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Research Article

Community Pharmacy For Better Health

Impact of Covid-19 on the Buying Behaviour of Consumers with Respect to Purchase of Medicines Through online and Retail Outlets

Srikanth Medimpudi[1]*, Lucklin Medimpudi[2] and Lakshmana Rao Ayyagari[2]

[1] *Dr. Srikanth's Diabetes Specialities Centre, Vijayawada, Andhra Pradesh, India*

[2] *School of Entrepreneurship and Management Studies (SEAMS), S.R.M. University – A.P., Andhra Pradesh, India,*

Abstract: The unprecedented impact of Novel Coronavirus Disease 2019 (COVID-19) on the economy is transforming consumer behaviour in purchasing various drugs. This study examines the change in consumer awareness levels and purchasing patterns concerning online pharmacies and generic drugs in the wake of the recent pandemic. It also explores the reasons behind changing attitudes, implications of these new consumer habits, and measures pharmaceutical retailers can take to evolve stronger. We conducted a cross-sectional survey of 260 randomly selected consumers attending a retail pharmacy attached to a secondary diabetes care centre in Andhra Pradesh from December 2020 to January 2021. The study involved 150 males and 110 females. We collected each consumer's demographic data, including age, gender, location, annual household income, and educational level. We used a questionnaire to assess consumers' awareness levels and buying patterns regarding online pharmacies and generic drugs, as well as their favored approaches to future shopping. In our study, 63.8% of subjects knew about online pharmacies, but 20.5% of them were aware only after the outbreak. Thirteen percent of consumers purchased medicines online, while 35.3% of them did so in response to the pandemic. On the other hand, 64.6% of the subjects know about generic medicines, but 8.3% of them have not heard of them until after the pandemic. Furthermore, consumers purchased generic medicines in 20.8% of cases, and 11.1% of those who purchased generics did so after the pandemic. In addition, we found that 79.2% opted for branded medicines in the future, while 56.9% chose local stores. 'COVID-19 lockdown brought a surge in awareness about online pharmacies and generic medicines, as well as a surge in online and generic purchases. Yet consumer sentiments towards local stores and branded medicines are positive during the COVID-19 times. The post-COVID-19 sentiment is as well looking optimistic for local stores and branded medicines.

Key Words: COVID-19, Consumer Behaviour, Generic Medicine, Online Purchase, and Retail Purchase

***Corresponding Author**

Srikanth Medimpudi , Dr. Srikanth's Diabetes Specialities Centre, Vijayawada, Andhra Pradesh, India

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1. INTRODUCTION

The Pandemic COVID-19 triggered the whole world economy, and it is pertinent to say that it has impacted every sector, and in one way, we can say that no sector is pandemic-free. In some sectors, it had a positive impact, while it had a negative impact in some sectors. People are living differently, buying differently, and in many ways thinking differently. The new consumer behaviours like surge in e-commerce, changing brand preferences, higher unemployment, a decline in discretionary spending, reduced shopping frequency, shift to stores closer to the home could be game-changers for the future. 'India's pharmaceutical consumption has been tough through the pandemic after an initial blip and has now bounced back. The use of online pharmacy services and generic medicines has surged and is likely to continue post-pandemic. Retailers need to leverage data-driven insights to continue to inform and develop their relationships with consumers. The concept of online pharmacies and the online sale of medicines have been in vogue worldwide for more than two decades. 50+ e Pharmacy companies are operating in India, and 3.5 million Indian households have begun using these online services recently.[1] In the absence of specific regulations, online pharmacies now function as marketplaces, allowing patients to purchase medicines from sellers that comply with India's Drugs and Cosmetics Act. Regulations, like the Information Technology Act and the Narcotic Drugs and Psychotropic Substances Act, also apply. E-pharmacies get a central license from the 'country's apex drug regulator and operate across the country. Online pharmacies offer better pricing than offline stores, with increased access, lower transaction and merchandise costs, convenience, and greater anonymity for consumers. Drugs preserve and restore one's fitness and help maintain and enhance the quality of life.[2] Around one-third of the 'world's population encounters difficulties accessing medications, due to high prices, with this proportion rising to 50% in developing countries like India.[3] Generic drugs are an alternative to brand-name drugs in many other countries, including the United States (U.S.A.), Germany, United Kingdom, Iraq, Malaysia, and Brazil.[4-8] A generic drug is a commercially manufactured medicine after the patent covering the branded product has expired and must be bioequivalent to the reference drug to achieve the same therapeutic effect. Despite the significant advantages offered by generic drugs, there are resistance factors in terms of their use, such as limited availability of these products;[9] weak encouragement for their prescription by medical practitioners; lack of knowledge among healthcare professionals;[10] lack of usage guidelines;[11] and lack of knowledge and negative beliefs among consumers regarding their use. The Jan Aushadhi Program is an essential aspect of the government's effort to ensure that the general public can access high-quality medicines at a low cost. In combination with the Digital India Program, Jan Aushadhi stores would be easily accessible via a mobile application, which would benefit consumers significantly. Although generic and branded drugs share the same active ingredients and undergo the same rigorous Food and Drug Administration approval process, branded formulations continue to lead the drug market with a higher market share. There is just a limited amount of publicly accessible material regarding consumer perceptions and awareness about online pharmacies and generic drugs. The main objective of this research was to explore:

1. The change in consumer awareness levels and purchasing patterns concerning online pharmacies and generic drugs following the recent pandemic.
2. The reasons behind changing attitudes, implications of these new consumer habits, and how pharma retailers can reset their businesses strategy to emerge stronger.

A literature search showed that not much academic content had been published on the impact, as the pandemic has been relatively new globally. The majority of research published is by industry experts. This relatively novel and timely topic offers a succinct overview of consumer behaviour during the times of covid-19.

2. MATERIALS AND METHODS

We conducted a cross-sectional survey of 260 randomly selected consumers visiting a retail pharmacy within a secondary diabetes care centre in Andhra Pradesh, India, from December 2020 to January 2021. Study participants included 150 males and 110 females. Children or students aged under 18 years, people with cognitive disorders, and healthcare practitioners were excluded from the sample. Consumers of all socio-economic strata attend the pharmacy to purchase medicines related to chronic lifestyle diseases such as diabetes, hypertension, dyslipidemia, coronary artery disease, stroke, diabetic kidney disease, thyroid disorders. The majority of the study consumers receive treatment for these diseases at our attached diabetes care centre. All the participants gave informed consent. Each 'consumer's baseline demographic data on age, sex, location (urban/rural), annual household income (≤ Rs. 100000 or > Rs. 100000), education (illiterate, School/high school, college, university) were recorded. The number of health conditions they are purchasing medicines for and the average number of pharmacy visits per year were also documented. Consumers were requested to fill up a short questionnaire to obtain their disposable income, medicine, or supplies wastage compared to pre-pandemic. In addition, they were asked about their practicality of medicine refill and preferred ways of future shopping. The questionnaire was evaluated in 10 patients in a pilot study before administering it to the study patients, and minimal changes were made before standardization. A researcher-administered survey was then employed to assess consumer's awareness about online and generic pharmacies, their purchasing patterns, and reasons behind such preferences. Each consumer responded to seven questions intended to evaluate awareness levels and five questions to evaluate purchasing patterns and favoured future shopping approaches. Consumers unaware of online pharmacies and generic medicines were educated regarding the same and their pros and cons.

3. STATISTICAL ANALYSIS

In the present study, results were presented as mean ± standard deviation (S.D.). Thus, mean, standard deviation, and proportions are reported as relevant. For the statistical review, SPSS statistical software - version 10 was used.

4. RESULTS

A total of 260 (M: F 150:110) subjects attending a retail pharmacy attached to a secondary diabetes care centre in Andhra Pradesh, India, were enrolled, and none of them refused to participate in the study.

Table 1: ***Demographic and clinical characteristics of the study subjects***

Characteristics of the study subjects N=260	**n (%)**
Age (years) Mean±SD	52.4 ± 9.6
Gender	
Male	150 (57.7)
Female	110 (42.3)
Location	
Rural (n=120)	120 (46.2)
Urban (n=140)	140 (53.8)
Annual Income	
≤ *Rs. 100000*	79 (30.4)
> *Rs. 100000*	181 (69.6)
Education	
Illiterate	32 (12.3)
Elementary School	34 (13.1)
High School	76 (29.2)
College	58 (22.3)
University	60 (23.1)
No. of Chronic Ailments	
< 3	116 (44.6)
≥ 3	144 (55.4)
Frequency of Pharmacy visits	
< 12	118 (45.4)
≥ 12	142 (54.6)
Payment Modes	
Cash	222 (85.4)
Digital	38 (14.6)
Disposable Income	
Decreased	102 (39.2)
Increased	52 (20)
Same as before	106 (40.8)

The mean age was 52.4 ± 9.6 years, and most consumers purchase medicines for their chronic ailments, which are more than three in number. Table 1 shows the research participants' demographic and clinical characteristics of the study subjects. The majority of patients were hailing from urban areas (53.8%). Regarding the education levels, 42.3% had a high school education or less, 45.4% are graduates, and 12.3% are illiterates. About 30.4% had an annual household income of Rs.100,000 or less. About 39.2% experienced a decline in their disposable income during the lockdown. Compared to pre-COVID-19, 40.8% of consumers said their disposable income was unchanged in the unlocking phase, while just 20% reported an increase. The majority of our consumers, 54.6%, had more than 12 pharmacy visits per year. At the time of the survey, 85.4% were using cash alone as their mode of transaction, while 14.6% were using digital modes like a card, U.P.I. payments, or net banking. Fig. 1, 2 shows the details of online pharmacies' awareness and purchasing patterns among the study subjects. Only 36.2% (94/260) of the subjects do not know about online pharmacies, while 63.8% (166/260) know about them. In fact, 79.5% (132/166) of those who know about online pharmacies knew about them before the crisis.

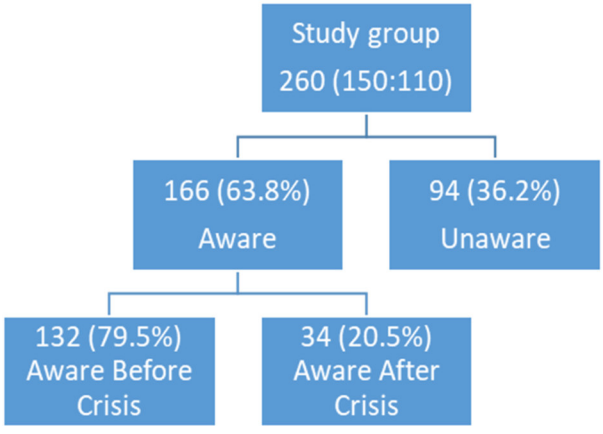

Fig 1. Details of awareness about Online Pharmacies among the study subjects

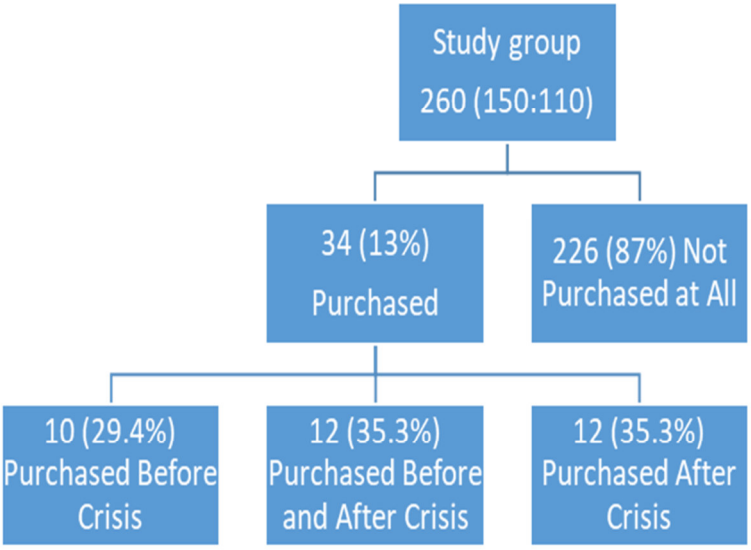

Fig 2. Details about purchasing pattern of Online Medicines among the study subjects

There has been a rise in public perception of online pharmacies during the lockdown. Only after the crisis did 20.5% (34/166) of the participants hear about online pharmacies. However, purchasing drugs from online pharmacies was not a frequent phenomenon among the survey participants. Overall, only 13% (34/260) of total consumers purchased online medicines. The majority of the respondents, 87% (226/260), have not purchased online at all. Among those who purchased online, 35.3% (12/34) purchased only after the crisis, 29.4% (10/34) purchased before the crisis, and 35.3% (12/34) did so both before and after the crisis.

Table 2: ***Description of subjects who are unaware of Online pharmacies***

Characteristics	**n (%)**
Gender	
Men	50 (53.2)
Female	44 (46.8)
Location	
Rural (n=52)	52 (55.3)
Urban (n=42)	42 (44.7)
Annual Income	
≤ Rs. 100000	37 (39.4)
> Rs. 100000	57 (60.6)
Education	
Illiterate	20 (21.3)
Elementary School	22 (23.4)
High School	22 (23.4)
College	18 (19.1)
University	12 (12.8)
No. of Chronic Ailments	
< 3	40 (42.6)
≥ 3	54 (57.4)
Frequency of Pharmacy visits	
< 12	50 (53.2)
≥ 12	44 (46.8)
Payment Modes	
Cash	90 (95.7)
Digital	4 (4.3)
Disposable Income	
Decreased	46 (49)
Increased	10 (10.6)
Same as before	38 (40.4)

Table 2 shows the description of subjects who are unaware of online pharmacies. A larger percentage of subjects are hailing from rural areas (55.3%). Male preponderance was seen in unawareness about online pharmacies. The majority of the subjects had lower education levels in this group of subjects (68.1% vs. 31.9%). Patients who had not visited local pharmacies regularly (< 12 pharmacy visits per year) had poorer awareness than those who had more (≥ 12) pharmacy visits per year (53.2% vs. 46.8%). Awareness levels are lower among patients who felt that their disposable income during lockdown is decreased or remained the same as before (89.4% vs. 10.6%). Higher percentages are unaware of online pharmacies in subjects who do not use digital payment modes (95.7% vs. 4.3%). Male preponderance was seen in online purchasers (64.7%). A more significant percentage of subjects are hailing from urban areas (76.5%). The majority of the subjects had higher education levels in this group of subjects (58.8% vs. 41.2%). Fig. 3, 4 show the details of awareness and purchasing patterns about generic medicines among the study subjects. Among those surveyed, 35.4% (92/260) did not know about generic medicines, while 64.6% (168/260) knew about generic medicines. Ninety-two percent (154/168) of those who knew about generic medicines knew about them before the crisis. Only after the crisis did 8.3% (14/168) of the participants knew about generic drugs.

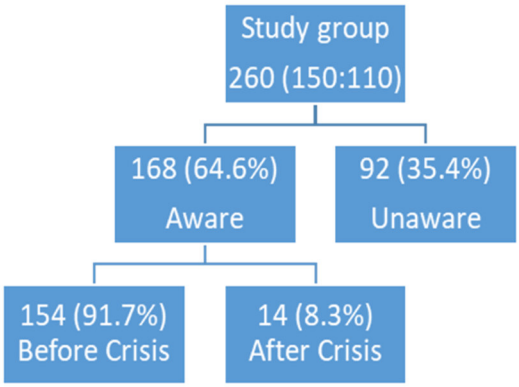

Fig 3. Details of awareness about Generic Medicines among the study subjects

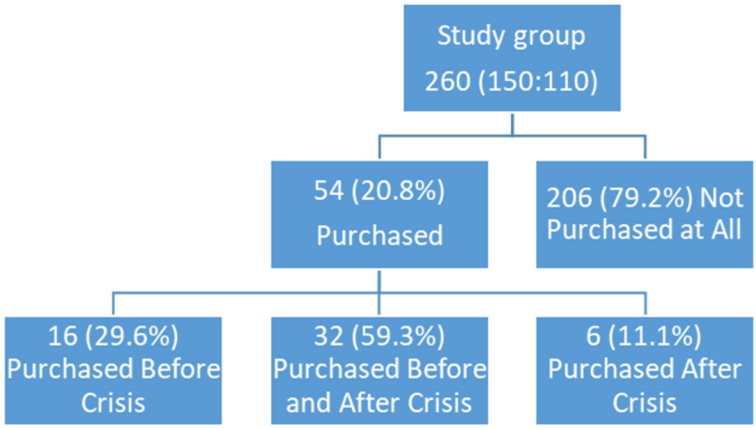

Fig 4. Details about purchasing pattern of Generic Medicines among the study subjects

Overall, only 20.8% (54/260) of total consumers purchased generic medicines. The majority of the respondents, 79.2% (206/260), have not purchased generic at all. Among those who have purchased generic, 11.1% (6/54) of them purchased only after the crisis, 29.6% (16/54) did so before the crisis, and 59.3% (32/54) before and after the crisis. Table 3 shows the description of subjects who are unaware of generic medicines. A more significant percentage of subjects are hailing from rural areas (52.2%). Female preponderance was seen in unawareness about the generic medicines. The majority of the subjects had lower education levels in this group of subjects (67.4% vs. 32.6%). Patients who had not visited local pharmacies regularly (< 12 pharmacy visits per year) had poorer awareness than those who had more (≥ 12) pharmacy visits per year (54.3% vs. 45.7%).

Table 3: ***Description of subjects who are unaware of Generic Medicines***

Characteristics	n (%)
Gender	
Men	42 (45.7)
Female	50 (54.3)
Location	
Rural (n=48)	48 (52.2)

Urban (n=140)	44 (47.8)
Annual Income	
≤ Rs. 100000	43 (46.7)
> Rs. 100000	49 (53.3)
Education	
Illiterate	20 (21.7)
Elementary School	16 (17.4)
High School	26 (28.3)
College	20 (21.7)
University	10 (10.9)
No. of Chronic Ailments	
< 3	38 (41.3)
≥ 3	54 (58.7)
Frequency of Pharmacy visits	
< 12	50 (54.3)
≥ 12	42 (45.7)
Payment Modes	
Cash	78 (84.8)
Digital	14 (15.2)
Disposable income	
Decreased	40 (43.5)
Increased	16 (17.4)
Same as before	36 (39.1)

Awareness levels are lower among patients who felt that their disposable income during lockdown is decreased or remained the same as before (82.6% vs. 17.4%). Higher percentages are unaware of generic medicines in subjects who do not use digital payment modes (84.8% vs. 15.2%). Male preponderance was seen in generic medicines purchasers (51.9%). A larger percentage of subjects are hailing from urban areas (77.8%). The majority of the subjects had lower levels of education in this group of subjects (59.3% vs. 40.7%). Generic medicines purchases are more among patients who felt that their disposable income during lockdown is decreased or stayed the same as before (85.2% vs. 14.8%). The majority of patients who do not use digital payment methods (88.9% vs. 11.1%) choose generic medications. According to our questionnaire-based study, the main reason for purchasing online medicines is ""door delivery." Among respondents who purchased online, 41.17% (14/34) stated that they were happy about doorstep delivery within a short time, 23.5% (8/34) believed that they had better discount patterns online and 35.3% (12/34) believed that buying online is more convenient. The primary reason for preferring purchases at local stores is ""Convenience"." A 40.8% (106/260) of respondents purchasing at local stores stated that stores closer to home are convenient. In comparison, 30% (78/260) stated that local neighbourhood pharmacies offer quality customer care. Twenty percent (52/260) stated that they buy at local stores because of community connection, and 9.2% (24/260) believed that local stores attached to treating hospitals are safe and convenient

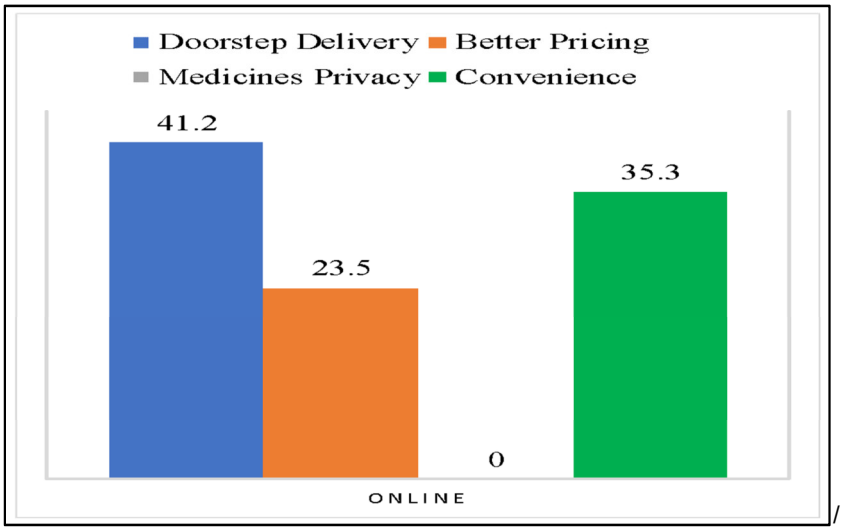

Fig 5. Reasons for purchasing online

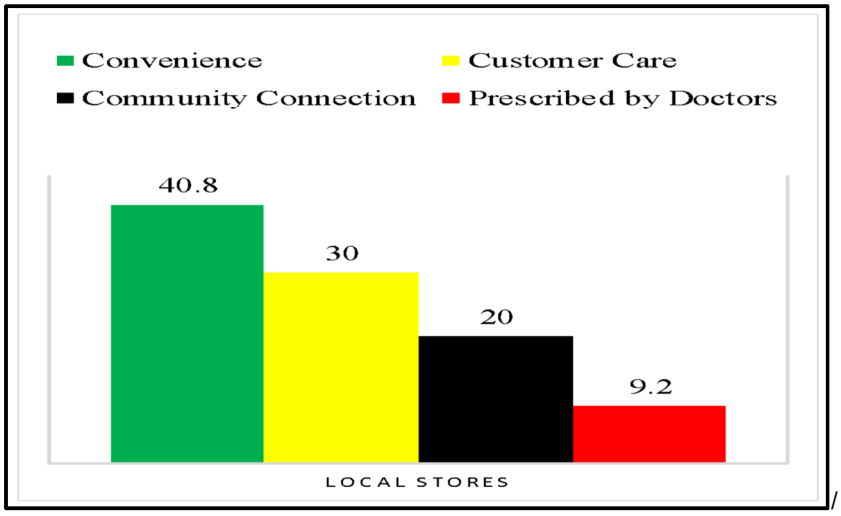

Fig 6. Reasons for purchasing at local stores

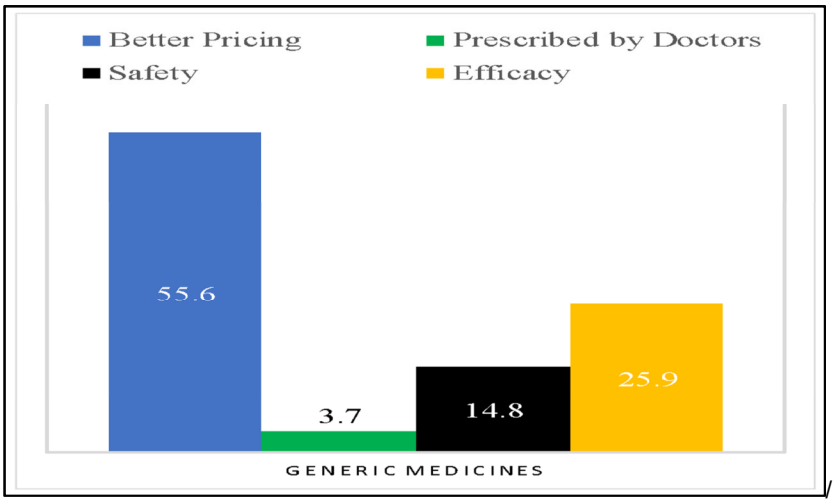

Fig 7. Reasons for purchasing Generic medicines

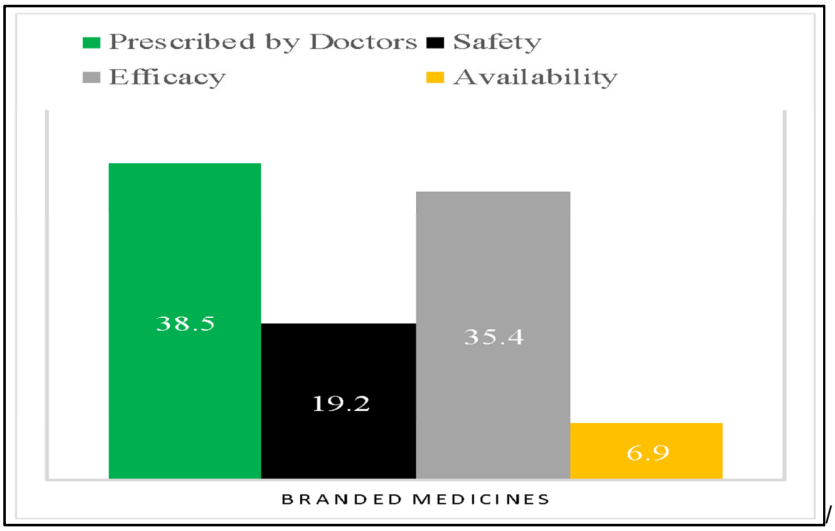

Fig 8. Reasons for purchasing Branded medicines

Results revealed that the single most influential factor for participants when purchasing generic medicines was their lower cost. Among generic drug purchasers, 55.6% (30/54) stated that generic drugs are less expensive than reference drugs, while 25.9% (14/54) stated that they were confident about their efficacy. In addition, 14.8% (8/54) believed that generic drugs were just as safe as reference drugs, and 3.7% (2/54) said they buy generics as prescribed by treating physicians.

Fig 9. Preference for Future stores

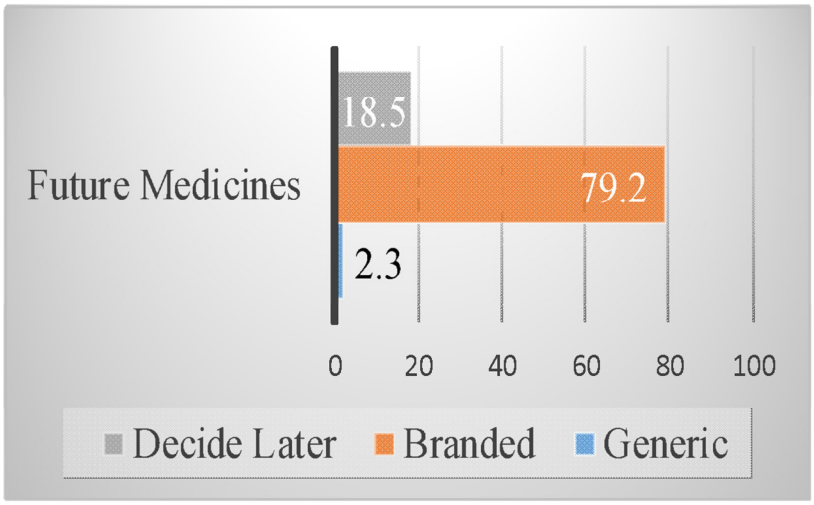

Fig 10. Preference for Future medicines

There are many reasons for purchasing branded medicines. However, the primary reason is "doctor's advice". Of respondents who purchased branded medications, 38.5% (100/260) said they did so based on the physician's prescription. In contrast, the minor reason for purchasing online medicines is "availability". Only 6.9% (18/260) stated that they buy branded because of their availability. A 19.2% (50/260) stated that branded drugs offer a better safety profile, and 35.4% (92/260) said they buy them because of their superior efficacy. When asked, "which stores will you prefer for your future shopping"? 148 (56.9%) replied that they would opt for local stores, while 30 (11.5%) opted for online stores. A total of 82 (31.5%) said that they would decide later based on post-pandemic developments. When asked, "Which medicines will you prefer for your future usage"? only 6 (2.3%) replied that they would opt for generics. In comparison, 206 (79.2%) opted for branded medicines. Forty-eight (18.5%) said they would decide later based on post-pandemic developments. Concerning the statement "My practicality of medicine refill remained the same pre and post-pandemic", 85.4% (222/260) replied positively, while 10.8% (28/260) felt that their medicine refill practicality was reduced.

5. DISCUSSION

The present study was done with a questionnaire and assessed consumer's knowledge and purchasing patterns about online pharmacies and generic medicines during medicine refills in a retail pharmacy attached to a secondary diabetes care centre in Andhra Pradesh, India. The majority of our consumers, 53.1%, had less than 12 pharmacy visits per year. This result made us understand the respondents' buying behavior regarding how frequently they buy their medicines in a month. A nationwide cross-sectional study done in the U.S.A by Berenbrok LA et al. reported 13 pharmacy visits per person-year.[12] It is quite clear that people do not purchase their medicines frequently. The majority of our respondents buy the medicine either once or twice a month, and hence, it is fair to say that the medicines are purchased less frequently. With regard to the statement ""My practicality of medicine refill remained the same pre and post-pandemic"," 85.4% (222/260) replied positively, while 10.8% (28/260) felt that their medicine refill practicality was reduced. Nearly 63.8% of the consumers know online pharmacies but, only 13% of total consumers purchased medicines through the Internet. In India, numerous national organizations have been working for the past decade to raise public awareness and drive innovative models for healthcare access and online pharmacies in the country, with an objective to increase the timely availability of inexpensive medicines in even the most remote parts of the country through technology. Realizing the vital role of e-Pharmacies during the lockdown crisis, the Union Home Ministry, vide

order number 40-3/2020-D dated 2020 March 24 [13], specifically mentioned the delivery of medicines through e-commerce as an essential service (later provided the nod by almost all the state governments). As the covid-19 lockdown progressed, there was a significant surge in online awareness and purchases. We found that 20.5% of the subjects who know about online pharmacies in our study knew it only after the crisis. Among online purchasers, 35.3% of them purchased wholly after the crisis, 35.3% purchased before and after the crisis and only 29.4% purchased before the crisis. Despite rural internet penetration exceeding that of urban, and with a large number of mobile phones, online pharmacies' awareness among Indian consumers during medicine refills in a retail pharmacy attached to a secondary diabetes care centre in Andhra Pradesh is still wanting as per our study finding. About 36.2% of the respondents were unaware of online pharmacies, and 87% had never purchased online. A cross-sectional study in the Delhi population assessed consumer's awareness and behaviour towards the use of online pharmacy services in Delhi, India. Eighty-five percent of those surveyed have heard of online pharmacies, but only 6% of them used them to buy medicines. Uncertainty about the timely delivery of medicines and the supply of counterfeit medicines were the major apprehensions regarding online pharmacies among 85% and 75% of participants, respectively.[14] Another study from India reported similar findings.[15] Contrary to the above findings, a study conducted in Saudi Arabia by Norah Abanmy reported that only 23.1% were aware of online pharmacies, where 2.7% of them had bought a medicine over the Internet. [16] In our study, most subjects who are unaware of online pharmacies are hailing from rural areas. They had lower levels of education, and most of them belong to the low-income group. Male preponderance was seen in online purchasers (64.7%). A larger percentage of subjects are hailing from urban areas (76.5%), and most subjects had higher education levels. According to our questionnaire-based study, the main reason for purchasing pharmaceutical products from online sources is ""door delivery." Forty-one percent of respondents purchasing online stated that they were happy about doorstep delivery within a short time. Home delivery became more of an influencer in the buying behaviour of online medicines. Empirical survey research conducted by Architha Aithal. and Shabaraya, A. R. revealed that attractive discounts and reduced visits to the pharmacy are major factors for the respondents to buy online.[17] In fact, 23.5% of our respondents believed that the reason for choosing online options for buying medicines is the low prices that are being offered. Online pharmacies tend to provide a deep discount, and the prices tend to be very low, which might have attracted our respondents. However, sometimes certain medicines are not available anywhere in the market, and people need to look for them from one retailer to another; this causes many inconveniences. Online pharmacies tend to resolve this problem, where the availability of medicines has become much more prevalent. Online shopping was seen as more convenient by 35.3%. These results threw much light on understanding consumers' buying behavior with regard to online pharmaceutical products. Contrarily 40.8% of respondents purchasing at local stores stated that stores closer to home are agreeable, 30% stated that local neighborhood pharmacies offer quality customer care, 20% stated that they buy at local stores because of community connection. While consumer sentiment towards local stores has been positive during COVID-19, the post-COVID-19 sentiment is also optimistic. As per our study, 56.9% of consumers cited that they will stick to local stores in the post-COVID-19 world, while only 11.5% opted for online stores. On the other hand, only 29.4% of consumers who had a history of purchasing online medicines cited that they will drop from ePharmacy platforms shortly. In our survey, 64.6% of the respondents agreed as they knew about generic medicines. They knew what generic medicines are all about, but only 20.8% of respondents have bought generic medicines. We can assume from this that even having awareness, people are not ready to buy. With this outcome, we understood how many respondents have bought generic medicines, which brought much more clarity to the research. In India, more than 6300 Janaushadhi centres are functioning across 726 districts in the country to provide 900 quality generic medicines at affordable prices. Realizing the significance of technology during COVID-19, the government launched the Janaushadhi Sugam Mobile app to drive awareness about nearby Janaushadhi centres and the required medicines. This initiative and numerous national organizations' efforts led to a significant change in consumer behaviour towards generic drug awareness and purchases. About 8.3% of the subjects who know about generic medicines in our study knew it only after the crisis. Among those who have purchased generic, 11.1% of them purchased wholly after the crisis. Over 59.3% purchased generics before and after the crisis, while only 29.6% purchased before the crisis. Economical pressure on medicine budgets in the form of out-of-pocket expenditures has also contributed to the use of generic drugs by a section of people. These findings are noteworthy as they suggest that the population does not follow medical prescriptions, replacing the reference drug with a cheaper generic counterpart. On the other hand, 35.4% of the people said they did not know anything about generic medicines, and 79.2% of the respondents had not procured generic drugs. The concept of generic prescription is well-accepted in several parts of the world. Nevertheless, it has failed to gain momentum in India due to nonavailability and distrust of the product quality. Generic drug awareness is similar to that obtained in other studies conducted in India.[18, 19] In a survey conducted in Brazil, da Rocha et al.[20] demonstrated that 95.7% of the respondents had heard about generic drugs. In a National Health Surveillance Agency (ANVISA - Agência Nacional de Vigilância Sanitária) survey, 95% of consumers stated they knew about generic drugs.[21] In our study majority of subjects who are unaware of the generic medicines are hailing from rural areas. In addition, they had lower levels of education. Male preponderance was seen in generic medicines purchasers (51.9%). A more significant percentage of subjects are hailing from urban areas (77.8%), and a majority of the subjects had lower levels of education. Most of the people who purchased generic medicines were convinced of their "lower prices." Over 55.6% of respondents who are purchasing generic stated generic medicines are cheaper than branded medicines. The cost of medicines is a most critical concern today. Generic drugs provide a significant saving opportunity in healthcare expenditure since they usually have a lower price. More than 25% of respondents believed that the reason for choosing generic options is the efficacy of generics that is on par with branded counterparts. There seems to be a strongly held opinion, particularly in the patient group, that less expensive equals lower quality [22, 23] reinforcing the need for myth-busting education. About 14.8% believed that generics and branded drugs share a similar safety profile. These results threw much light on understanding buying behaviour of

consumers with regard to generic medicines. Contrarily 38.5% of respondents purchasing branded medicines stated that branded medicines are purchased as per their physician's instructions, 35.4% stated that branded medicines offer superior efficacy, and 19.2% stated that branded medicines are much safer. Safety and efficacy were repeatedly reported as strong modulating factors for patient decision-making when purchasing drug products. When asked, "Which medicines will you prefer for your future usage"? only 2.3% replied that they would opt for generics, and 79.2% opted for branded medicines. In addition, only 11.1% of generic medicine users are willing to continue on generics in the future. This study will assist industry practitioners and academicians in adapting to the recent change in consumers' behaviour.

6. CONCLUSION

Consumers are purchasing medicines less frequently, and they purchase them only twice or once a month. The practicality of medicine refill was mostly unaffected despite the pandemic. Consumers have reasonably good knowledge about online pharmacies and generic medicines, but very few consumers buy online or buy generic drugs. COVID-19 lockdown bought a surge in awareness about online pharmacies and generic medicines, as well as a surge in online and generic purchases. Nevertheless, consumer sentiment towards local stores and branded medicines is positive during the COVID-19 times. The post-COVID-19 sentiment looks optimistic for local stores (56.9%) and branded medicines (79.2%). One of the constraints of this study was that the study is confined to chronic care purchasers. Understanding consumer behaviour is a priority for all academicians, and industry practitioners can use this research to come up with ideas about how to best target the consumer post covid. Further study is necessary to determine the long-term implications of the pandemic on consumer habits.

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8. AUTHORS CONTRIBUTION STATEMENT

Lucklin Medimpudi conceptualized and gathered the data with regard to this work. Srikanth Medimpudi and Lucklin Medimpudi analyzed these data. Lakshmana Rao Ayyagari gave necessary inputs towards the design of the manuscript. All authors discussed the methodology and results and contributed to the final manuscript.

9. CONFLICT OF INTEREST

Conflicts of interest declared none

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