



Patient Survey On Generic & Branded Drugs Consumption In Rural & Urban Sectors

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Abstract: A list of indicators has been created by the WHO and International Network for Rational Use of Drugs that are widely used to evaluate irrational drug prescribing. The objective of this study is to identify the understanding subgroups of consumer in terms of their populations towards branded and generic medication. Secondary objective was to understand and overcome these limitations by comparing the effectiveness and side effects of generic and branded medications.

This study aims to add useful insights to the ongoing discussion on drug use in both rural and urban settings by conducting a thorough analysis and taking into account patient perspectives. The diagnosis of a patient with acute disease utilizing both branded and generic medications.

Index Terms - PHC, WHO, Branded, Generic, Healthcare Regulations, Rural, Urban

I. INTRODUCTION

1.1. Understanding Generic and Branded Drugs Consumption

In the realm of pharmaceuticals, two primary categories dominate the market: generic drugs and branded drugs. Understanding the consumption patterns, preferences, and perceptions surrounding these categories is vital for healthcare professionals, policymakers, and consumers alike. This introduction aims to shed light on the nuances of generic and branded drugs consumption, exploring their definitions, differences, and implications for healthcare systems and patient care. ^[1]

Patients receiving medications that are appropriate to their clinical requirements are described by the World Health Organization (WHO) as rational utilization of drugs. In dosages that meet their own needs, for a suitable duration, and at the lowest cost for them and their community. ^[2]

It's unfortunate that the habit of using drugs irrationally is widespread, particularly in middle- and low-income countries. Drug use is commonly irrational in every country, but developing nations, where traditional medicine use is not strictly monitored, have a higher rate of irrational use. We present a chronological review of the literature on consumer and patient knowledge, attitudes, and opinions regarding the use of generic drugs, branded drug in rural and urban area The views of consumers from different settings are presented in a narrative format in this study ^[2,3]

1.2. Definition of Generic and Branded Drugs:

Generic Drugs: Generic drugs are pharmaceutical equivalents to their branded counterparts, containing the same active ingredients, dosage form, strength, and route of administration. However, they are typically marketed under their chemical or generic name and are often available at lower prices due to reduced research and development costs.

Branded Drugs: Branded drugs, also known as innovator or proprietary drugs, are developed and marketed by pharmaceutical companies under a trademarked name. These drugs undergo extensive research, clinical trials, and marketing efforts, often resulting in higher costs compared to generic alternatives. ^[4]

1.3. Overlapping Limitations:

- Healthcare Provider Practices:** Both rural and urban populations may encounter variations in healthcare provider practices regarding the prescription and promotion of generic versus branded medications. Physician prescribing behaviors, influenced by factors such as training, experience, and pharmaceutical industry interactions, can shape patient access to and utilization of different drug options. ^[5]
- Healthcare Policy and Regulations:** Regulatory policies and healthcare reimbursement mechanisms can impact the availability and affordability of generic and branded medications for both rural and urban populations. ^[6] Policy interventions aimed at promoting generic drug substitution or expanding access to affordable medications can address common limitations faced by both groups. ^[7]

Addressing the limitations faced by rural and urban populations in accessing and utilizing generic and branded medications requires a multifaceted approach, including efforts to improve healthcare infrastructure, reduce financial barriers, enhance health literacy, and promote evidence-based prescribing practices. By addressing these challenges, healthcare systems can strive to ensure equitable access to safe, effective, and affordable medications for all individuals, regardless of their geographic location.

II. RESEARCH METHODOLOGY

A cross-sectional comparative study was carried out in urban and rural areas population. During period from February 1, 2024 to April 5, 2024

2.1. Study population

The study included 100 patients in the urban and rural area^[8]

2.2. Study location

Data was collected from the urban and rural areas

Data of 50 patients are collected from the rural areas and

Data of 50 patient are collected from the urban areas from the hospitals and medicals^[8]

2.3. Baseline questionnaires:

Participants completed a questionnaires assessing their experience of following diseases -

- A. Flue
- B. Headache
- C. Dengue
- D. Typhoid
- E. Arthritis
- F. Treatment Duration
- G. List of Preferred Medicine^[9]
- H. Generic and Branded

2.4. Data collection

In this study, WHO-designed data collecting forms based on criteria were used. Data on prescribing and completeness indicators were collected by three well-trained Pharmacists by observing prescriptions. A well-structured questionnaire was filled out by the collectors to collect data from the prescription paper.^[3]

2.5. Data analysis and interpretation

The data were entered and analyzed using Excel, statistical software. In the statistical analysis, the indicators were reported as frequencies, averages/means, percentages, and proportions. The interpretation of the findings was based on WHO completeness and prescribing indicator standards.^[3]

2.6. Side Effects:

Side effect information -

Participants were informed that the possible mild adverse effects of the medication included headache, feeling dizzy, getting a sore throat, dry mouth, skin itching, and nausea or stomach pain^[9]

III. RESULTS AND DISCUSSION

3.1. Table no.1: Primary Diagnosis of Patients with Acute Diseases Using Branded and Generic medication

Disease	Branded	Generic
Flue	9	7
Headache	15	14
Dengue	10	9
Typhoid	10	9
Arthritis	9	8

3.2. Table no.2: Prescribed Drug Categories in Rural & Urban Communities \

Diseases	Rural		Urban	
	Generic	Branded	Generic	Branded
Headache	7	7	7	8
Dengue	4	5	5	5
Typhoid	5	4	4	6
Arthritis	5	6	2	4
Flue	2	5	5	4

3.3. Table no. 3: Prescribed drug groups in Rural & Urban Population

Count of Medicine				
Diseases	Rural		Urban	
	Generic	Branded	Generic	Branded
Headache	12	10	5	9
Dengue	11	11	14	16
Typhoid	13	10	12	15
Arthritis	4	9	14	10
Flue	9	8	13	16
Total	49	48	58	66

3.4. Table no.4: Demographic Characteristics

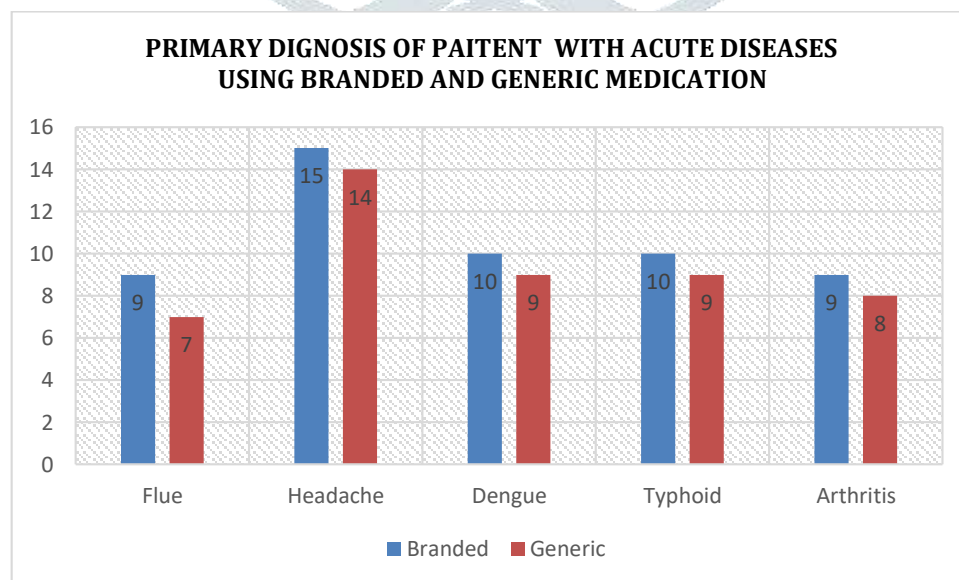
4.1: Age

Age	Rural Population	Urban Population
> - 20	5	6
20 - 40	30	26
40 - 80	15	18

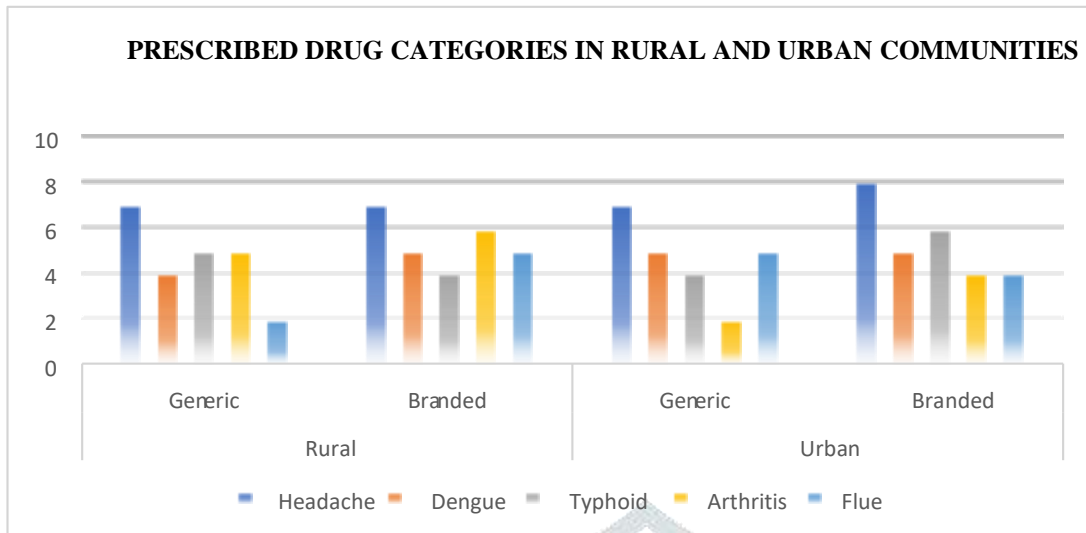
4.2: Gender

	Male		Female	
	Generic	Branded	Generic	Branded
Rural	9	11	10	20
Urban	11	15	10	16

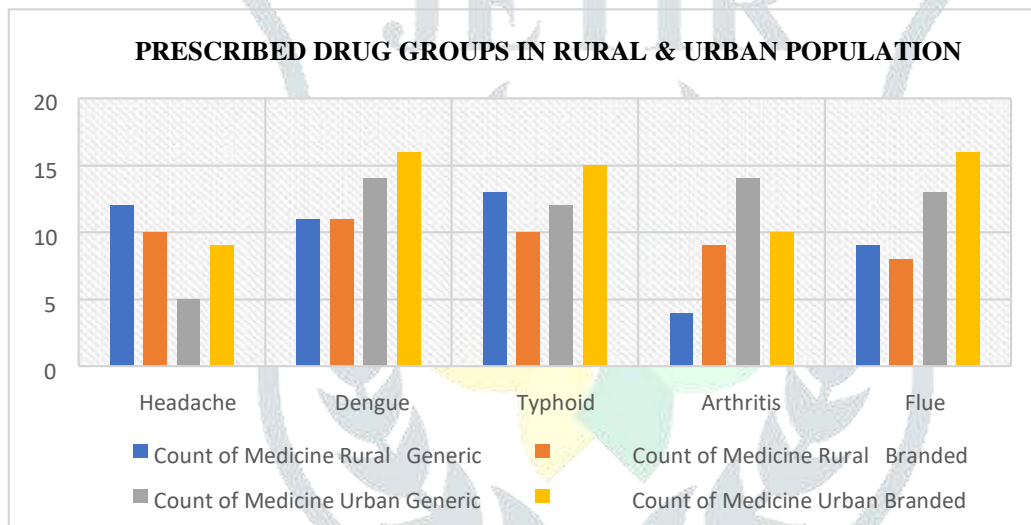
4.1. Graphical Presentation:



4.2. Graph no.1: Describes the diagnosis of Patient with acute disease using branded & generic medication, this graph shows that branded medication used in more amount than generic medication.

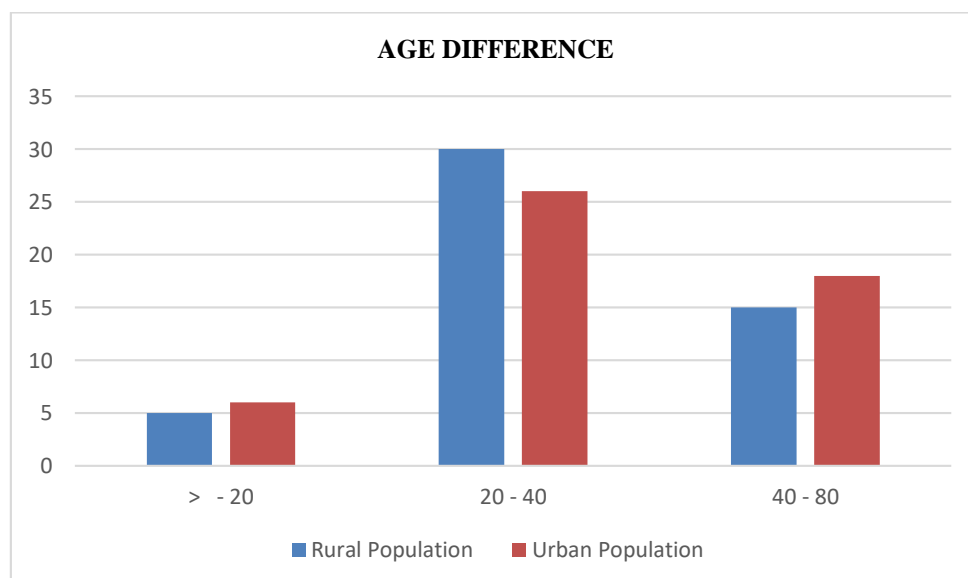


4.3. Graph no.2: Describe & categories the drug in urban and rural communities. This graph shows that in rural area for specific disease generic medicaments prescribed and in urban area more branded drugs and prescribed as compared to rural area.

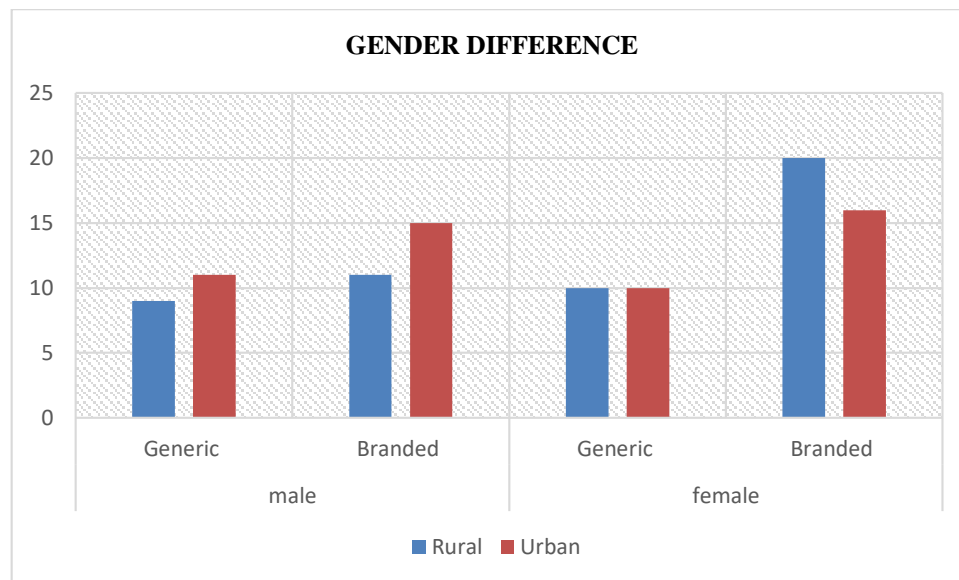


4.3. Graph no.3: Describe and compare the prescribed groups in urban and rural health care facilities. This graph shows the Number of drug prescribed per encounter was higher in urban than rural health care facilities. The count of dispensed medicine in rural and urban health care facilities.

5.Characteristics: Graph no.4:



5.1. Graph no 4.1: Describe and compare the demographic characteristics of patient. This graph shows that in rural and urban use of medicaments in age category. 20 – 40 age patients takes more medicine as compared to less than 20 age patients.



5.2. Graph no 4.2: Describe and compare the demographic character of patient. By differentiating the use of medicaments by the gender. This graph shows that male patients take less medicaments as compared to female.

IV. Discussion:

6.1. Consumption Patterns and Trends:^[10]

- The consumption of generic and branded drugs varies across different demographic segments, geographical regions, and healthcare systems.
- Factors influencing drug consumption patterns include affordability, availability, efficacy perceptions, doctor's recommendations, brand loyalty, and regulatory policies.
- In some regions, generic drugs may be favoured due to their lower cost, especially in healthcare systems with cost-containment strategies or where patients bear a significant portion of medication expenses out-of-pocket.
- Conversely, branded drugs may enjoy higher demand in settings where patients prioritize perceived efficacy, trust in well-established brands, or where insurance coverage mitigates the financial burden.^[11]

6.2. Implications for Healthcare:

- Generic drugs play a crucial role in improving access to essential medications, particularly in resource-constrained settings and for chronic disease management.
- Branded drugs often drive innovation and research advancements in pharmaceuticals, leading to the development of breakthrough treatments and therapies.^[12]
- Balancing the use of generic and branded drugs is essential for healthcare systems to ensure cost-effectiveness, equitable access to quality care, and optimal patient outcomes.^[13]

6.3. Purpose of Analysis:

This analysis aims to delve into patient perspectives, behaviors, and experiences regarding the consumption of generic and branded drugs, with a focus on distinguishing between rural and urban populations.

By examining awareness levels, consumption patterns, factors influencing drug choice, and satisfaction levels, this study seeks to provide insights that can inform healthcare policies, improve access to medications, and enhance patient-centered care.

6.4. General Trends in Recent Years:

1. **Increasing Generic Drug Utilization:** Over the past decade, there has been a notable increase in the utilization of generic drugs worldwide. This trend is driven by factors such as expiration of patents on branded medications, healthcare cost containment efforts, and generic substitution policies implemented by healthcare payers and providers.^[12]
2. **Growing Market Share of Generic Drugs:** Generic drugs have steadily gained market share across various therapeutic classes, including cardiovascular medications, antibiotics, central nervous system drugs, and chronic disease treatments such as diabetes and hypertension medications.^[13]
3. **Cost-Containment Strategies:** Many healthcare systems and insurance providers have implemented cost-containment strategies to promote the use of generic drugs over branded alternatives.^[14] These strategies may include tiered formularies, copy differentials, and incentives for healthcare providers to prescribe generics.^[15,16]

4. **Regulatory Initiatives:** Regulatory agencies in different countries have implemented policies to facilitate the approval and market entry of generic drugs, including expedited review processes, generic drug user fee programs, and initiatives to address regulatory barriers to generic competition. ^[17,18]
5. **Increased Competition:** The growing availability of generic alternatives has intensified competition in the pharmaceutical market, leading to price reductions and cost savings for patients and healthcare systems. Competition among generic manufacturers has also led to innovation in drug delivery formulations and dosage forms. ^[19]
6. **Branded Drug Market Dynamics:** Despite the growth of generic drug utilization, branded medications continue to play a significant role in certain therapeutic areas, particularly in specialty drugs and biologics where there may be fewer generic alternatives available. ^[20,21]
7. **Patient Preferences and Perceptions:** Patient preferences and perceptions regarding generic versus branded medications can vary based on factors such as therapeutic class, treatment indication, efficacy expectations, and healthcare provider recommendations. ^[22] Education and awareness campaigns may influence patient attitudes towards generic drugs and promote their acceptance and utilization. ^[23,24]

Primary diagnosis of patients with acute infections using branded and generic medications reveals that use of branded drugs is higher than generic in headache, dengue, typhoid, and arthritis. The category of prescribed pharmaceuticals is identical in both rural and urban communities. Table 3 illustrates the prescription drug group population in both sectors. Prescription medications are grouped into three age groups: > - 20, 20 - 40, and 40 - 80. Females prescribe more branded pharmaceuticals than males in metropolitan areas, whereas males prescribe more branded drugs in rural areas.

V. Conclusion:

Understanding the dynamics of generic and branded drugs consumption is essential for optimizing healthcare delivery, promoting medication affordability, and ensuring equitable access to quality pharmaceuticals. Through comprehensive analysis and consideration of patient perspectives, this study endeavors to contribute valuable insights to the ongoing discourse surrounding drug utilization in both rural and urban contexts. The diagnosis of Patient with acute disease using branded & generic medication.

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