

Awareness and Attitude of Consumers on Generic and Branded Drugs: A Study in North Coastal Districts of Andhra Pradesh

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Abstract

Drugs and other pharmaceuticals constitute up to 40% of the healthcare budget in developing countries, yet a large proportion of the population frequently lack access to the most basic medicines. This can be attributed to poverty levels in the communities, and hence increasingly scarce resources for purchase of these facilities. On the other hand, industrialized countries with more resources are looking for ways to reduce medical expenditures and have embraced the concept of essential medicines. It is widely believed that this concept which advocates for selecting a limited number of drugs from the abundance of pharmaceuticals available in the world market leads to better supply, more rational use, and cost-effectiveness. In India every medicine has 2 names, one is brand name derived from the pharmaceutical company that markets the medicine, and the other one is generic name, which is the medicine's active ingredient that makes it work. Generic medicines work the same way as brand-name medicines, but there are some differences. In this context the awareness and attitude of consumers on generic and branded drugs is very much important. Thus, this paper is made an attempt to understand the awareness and attitude of the consumers in buying and using such generic and branded medicinal products available in the market. The methodology used in gathering the information is mainly through primary data from the 600 consumers of north coastal districts of Andhra Pradesh with the help of questionnaires and statistically analysed with the help of SPSS. Here the perceptions of the respondents on awareness and attitudes are analysed by percentages, score analysis and test the hypothesis with the help of chi-square test.

Keywords: Awareness, attitude, consumers, generic drugs, branded drugs

Introduction

One of the vital components of the healthcare is medicine, as they account for a substantial part of household expenditure. Drugs and other pharmaceuticals constitute up to 40% of the healthcare budget in developing countries, yet a large proportion of the population frequently lack access to the most basic medicines (Rituparna Maiti, et al., 2015). Since, the overall budget of medicines varies widely in different states in India, the expenditure pattern on medicines of the State Government shows that there are wide-ranging differences across states. Timely and effective use of medicines can ensure effective treatment of many illnesses and avoid or delay's the need for costly hospital treatment for patients (Masiga, 2010).

In India, many pharmaceutical companies manufacture two types of products for the same molecule, i.e. the branded product which they advertise and push through doctors and branded-generic which they expect retailers to push in the market. The so-called branded medicines in India are manufactured and promoted by multinationals or by reputed Indian manufacturers. Generic medicines work the same way as brand-name medicines, but there are some differences (Dunne, et al., 2013). Significantly, generic medicines can effectively treat many of today's illnesses and its use provides the opportunity to substantially reduce costs to health care budgets and patients. There is no doubt that branded medicines have exercised tremendous influence in utilization of medicines, but generic drugs, being bioequivalent to their brand-name counterparts, are considered safe as well as cost-effective (Marzo, et al., 2012). The use of generic drugs is steadily increasing internationally because of the result of economic pressure on drug budgets. Generic drugs provide the opportunity for major savings in healthcare expenditure since they are usually substantially lower in price than the innovator brands. However, physicians are apprehensive regarding the quality of generic drugs and have concerns about their reliability as well as interchange of certain drug categories. Although the generic medicines are bio-equivalents of their innovator counterparts and are produced in similar facilities according to good manufacturing practices, these are widely believed as inferior in their therapeutic efficacy and quality to branded products.

Indian Pharmaceutical industry

Indian Pharmaceutical industry stands on the 3rd rank in terms of volume of exportation of medicines (Aivall, et.al, 2018). Other countries call India as pharmacy of the world because a large volume of medicines is exported from India to various parts of world (Patel & Paras, 2016). Expenses on healthcare are almost 80% of total expenditure. About 86% of this out-of-pocket expenditure is dependent on the medicines alone. One of the economical options to improve health-care facilities and to reduce this out-of-pocket expenditure on medicines is consumption of generic medicines instead of branded medicines by the public (Tripathi & Bhattacharya, 2018). As India is one of the highest per capita out-of-pocket expenditures' country, such generics will save a lot of money which can be used for other health issues (Gota and Patial, 2014). In all the countries, use of generic drugs has increased significantly in recent years. Moreover, India is the largest provider of generic drugs globally and is known for its affordable vaccines and generic medications. The Indian Pharmaceutical industry is currently ranked third in pharmaceutical production and it is the world's largest provider of generic medicines by volume, with a 20% share of total global pharmaceutical exports. It is also the largest vaccine supplier in the world by volume, accounting for more than 60% of all vaccines manufactured in the world (Krishnan, 2021).

Branded drug

A drug sold by a drug company under a specific name or trademark and that is protected by a patent. Brand name drugs may be available by prescription or over the counter. Brand-name drugs have to go through expensive animal and clinical studies to prove their safety and efficacy. Brand name medicine is a term to define those drugs that can only be produced and sold by the company that holds the patent for the drugs. Normally brand name medicines are given a patent for around 20 years, which provides a protection for the company that spent money in research, development and marketing for the new product. With the patent it is not allowed for other companies to make and sell the product. Nevertheless, when the patent expires, other pharmaceutical companies, when approved, can start producing a generic version of the medicine (Bihari, 2010).

Generic drug

Generic medicines can be defined as replicas of brand name drugs with the same quantities, effects and side effects, way of administration, risks and safety and as strength as the original medicine; which mean that the pharmacological effects are the equal as those from brand name medicines (Stoppler & Hecht, 2009). Generic medicines have the same active substances as the original medicine, whose intellectual property rights, relating to the active substances or manufacturing process have expired and are therapeutic equivalents of those, not only because they have the same qualitative and quantitative composition but also because they have the same pharmaceutical form. According to the medicine status generic medicine is referred as a product containing the pharmaceutical form and whose bioequivalence with the reference product has been demonstrated by appropriate bioavailability studies (Decree-Law No. 59/2006). Sometimes generic medicines may have different colours, flavours or different inactive ingredients than the original branded medicine. Although by law generics should have the same active ingredients. Nevertheless, law does not specify anything more about generic formulation, which means that inactive ingredients can be changed in order to adjust pill size, colour, and the same properties like how much time it will be needed for the pill to dissolve in the stomach. Each manufacturer has its own variation of the inactive properties.

Review of literature

Several studies are conducted in order to understand the awareness and attitude of consumers on generic and branded drugs. Among those some of the studies are reviewed in this section. Ranjith, et.al., (2022) in their study on Consumer's Preference towards Generic Drugs and Branded Drugs with a sample size of 208 customers, 65 shopkeepers, and 15 Pradhana Manthri Bharthiya Jan Aushadi Kendra's (PMBJAKs) in New Bel Road, Bengaluru, found out that 78% of consumers were aware of generic medicines, 13% believed that generic medicines had higher quality, 76% knew about PMBJAK, 93% of retailers believed that branded medicines were of higher quality, 34% believed that branded medicines were prescribed the most in their area through the prescription process (Ranjith, et.al., 2022). Rathi and Biyani (2021) conducted a study on knowledge, attitude, and perception of Indian Population about generic versus Branded Medicines through online web-based study in which there were 537 participants. According to the study only 22.1% of participants' feel that doctors preferred generic medicines and 37.7% thought that chemists preferred to sell generic medicines than branded ones. The study also reveals that 54.8% preferred to buy generic medicines (Rathi & Biyani 2021). Bushra Majaz (2021) studied on 102 consumer preference towards generic medicines in Nasik City found out that 86% of the respondents are aware of generic medicines and they agree that it is not easily available in the market. 76 % of the Consumers are of the opinion that generic medicines are of same quality as branded medicine and 75% of the respondents responded that generic medicine are relatively cheap in price to branded medicine. Majority of respondents almost 76% have used generic medicines in the past, and 75% of the consumers are highly satisfied with the efficacy of generic medicine. Das, et al. (2017) studied on 100 patients with chronic diseases consuming generic and branded drugs, respectively. It was observed in their study that over 90% of the patients believed that generic drugs were as effective as branded drugs. Almost a third of the respondents thought the relatively inexpensive generic drugs to be qualitatively inferior than, or altogether different from, branded drugs.

Need of the study

There is a rising need for health care services in the country. Pharmaceutical companies are continuously invested in research and development to produce more of medicines and pharma care to the people in need. Hospitals, doctor and patients need medicine to treat their patients and their illness respectively through medicine. Where there is a need for products there are consumer’s demands. While the availability of the products fall under branded drugs and the generic drugs. It is the consumer preference, who will decide which drug to buy. This study will attempt to focus on the consumer’s preference to branded or generic drugs. It will understand the awareness about generic and branded drugs among people and also their attitudes towards the purchase of drugs under each category.

Objective of the study

- To study the awareness of consumers towards generic drugs
- To study the awareness of consumers towards braded drugs
- To examine the attitude of consumers on difference between generic and branded drugs

Hypotheses of the study

1. Awareness of consumers towards generic drugs do not influenced by their demographic features
2. Awareness of consumers towards branded drugs do not influenced by their demographic features
3. Attitude of consumers does not indicate difference between generic and branded drugs

Methodology of the study

This study is based on the descriptive analysis of awareness and attitude of consumers towards generic and branded drugs. It is a survey study done on the basis of the primary data gathered from the consumers of generic and branded drugs. The main purpose of this research is the description of the awareness and attitude of consumers towards generic and branded drugs at present scenario. Thus, the author has collected the data from the 600 respondents from north coastal districts of Andhra Pradesh with the help of questionnaire. The first part of the questionnaire deals with the demographics of the respondents include area, age, gender, marital status, education, occupation and monthly income levels, the second part deals with the awareness of respondents on generic and branded drugs and the third part of the questionnaire deals with the attitude of the respondents towards generic and branded drugs. Hence, the detailed discussion on the data of each part of questionnaire is presented here in the following.

Table-1: Demographic Profile of Consumers

Demographic Profile	Variables	Frequenc y (N=600)	Percentag e (N=100%)
Districts	Srikakulam	200	33.3
	West Godavari	200	33.3
	Kurnool	200	33.3
Age	Less than 30 years	112	18.7
	30 - 40 years	141	23.5

	41-50 years	176	29.3
	Above 50 years	171	28.5
Gender	Male	269	44.8
	Female	331	55.2
Marital Status	Unmarried	218	36.3
	Married	258	43.0
	Divorced/Separated	124	20.7
Education qualification	Primary	157	26.4
	Secondary	129	21.5
	Intermediate	135	22.5
	Graduation	92	15.3
	Post-Graduation	87	14.5
Occupation	Unemployed	116	19.3
	Govt. Employee	152	25.3
	Private Employee	191	31.8
	Others	141	23.5
Monthly income	Less than 5,000	68	11.3
	Rs.5,000 to 10,000	140	23.3
	Rs.10,000 to 20,000	247	41.2
	Above 20,000	145	24.2

The demographic profile of the consumers is shown in the Table-1. According to the district, the data reveals that 33.3 percent of the population comes from Srikakulam, 33.3 percent from West Godavari, and 33.3 percent from Kurnool have been considered for this study. Regarding to age group of consumers 18.7 percent are in the age group less than 30 years, 23.5 percent are in the age between 30-40 years, 23.029.3 percent of consumers are in the age between 41-50 years and 28.5 percent of consumers are in the age group of above 50 years. Whereas 44.8 percent are male consumers and 55.2 percent are female consumers. With reference to marital status of consumers 36.3 percent were unmarried, 43.0 percent were married and 20.7 percent are divorced/ separated. In case of education wise distribution of consumers, it has been observed that 26.4 percent qualification is primary level, 21.5 percent qualification is secondary level, 22.5 percent qualification is intermediate, 15.3 percent qualification was graduation and 14.5 percent qualification is post graduation. Regarding to occupation-wise distribution of consumers 19.3 percent are unemployed, 25.3 percent are government employees, 31.8 percent are private employees and 23.5 percent are other occupations like labour, self employees etc. With reference to monthly income of consumers, it has been noted that as many as 11.3 percent of consumers are earning less than 5000 rupees per month, 23.3 percent are earning 5,000-10,000 rupees, 41.2 percent are earning 10,000- 20,000 rupees and 24.2 percent are earning above 20,000 rupees.

Table-2: Awareness of consumer towards generic drugs

Sl. No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
1	Generic drugs are less cost	62 (10.3)	78 (13.0)	105 (17.5)	165 (27.5)	190 (31.7)	600 (100.0)
2	People buy branded drugs only when generic drugs are not available in the pharmacy store	96 (16.0)	94 (15.7)	132 (22.0)	154 (25.7)	124 (20.7)	600 (100.0)
3	Doctors never recommend generic drugs to their patients	66 (11.0)	83 (13.8)	102 (17.0)	163 (27.2)	186 (31.0)	600 (100.0)
4	Generic drugs never cure chronic diseases	75 (12.5)	86 (14.3)	150 (25.0)	134 (22.3)	155 (25.8)	600 (100.0)
5	Government promote generic drugs to benefit the poor people only	62 (10.3)	71 (11.8)	121 (20.2)	178 (29.7)	168 (28.0)	600 (100.0)
6	Unless branded drugs are available at the pharmacy store chemist recommend generic drugs	81 (13.5)	100 (16.7)	108 (18.0)	167 (27.8)	144 (24.0)	600 (100.0)
7	Both generic and branded drugs give equal results in curing disease	42 (7.0)	50 (8.3)	96 (16.0)	187 (31.2)	225 (37.5)	600 (100.0)
8	People prefer generic drugs only for general health problems	47 (7.8)	65 (10.8)	100 (16.7)	198 (33.0)	190 (31.7)	600 (100.0)
9	Generic drugs available only in limited stores	51 (8.5)	54 (9.0)	95 (15.8)	175 (29.2)	225 (37.5)	600 (100.0)
10	Generic drugs give less profits to the seller	60 (10.0)	68 (11.3)	82 (13.7)	182 (30.3)	208 (34.7)	600 (100.0)

Source: Survey data; Figures in the brackets are the percentage

Table-2 represents the opinions of consumer towards generic drugs. Out of total respondents 31.7 percent are strongly agreed, 27.5 percent are agreed, 17.5 percent are neutral, 13.0 percent are disagreed and 10.3 percent are strongly disagreed that generic drugs are less cost. It is noticed that 25.7 percent are agreed, 22.0 percent are neutral, 20.7 percent are strongly agreed, 16.0 percent are strongly disagreed and 15.7 percent are disagreed that people buy branded drugs only when generic drugs are not available in the pharmacy store. It was noticed that dominated group of 31.0 percent are strongly agreed, followed by 27.2 percent are agreed, 17.0 percent are neutral, 13.8 percent are disagreed and 11.0 percent are strongly disagreed that doctors never recommended generic drugs to their patients. The data also observed that 25.8 percent of respondents are strongly agreed, 25.0 percent are neutral, 22.3 percent are agreed, 14.3 percent are disagreed and 12.5 percent are strongly agreed that generic drugs never cure chronic diseases. It has been also noticed that as many as 29.7 percent of respondents are agreed, 28.0 percent strongly agreed, 20.2 percent are neutral, 11.8 percent are disagreed and 10.3 percent are strongly disagreed towards the government promote generic drugs to help benefit the poor people only.

With reference to the data it is found that 27.8 percent of respondents are agreed, 24.0 percent are strongly agreed, 18.0 percent are neutral, 16.7 percent are disagreed and 13.5 percent are strongly disagreed that unless branded drugs are available at the pharmacy store chemist recommend generic

drugs. From the data 37.5 percent are strongly agreed, 31.2 percent are agreed, 16.0 percent are neutral, 8.3 percent are disagreed and 7.0 percent are strongly disagreed towards both generic and branded drugs give equal results in curing disease. It has also noticed that 33.0 percent of respondents are strongly agreed, 31.7 percent are agreed, 16.7 percent are neutral, 10.8 percent are disagreed and 7.8 percent are strongly disagreed that people prefer generic drugs only for general health problems. It is observed that majority group of 37.5 percent are strongly agreed, 29.2 percent are agreed, 15.8 percent are neutral, 9.0 percent are disagreed and 8.5 percent are strongly disagreed that generic drugs availability only in limited stores. Whereas 34.7 percent are strongly agreed, 30.3 percent are agreed, 13.7 percent are neutral, 11.3 percent disagreed and 10.0 percent are strongly disagreed that the generic drugs gives less profits to the seller.

Table-3: Awareness levels of various demographic group consumers towards generic drugs

Demographic Profile	Variables	Awareness levels of consumers on generic drugs			Total	Chi-Square
		Low	Medium	High		
Districts	Srikakulam	17 (8.5)	145 (72.5)	38 (19.0)	200 (100.0)	Chi-Square: 7.54 df-4 T-value: 9.49
	West Godavari	17 (8.5)	135 (67.5)	48 (24.0)	200 (100.0)	
	Kurnool	30 (15.0)	128 (64.0)	42 (21.0)	200 (100.0)	
Age	Less than 30 years	8 (7.1)	78 (69.6)	26 (23.2)	112 (100.0)	Chi-Square: 86.39** df-6 T-value: 16.8
	30 - 40 years	18 (12.8)	92 (65.2)	31 (22.0)	141 (100.0)	
	41-50 years	20 (11.4)	118 (67.0)	38 (21.6)	176 (100.0)	
	Above 50 years	18 (10.5)	120 (70.2)	33 (19.3)	171	

					(100.0)	
Gender	Male	25 (9.3)	186 (69.1)	58 (21.6)	269 (100.0)	Chi-Square: 0.97 df-2 T-value: 5.99
	Female	39 (11.8)	222 (67.1)	70 (21.1)	331 (100.0)	
Marital Status	Unmarried	23 (10.6)	144 (66.1)	51 (23.4)	218 (100.0)	Chi-Square: 4.53 df-4 T-value: 9.49
	Married	33 (12.8)	173 (67.1)	52 (20.2)	258 (100.0)	
	Divorced/Separated	8 (6.5)	91 (73.4)	25 (20.2)	124 (100.0)	
Education qualification	Primary	16 (10.2)	104 (66.2)	37 (23.6)	157 (100.0)	Chi-Square: 3.96 df-8 T-value: 15.5
	Secondary	13 (10.1)	90 (69.8)	26 (20.2)	129 (100.0)	
	Intermediate	15 (11.1)	91 (67.4)	29 (21.5)	135 (100.0)	
	Graduation	7 (7.6)	67 (69.6)	21 (22.8)	92 (100.0)	
	Post-Graduation	13 (14.9)	59 (67.8)	15 (17.2)	87 (100.0)	
Occupation	Unemployed	12	76	28	116	Chi-Square:

		(10.3)	(65.6)	(24.1)	(100.0)	69.57** df-6 T-value: 16.8
	Govt. Employee	19 (12.5)	108 (71.1)	25 (16.4)	152 (100.0)	
	Private Employee	15 (7.9)	136 (71.2)	40 (20.9)	191 (100.0)	
	Others	18 (12.8)	88 (62.4)	35 (24.8)	141 (100.0)	
Monthly income	Less than 5,000	9 (13.2)	46 (67.6)	13 (19.1)	68 (100.0)	Chi-Square: 98.85** df-6 T-value: 16.8
	Rs.5,000 to 10,000	13 (9.3)	96 (68.6)	31 (22.1)	140 (100.0)	
	Rs.10,000 to 20,000	22 (8.9)	165 (66.8)	60 (24.3)	247 (100.0)	
	Above 20,000	20 (13.8)	101 (69.7)	24 (16.6)	145 (100.0)	
	Total	64 (10.7)	408 (68.0)	128 (21.3)	600 (100.0)	

**significant @1% level; Figures in the brackets are the percentage

Table-3 presents the awareness levels of various demographic group consumers towards generic drugs. From the data of various districts it shows that from Srikakulam district a dominated group of 72.5 percent felt medium level followed by 19.0 percent felt high and the remaining 8.5 percent felt low level attitude of consumers towards generic drugs. In case of West Godavari district 67.5 percent opined medium level, 24.0 percent opined high and 8.5 percent opined low level attitude of consumers towards generic drugs, whereas from Srikakulam district group as many as 64.0 percent said medium, 21.0

percent said high and 15.0 percent said low level attitude of consumers towards generic drugs. According to the awareness levels of consumers from various districts towards generic drugs the calculated chi-square value 7.54 indicates no significant result because the df value is 4 and the table value is 9.49. This infers that the awareness of consumers towards generic drugs does not significantly differ by their living district.

Regarding to the various age group respondents it is found that out of total less than 30 years age group 69.6 percent felt medium level, 23.2 percent felt high level and the remaining 7.1 percent felt low level attitude of consumers towards generic drugs. From the total 30-40 years age group of 65.2 percent opined medium, 22.0 percent opined high and 12.8 percent opined low level attitude of consumers towards generic drugs. Among the total 41-50 years age group respondents a predominant group of 67.0 percent felt medium, 21.6 percent felt high and the rest of 11.4 percent felt low level attitude of consumers towards generic drugs. It is noticed that out of total above 50 years age group 70.2 percent opined medium, 19.3 percent opined high and only 10.5 percent opined low level attitude of consumers towards generic drugs. The consumer awareness towards generic drugs according to their age-groups indicate significant at 1% level because the calculated chi-square value 86.39, the df value is 6 and the table value is 16.8. This infers that there is a significant relationship found between age of the consumers and their awareness towards generic drugs.

Out of the total male consumers a dominated group of 69.1 percent opined medium level, 21.6 percent have high level and a least number of 9.39 percent have low level of awareness towards generic drugs, whereas from the total female group as many as 67.1 percent have medium level, 21.1 percent have high level and 11.8 percent have low level of awareness towards generic drugs. Hence, the awareness level of male and female consumers towards generic drugs indicate no significant difference because the calculated chi-square value is 0.97, which is less than the table value shows 5.99. This infers that there is no significant relationship between gender and awareness of consumers towards generic drugs.

Regarding to the marital status of respondents towards the attitude levels of consumers towards generic drugs shows that out of the total unmarried respondents a dominated group of 66.1 percent opined medium level followed by 23.4 percent opined high level and a least number of 10.6 percent opined low level attitude of consumers towards generic drugs, whereas from married group as many as 67.1 percent felt medium level, 20.2 percent felt high level and 12.8 percent felt low level attitude of consumers towards generic drugs. In case of divorced/ separated group 73.4 percent opined medium level, 20.2 percent opined high level and 6.5 percent opined low level attitudes of consumers towards generic drugs. According to the awareness of consumers by their marital status the calculated chi-square value is 4.99 indicate not significant because the df value is 4 and the table value is 9.49. This infers the awareness of the consumers does not depend on their marital status group.

With reference to the education qualification among the attitude levels of consumers towards generic drugs shows that out of the total primary group respondents a dominated group of 66.2 percent felt medium, 23.6 percent felt high and 10.2 percent felt low level of consumers towards generic drugs. From secondary group respondents the highest group of 69.8 percent opined medium, 20.2 percent opined high and the lowest group of 10.1 percent opined low level of consumers towards generic drugs. With reference to intermediate group respondents 67.4 percent felt medium, 21.5 percent felt high and 11.1 percent felt low level attitude of consumers towards generic drugs. It is noticed that out of total graduation group respondents 69.6 percent opined medium followed by 22.8 percent opined high and 7.6 percent opined low level attitude of consumers towards generic drugs. In case of post graduation group

majority of 67.8 percent said medium level followed by 17.2 percent said high level and 14.9 percent said low level of consumers towards generic drugs. According to the awareness of various education qualifications group consumers towards generic drugs the distribution indicate not significant because the chi-square value is 3.96, the df value is 8 and the table value is 15.5. This shows education of the consumer does not influence their awareness on generic drugs, so there is no significant relationship between education and awareness of consumers on generic drugs.

According to the occupations of various group of respondents among the level of consumers towards generic drugs shows that out of the total unemployed respondents a dominated group of 65.6 percent felt medium followed by 24.1 percent felt high and 10.3 percent felt low level attitude of consumers towards generic drugs. From Government employees the highest group of 71.1 percent opined medium, 16.4 percent opined high and 12.5 percent opined low level of consumers towards generic drugs. With reference to data of private employees 71.2 percent felt medium, 20.9 percent felt high level and 7.9 percent felt low level attitude of consumers towards generic drugs. Whereas in other occupation group as many as 62.4 percent felt medium level, 24.8 percent felt high level and 12.8 percent felt low level attitude of consumers towards generic drugs. According to the perceptions of various occupations among the attitude level of consumers towards generic drugs indicate significant at 1% level because the calculated chi-square value is 69.57, the df value is 6 and the table value is 16.8. This infers that there is a significant relationship between occupations of the respondents and their perceptions among the attitude levels of various group consumers towards generic drugs.

Regarding to the monthly income respondents it shows that out of the total less than Rs.5,000 a predominated group of 67.6 percent felt medium followed by 19.1 percent felt high and 13.2 percent felt low level attitude of consumers towards generic drugs. Among the total Rs. 5,000 to 10,000 group respondents of 68.6 percent opined medium, 22.1 percent opined high and 9.3 percent opined low level attitude of consumers towards generic drugs. From the data of Rs.10,000 to 20,000 group, 66.8 percent felt medium, 24.3 percent felt high and 8.9 percent felt low level attitude of consumers towards generic drugs. Whereas above Rs.20,000 group respondents of 69.7 percent opined medium, 16.6 percent opined high and the least of 13.8 percent respondents opined high level attitude of consumers towards generic drugs. According to the perception of various monthly incomes among the attitude level of consumers towards generic drugs indicate significant at 1% level because the calculated chi-square value is 98.85, the df value is 6 and the table value is 16.8. This infers that there is a significant relationship between monthly income of the respondents and their perceptions towards the attitude levels of various group consumers towards generic drugs.

Table-4: Awareness of consumer on branded drugs

Sl. No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
1	Branded drugs are well tested	53 (8.8)	74 (12.3)	112 (18.7)	149 (24.8)	212 (35.3)	600 (100.0)
2	Branded drugs are costlier than others	63 (10.5)	68 (11.3)	95 (15.8)	171 (28.5)	203 (33.8)	600 (100.0)
3	Branded drugs always safe to use	71 (11.8)	78 (13.0)	108 (18.0)	159 (26.5)	184 (30.7)	600 (100.0)
4	People trust most on branded drugs	50	69	92	170	219	600

		(8.3)	(11.5)	(15.3)	(28.3)	(36.5)	(100.0)
5	Branded drugs give better results than others	48 (8.0)	52 (8.7)	90 (15.0)	188 (31.3)	222 (37.0)	600 (100.0)
6	Doctors and health professionals always recommend branded drugs	54 (9.0)	78 (13.0)	106 (17.7)	161 (26.8)	201 (33.5)	600 (100.0)
7	Branded drugs are clinically tested before they come to market	40 (6.7)	48 (8.0)	86 (14.3)	180 (30.0)	246 (41.0)	600 (100.0)
8	Branded drugs give more profits to the seller	66 (11.0)	59 (9.8)	80 (13.3)	194 (32.3)	201 (33.5)	600 (100.0)
9	Unless branded drugs are available at the pharmacy store people never buy generic drugs	47 (7.8)	72 (12.0)	118 (19.7)	157 (26.2)	206 (34.3)	600 (100.0)
10	Branded drugs are available in all medical stores	28 (4.7)	71 (11.8)	61 (10.2)	187 (31.2)	253 (42.2)	600 (100.0)

Source: Survey data; Figures in the brackets are the percentage

Table-4 represents the awareness of consumer towards branded drugs. According to the data, dominated group of 35.3 percent are strongly agreed, followed by 24.8 percent are agreed, 18.7 percent are neutral, 12.3 percent are disagreed and 8.8 percent are strongly disagreed that branded drugs are well tested. It is found that predominated group of 33.8 percent are strongly agreed followed by 28.5 percent are agreed, 15.8 percent are neutral, 11.3 percent are disagreed and 10.5 percent are strongly disagreed that the branded drugs are costlier than others. It was noticed that as many as 30.7 percent are strongly agreed, 26.5 percent are agreed, 18.0 percent are neutral, 13.0 percent are disagreed and 11.8 percent are strongly disagreed that branded drugs are always safe to use. The data also observed that 36.5 percent of respondents are strongly agreed, 28.3 percent are agreed, 15.3 percent are neutral, 11.5 percent are disagreed and 8.3 percent are strongly agreed that people trust most on branded drugs. It has been also noticed that 37.0 percent of respondents are strongly agreed, 31.3 percent are agreed, 15.0 percent are neutral, 8.7 percent are disagreed and 8.0 percent are strongly disagreed that the branded drugs give better results than others.

Regarding to the data it is found that majority group of 33.5 percent of respondents are strongly agreed, followed by 26.8 percent are agreed, 17.7 percent are neutral, 13.0 percent are disagreed and least group of 9.0 percent are strongly disagreed that doctors and health professionals always recommended branded drugs. From the data as many as 41.0 percent are strongly agreed, 30.0 percent are agreed, 14.3 percent are neutral, 8.0 percent are disagreed and 6.7 percent are strongly disagreed towards branded drugs are clinically tested before they come to market. It is noticed that 33.5 percent of respondents are strongly agreed, 32.3 percent are agreed, 13.3 percent are neutral, 11.8 percent are strongly disagreed and 9.8 percent are disagreed that branded drugs give more profits to the seller. It is observed that majority group of 34.3 percent are strongly agreed, 26.2 percent are agreed, 19.7 percent are neutral, 12.0 percent are disagreed and 7.8 percent are strongly disagreed unless branded drugs are available at the pharmacy store people never buy generic drugs. While 42.2 percent are strongly agreed, 31.2 percent are agreed, 10.2 percent are neutral, 11.8 percent disagreed and 4.7 percent are strongly disagreed that the branded drugs are available in all medical stores.

Table-5: Awareness levels of various demographic group consumers towards branded drugs

Demographic Profile	Variables	Attitude levels of consumers on branded drugs			Total	Chi-Square
		Low	Medium	High		
Districts	Srikakulam	29 (14.5)	136 (68.0)	35 (17.5)	200 (100.0)	Chi-Square: 7.54 df-4 T-value: 9.49
	West Godavari	19 (9.5)	127 (63.5)	54 (27.0)	200 (100.0)	
	Kurnool	30 (15.0)	129 (64.5)	41 (20.5)	200 (100.0)	
Age	Less than 30 years	18 (16.1)	63 (56.3)	31 (27.7)	112 (100.0)	Chi-Square: 85.38** df-6 T-value: 16.8
	30 - 40 years	15 (10.6)	98 (69.5)	28 (19.9)	141 (100.0)	
	41-50 years	19 (10.8)	122 (69.3)	35 (19.9)	176 (100.0)	
	Above 50 years	26 (15.2)	109 (63.7)	36 (21.1)	171 (100.0)	
Gender	Male	33 (12.3)	174 (64.7)	62 (23.0)	269 (100.0)	Chi-Square: 0.66 df-2 T-value: 5.99
	Female	45 (13.6)	218 (65.9)	68 (20.5)	331 (100.0)	
Marital	Unmarried	24	150	44	218	Chi-Square:

Status		(11.0)	(68.8)	(20.2)	(100.0)	5.03 df-4 T-value: 9.49
	Married	40 (15.5)	156 (60.5)	62 (24.0)	258 (100.0)	
	Divorced/Separated	14 (11.3)	86 (69.4)	24 (19.4)	124 (100.0)	
Education qualification	Primary	19 (12.1)	109 (69.4)	29 (18.5)	157 (100.0)	Chi-Square: 5.72 df-8 T-value: 15.5
	Secondary	21 (16.3)	77 (59.7)	31 (24.0)	129 (100.0)	
	Intermediate	19 (14.1)	89 (65.9)	27 (20.0)	135 (100.0)	
	Graduation	8 (8.7)	60 (65.2)	24 (26.1)	92 (100.0)	
	Post-Graduation	11 (12.6)	57 (65.6)	19 (21.8)	87 (100.0)	
Occupation	Unemployed	14 (12.1)	76 (65.5)	26 (22.4)	116 (100.0)	Chi-Square: 85.22** df-6 T-value: 16.8
	Govt. Employee	24 (15.8)	102 (67.1)	26 (17.1)	152 (100.0)	
	Private Employee	22 (11.5)	126 (66.0)	43 (22.5)	191 (100.0)	

	Others	18 (12.8)	88 (62.4)	35 (24.8)	141 (100.0)	
Monthly income	Less than 5,000	12 (17.6)	45 (66.2)	11 (16.2)	68 (100.0)	Chi-Square: 87.94** df-6 T-value: 16.8
	Rs.5,000 to 10,000	15 (10.7)	89 (63.6)	36 (25.7)	140 (100.0)	
	Rs.10,000 to 20,000	28 (11.3)	160 (64.8)	59 (23.9)	247 (100.0)	
	Above 20,000	23 (15.9)	98 (67.6)	24 (16.6)	145 (100.0)	
	Total	78 (13.0)	392 (65.3)	130 (21.7)	600 (100.0)	

**significant @1% level; Figures in the brackets are the percentage

Table-5 presents the awareness levels of various demographic group consumers towards branded drugs. From the data of various districts it shows that from Srikakulam district a dominated group of 68.0 percent felt medium level followed by 17.5 percent felt high and the remaining 14.5 percent felt low level attitude of consumers towards branded drugs. In case of West Godavari district 63.5 percent opined medium level, 27.0 percent opined high and 9.5 percent opined low level attitude of consumers towards branded drugs, whereas from Srikakulam district group as many as 64.5 percent said medium, 20.5 percent said high and 15.0 percent said low level attitude of consumers towards branded drugs. According to the perceptions of various districts group of respondents among the attitude levels of consumers towards branded drugs indicate no significant result because the calculated chi-square value 7.54, the df value is 4 and the table value is 9.49. This infers that there is no significant relationship between districts of the respondents and their perceptions among attitude levels of various group consumers towards branded drugs.

Regarding to the various age group respondents it is found that out of total less than 30 years age group 56.3 percent felt medium level, 27.7 percent felt high level and the remaining 16.1 percent felt low level attitude of consumers towards branded drugs. From the total 30-40 years age group of 69.5 percent opined medium, 19.9 percent opined high and 10.6 percent opined low level attitude of consumers towards branded drugs. Among the total 41-50 years age group respondents a predominant group of 69.3

percent felt medium, 19.9 percent felt high and the rest of 10.8 percent felt low level attitude of consumers towards branded drugs. It is noticed that out of total above 50 years age group 63.7 percent opined medium, 21.1 percent opined high and only 15.2 percent opined low level attitude of consumers towards branded drugs. According to the perceptions of various age-groups of respondents among attitude level of consumers towards branded drugs indicate significant at 1% level because the calculated chi-square value 85.38, the df value is 6 and the table value is 16.8. This infers that there is a significant relationship between age of the respondents and perceptions among the attitude levels of various group consumers towards branded drugs.

As per the gender group of respondents shows that out of the total male group a dominated group of 64.7 percent opined medium level, 23.0 percent opined high level and a least number of 12.3 percent opined low level attitude of consumers towards branded drugs, whereas from the total female group as many as 65.9 percent felt medium level, 20.5 percent felt high level and 13.6 percent felt low level attitude of consumers towards branded drugs. Hence, the attitude level of consumers towards branded drugs between genders of respondents indicates no significant result because the calculated chi-square value is 0.66, the df value is 2 and the table value shows 5.99. This infers that there is no significant relationship between gender of the respondents and their perceptions among the attitude levels of various group consumers towards branded drugs.

Regarding to the marital status of respondents towards the attitude levels of consumers towards branded drugs shows that out of the total unmarried respondents a dominated group of 68.8 percent opined medium level followed by 20.2 percent opined high level and a least number of 11.0 percent opined low level attitude of consumers towards branded drugs, whereas from married group as many as 60.5 percent felt medium level, 24.0 percent felt high level and 15.5 percent felt low level attitude of consumers towards branded drugs. In case of divorced/ separated group 69.4 percent opined medium level, 19.4 percent opined high level and 11.3 percent opined low level attitudes of consumers towards branded drugs. According to the perceptions of marital status of respondents among the attitude levels of consumers towards branded drugs indicate no significance result because the calculated chi-square value is 5.03, the df value is 4 and the table value is 9.49. This infers that there is no significant relationship between marital status of the respondents and their perceptions among the attitude levels of various group consumers towards branded drugs.

With reference to the education qualification among the attitude levels of consumers towards branded drugs shows that out of the total primary group respondents a dominated group of 69.4 percent felt medium, 18.5 percent felt high and 12.1 percent felt low level of consumers towards branded drugs. From secondary group respondents the highest group of 59.7 percent opined medium, 24.0 percent opined high and the lowest group of 16.3 percent opined low level of consumers towards branded drugs. With reference to intermediate group respondents 65.9 percent felt medium, 20.0 percent felt high and 14.1 percent felt low level attitude of consumers towards branded drugs. It is noticed that out of total graduation group respondents 65.2 percent opined medium followed by 26.1 percent opined high and 8.7 percent opined low level attitude of consumers towards branded drugs. In case of post graduation group majority of 65.6 percent said medium level followed by 21.8 percent said high level and 12.6 percent said low level attitude of consumers towards branded drugs. According to the perceptions of various education qualifications among attitude level of consumers towards branded drugs indicate not significant because the calculated chi-square value is 5.72, the df value is 8 and the table value is 15.5.

This infers that there is no significant relationship between education qualifications of the respondents and their perceptions among the attitude levels of various group consumers towards branded drugs.

According to the occupations of various group of respondents among the level of consumers towards branded drugs shows that out of the total unemployed respondents a dominated group of 65.5 percent felt medium followed by 22.4 percent felt high and 12.1 percent felt low level attitude of consumers towards branded drugs. From the data of Government employees the highest group of 67.1 percent opined medium, 17.1 percent opined high and 15.8 percent opined low level of consumers towards branded drugs. With reference to the data of private employees 66.0 percent felt medium, 22.5 percent felt high level and 11.5 percent felt low level attitude of consumers towards branded drugs. Whereas in other occupation group as many as 62.4 percent felt medium level, 24.8 percent felt high level and 12.8 percent felt low level attitude of consumers towards branded drugs. According to the perceptions of various occupations among the attitude level of consumers towards branded drugs indicate significant at 1% level because the calculated chi-square value is 85.22, the df value is 6 and the table value is 16.8. This infers that there is a significant relationship between occupations of the respondents and their perceptions among the attitude levels of various group consumers towards branded drugs.

Regarding to the monthly income respondents it shows that out of the total less than Rs.5,000 a predominated group of 66.2 percent felt medium followed by 17.6 percent felt low and 16.2 percent felt high level attitude of consumers towards branded drugs. Among the total Rs. 5,000 to 10,000 group respondents of 63.6 percent opined medium, 25.7 percent opined high and 10.7 percent opined low level attitude of consumers towards branded drugs. From the data of Rs.10,000 to 20,000 group, 64.8 percent felt medium, 23.9 percent felt high and 11.3 percent felt low level attitude of consumers towards branded drugs. Whereas above Rs.20,000 group respondents of 67.6 percent opined medium, 16.6 percent opined high and the least of 15.9 percent respondents opined low level attitude of consumers towards branded drugs. According to the perception of various monthly incomes among the attitude level of consumers towards branded drugs indicate significant at 1% level because the calculated chi-square value is 87.94, the df value is 6 and the table value is 16.8. This infers that there is a significant relationship between monthly income of the respondents and their perceptions towards the attitude levels of various group consumers towards branded drugs.

Table-6: Attitude of consumers on difference between branded and generic drugs

Sl. No.	Difference between Branded and Generic drugs	Generic drugs	Branded drugs	Both	Total
1	People trust more in	121 (20.2)	278 (46.3)	201 (33.5)	600 (100.0)
2	Clinically more tested	109 (18.2)	259 (43.2)	232 (38.7)	600 (100.0)
3	Efficiency of drug	137 (22.8)	219 (38.5)	244 (40.7)	600 (100.0)
4	More availability in pharmacy stores	122 (20.3)	269 (44.8)	209 (34.8)	600 (100.0)
5	Safe to use	185 (30.8)	202 (33.7)	213 (35.5)	600 (100.0)
6	Quick and better results	119	282	199	600

		(19.8)	(47.0)	(33.2)	(100.0)
7	Price of the drug	104 (17.3)	261 (43.5)	235 (39.2)	600 (100.0)
8	People believe more in	140 (23.3)	280 (46.7)	180 (30.0)	600 (100.0)
9	Give more profits to seller	115 (19.2)	261 (43.5)	224 (37.3)	600 (100.0)
10	Doctors and medical professionals recommend	94 (15.7)	283 (47.2)	223 (37.2)	600 (100.0)

Source: Survey data

@ Figures in the brackets are the percentage

Table-6 represents the attitude of consumers on difference between branded and generic drugs. Out of total respondents 46.3 percent said they trust more in branded drugs, followed by 33.5 percent said they trust in both branded and generic drugs and 20.2 percent trust more is generic drugs. It is found that predominated group of 43.2 percent opined branded drugs are clinically more tested, followed by 38.7 percent opined both generic and branded drugs and only 18.2 percent opined generic drugs. It was noticed that as many as 40.7 percent felt both generic and branded have efficiency of drugs, 38.5 percent felt branded drugs and 22.8 percent felt generic drugs. The data observed that 44.8 percent of respondents said branded drugs are more available in pharmacy stores. The data shows that 35.5 percent of respondents opined generic and branded drugs are safe to use, 33.7 percent opined branded drugs and 30.8 percent opined generic drugs are safe to use.

With reference to the data it is found that majority group of 47.0 percent of respondents felt branded drugs gives quick and better results, followed by 33.2 percent felt both generic and branded drugs and lest group of 19.8 percent felt generic drugs gives quick and better results. From the data as many as 43.5 percent said branded drugs price are high, 39.2 percent said both generic and branded drugs and 17.3 percent said generic drugs price are high. It is noticed that 46.7 percent of respondents believe more in branded drugs, 30.0 percent of respondents believe in both generic and branded drugs and 23.3 percent believe in generic drugs. It is observed that dominated group of 43.5 percent opined branded drugs give more profits to seller, followed by 37.3 percent opined both generic and branded drugs give profits to seller and 19.2 percent opined generic drugs give more profits to seller. Whereas, 47.2 percent said doctors and medical professionals recommend branded drugs, 37.2 percent said both generic and branded drugs and 15.7 percent said doctors and medical professionals recommend generic drugs.

Discussions

The present study has attempted to focus the awareness and attitude of consumers on generic and branded drugs. It also focus on the consumers preference in buying the different types of drugs available in generic and branded category. Most of the people are aware of generic and branded drugs but what are the factors influenced their awareness and attitude on buying preference is examined. Hence, the awareness and attitudes of the consumers towards generic and branded drugs are discussed below.

The awareness of the consumer towards generic drugs indicate that as many as 84.7 percent felt both generic and branded drugs give equal results in curing disease, but 82.5 percent opined generic drugs are available only in limited stores. It is found that 81.4 percent of the people prefer generic drugs only for

general health problems. Moreover, 78.7 percent of the consumers opined generic drugs give less profits to the seller, 76.7 percent opined generic drugs are also less cost comparative to the branded drugs.

While 77.9 percent consumers felt Government promote generic drugs to benefit the poor people, 75.2 percent opined doctors never recommend generic drugs to their patients. It is observed that 73.1 percent consumers had an opinion that generic drugs never cure chronic diseases. Moreover, 69.8 percent expressed that unless branded drugs are available at the pharmacy store chemist recommend generic drugs, 68.4 percent people buy branded drugs only when generic drugs are not available in the pharmacy store.

Regarding the awareness of consumers on branded drugs the data reveals that 85.3 percent of the consumers opined branded drugs are clinically tested before they come to market, therefore 83.6 percent of the respondents felt branded drugs are available in all medical stores. While 83.3 percent opined branded drugs give better results than others, so 80.1 percent people trust most on branded drugs.

Since, 79.1 percent consumers felt branded drugs give more profits to the seller, 78.0 percent opined doctors and health professionals always recommend branded drugs. If is true to observed that 80.2 percent consumers opined people never buy generic drugs, unless branded drugs are available at the pharmacy store. While 78.8 percent felt branded drugs are well tested, therefore 78.1 percent opined branded drugs are costlier than others. Moreover, 75.2 percent opined branded drugs always safe to use.

Conclusion

A generic medicine is a pharmaceutical product which is used interchangeable with the original product and is marketed after patents and other exclusivity rights of the innovator pharmaceutical company have expired. Globally, healthcare costs have been increasing rapidly and governments have adopted cost containment measures in an attempt to ensure efficient utilization of scarce resources. One of the important mechanisms to reduce health-care costs is to promote the use of cheaper generic medicines instead of more expensive branded equivalents.

Some have negative views about how generic medicine are perceived compared to their branded ones in terms of drug effectiveness, drug quality, the likelihood of causing side effects, drug safety and attitude towards generic substitution or the process of replacing a branded medication with its generic equivalent. A key factor in improving confidence in generic products is the provision of information and education, particularly in the areas of equivalency, regulation and dispelling myths about generic medicines (such as the belief that they are counterfeits). Further, as patient trust in their physician often overrules their personal mistrust of generic medicines, enhancing the opinions of physicians regarding generics may have particular importance in strategies to promote usage and acceptance of generic medicines in the future. Generic medicines provide cost-effective alternatives to branded medicines, resulting in considerable savings to healthcare budgets. However, if consumers are poorly informed about their equivalence to branded medication, it is highly unlikely that generic medicines will be preferred over their branded equivalents.

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