

Knowledge, attitude and practices of generic names usage in prescription among the medical postgraduate residents of a tertiary care teaching hospital: an observational cross-sectional study

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ABSTRACT

Background: Establishment of Pradhan Mantri Bhartiya Janaushadhi Kendras through Pradhan Mantri Janaushadhi Pariyojana (PMBJP) is a breakthrough step to reduce expenses in healthcare due to costly branded names in prescription. Medical council of India also amended clause 1.5 of the Indian Medical Council Regulations, 2002 mandating the doctors to prescribe medicines by generic names in place of brand names. Moreover, medical practitioner nowadays has raised concern about education/qualification of the chemist who is being made the decision maker.

Methods: In this questionnaire based cross-sectional observational study, all students admitted to post graduation course in academic year 2018 were included and those who were not willing to give consent were excluded from study. A knowledge, attitude and practices (KAP) questionnaire containing 12 questions was assessed by using true/false type and Likert scale-based questions. Descriptive statistics used to generate frequencies, percentages and proportions.

Results: Majority of the population have answered positively about knowledge questions. Surprisingly 72.41% population don't know about process of new drug approval. Most of them agreed to pros and cons of generic drug prescribing. 58.14% population always write generic names in their prescription. Shockingly 74.42% population write prescription based on their knowledge from promotional literature by a medical representative.

Conclusions: Findings of present study highlights usefulness of the practice of writing generic names in prescriptions. It also raises concern about professional qualification of the chemist who will be decision maker in drug delivery to consumers.

Keywords: Attitude, Generic, Janaushadhi, Knowledge, Practice, Prescription

INTRODUCTION

Generic or non-proprietary name is the name for the active ingredient in the medicine that is decided by an expert committee and is understood internationally. These drugs are usually interchangeable with branded drugs and do not require licence for their manufacturing. Basically, these drugs are marketed after the expiry date of the patent or other exclusive rights.¹ Writing costly branded names in prescription seldom leads to expensive and unaffordable

treatment.^{2,3} Establishment of Pradhan Mantri Bhartiya Janaushadhi Kendras through Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a breakthrough step to reduce out of pocket expenses in healthcare.⁴ Medical council of India also amended clause 1.5 of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002 mandating the doctors to prescribe medicines by generic names in place of brand names.⁵ Prescribing generics whenever the outcome sought is clinical or easily measurable like drugs for pain,

blood pressure, infections, and so forth will surely reduce treatment cost. While switching to generics may lead to therapeutic failure in drugs requiring careful titration and close tolerances like anticonvulsants, antifungals, thyroid replacement, and others.⁶ Moreover, medical practitioner nowadays have raised concern about education/qualification of the chemist who is being made the decision maker. This chemist empowerment could increase prices as they may sell brands with higher absolute margins.⁷

With this background, this questionnaire based cross sectional study is designed to assess knowledge, attitude and practice about generic drug names usage in prescription.

METHODS

This questionnaire based cross sectional observational study was conducted at Department of Pharmacology, Swami Ramanand Teerth Government Rural Medical College, Ambajogai, Maharashtra, India with study objective to assess the existing knowledge, attitude and practices of post graduate students on generic drug names usage in prescription. All the students admitted to post graduation course in academic year 2018 were included in this study. Those who were not willing to give consent were excluded from study. After explaining the benefits and risks of participation in the study to each subject to the fullest extent possible about the study, in language and terms they are able to understand; the investigator obtained written informed consent from all the participants prior to entering the study. All the participant was gathered on the day of data collection. A KAP questionnaire containing 12 questions (knowledge 04, attitude 04, and practice 04) was given to each participant. They were provided 5 minutes to fill the questionnaire. Participants taking extra time were excluded from the study. The participants KAP was assessed by using true/false type and a Likert scale-based question whose responses ranged from “strongly agree” to “strongly disagree” and “always” to “never.”

Statistical analysis was done using Graph Pad Prism Software Version 6. Simple descriptive statistics were used to generate frequencies, percentages and proportions.

RESULTS

Total 43 doctors participated in this study. Among them 19 were males and 24 females. The analysis was done using five-point response options of the Likert scale for attitude and practice questionnaire and true or false type options for assessing knowledge.

All participants know that generic drugs are cheaper than branded drugs. Majority, about 72.41% participants know that generic and branded drugs are equipotent. Surprisingly only 27.59% participants know about new drug development process and majority 72.41% failed to answer question about new drug approval correctly. Nearly 86.21% participants aware about new pharmaceutical policy 2017 (Table 1).

Table 1: Knowledge questionnaire.

Knowledge Questionnaire	True (%)	False (%)
Generic drugs are cheaper than branded drugs.	100	0
Generic drugs are low in potency and efficacy compared to branded drugs.	27.59	72.41
Newly approved drugs are available as branded drugs only.	27.59	72.41
New pharmaceutical policy 2017 recommends use of e-prescription for generic drugs.	86.21	13.79

Majority (95.02%) of participants believe that writing generic names in prescription is a good practice and must be made mandatory. Most of them (86.05%) also believe that this practice will help in establishing a transparent doctor patient relationship.

On the other hand, majority (65.12%) were concerned about usefulness and availability of generic drugs in all clinical conditions, while 76.75% think that writing generic names in prescription will give liberty to pharmacist to select any available brand which will be more profitable for him. About 6.98% to 13.95% participants were undecided about their attitude (Table 2).

Table 2: Attitude questionnaire.

Practice of writing generic names in prescription	Strongly agree (%)	Agree (%)	Undecided (%)	Disagree (%)	Strongly disagree (%)
Is a good practice and must be made mandatory?	25.58	67.44	6.98	0	0
Is impossible in some medical conditions.	2.33	62.79	13.95	16.28	4.65
Along with generic drug stores will help in establishing a transparent doctor patient relationship.	16.28	69.77	11.63	2.33	0
Will provide liberty to pharmacist to supply from various available brands.	16.28	60.47	13.95	9.3	0

In practice questionnaire, majority of the participants shown positive response about consideration of cost before prescribing and allowing patients to choose among various available brands.

Surprisingly large proportion of participants (90.70%) rely on promotional literature for knowledge upgradation and don't consider other sources of drug information (Table 3).

Table 3: Practice questionnaire.

Practice questionnaire	Always (%)	Usually (%)	Sometimes (%)	Seldom (%)	Never (%)
Do you consider cost of a drug before prescribing?	74.42	11.63	11.63	0	2.33
Do you update your knowledge with promotional literature by a medical representative?	46.51	27.91	16.28	4.65	4.65
Do you allow patients to choose among different available brands of a particular drug?	46.51	18.6	16.28	6.98	11.63
Do you write generic names in your prescription?	58.14	27.91	6.98	4.65	2.33

DISCUSSION

In the present study, good percentage of participants have considerable knowledge about generic medicines, and they have positive attitude about the safety, efficacy and quality of generic medicines.

Fortunately, the Indian context is better than that noted in other countries. In a study conducted in Auckland, New Zealand, only 51% of the respondents had heard of the phrase "generic drug."⁸ Naing C et al, assessed knowledge of the medications taken by the population of Malaysia, noting that 85.8% did not know the term "generic drug", 86.3% did not know how to reply on the quality of generic drugs compared to reference drugs and 86.9% did not know about price differences between generic and reference drugs.⁹ The good results obtained among the Indian population can be attributed to awareness-heightening and popularization programs for generic drugs, run by the Indian Government and the pharmaceutical companies producing these types of medications. All participants are aware of Jan Aushadhi scheme of Govt. of India whose purpose is to set up generic drug stores around the country which is contrary to the finding of Badwaik R et al, (Table 1).¹⁰

High numbers of participants agree that to reduce overall health expenditure generic medicines are an important tool. The cost of generic medicines has been found to be up to 91% less than that of the innovator medicine in India.¹¹⁻¹³

In this study, most of the respondents believed in efficacy of generics and being bioequivalent to their innovator counterparts they can be interchangeable with a branded drug. Similar findings were obtained by Thomas R et al, Davit BM et al. and Gupta S et al.¹⁴⁻¹⁶

Many participants believe that prescribing generic drugs is impossible in some clinical conditions due to non-availability or less efficacy (Table 2). However, this effect is not exclusive to generics. This may also be blamed on inter-individual variations, which is a serious problem consisting of a loss of pharmacological efficacy and adverse effects. Some of the factors associated with the variability of the pharmacological and therapeutic effects, are age, pregnancy and the presence of disease.¹⁷ In fact, there are situations in which a specific medication may present a therapeutic response other than the expected outcome or the patient may even be refractory to pharmacological treatment in some cases. For example, one third of patients with depression are refractory to pharmacological treatment.¹⁸

In present study, author have found that most of the doctors prescribe generic medicines. These findings are similar to that of Gupta S et al.¹⁶ Many admitted that most of the times their prescriptions are influenced by promotional literature and they believe that they prescribe branded drugs which is similar to the finding of another study (Table 3).¹⁰

Surprisingly only 27.59% participants know about new drug development process and majority 72.41% failed to answer question about new drug approval correctly. This finding suggested strong need of knowledge upgradation of health care providers (Table 1).

Small sample size is the major limitations of this study. Thus, findings of this study cannot be generalized. Author have only studied the doctor's perception and understanding regarding generic medicines. It would be appropriate to analyse the perception and understanding of other health care professionals as well as patients.

CONCLUSION

In spite of shortcomings the findings of present study cannot be neglected. The data about knowledge, attitude and practice of post graduate resident doctors about writing generic names in prescriptions is generated through this study. Without doubt it highlights usefulness of this practice. It also raises concern about professional qualification of the chemist who will be decision maker in drug delivery to consumers. Study also recommends need of knowledge upgradation of health care providers.

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