

Original Article

A CROSS-SECTIONAL SURVEY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF P-DRUG IN A TEACHING HOSPITAL.

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ABSTRACT

Objective: Postgraduates represent the future generation of practitioners and there aren't many studies on the P-drug idea that specifically target them. Hence, we have taken up this study to assess the knowledge, attitude and practice of P-drug among the postgraduates.

Methods: A prospective observational study with a cross-sectional design was conducted at a Tertiary Care Teaching Hospital. Participants' responses were gathered using a pre-validated questionnaire. It evaluated participants' understanding of the P-drug concept, attitudes about P-drugs as treatments for illnesses, and actual P-drug prescribing behaviours. Statistical Package for Social Sciences (SPSS) software version 26 was used to analyze data after compiling data in the Excel sheet.

Results: Out of 230 participants, majority were the females (67.8%). 63% of participants were aware of the "rational use of medicines," and around 57% of them knew about the P-drug concept. 44.8% were aware of STEP criteria which is applied to select P-drug. Only 66 were practising with the P-drug list and the majority of them opined that teaching programmes are necessary to create awareness about the practice of the P-drug.

Conclusion: It is encouraging that the current study's findings point to reasonable drug usage rather than irrational use. The P-drug idea is a useful instrument for enhancing medical treatment and encouraging ethical drug usage. Furthermore, additional research has to be done to determine how P-drug use affects patient outcomes and healthcare expenditures over the long run.

Keywords: P-drug, Postgraduate, KAP, STEP criteria

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INTRODUCTION

Diseases have claimed countless lives throughout history. Innovations in science and understanding of several kinds of illnesses have aided in the betterment of disease research and treatment development. By effectively treating certain illnesses, the development of newer medications has extended life expectancy. Medication knowledge evaluation aids in comprehending and enhancing healthcare approaches [1].

Studying people's knowledge, attitudes, and practices (KAP) is a useful way to gauge their comprehension, convictions, and actions on a given subject. In order to increase patient safety and drug efficacy, researchers and policymakers can pinpoint areas for improvement in practice, education, and training by analyzing the KAP of healthcare workers [2].

World Health Organization (WHO) defines rational use of medicines as "Patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community." The World Health Organization (WHO) reported that 50% of patients do not take their medications as recommended and that 50% of all medications are prescribed, distributed, or marketed inappropriately. To keep the prescriptions up to par, we should evaluate the prescription-writing practices and errors [3].

P-drugs, also known as personal drugs, priority drugs, or preferred drugs, are ones that a doctor routinely prescribes for a problem that they are familiar with [4-6] A physician's P-drug is described as "the medications you have chosen to prescribe regularly and that you are familiar with." For the indicated signs, they are your first choice [7].

P-drug refers to a medication that is ready to use since it comprises more than simply the name of a drug; it also refers to the dose form, dosing schedule, and length of therapy. It differs from doctor to doctor and nation to nation as the options are determined by cost, availability,

and personal preference [7]. The most suitable P-drug selection should be made rationally by integrating therapeutic foundation, practical considerations, and problem-solving techniques [5].

The P-drug idea helps the practitioner to find effective medications, understand their advantages and disadvantages, and save time by not having to look for effective medications frequently. This will ultimately benefit the patient. The treating physician must consider elements like prescriber, drug, and patient characteristics before prescribing any medication to a patient on a P-drug concept and it should never be influenced by salespeople or senior physicians [8].

The application of STEP criteria aids the treating physician in creating a logical treatment strategy for each unique patient.[8]

The following are the six steps criteria:

- Evaluate the problems of the patient
- Identify the goals of therapy
- List the treatment options (indication oriented)
- Provide the rationale for the best treatment for this patient
- Write a definitive therapy plan (prescription)
- Determine the monitoring parameters/follow-up

The P-drug idea promotes a more logical approach to medication prescription by encouraging evidence-based practice and critical thinking among healthcare practitioners. Clinicians can help patients get better results, pay less for healthcare, and feel more satisfied by implementing the P-drug approach.

Even though the National Medical Commission (NMC) included this P-drug concept in the undergraduate curriculum, it's not applied extensively by every clinician while practising. Since postgraduates represent the future generation of practitioners and there aren't

many studies on the P-drug idea that specifically target them, we have taken up this study to assess the knowledge, attitude and practice of P-drug among the postgraduates.

MATERIALS AND METHODS

A prospective observational study with a cross-sectional design was conducted at a Tertiary Care Teaching Hospital. The study was carried out for 3 months, from October 2023 to December 2023 enrolling 250 postgraduate students who voluntarily gave their consent and participated in the study.

Participants' responses were gathered using a pre-validated questionnaire. It evaluated participants' understanding of the P-drug concept, attitudes about P-drugs as treatments for illnesses, and actual P-drug prescribing behaviours.

Statistical Package for Social Sciences (SPSS) software version 26 was used to analyze data after compiling data in the Excel sheet.

RESULTS

Out of the 250 participants, 13 did not return the forms, and 7 did not fill them; as a result, 230 forms were solely reviewed for

outcomes. Among the 230 participants, majority were the females (67.8%).

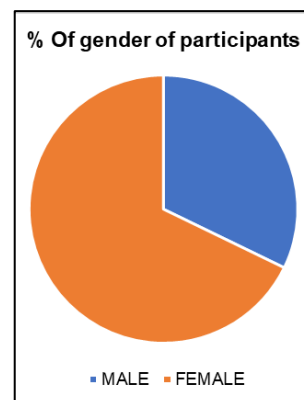


Fig. 1: Gender distribution

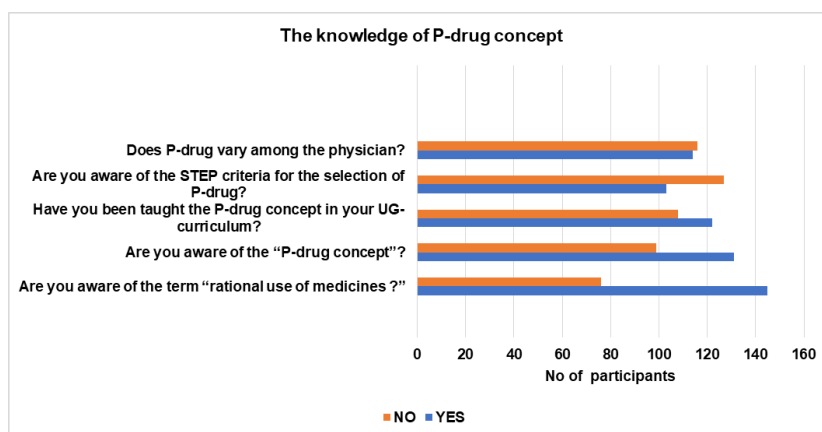


Fig. 2: The knowledge rates of postgraduates concerning the P-drug concept

Table 1: Responses of attitude about the P-drug concept

Attitude related questions	YES n(%)	NO n(%)
Do you consider the cost of treatment while prescribing medicines?	76(33%)	154(67%)
Do you include FDC combinations in your P-drug list?	156(67.8%)	104(32.2%)
Do you prescribe generic drugs in your P-drug list?	163(70.9%)	67(29.1%)
Do you prescribe essential medicine in your P-drug list?	160(69.6%)	70(30.4%)
Do you prescribe drugs based on the promotional activities of a pharmaceutical company?	84(36.5%)	146(63.5%)
Do you consider the socio-economic background of the patient while prescribing drugs?	70(30.4%)	160(69.6%)
Do you consider the comorbidities of the patient while prescribing the drugs?	85(37%)	145(63%)
Are you aware of the advantages of using a P-drug list?	150(65.2%)	80(34.8%)
Are you aware of the common side effects/adverse effects of the drugs that you commonly prescribe?	202(87.8%)	28(12.2%)

Table 2: Responses of the practice of the P-drug concept

Practice related questions	YES n(%)	NO n(%)
Have you attended any CME/teaching programmes about the P-drug list?	34(14.8%)	196(85.2%)
Do you practice P-drug?	66(28.7%)	164(71.3%)
Do you feel teaching programmes are necessary to create awareness and practice of P drugs?	200(87%)	30(13%)
Will you encourage your colleagues to practice rational use of medicines?	205(89%)	25(11%)

63% of participants were aware of the "rational use of medicines," and around 57% of them knew about the P-drug concept. 44.8% were aware of STEP criteria which is applied to select P-drug (fig. 2).

Only 66 participants out of 230 were practising with the P-drug list and the majority of them opined that teaching programmes are necessary to create awareness about the practice of the P-drug and 89% of them said that they will encourage their colleagues to practice rational use of medicines (table 2).

DISCUSSION

In our study response rate was 92%, which is comparable with another study done by DB *et al.* [9] (95%) and HooliTV *et al.* [10] (95.45%), but a study done by Rao SKT *et al.* [2] reported a 100%

response rate; enrolling interns as well may be the reason for the difference.

63% of our study participants were aware of the "rational use of medicines" which is greater than the study of Rao SKT *et al.* [2] (45%), DB *et al.* [9] (49.8%) and Kanthi GR *et al.* [11] (42%) but less

than quoted by DAKHALE *et al.* [12] (96.5%) and HooliTV *et al.* [10] (83.6%). Surprisingly a study done by Rekha MB *et al.* [13] Tekulapally [14] and Tank *et al.* [15] reported only 23%, 20% and 12.8%, respectively. Studies involving different groups of healthcare providers like interns, residents, clinicians, etc and lack of uniformity in questionnaires may be the reason for this difference.

Table 3: Comparison with other studies

Study	Awareness of P-drug (%)	Aware of STEP criteria (%)	Advantages of using P-drug (%)	Practicing or having a P-drug list (%)
Rao SKT <i>et al.</i> [2]	49.7%	39%	42%	62%
DB <i>et al.</i> [9]	49.3%	25.2%	15.6%	13%
HooliTV <i>et al.</i> [10]	63.2%	10.2%	15.6%	-
Kanthi GR <i>et al.</i> [11]	42%	27.5%	28.3%	11%
Dakhale <i>et al.</i> [12]	32%	15.5%	15%	-
Tekulapally [14]	22%	12%	12%	6%
Bajait, <i>et al.</i> [16]	35%	1%	9%	-
Singh <i>et al.</i> [17]	69%	47%	50%	-
Our Study	57%	44.8%	65.2%	28.7%

From table 3, from the various study results; awareness about P-drug varies from 22%-69%, awareness about STEP criteria ranges from 1% to 47% and 6-62% of them have a P-drug list and our study findings fall well between these ranges. However, awareness about the advantages of P-drug is 65.2% in our study which is well above the range from the other studies (9-50%). This might be because P-drug is a relatively recent addition to the medical curriculum and many of them are not exposed to it or not well versed with it. This suggests that doctors have not adopted the P-drug concept, which has remained exclusive to the field of pharmacology. If the P-drug approach is to be successful, clinician involvement is essential.

There was a great deal of reliance on manufacturer representatives (MRs) from various pharmaceutical firms for drug information. These MRs are frequently prejudiced and indicate a clear preference for the dynamics in the market that encourage illogical prescription behaviour and irrational medication usage. In our research, 36.5% admitted that they are prescribing drugs based on the promotional activities of a pharmaceutical company, which is much higher than the study done by Rao SKT *et al.* [2] (23%). In one research, medical professionals acknowledged that MR had an impact on their prescription decisions and that they felt pressured to prescribe a certain medication at the expense of receiving gifts, free samples, or other forms of support [18]. It is possible to significantly reduce irrational prescribing by providing independent, genuine, and unbiased information through drug information centres, drug bulletins, involvement in the creation of treatment guidelines and the establishment of drug and therapeutic committees [3, 19].

Surprisingly, 87% of respondents said that training programs should be implemented to create P-drug lists which is comparable with other studies Rao SKT *et al.* [2] (48.4%), DB *et al.* [9] (97.3%) and HooliTV *et al.* [10] (87.7%). This shows that healthcare professionals want to improve their comprehension and use of the P-drug idea in practice. It is clear that a lack of knowledge, resources, and training prevents P-drugs from being widely used, despite their proven ability to improve patient outcomes and lower healthcare costs [20]. It is necessary to plan teaching programmes with problem-based learning workshops to remove the barrier to adaptation.

Furthermore, along with creating awareness, it's critical to give medical practitioners the tools they need to create and execute P-drug lists. This might entail having access to tools and databases of drug information that can be used to recognize and choose P-drugs. We can promote P-drug usage and raise the standard of healthcare by raising awareness and offering resources [2].

LIMITATIONS

The results' potential to be applied broadly may be hampered by the smaller sample size. Furthermore, actual reporting procedures were not measured; rather, the study evaluated KAP only.

CONCLUSION

It is encouraging that the current study's findings point to reasonable drug usage rather than irrational use. The P-drug idea is a useful instrument for enhancing medical treatment and encouraging ethical drug usage. The usefulness of practice guidelines and educational initiatives in encouraging the use of P-drugs needs more investigation. Furthermore, additional research has to be done to determine how P-drug use affects patient outcomes and healthcare expenditures over the long run.

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Nil

AUTHORS CONTRIBUTIONS

All the authors have contributed equally

CONFLICT OF INTERESTS

Declared none

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