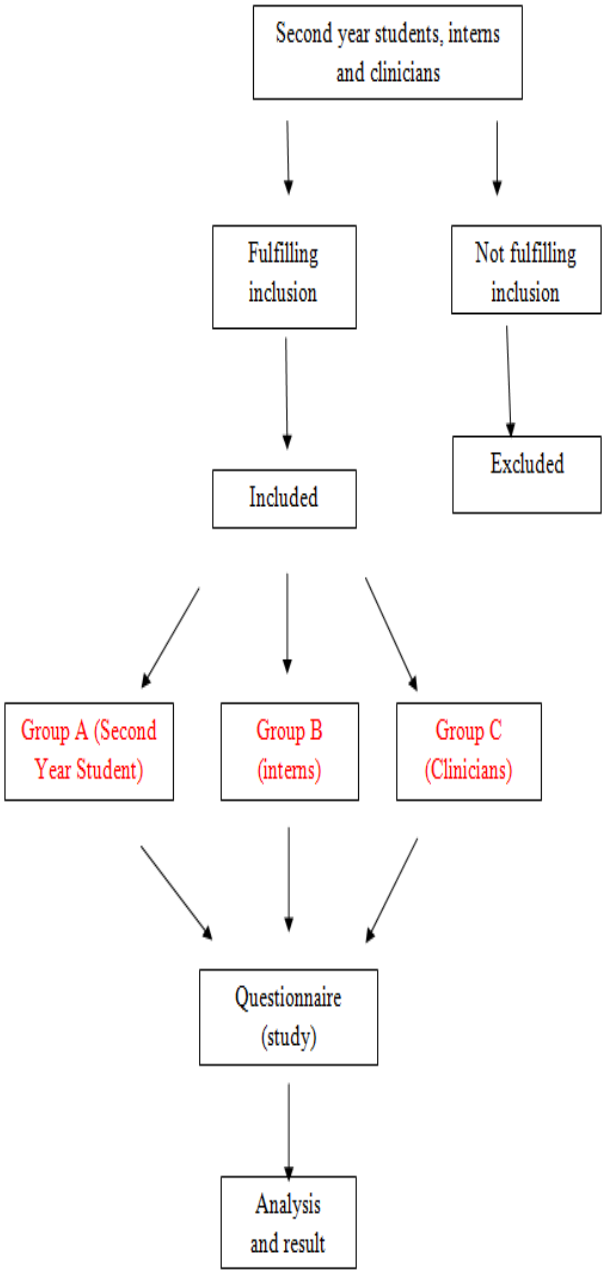
➢ Exclusion criteria

Students and clinicians who were not willing to give written informed consent.

- Study duration :

The study was done for a period of 2 months after getting selected and obtaining permission from Institutional ethics committee

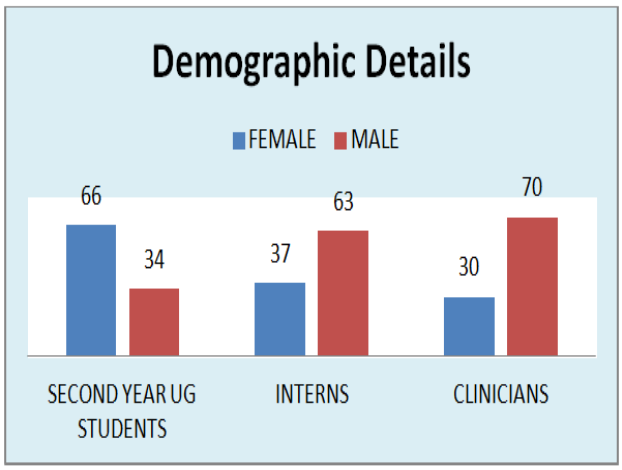
- Study Design Flow Chart



OBSERVATION AND RESULTS

Table 1: Demographic Details:

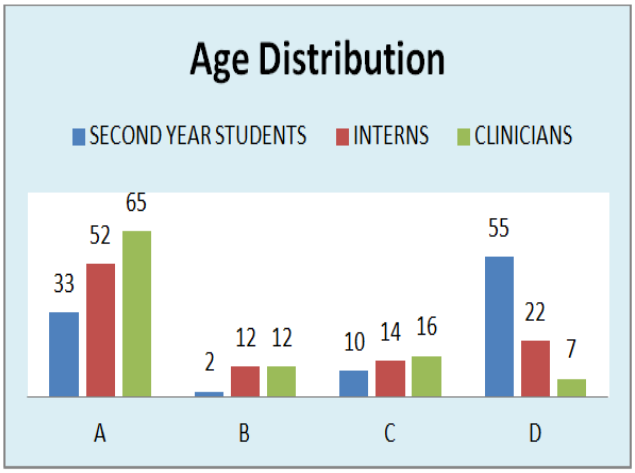
Gender	Second year students	Interns	Clinicians	Total
FEMALE	66	37	30	133
MALE	34	63	70	167
TOTAL	100	100	100	300



In the present study out of 100 second year students maximum (66%) were female than (34%) males.
Out of 100 intern participants maximum were males (63%) than (37%) females.
From 100 clinician participants maximum were males (70%) as compared to (30%) females.

Table 2:

Age (in years)	Second year students	Interns	Clinicians
LESS THAN 20	60	0	0
21 – 30	40	100	68
31-40	0	0	28
41-50	0	0	4



Maximum number (60%) of second year student participants is below 20 year of age and others (40%) are under 21-30 years of age.

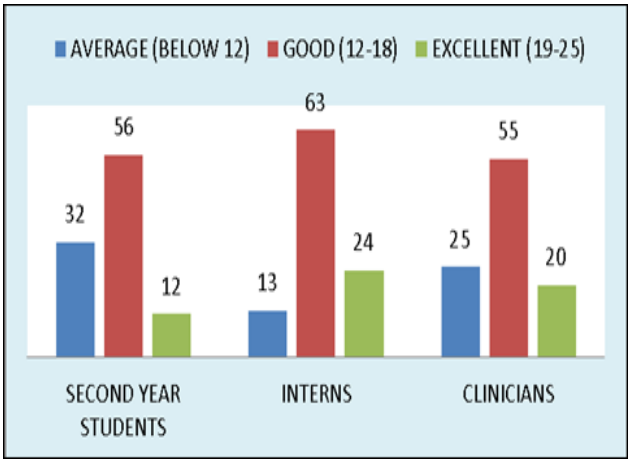
Numbers of intern participants are maximum (100%) under 21-30 years of age.

Maximum numbers (68%) of clinicians are under 21-30 year of age and others (28%) are under 31-40 years of age, (4%) under 41- 50 years of age.

Table 3: On the bases of scoring (maximum 25 score), from the study comparing three different groups second year students , interns and clinicians based on the knowledge of prescription writing .

Grading (max.25)	Second year students	Interns	Clinicians	Total
AVERAGE (BELOW 12)	32	13	25	70
GOOD (12-18)	56	63	55	174
EXCELLENT (19-25)	12	24	20	56
TOTAL	100	100	100	300

Chi square =12.569, degree of freedom (df)=4, p-value(probability)=0.014Significant



Excellent grade was scored by 12% Second year students, 24% internsand 20% clinician participants.

Good grade was scored by 56% second year students, 63% interns and 55% clinicians

Average grade was obtained by 32%Second year student, 13% by Interns and 25% by clinicians.

The difference between the levels of knowledge about Prescription writing between MBBS students, Interns and clinicians was statistically significant.

DISCUSSION

From the collected data and analysis of study sample we can state that knowledge on prescription writing was found higher in intern participants in comparison to clinician and second year MBBS students.

This difference may be because Intern's knowledge about prescription writing is fresh as they have completed their MBBS curriculum recently. They are also extensively writing prescriptions in the OPDs under the supervision of consultants.

Whereas second year MBBS students are being the fresh candidates to learn about prescription writing and not much exposed to clinical postings and OPD functioning, their knowledge on prescription writing is low as compared to the interns and clinicians. Hence their score is least on knowledge on prescription writing.

Interns read different disciplines of medical curriculum and get acquainted with prescription writing at various levels of curriculum. During their clinical postings, they regularly prescribe drug under the supervision of consultants and so are much exposed to prescription writing. This exposure adds to their knowledge about prescription writing and appears to be the contributing factor for scoring better than other participants.

Clinicians being the most experienced of the group and in daily exposure on prescriptions scored low as in comparison with interns because they have passed their MBBS long ago. They are more into tertiary level medical care and clinical practice than theoretical knowledge.

Few doctors avoid writing prescription to their patients and they ask their junior's to do so, which makes juniors more versed with prescription writing. This can also be the reason for interns scoring better than consultants.

CONCLUSION

From the study conducted on "Comparative study of knowledge on prescription writing between second year MBBS students, interns and clinicians at tertiary care center and medical college " we concluded that the knowledge about prescription writing was better in interns than the clinicians and the second year MBBS students.

Way Forward

Based on our study we can suggest as following

- Regular workshops and seminar should be conducted by the medical college on Prescription writing Skills for MBBS students and consultants.
- College should also conduct CME on knowledge on prescription writing for consultants, which can also include the pharmacists as they are important pillars to explain about the prescription to patients in terms of frequency, dosing, refilling etc.
- As per the recent curriculum change by MCI, inculcating more patient-based teaching learning, the students will have added advantages of communicating with patients, visualizing their agony and giving follow-up advice to them. These advantages will help the students to gain real-life experience which enhances their memory and performance in prescription writing.
- Doctors should not avoid him /her self-writing prescription to their patients due to paucity of time as their inclusion in this important process of prescription writing and explanation to patients will not only improve quality health care delivery but will also help in developing good Doctor Patient relationship which is much required need in present times.
- There should be timely analysis of prescriptions by conducting Prescription Audits by competent Authorities in the Hospital. This is in line with recent circular issued by Directorate health Services, Maharashtra Govt. which has recommended Prescription Audits to be done at timely interval to comply with National quality Assurance Standards for quality health care delivery.

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