



Patients' Perceptions and Preferences: A Study on Medicine Use in Quetta, Balochistan, with a Focus on Multinational and Locally Manufactured Medicines

BY

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Abstract

This study aimed to explore patients' perceptions and preferences regarding the use of medicines in Quetta, Balochistan, including their views on multinational and locally manufactured medicines and their satisfaction with treatments. A cross-sectional descriptive study was conducted from April to September 2016 in the private sector hospitals of Quetta. The results showed that 88.8% (n=476) of patients found the cost of medicines to be high. Most patients (67.5%, n=362) preferred affordable medicines, and 85.5% (n=458) believed the cost should be considered before prescribing medication. Additionally, 64.7% (n=347) preferred famous brand medicines, while 62.7% (n=336) preferred locally manufactured medicines, which they believed would be cost-effective. The majority (84.4%, n=452) of patients disagreed with the idea that patients did not care if pharmacists substituted their prescribed medicines with locally manufactured drugs. More than half of the patients (51.4%, n=276) believed they should have the choice of selecting between local and multinational medicines, and 62.8% (n=337) believed doctors should ask about their drug preferences. The results showed a significant statistical relationship between patients' age, marital status, monthly income, education level, locality, occupation, medicine expenses, amount of Medicine prescribed, and diagnosis/condition (P<0.05). Patients' negative perceptions of local medicines were primarily due to limited availability and their belief that they were of lower quality than multinational medicines. Patients' involvement in decision-making could lead to more effective interventions and better health outcomes. The insights from patients in this survey can guide policymakers in Pakistan to promote the use of locally manufactured medicines and make them more cost-effective for patients.

Keywords: patients, use of medicines, perception, preference, local medicine substitution, multinational Medicine, cost, patients' treatment satisfaction.

INTRODUCTION

Medicine is considered one of the most fundamental necessities for all of us. Modern Medicine has revolutionized the way diseases are managed and treated. However, improper use of medicines can pose potential health risks. Local production of medicines refers to replacing a prescribed multinational drug with an equivalent locally produced drug with the same strength, dosage form, active ingredient, and potency at the time of prescribing (1, 2). Locally

manufactured Medicine is typically marketed under non-proprietary names or as branded local medicines (2). The consumption of affordable locally manufactured products is often preferred to reduce healthcare costs associated with pharmaceutical drugs, thereby providing savings to consumers and governments. In some cases, the locally produced drugs maybe 20-90% cheaper than their multinational counterparts (3, 4). Patient willingness to accept a locally produced medication is essential to facilitate the use of local drugs (5).



However, there is a lack of studies investigating Pakistani patients' perceptions regarding local products, their views towards the expenses of drugs, and their acceptance of locally manufactured drug embedment. (6).

Doctors prescribe both multinational and local medicines depending on the medication's availability, cost, and effectiveness. On the other hand, pharmacists are responsible for dispensing medication as per the prescription. In many cases, the medication provided to the patients free of cost are locally manufactured medicines (6). Unless the prescriber specifically prescribes the entirely free supplied medication, the consumers pay the cost difference. Consumers' awareness and knowledge regarding medication can play a vital role in the selection of drugs. However, recent studies have shown that consumers mostly do not discuss their medication preferences and the cost of medicines with their doctors. Additionally, several studies have found that the cost barrier can significantly hinder medication adherence, leading to suboptimal drug therapy outcomes (7). However, consumers may still prefer locally produced medications during clinical consultation or when prescribing the medicines at the pharmacy. In Pakistan, consumers bear over 80% of the cost of drugs obtained through the public sector (8). "Medicines Pakistan," the regulatory document for medicines in Pakistan, also advocates for using locally produced medicines in the country. It emphasizes the need for consideration of "cost-effective intervention choices." However, the specific measures that the government could take to promote the use of locally produced medicines are not clearly defined (12). However, no research has been conducted in the Quetta region specifically, making it necessary to understand consumers' preferences, ideas, and perceptions regarding the use of medicines. This research will help identify patients' preferences and perceptions regarding the consumption of medicines and support establishing the administration of a locally manufactured medicine (12).

OBJECTIVES

- To measure patient satisfaction and evaluate their perception of local drug substitution and management.
- To assess patient satisfaction and evaluate their perception of locally produced drug substitution and management.
- To determine whether patients are willing to use multinational medicines and the reasons behind their decision-making.

METHODOLOGY

Study design setting and duration

A cross-sectional descriptive study was conducted from April to September 2016 to assess patients' perception and satisfaction with locally manufactured and multinational medicines in private sector hospitals of Quetta, including Bolan Medical Complex Hospital (BMCH), Sandmen Provincial Hospital Quetta (SPHQ), Mohtarma Shaheed Benazir Bhutto General Hospital Quetta (MSBBGH), Lady

Dufferin Hospital (LDH), Dar-ul-Shifa Imam Khomeini (DSIK), and Asghar Hospital.

Participants

Inclusion criteria:

The study involved the participation of in-patients diagnosed with acute or chronic medical conditions who could comprehend the Urdu language, the official language of Pakistan. Before their involvement, the participants provided their consent for the survey.

Exclusion criteria:

The study excluded patients who were minors, in an unconscious state, suffering from cognitive impairment, or lacking the ability to comprehend Urdu.

Type of Sample:

The survey comprised a sample size of 536, and data was gathered accordingly. The present investigation centers on the perceptions and preferences of patients concerning medication usage, their satisfaction levels with treatments, and the availability of pharmaceuticals. The patient population in the study was diverse, encompassing individuals with various medical conditions, including gastrointestinal disease, respiratory disease, urinary tract disease, gynaecological disease, cardiovascular disease, ear, nose, and throat disease, endocrine disease, central nervous system disease, skeletal disease, immune disease, skin disease, metabolic disease, and other conditions.

Sample Size:

The present study employed a questionnaire-based approach to gather data. A total of 540 patients registered in hospitals during the research period were contacted, and 536 of them provided complete responses, resulting in a response rate of 99.2%.

Sampling Technique:

The study was conducted using a convenience sampling technique. Patients were initially approached and asked for verbal consent to participate in the study. If they agreed, they were then selected for inclusion.

Study tool:

The current study utilized a questionnaire-based approach. The primary version of the questionnaire was developed through a previous literature review. The questionnaire was composed of two parts. The first part covered patients' demographic variables, and the second section consisted of questions regarding patients' preferences, perceptions, and satisfaction towards switching from multinational to local medicines, the costs, and the availability of medicines in Quetta. The responses were framed on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=Neutral, 4=agree, and 5=strongly agree). The questionnaire underwent a validation process.

Validation:

Validation is gathering evidence to demonstrate that a system, process, or activity performed during production or testing meets the required level of consistency at all stages (13). The Research tool then tested for face and content validity. This

involved reviewing the questionnaire for clarity, relevance, and comprehensiveness and making necessary revisions to ensure the questions accurately captured the intended information.

Content validity:

Content validity refers to a systematic examination of the test content to determine if it adequately covers the relevant aspects of the evaluated phenomenon. It ensures that the test items accurately measure the constructs of interest and that a test is an appropriate tool for the intended purpose (13)

Face validity:

Face validity is the degree to which a test appears to measure what it claims to measure based on a superficial examination of the test items. It is not a guarantee that the test measures the intended construct or concept but rather a subjective judgment based on the perception of the test-takers (13).

Translation:

The validated questionnaire was then translated into Urdu as a significant proportion of the patients in Quetta, Pakistan, do not understand English and feel more comfortable speaking and understanding the national language of Pakistan, which is Urdu.

Statistical analysis/ data analysis:

All statistical analyses were conducted using SPSSv20. Descriptive statistics were used to analyze the demographic characteristics of the participants. Inferential statistics, specifically the chi-square test, were used to compare and determine the significance of the association between the dependent and independent variables in the current study. The results of these statistical tests are presented and summarized in the study's results section.

Ethical consideration:

The study was conducted by the guidelines of the National Bioethics Committee of Pakistan (14) and was approved by the Department of Pharmacy Practice, Faculty of Pharmacy, University of Balochistan, Quetta, Pakistan. All respondents obtained written consent before data collection, following ethical standards.

RESULTS

Demographics characteristics:

Table 1 presents the demographic characteristics of the study participants. A total of 540 patients were approached, of which 536 provided complete responses, resulting in a response rate of 99.2%. The mean age of the respondents was 35.70±17.159. Most participants were female patients (59.9%) and married (64.4%). Most respondents were from urban areas of Balochistan (77.6%). The monthly income of most patients ranged from 10001-20000 PKR (31.5%).

Prescription characteristics:

As shown in *Table 2*. 231 patients reported that they paid part of the total cost for their medications, and fewer patients, 102, did not have to pay. Regarding the diagnosis bulk of the

patients suffered from gastrointestinal tract disease (GIT) 147 (27.4%), as shown in *Figure 1*. Greater numbers of the participants were from (BMCH) Bolan Medical Complex Hospital government sector 186 (34.7%), while from the private sector, large numbers of the participants were from Asghar Hospital 71(13.2%). One hundred eighty-six were from BMCH .132 participants in SPHQ and LDH 41 and patients 40 from the MSBBGHQ and 66 Participants from DSIK, and 71 from the Hospital. Most of the studies were conducted in BMCH and SPHQ Government Sector Hospitals.

Table 1: Demographics Characteristics.

<i>Variables</i>	<i>Frequency</i>	<i>Percentage</i>
Age (35.70±17.159)		
12 – 21 years	123	22.9
22 – 31 years	153	28.5
32 – 41 Years	90	16.8
42 - 51 years	71	13.2
52 – 61 years	50	9.3
62 – 71 years	33	6.2
72 – 81 years	9	1.7
82 – 91 years	4	0.7
92 – 101 years	3	0.6
Gender		
Male	215	40.1
Female	321	59.9
Marital Status		
Married	345	64.4
Single	191	35.6
Monthly Income		
Less than 5000	61	11.4
5100 – 10000	131	24.4
10001 – 20000	169	31.5
20001 – 30000	123	22.9
More than 30000	52	9.7
Education Level		
No education	206	38.4
Religious only	126	23.5
Primary	65	12.1
SSC/Metric	67	12.5
FA/FSc	31	5.8
BA/BSc	22	4.1
Postgraduate	19	3.5
Locality		
Rural area	120	22.4
Urban area	416	77.6

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Occupation		
Un-employee	56	10.4
Government employee	36	6.7
Private employee	33	6.2
Self -employee	122	22.8
Housewife	204	38.1
Student	61	11.4
Other	24	4.5

Table 2: Prescription characteristics

Variable	F	%
Hospital		
SPHQ	132	24.6
BMC	186	34.7
LDH	41	7.6
MSBBGHQ	40	7.5
DSIK	66	12.3
Asghar Hospital	71	13.2
How Much Money you Paid for Medicine?		
The total cost of prescription	203	37.9
Part of the total cost	231	43.1
Freely Available	102	19.0
Number of medicines in The Prescription (6.60±2.242)		
1 - 4	93	17.4
5 – 8	354	66.0
9 – 12	82	15.3
13 – 17	7	1.3
Diagnosis		
GIT disease	147	27.4
Respiratory Disease	47	8.8
Urinary Tract Disease	31	5.8
Gynae Disease	94	17.5
CVS	55	10.3
ENT	12	2.2
Endocrine Disease	20	3.7
CNS	60	11.2
Skeletal(Bone)	4	0.7
other	13	2.4
Immune Disease	14	2.6
Skin Disease	28	5.2

Table 3: Patients' Perception of Use of Medicine on Five-point Likert Scale

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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Metabolic Disease	11	2.1
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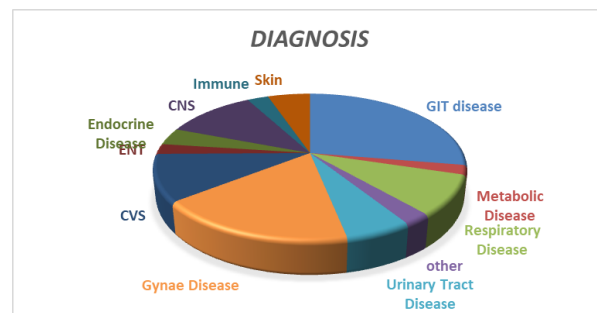


Figure 1: Diagnosis

Description of the statements of Patients' Perceptions about the use of medication:

As shown in Table 3. The total numbers of consumers were about 540, but the received responses were 536, with a response rate of 99.2%. The responding patients' statements are summarized. Of the widespread opinion of the patients, 147(27.4%) strongly agreed that doctors have to query consumers regarding their medicines' precedence. The opinion held by majority of the patients, 168 (31.3%), concurred that Patients must have the right to select among locally manufactured & multinational medicines. Of the extensive opinion of the consumers, 220 (41.0%) disagreed with the requester (e.g., Panadol to Revanin or Calpol). Patients' Medicine should only be substituted from multinational to locally manufactured. The opinion held that the majority, 244 (45.5%) of the patients, strongly preferred to be prescribed a well-known brand. Of the consumers, 248 (46.3%) would select to be assigned local medicines rather than multinationals. The widespread opinion of the patients 264 (49.3%) strongly accorded that expenses must be considered before a drug is assigned. 345 (64.4%) of the consumers strongly agreed with this bulletin that expense is not a problem since the medicament would cure their diseases, but 168 (31.3%) participants disaccorded that a more great drug was a nicer one. Verdict held by the majority of the consumers, 198(36.9%) strongly disagreed that Locally manufactured drugs were equally as effective as multinational drugs and that Using locally manufactured medicines would provide specific savings to the bulk of the patients 246 (45.9%). Greater than half of the total participants, 288 (53.7%), strongly agreed with this doctrine that, in general, medical costs in the country were too high, and 232 (43.3%) patients agreed that it was easy to find the right Medicine when the patients needed it. The majority of patients verdict/ notion of the patients 216 (40.3) disagreed with this manifesto that patients worried they were not taking the right medication for their symptoms or diseases.

Physicians should ask patients about their medicines preference.	10 (1.9)	111 (20.7)	78 (14.6)	190 (35.4)	147(27.4)
Patients should have the option of selecting between Locally manufactured & multinational ones.	25 (4.7)	154 (28.7)	81 (15.1)	168 (31.3)	108(20.1)
I do not care that the drug storekeeper switched the prescribed drug to a cheaper equivalent.	274 (51.1)	193 (36.0)	19 (3.5)	41 (7.6)	9 (1.7)
I do not care that my prescribed medicines be substituted from multinational to locally manufactured (e.g., Panadol to Revanin or Calpol)	284 (53.0)	176 (32.8)	26 (4.9)	40 (7.5)	10 (1.9)
My Medicine should only be substituted from multinational to locally manufactured if I request (e.g., Panadol to Revanin or Calpol).	40 (7.5)	220 (41.0)	112 (20.9)	106 (19.8)	58 (10.8)
I do not care about the pharmacist switching my prescribed Medicine to an equivalent locally manufactured one.	100 (18.7)	352 (65.7)	35 (6.5)	35 (6.5)	14 (2.6)
I prefer to be prescribed locally manufactured drugs.	41 (7.6)	165 (30.8)	120 (22.4)	136 (25.4)	74 (13.8)
I prefer/opt to be prescribed a well-known brand.	23 (4.3)	64 (11.9)	102 (19.0)	103 (19.2)	244 (45.5)
I prefer to be prescribed multinational rather than local drugs.	33 (6.2)	248 (46.3)	144 (26.9)	89 (16.6)	22 (4.1)
Costs/expenses should be considered before medicines are prescribed.	8 (1.5)	49 (9.1)	21 (3.9)	194 (36.2)	264 (49.3)
I prefer to take my medical along with me daily.	2 (0.4)	29 (5.4)	46 (8.6)	147 (27.4)	312 (58.2)
I prefer to be prescribed the cheapest Medicine accessible for the intervention of my disease.	9 (1.7)	60 (11.2)	105 (19.6)	229 (42.7)	133 (24.8)
Cost/Expense is not an issue since the drug will cure my disease.	5 (0.9)	37 (6.9)	3 (0.6)	146 (27.2)	345 (64.4)
A more expensive medicine is preferable.	52 (9.7)	168 (31.3)	103 (19.2)	141 (26.3)	72 (13.4)
Locally manufactured drugs are equally as effective as multinational drugs.	198(36.9)	156 (29.1)	123 (22.9)	46 (8.6)	13 (2.4)
Using locally manufactured medicines would provide specific savings to me.	13 (2.4)	91 (17.0)	96 (17.9)	246 (45.9)	90 (16.8)
In general, medical costs in the country is too high.	13 (2.4)	24 (4.5)	23 (4.3)	188 (35.1)	288 (53.7)
It is easy to find the right Medicine when I need it.	50 (9.3)	145 (27.1)	47 (8.8)	232 (43.3)	62 (11.6)
I feel that the medicines I am taking will help control my disease.	3 (0.6)	45 (8.4)	27 (5.0)	281 (52.4)	180 (33.6)
I worry I am not taking the right medication for my symptoms or disease.	202 (37.7)	216 (40.3)	35 (6.5)	53 (9.9)	30 (5.6)

Consumers' point of view on preferred doctors' communications/concerns:

As shown in *Table 4*. While estimating the patients' point of view on selected concerns with doctors, they mostly accepted that the doctor has to query them regarding their medicaments precedence (62.8%, n=337). There was a significant value (P<0.05) betwixt patients' occupation, education level, and money paid for the cost of medicines if or not they chose to be queried regarding their medicines precedencies. Since the education level of the participants was raised according to patients' occupation, housewives and patients paid part of the total cost of medicines, their precedencies to be deliberated regarding their medicine selections get more. More than half of the patients (51.4%, n=276) concurred that they must have the right to select between locally produced Medicine and multinational Medicine. A chi-square statistic found a

substantial relationship (P<0.05) between occupation and monthly income and the number of Medicines in the exemplar of the consumers and if or not consumers must be assigned the selection betwixt multinational medicines or local. Participants with medicines group in the prescription occupation, monthly income, and likely to concur or independently concur with being assigned the option.

Knowledge regarding Local Medicines:

(64.7%, n=347) agreed and strongly agreed that consumers responded that they prefer to be prescribed well-known brands, and there was a significant value between money paid part of the total cost of medicines (P<0.004) and locality (P=0.02) prefer to be prescribed well-known brands. (62.7%, n=336) of the participant's locally manufactured Medicine, using these would provide specific savings to patients. It is cheaper. (66%, n=354) patients responded that it is not

equally as effective as multinational Medicine. There was a significant relationship ($P<0.05$) betwixt the monthly pertinence, education level, number of medicaments in the prescriptions, age group, the occupation of patients, and their agreement. Who pays part of the total cost of medicines ($P<0.001$), or who has the range of the 5-8 prescribed medicines ($P<0.006$), As shown in **Table 4**.

Regarding the cost of the medicines in Patients' opinions, Quetta

Most of the surveyed consumers (85.5%, $n=458$) concurred that the expenses of medicines had been thought out before medicines were ordained. There was an important value ($P<0.05$) betwixt the education level, age group, occupation of the participants, money paid from the price of the drug, number of medicines in the prescriptions ($P<0.005$), and their confederation. Consumers with high education levels who pay more medication expenses or who have an enormous number of prescribed drugs facilitated to consent much that expenses must be considered before drugs are ordained. Patients significantly (67.5%, $n=362$). Selected to be assigned and dispensed the most inexpensive drugs accessible, there was significant value between the preference to be dispensed or assigned the most inexpensive Medicine accessible to patients with occupation, money paid for the cost of medicines ($P<0.05$), and liable to choose to be assigned and dispensed the most inexpensive medicament accessible for the cure of their disease. The opinion held that most patients (91.6%, $n=491$) forcefully consented to the point that "Expenses are not a problem for them since the medicine will cure their sickness." A Chi-Square test of emancipation picked a substantial relationship ($P=0.05$) between the monthly earning of the consumers and the money they paid for the expenses of medications. Respondents with rare earning levels or paid the full expense of medicines ($P=0.028$) but again cared to accorded much with the above points. Patients predominantly (88.8%, $n=476$) trusted that the medicine

expenses in Pakistan are too high. There was remarkable value among the occupation, shortage group, and the money paid for the expenses of medicines ($P<0.001$) in the agreement to this statement. Consumers with a rare age group or paid more money for the expense of medicines are likely to accept more than medicament expenses in Pakistan are too high.

Saving/reserving from consuming local medicines:

More than half of the patients (62.7% $n=336$) trusted that consuming locally manufactured drugs would substantially save them. Anyhow, there was no important value with the number of medicines in the exemplary, monthly income levels or paid money for the expense of medicines looked to trust that the uptake of local medicines would supply important savings to the patients.

Perceptions of local medicine substitution

While consumers were questioned whether they objected to the drug storekeeper switching their assigned drugs (87.1%, $n=467$), responders strongly disagreed and considered the substitution a cheaper equivalent. There was an important value ($P=0.03$) among the respondent" monthly pertinence level, money paid for the cost of medicaments ($P<0.002$), and a group of medicaments in the exemplary ($P<0.01$). In addition, most patients (85.8%, $n=460$) strongly disagreed and objected to their assigned multinational products being exchanged for locally produced medicines. There was a significant relationship between the patient's occupation, money paid for the cost of medicines ($P<0.01$), and amount of medicament in the exemplary ($P=0.05$) if or not consumers objected to their assigned Medicine being embedded to a more inexpensive drug or a local one. Most responders (48.5%) did not prefer to accept locally manufactured embedment only upon the patient's desire ($n=260$). There was a substantial value ($P<0.001$) among participants' money paid for the cost of Medicine with their precedence for local embedment to rely on the consumer's desire.

Table 3: Chi-square test of signifincae

Questions	Age Groups	Gender	Marital Status	Monthly Income	Education	Locality	Occupation	money paid for Medicine	Medicines group in the prescription	Condition/ Diagnosis
Physicians have to ask patients about their medicines precedence/ preference.	0.947	0.181	0.627	0.248	0.036*	0.430	0.025*	0.001*	0.237	0.625
Patients should have the option of selecting between Locally manufactured & multinational.	0.821	0.138	0.417	0.025*	0.391	0.762	0.015*	0.437	0.041*	0.217

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I don't care the drug store keeper switching the drug it was prescribed to a cheaper similar/equivalent one.	0.795	0.930	0.586	0.034*	0.721	0.226	0.080	0.002*	0.011*	0.263
I prefer/opt to be prescribed locally manufactured drugs.	0.442	0.637	0.073	0.003*	0.194	0.802	0.061	0.001*	0.041*	0.447
I prefer/opt to be prescribed a well-known brand.	0.816	0.435	0.504	0.316	0.123	0.021*	0.125	0.004*	0.303	0.596
Expense should be considered afore a drug is prescribed.	0.029*	0.713	0.644	0.323	0.054*	0.555	0.053*	0.001*	0.006*	0.171
I prefer to take my medical along with me on daily basis.	0.531	0.808	0.168	0.339	0.001*	0.185	0.001*	0.001*	0.018*	0.971
I prefer to be dispensed the cheapest/ inexpensive Medicine available/ existing for treatment of my illness.	0.965	0.447	0.128	0.095	0.254	0.541	0.026*	0.001*	0.109	0.667
Cost/expense is not an issue for me since the Medicine will cure my disease.	0.788	0.695	0.517	0.028*	0.180	0.346	0.523	0.006*	0.384	0.266
A more expensive drug is a pre-eminent/better one.	0.108	0.351	0.076	0.104	0.466	0.172	0.643	0.001*	0.015*	0.203
Locally manufactured drugs are equally as effective as multinational drugs.	0.490	0.840	0.735	0.040*	0.785	0.244	0.707	0.063	0.040*	0.124
In general medicine costs in country is too high.	0.003*	0.133	0.089	0.720	0.487	0.878	0.001*	0.001*	0.064	0.183
I feel that medicines	0.032*	0.125	0.001*	0.126	0.275	0.713	0.072	0.001*	0.137	0.796

which I am taking will help in controlling my disease.										
I worry that I am not taking the right medication for my symptoms or disease.	0.522	0.206	0.128	0.601	0.123	0.653	0.311	0.010*	0.084	0.044*

DISCUSSION

This study found that a significant number of patients strongly believe that the evaluation and cost of medicines in Pakistan are excessively high. The high expenses of medicines pose a significant challenge for most Pakistani patients, potentially affecting their access to medical care. These results were particularly prevalent among patients with lower monthly earnings, those who have to bear medication costs, and those with multiple medications on their recurring prescriptions. In some low-resource countries, healthcare resources are often considered a negligible priority (15, 16). Results from a survey conducted in 36 low and middle-income countries indicate that patients who purchase medication from private hospitals pay, on average, 2.6 times more for multinational drugs compared to their local counterparts (19). It has been reported that in Quetta, over 80% of the cost of drugs purchased by the government is paid for through out-of-pocket payments (2). Furthermore, Pakistani patients generally prefer to be prescribed the most affordable or locally available Medicine to treat their illnesses.

The study revealed that Pakistani patients strongly believe in and trust locally manufactured medicines. Most patients preferred a cheaper, locally made medicine over a costlier multinational one. Patients believed that consuming local medicines would result in substantial savings for them. To promote the consumption of local products, several options are available, including a favorable registration scheme, ensuring the authenticity of locally manufactured medicines, supporting cost competition, and increasing the confidence of pharmacists, physicians, and patients in the quality of local medicines. In countries where the consumption of local medicines is low, multiple strategies may be required to promote their use (21). This is consistent with a study conducted in Finland, where 81% of consumers believed that affordable locally produced medicines were effective, and 85% did not consider local manufacturing to pose a risk to drug safety (23).

However, only a few patients in Quetta agreed to local replacement solely based on their preferences. These participants were mostly patients with low monthly income, those with multiple medications in their recurring prescriptions, and those with comprehensive medical coverage. This suggests that these groups of patients are less sensitive to the cost of treatment. This study also found that patients in Pakistan can prefer locally manufactured

medicines, which is consistent with prior research conducted in Denmark, Spain, and Norway, where a preference for local drugs was reported among consumers (25, 26).

Consumers also expressed the need for healthcare professionals' information about local medicine replacements. This study found that most participants were unwilling to switch to a locally made medicine based on recommendations from their pharmacist. However, other studies have reported varying results, indicating that pharmacists play an important role in patients' acceptance of local products, and resistance is often due to a lack of awareness about locally made medicines (28-30).

In many countries, the cost of medicines is competitive, but there is room for improvement, particularly in low-income and middle-income countries where the average cost of local medicines is 34-44% higher than multinational reference costs in some areas. Access to medicines in government hospitals is often limited, which may be due to various factors, such as poor access to drugs, inadequate motivation to maintain stock levels, poor forecasting, ineffective distribution systems, or lack of medicines for additional sale to private hospitals. High drug costs and a lack of adequate coverage can also have consequences. Physicians may be less likely to prescribe expensive, effective medicines if they know their patients cannot afford them. However, healthcare costs, including medication, account for a significant portion of 19% of people's income spent on healthcare, which is especially challenging for low-income people. (31-33).

The Professional Medical Body in Pakistan must prioritize including patients in medication decisions by implementing good practice guidelines. This can be achieved through training programs that focus on improving the communication skills of healthcare professionals, including pharmacists, doctors, and nurses. The positive attitude of Pakistani patients towards local products and medicines highlights the need to promote local administration in Pakistan, which encourages the use of locally-made medicines and products. This can lead to the development of a robust healthcare system that provides insurance coverage to patients and improves the country's overall quality of health services.

CONCLUSION

The limited expenses of medicines in Quetta are believed to be the primary reason for choosing local products, which could lead to greater insurance coverage, as suggested by the findings. Furthermore, respondents generally have positive

opinions about local products, especially those locally manufactured ones. Allowing consumers to participate in treatment decision-making enables them to choose the medication that suits them, resulting in better health outcomes and greater engagement in healthcare. The insights gained from this research can benefit healthcare organizations and policymakers in formulating a comprehensive local administration for cost-effective drug utilization and healthcare delivery in Quetta. Patients' understanding and perception of medicines were generally poor, and they often had negative opinions about local products. These consumers require more education and awareness, especially those with serious illnesses or lower socio-economic backgrounds who may benefit more from these products.

RECOMMENDATION

The public needs better and up-to-date information about local products. Consumers in a specific area indicated the relevance of positive and negative factors related to local medications. The main factors influencing the willingness to switch medication brands are a physician's opinion, cost savings, and recommendations from a pharmacy. Patients should always consult their healthcare provider before switching to local medicines.

LIMITATION

The study was conducted in only six hospitals in Quetta city, three major government and three private sector hospitals. The ratio of consumers who have an assertion of locally produced Medicine would be inadequate until this research work is established because the criterion is underprivileged to indoor patients in the Hospital. Medicines are crucial for healthcare maintenance and not only for their medicinal value but also for the patient's contentment associated with them. Insufficient accessibility of medicines at healthcare facilities and poor healthcare, despite a large proportion of the healthcare budget allocated to medicines, is a real issues for healthcare providers and patients alike.

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