



Original Research Article

A study on assessment of knowledge and attitude about generic medicines among interns in a tertiary care hospital

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ABSTRACT

Background: According to a WHO report, approximately 55 million people in India are still living in poverty as a result of household out-of-pocket expenses for health care, particularly medications. Thus, it is imperative to keep healthcare costs as low as possible without limiting access to high-quality care. Increasing the use of generic medications can raise affordability of healthcare without sacrificing the standard of care. Doctors' prescriptions play an extremely significant role. In order to identify potential obstacles to the use of generic drugs, it may be helpful to understand the doctor's perspective about generic drugs.

Materials and Methods: A cross-sectional study was carried out using a validated questionnaire that included questions to evaluate the participant's knowledge and attitude on generic medicines. Data was collected using google forms and Chi square test was used to list association of knowledge and attitude.

Results: It was observed that attitude among interns were extremely significant whereas the knowledge was insignificant.

Conclusion: According to the study, knowledge about generic drugs were not significant however they had significant attitude towards it so educating interns and medical students about generic drugs will promote more awareness about prescribing generic medicine.

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1. Introduction

A generic drug is a prescription medication that is made to be identical to a brand-name drug that has previously been commercialized in dosage form, potency, mode of administration, quality, performance, characteristics, and intended use. Since generic drug applicants do not need to repeat the preclinical and clinical research that were necessary for brand name drug applicants to prove the safety and efficacy of their products, generic drugs are more reasonably priced for the general public. In comparison to brand-name medications, they are therefore sold at extremely reduced prices.

IMS Health Institute estimates that between 2009 and 2019 generic medications saved the American healthcare system close to \$2.2 trillion.¹ Despite being referred to as the "pharmacy of the world," India's population has extremely limited access to medications because OOP household spending accounts for approximately 65% of all health expenditures, with drugs accounting for 2/3 of those expenditures.² Therefore, it is imperative to keep healthcare prices as low as possible without limiting access to high-quality treatment. Increasing the use of generic medications can raise healthcare affordability without sacrificing the quality. The use of generic medications is significantly impacted by the prescriptions that doctors write. In order to identify potential obstacles to the use of generic drugs, it may be helpful to comprehend doctors'

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perspective about generic drugs. So, this study’s objective is to understand medical interns’ knowledge and attitude about generic drugs.

2. Materials and Methods

Following approval from the Institutional Ethics Committee, a questionnaire-based study among 96 MBBS interns was conducted. 10 closed-ended questions in a self-developed questionnaire. There were 5 knowledge-related questions and 5 attitude-related questions. Experts in the field validated the questionnaire. The willing interns received a survey through Google Forms. Data was examined and expressed as percentage values after responses were gathered and analyzed.

2.1. Statistical analysis

Descriptive statistics were used to assess the data that was entered into MS Excel.

3. Results

In this study it was observed that only 83.3% were aware that every physician should prescribe generic drugs as far as possible according to Indian medical council act 2002 (Figure 1) 24% of interns were aware that for the manufacture of generic drugs, there is no need to repeat clinical and preclinical study. (Figure 2) 93.8% of interns were aware that bioequivalence studies have to be conducted before manufacturing of generic drugs. (Figure 3) Only 86.5% of interns were aware of the Jan Aushadhi scheme. (Figure 4) 66.7% of interns strongly agreed that by conducting training sessions for public can increase awareness about generic medicines among people. (Figure 5)

It was observed that 51% of interns strongly agreed that patients should be given the choice to select between generic drug and branded drug. (Figure 6)

It was observed that 55.2% of interns strongly agreed that generic medicine pharmacy should be present in every health care facility. (Figure 7)

4. Discussion

In 2017, a KAP study was conducted about generic medicines among doctors in a teaching hospital in Tripura, India showed that the doctors are well aware of generic medicines and Jan Aushadhi scheme. They observed that by conducting training programs for doctors and people can increase awareness of generic drugs.³

The results of a study conducted in 2018 on the assessment of generic drug awareness among doctors in a tertiary care teaching hospital in North India showed that while a significant portion of doctors expressed concerns about generic medications, a good percentage of doctors had

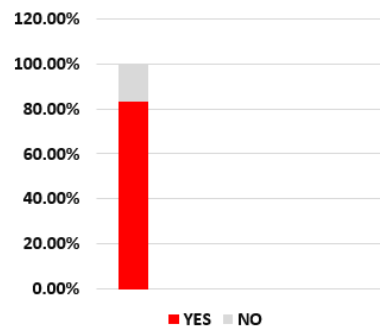


Fig. 1: Indian medical council act regulations, 2002 states that every physician should, as far as possible, prescribe drugs with generic medicines

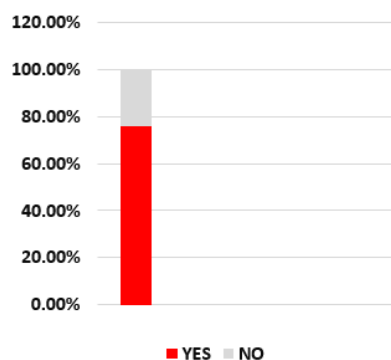


Fig. 2: Preclinical and clinical studies should be repeated for manufacture of generic medicine

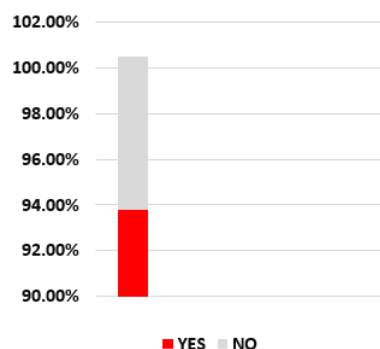


Fig. 3: Generic medicines manufacturers need to conduct bioequivalence studies.

Table 1: Questions related to basic knowledge of Generic drugs

S. N o	Questions	Correct Responses
1	Generic medicines only marketed after the expiry of patent period of branded drug	57
2	Indian medical council act (Professional conduct, etiquette and ethics regulations, 2002 states that every physician should, as far as possible, prescribe drugs with generic medicines	80
3	Preclinical and clinical studies should be repeated for manufacture of generic medicine.	23
4	Generic medicines manufacturers need to conduct bioequivalence studies.	90
5	Are you aware of the scheme of Government of India called Jan Aushadhi whose purpose is to set up generic drug stores around the country?	83

Table 2: Questions about attitude about generic drugs

S. No.	Questions	Strongly agree	Agree	Disagree	Strongly disagree
1	Do you think there should be training program for general public to increase awareness regarding generic drugs?	64	29	2	1
2	Do you think generic drugs are not as effective as branded drugs?	33	46	11	6
3	Do you think importance of generic prescription must be taught in early part of medical training?	57	35	3	1
4	Do you think patients should be given the freedom to choose between generic drug and branded drug?	49	38	5	4
5	Do you think generic drug pharmacy should be present in every hospital?	53	35	4	4

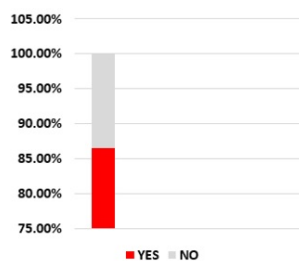


Fig. 4: Are you aware of the scheme of government of India called jan aushadhi whose purpose is to set up generic drug stores around the country?

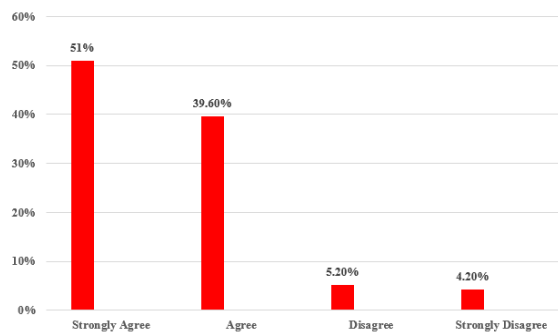


Fig. 6: Do you think patients should be given the freedom to choose between generic drug and branded drug?

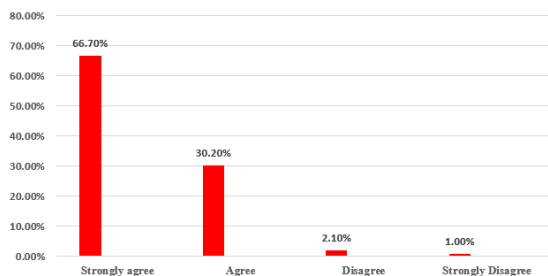


Fig. 5: Do you think there should be training program for general public to increase awareness regarding generic drugs?

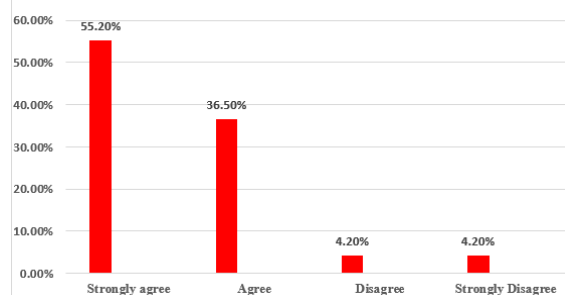


Fig. 7: Do you think generic drug pharmacy should be present in every hospital ?

good knowledge and attitudes about them. There needs to be more research done on the treatments that can promote public and professional understanding and acceptance of generic medications.⁴

A study conducted in 2018 at a tertiary care teaching hospital in South Gujarat on teaching faculty members' attitudes, knowledge, and practices regarding generic drugs revealed that while a majority of medical faculty members were knowledgeable about generic medications, there was still a gap between their perception of generic and brand-name medications. In order to close this gap, it appeared that widespread awareness campaigns were required. These campaigns would promote the usage of generic medications, which would ultimately result in lower healthcare costs.⁵

A study conducted in 2019 on the knowledge, attitudes, and use of generic pharmaceuticals among doctors in a tertiary care hospital in Bangalore revealed that the participants were well-informed about these drugs. A national level internet reference must be made available, in the physicians' opinion. Despite their reservations, safety and accessibility were still present. Interventions in education and regulation are necessary to solve these issues.⁶

In this study, this study shows that most of the interns were aware of the importance of generic medicines but, they did not have much knowledge about the process of development of generic drugs. Most of them strongly agreed that generic drug pharmacy should be present in every hospital and also, they understand the importance of educating general public about generic drugs and their benefits. Most of them have also strongly agreed on including training programs on importance of generic drugs to medical students in early part of their education which will benefit later in their career. But some of them were unsure about the efficacy of generic drugs compared to that of branded drugs.

5. Conclusion

According to the study, knowledge about generic drugs was not significant however they had good attitude towards it so educating medical students at early part of their

medical training will lead to better knowledge about generic medicines among our future doctors.

6. Source of Funding

None.

7. Conflict of Interest

The authors affirm that there is no conflict of interest.

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