The Barriers to Accessibility and Availability of Essential Drugs in Public and Private Health Facilities in Calabar Metropolis, Cross River State, Nigeria

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Abstract
The barriers to accessibility and availability of essential drugs in public and private health facilities in Calabar metropolis, Cross River State, Nigeria has been studied. The study has revealed that all the pharmacists both in the private and public sector are aware of the concept of essential drugs and majority of them are of the opinion that the goals have not been achieved. The availability of essential drugs in the private sector though adequate costs of drugs are a barrier to their accessibility while in the public sector the costs of drugs are higher than in the private sector and the level of availability is poor. Factors that lead to the unavailability of these essential drugs are multifactorial. These include defects in the distribution and supply of the essential drugs to their points of usage, Inadequate funding for purchasing quantities of drugs that are needed, inability to pay suppliers so that they do not extend credit facilities to the health facilities .Drugs are wasted through expiries because correct quantification is not being done.
Keywords: Accessibility, Availability, Barriers, Health facilities and Essential drugs

1. Introduction
Irrational use of medicines such as overuse, underuse and misuse both to the prescriber and the consumer are wasteful and hazardous to health of individuals and the population. Overuse of drugs will include overprescribing and overconsumption. In developing countries, the medicines that suffer this are the painkillers, antibiotics, injections, cough and cold medications. Injections are perceived as being both powerful and fast acting, this perception is shared by both prescribers and consumers and the high use is a consequence of both their expectations (Le Grand *et al*, 1999). Uzochukwu *et al.* (2014) showed that patients incurred additional costs through irrational dispensing of medicines by patent medicine vendors in Nigeria especially for treatment of acute respiratory tract infections (ARI), diarrhea and malaria .Irrational prescribing is a global problem as in Kazakhstan there is increase in the use of expensive, branded medications and reduction in the use of first line generics leading to adverse health and economic effects. Even in Nepal, 20%-52%of drugs were wasted through irrational prescribing in the primary health centres .This wastage occurs with formally trained health workers and consequently will be worse with patent medicine dealers (PMD) with no formal training in common ailments (Uzochukwu *et al.*,2014) . Irrational use of medicines also involves use of too many medicines per person (poly-pharmacy) or a situation where the number of drugs in the prescription is more than needed. Misuse of drugs is using the wrong drug for a specific condition, use of drugs in wrong dosage, drug of doubtful efficacy and safety status.

One of the consequences of irrational use of drugs is adverse drug reaction (ADR) which can result in death .They occur very frequently and are preventable. According to White *et al.* (1999),the direct and indirect costs of ADRs in the US annually is between 30.1 -136.8 billion dollars and includes hospital

admissions ,emergency room visits and outpatient revisits to physicians .Indirect cost will also include loss of productivity and reduction in quality of life. Incidences of ADR-soccur at frequencies that rank among deaths attributed to heart diseases, accidents, cancer and stroke. According to Quick (2003) studies in both developed and developing countries show that 25-75% of inappropriate use of antibiotics in teaching hospitals with the percentage increasing in primary health centres while less than 50% of people suffering from chronic illness such as diabetes and hypertension adhere correctly to their treatment. Inappropriate use of antibiotics cause widespread resistance like chloroqujne resistance has been established in 81 out of 92 endemic countries. Overuse of injections when the use of oral medications is appropriate, non-adherence to dosing regimen by patients, inappropriate self-medication and failure to adhere to clinical guidelines by prescribers (WHO, 2012).According to le Grand *et al.*, (1999) additional public health consequences of negative impacts of irrational drug use are:

- Limited efficacy of under therapeutic dosage of antinfective agents used to treat infections, tuberculosis and leprosy.
- Drug dependence as in the case of daily use of pain killers and tranquilizers
- Increase in the use of injections increase the risks of blood borne disorders like abscesses, AIDS, hepatitis and polio fromnon-aseptic injection techniques.

Irrational drug use has economic impact on household and national budgets due to wastage of scarce financial resources with the use of expensive branded drugs instead of generics combination therapies and multidrug prescribing. This is a worrisome trend as about 64.4%of the Nigerian population lives below the poverty line of US$1 per day. (Uzochukwu*et al.*, 2014)

Rational use of medicines requires that "patients receive medications appropriate to their clinical needs in doses that meet their own individual requirements for an adequate period of time and at the lowest cost to them and their community ''. In 1989, the International Network for the Rational Use of Drugs (INRUD) was formed to conduct multi-disciplinary intervention research projects to promote more rational use of medicines.

WHO, 2002 established model selection process for updating lists of Essential medicines and advocates that selection be based on treatment guidelines ,systematic reviews of clinical evidence and making the evidence publicly available to guide policy makers in decision making.

Also, there has always been a challenge to social systems on how to achieve fairness in health financing and avoid catastrophic payments. The two types of health financing are private insurance premiums and out of pocket expenses. Insurance premiums that protect individuals from expenditure are available only to the rich, the healthy and a certain class of people in developing countries and in urban areas. Out of pocket expenses are made at the point of service and how much individuals are willing to pay and able to purchase will be a function of their income Out of pocket financing for health is the major reason for unfairness health financing leading to financial losses and increased risk of impoverishment. At the inception of the essential drugs in 1977 it was assumed that public financing would be used to procure the drugs. In most low income countries, patients bear the cost of drugs of about 50-90% themselves and medicines are largest out of pocket health expenditure. The burden of financing medicines in developing countries like Nigeria falls to those most in need and the least able to pay especially through private pharmacies and other drug outlets (Quick, 2003).

Prescribers and end users play important role in the use of medicines as factors like knowledge ,attitude ,perception will influence the decision to seek health care and from whom and whether to adhere to the recommended treatment especially in chronic diseases.

The inefficiency, unreliability and insecurity of government drugs supply systems has made private sector and non-governmental organizations to have increased role in the supply of medicines. Efficiency in medicines supply will result to strong health care systems. The reliable health and supply system integrates supply management in the development of the health system, have an efficient mix of public and private partners, maintain a continuous distribution channel of quality medicines to ultimately increase access to essential medicines. Key components to ensure uninterrupted availability and accessibility are adequate human resources, sustainable financing, management information systems and coordination among health care partners and institutions. Sub-Saharan Africa lacks long term supply strategies to make this possible (WHO, 2015).

Steps in efficient management of drug supply are selection, quantification and forecasting, procurement, storage and distribution. According to Adenika , 1992 the selection of any drug for any essential drugs programme involves assessment of the prevailing disease, know treatments of choice and dosage forms and then decide the types of drugs available at all health care levels .Careful selection of essential medicines is the first step to ensure access.(WHO, 2004).

Nigeria's National Drug Policy of 1990 states that criteria for selection are:

- Drugs that satisfy the health care needs of the great majority of people at all levels of health care delivery
- Drugs whose efficacy and use have been confirmed with sufficient evidence
- There should be reasonable shelf life and can withstand unavoidable adverse environmental

conditions during distribution
- Generic names should be used unless where not possible
- Local manufacture of drugs is encouraged and exported drugs are those that can be certified by the country of origin and WHO.

Drug forecasting and quantification follows selection and is the process of determining the quantity of each drug that is needed. For quantification to be effective, specific data containing morbidity and consumption, the types of drugs to be available and how they are prescribed should be considered. Parameters to be taken into consideration when forecasting to avoid cash being tied to stock or out of stock situations are;
- Available financing
- Stock on hand at all levels of distribution system
- Orders that are expected to be delivered
- Expected losses through expiry or damage
- Medicines donations
- Desired stock at end of each planning period (safety and working stock at all levels)

Drug quantification is an integral part of the drug logistics management and can only be sustained with high level and long term commitment. Inefficient quantifications is very common in Nigeria and is caused by lack of systematic procedures, lack of reliable data on morbidity and consumption, lack of consensus on the most cost effective procedures and pressures from various sources and interests groups. The result of poor quantification is to reduce access and availability of essential drugs and is displayed as:
- Chronic and widespread shortages of commonly prescribed and used drugs despite adequate funding, procurement and distribution.
- Overestimation of quantities resulting in surpluses of a large number of commonly used drugs or large supply of a smaller number of drugs.
- Irrational and ineffective prescribing due to inadequate or inappropriate drug supplies in order to stretch insufficient drug supplies as much as possible.

Procurement involves efforts to quantify medicines requirements, selecting appropriate procurement methods, prequalifying suppliers and products. It also involves managing tenders, establishing contract terms, assuring medicines quality, obtaining best prices, and ensuring adherence to contract terms. Procurement methods need to be strengthened to ensure that procurement is linked to national medicines lists and prescribing patterns (WHO, 2015).Failure in any of these areas leads to lack of access to appropriate drugs and waste. Lack of guarantees and access to fund when needed leads to procurement inefficiencies and drug shortages .Limited and irregular funding leads to delays in payments to suppliers and they will deny credit or insist on advance payments. Financial autonomy for the health system with flexibility ensures efficient management of the system.

Storage involves keeping medicines in good condition throughout the drug supply cycle appropriate physical conditions and the storage procedures must be maintained at every point in the distribution to ensure the quality and efficacy of the commodities. Forecasted quantities of drugs should be able to it into the store room or phased delivery done if the capacity is inadequate.

An appropriate store for essential drugs must have separate space for the following: deliver and receipt of products, main storage, expired items, inflammable products, controlled substances, products requiring cold chain. Storage equipment is often inadequate and sometimes the medicines are placed directly on the floor instead of on pallets.

Distribution system ensures a constant supply of medicines while product quality and integrity is maintained throughout the distribution channel of the medicines. Medicines are kept in good   and appropriate conditions throughout the process so as to minimize medicines loss due to spoilage and expiry, keep accurate inventory records, rationalize medicines storage points, use available transportation resources efficiently, and reduce theft and fraud.

Distribution from the main storage point to a lower level store or health facility may follow the push or pull system or a combination of both. The choice of a push or a pull system depends on the needs of the health facility. In the pull system medicines requests are sent from the lower level. Adequate human resources are required to calculate medicines needs to last for a certain defined period of distribution and the central medical stores distributes products to all lower health facilities with its own transportation system or the responsibility of transporting the products from the central medical stores to the facilities is that of the individual health facilities.

The push system is used in emergency situation where there is no adequate storage space or personnel to manage a range of products as aa limited list of products is pushed from the central medical stores to the health facilities during a defined time frame. This system is also used when starting a new medicines program where there are no previous consumption data, but in practice a combination of the two systems are used.

After personnel cost ,medicines are the largest government health service cost and the largest part of household health expenditure .So that governments ,health care providers and individuals   in developing

countries are highly sensitive to the prices of medicines .The combined effects of add-on prices from taxation ,middle men ,distribution costs and retail margin results in the final price to the consumer that is more than double the producers or importers price.(Quick, 2003).The price of drugs matter to poor people in poor countries even though prices of drugs alone does not determine who gets access to health care. But if the price is set at the level the consumer cannot afford, the drugs will not be bought. (WHO, 2001). The prices of newer essential drugs are a matter of concern due to the capital intensive process of research and development of drugs. The World Trade Organization through the Trade Related Aspects of Intellectual Property Rights (TRIPS) has established minimum time for product patent and to make these newer medicines available for millions of people these agreements have to be clarified (Quick, 2003).

The circulation of substandard medicines in the developing world is a serious public health problem that affects the accessibility of drugs and is of clinical concern to health care workers as they are faced with this every day. The effects of substandard medicine include fatal toxicity even though the effects go unnoticed except in cases resulting in mass deaths. Aspects of counterfeiting involve under or overconcentration of ingredients, poor quality of ingredients, contamination, poor stability of the ingredients and poor or inadequate packaging.

The consequences of this can range from lack of active ingredients leading to treatment failure often resulting prolonged illness and death and promotion of drug resistance in case anti-infective agents, (Caudron *et al.*, 2008). Another aspect of quality is counterfeit and fake drug that is related to drug supply. WHO (2006 c) defined counterfeit/fake drugs as drugs that can deliberately and fraudulently mislabeled with respect to identity /source. Counterfeiting applies to generic and branded products and includes products without active ingredients, wrong ingredients or insufficient active ingredients with fake packaging.

Substandard drugs are generic drug products that do not meet the international standards and specifications set for them in terms of quality, purity strength or packaging. (Smine, 2002)

Causes of poor quality include:

a) Poor compliance with GMP (good manufacturing practice)with high standards of production for countries and agencies with stringent regulations .An intermediate standard for other countries and yet much lower standards for countries with poor regulations.

b) Drug purchases especially by developing countries are not done with adequate reference to quality standards

According to WHO, (2004a), only one in six countries have fully functional drug regulatory systems .Even though drug registration is a prerequisite for purchases in developing countries ,control of quality cannot be assured. Taylor *et al.*, (2001) in a random sample of antibiotic and anti-parasitic drugs found that almost half did not comply with set Pharmacopoeial standards resulting in treatment failures and drug resistance. Counterfeit drugs are a consequence of lack of access to essential drugs and it thrives in a place where drugs are scarce and prices are high (Chike *et al.,* 2011).

The objective of this study is to probe the barriers to accessibility and availability of essential drugs in public and private health facilities in Calabar metropolis, Cross River State, Nigeria. The Calabar metropolis comprises: Calabar South and Municpal Local Government Area (LGA) Councils. A survey in the metropolis was conducted to arrive make a claim.

2. Material and Methods

2.1   Study Setting

Cross River State is one of the states in the South-South Geopolitical zone in Nigeria with Calabar as its state capital. It is located at the southernmost part of the country and has boundaries with Akwa Ibom State to the west, north by Benue and Ebonyi States while it has international borders with Cameroon, Equatorial Guinea and the Atlantic Ocean. The state comprises of 18 local government areas with a total population of 2,817,626 with 1,459,530 males and 1,358,096females according to the 1991 population census.(Essien, 2005).There are a total of 402 health care facilities with a tertiary hospital ,state owned general hospitals and primary health care centres with several private owned pharmacy shops and drug outlets. There is a central EDP store that caters to all the health care centres in the state. Calabar South and Calabar municipality were chosen as representative local Government areas from the eighteen in the state.

2.2   Study Design

The study used a cross sectional descriptive study design usedto examine the factors that affect the essential drugs accessibility and availability. The descriptive study was considered to be appropriate because it provided reliable information and gave adequate description of a situation and not make generalization beyond the obvious.(Essien, 2005).The level of accessibility of essential drugs was based on the protocol developed by HAI/WHO (2009). To standardize the methodology, specific dosage forms and strength of each medicine surveyed was included. Medicines selected were based on HAI/WHO core list of 14 globally accepted medicines with additional 7 medicines based on local relevance used to treat a range of chronic and acute conditions. For

each of the medicines, price data was collected on originator and the lowest priced generic at each facility. Structured questionnaires were administered to hospital pharmacists and superintendent pharmacists of consenting private pharmacies to investigate the factors that affect the accessibility and availability of essential drugs in the state.

2.3 Population/Sample Characteristics
The study population is made up of registered pharmacists of both public and private sector working in Calabar Municipality and Calabar South local Government .The population is finite and made up of both male and female.

2.4   Inclusion Criteria
Consenting pharmacists working in the public and private sectors.

2.5   Size of the Sample
The size of the sample was determined from the list of registered pharmacists in Calabar obtained from the Association of Hospital & Administrative Pharmacists of Nigeria , and Association of Community Pharmacists of Nigeria, Calabar Branch.

2.6   Data Collection Instrument
Data was collected using researcher administered structured questionnaire (Appendix 1) and sighting of the drugs .Two intern pharmacists were trained in collecting data from the pharmacy shops while the researcher carried out the data collection in the hospital. The questionnaire was pre –tested in Akpabuyo Local Government area to validate and corrections made before the final distribution and collection.

2.7   Data Analysis
The availability of individual medicines was calculated as percentage (%) of the health facilities where the medicines were found both for originator brands and generic brands .The accessibility was calculated in terms of affordability and as the cost of treatment of 30 days for chronic conditions and a full course of therapy for acute conditions when compared to the daily minimum wage of a government worker of N600.00 (Naira) per day .The price of medicines used was the median price of the lowest priced generic. Pretested questionnaires were also administered on hospital pharmacists and consenting superintendent pharmacists of private pharmacies.Data obtained was analyzed using Statistical package for Social Sciences (SPSS) for descriptive studies and presented in frequency tables and bar charts.

2.8   Ethical Approval
Ethical approval was sought and gotten from The Cross River State Health Research Ethics Committee (CRS-HREC) with REC.NO.RP/REC/2015/295. Informed written consent was obtained from all respondents before administering questionnaires to them.

3.   Results
3.1   Sociodemographic Data

Table 1. Age distribution of respondents

	Frequency (%)
21 – 30	38 (41.3)
31 – 40	47 (51.1)
41 – 50	7 (7.6)
Total	92 (100.0)

Table 2. Sex distribution of the respondents

	Private	Public	Total
Female	5 (5.4%)	26(28.2%)	31 (33.7%)
Male	27(29.3%)	34(37.0 %)	61(66.3%)
Total	32 (34.8%)	60 (65.2%)	92(100.0%)

p>0.05 (NS)

Table 3. Educational qualification of respondents

	Frequency (%)
B.Pharm	82(89.2)
FPCP	4(4.3)
M. SC	4 (4..3)
Ph.D.	2 (2.2)
Total	92 (100.0)

Tables 1-3 show the demographic characteristics of the respondents. The respondents who were pharmacists were 92 in number with 61(66.3%) males and 31(33.7%) females. Most of them were between the ages of 31-40 years. About 82 (89.2%) had B. Pharm only as the least professional qualification with 4 (4.3%) being fellows,4(4.3%) with M.Sc. and 2(2.2%) with PhD with 32(3.8%) working in private pharmacy shops while 60(65.2%) worked in the public sector being hospital pharmacists.

3.2   Characteristics of health facility

Table 4. Type of health facility of the respondents

	Private	Public	Total
Primary	0 (0.0%)	0 (0.0%)	0 (0.0%)
Secondary	0 (0.0%)	10(10.9%)	10(10.9%)
Tertiary	0 (0.0%)	50(54.3%)	50(54.3%)
Pharmacy	32 (34.8%)	0(00.0%)	32(34.8%)
Total	32(34.8%)	60(65.2%)	92(100.0%)

Chi cal. = 12.000; df = 1; p<0.05

Table 4 shows the level of practice of the respondents with majority of them in the tertiary institutions being 50 (54.3%), 10(10.9%) in secondary institutions   while the community pharmacists that consented to be interviewed were 32 (34.8%).

Table 5. Availability of essential medicines list in the health facilities

	Private	Public
Available	16 (50.0%)	60(100.0%)
Not available	16 (50.0%)	0 (0.0%)

p>0.05 (NS)

Table 6. Services provided in the health facility of the respondents

	Private	Public	Total
Out-patient care only	32 (100.0%)	0 (0.0%)	32 (100.0%)
Out-patient and in-patient care	0 (0.0%)	60 (100.0%)	60 (100.0%)
Maternal and child health	0 (0.0%)	60 (100.0%)	60 (100.0%)
Medical cases only	0 (0.0%)	(00.0%)	0 (0.00%)
Medical and surgical care	0 (0.0%)	60 (100.0%)	60(100.0%)

Chi cal. = 12.000; df = 1; p<0.05

3.3   Awareness of essential drugs and goals

Table 7. Awareness of the concept of essential drugs by the respondents

	Private	Public
Aware	32(100.0%)	60 (100.0%)
Not aware	0 (0.0%)	0 (0.0%)

p>0.05 (NS)

Table 8. Achievement of the goals of essential drugs

	Private	Public
Achieved	11 (34.4%)	18 (33.3%)
Not achieved	21 (65.6%)	42 (66.7%)

p>0.05 (NS).

Table 7 shows that all the respondents were aware of the concepts but differed in their opinion as to the attainment of the goals of essential drugs as shown in Table 8. But majority of the pharmacists both in the private sector and public sector (more than 65.0%) said the goals had not been achieved.

Table 9. Sources of drugs in the health facility of respondents

	Private	Public
Central medical stores	0 (0.0%)	20 (33.3%)
Drug manufacturing companies	27 (84.4%)	40(66.7%)
Open market	5 (15 .6%)	0 (0.0%)
Donation	0 (0.0%)	0 (0.0%)

p>0.05 (NS)

For the public or government owned pharmacies, 40(66.7%) dispensed drugs obtained from their central medical stores while the rest obtained drugs directly from drug manufacturing companies.

3.4   Barriers to Accessibility of Essential Drugs

Table 10. Barriers to accessibility of essential drugs

	Barrier (%)	Not a barrier (%)	Indifferent (%)
High cost of drugs	52(56.5)	40(43.5)	0(0.0)
Too many drugs	20(21.7)	69(75.1)	3(3.2)
Attitude of pharmacist	17(18.5)	72(78.3)	3(3.2)
Unavailability of all prescribed drugs	48(52.1)	37(40.2)	7(7.7)
Unavailability of drugs	61(66.3)	31(33.7)	0(0.0)

Table 10 shows the results to the barriers to access to essential drugs from the perspective of the pharmacists. About 56.5% of the respondent felt that price or the high cost of drugs was a barrier while 43.5% did not see price as a barrier and felt that the patient will buy the drugs at any cost.

Prescription of too many drugs or polypharmacy did not constitute a barrier to 75.1% of the respondents while to 21.7% it was, while 3.2% of the respondents were indifferent.

Majority of the respondents believed that the attitude of the pharmacists to the patient   was not a barrier to access while 18.5% believed it was as it would determine if the patient purchased the drugs while 3.2% were indifferent.

About 52.1 % and 66.3%of the respondents believed that unavailability of all the prescribed drugs in a prescription and unavailability of the drugs in general constituted a major barrier to access while 40.05% and 33.7% did not think it was a barrier.

3.5   Factors affecting availability of Essential Drugs

Table 11. Factors affecting availability of essential drugs

	Agree (%)	Disagree (%)	Indifferent (%)
Not delivered on time	55.6	40.7	3.7
Lack of staff training on drug request	11.1	85.2	3.7
Lack of staff training on logistics / inventory	48.1	51.9	0.0
Poor funding	92.6	7.4	0.0
Prescription outside essential drug lists	70.4	25.9	3.7
High cost of drugs	29.6	66.7	3.7
Supplies not being paid	88.9	11.1	0.0
Infrequent drug prescription	33.3	66.7	0.0
Loss of drug to pilferage	25.9	66.7	7.4
Wastage of drugs	66.7	25.9	7.4

Shown in Table 11 are the results on the factors responsible for the unavailability of essential drugs. More than 50% of the respondent believed that late delivery of drugs by suppliers to central medical stores and to the dispensing units were responsible for the unavailability of essential drugs.

About 95.2% agreed that inadequate and poor funding so as to enable essential drugs to be purchased and about 88.9% agreed that the debt being owed to drug suppliers have made it impossible for them to supply drugs on credit often insisting on cash payments.

The writing of drug prescription outside of the essential drug lists have also led to the unavailability of essential drugs.

82.5% of the respondents disagreed with the notion that staff lacked essential training on logistics and inventory management and do not know when and how to request for the needed drugs.

66.7% did not agree that high costs of drugs infrequent prescriptions for rare medical conditions led to

their unavailability.

About 66.7% of the respondents agreed that drugs were lost due to pilferage but rather due to wastage from expiration and damage.

4.0   Discussion

This study shows that the majority of the respondents were males (66.3%)and more also in the private sector than in the public sectors .The reason being that more males are adapted to the pharmaceutical environment while more females were in the hospital sector (28.2%) than in the community practice.51.1% of the respondents were between the ages of 31-40 is the more productive ages of the work force .Majority of the respondents(89.2%) had Bachelor of Pharmacy as the highest qualification and the scenario is not acceptable as higher qualifications leads to higher quality of care. Pharmacist s role in the health setting is evolving and they need to be trained to meet this demand.

Characteristics of health facility showed that 34.8% were in the private sector while 65.2% of the respondents involved in public drug outlets showing that they had first-hand experience of the situation.100% of the facilities had alternative power supply indicating that the storage of drugs was at a favourable temperature and quality assured. 84.4% sourced their drugs directly from drug manufacturing companies ensures that counterfeit medicines are not purchased and also ensures quality.

The barriers to accessibility according to respondent were high cost of drugs (56.5%) and availability of drugs (52.1%). According to Bansal and Purohit (2013) the availability of medicines is influenced by insufficient health facilities and staff, poor medicine supply, low funds investment in health and lack of affordability .This is the case as found in our study where the majority of patients are found to purchase medicine from the private sector with higher prices or forgo treatment entirely but the prices of the medicines in our study was higher in the public sectors when available than in the private sectors.

According to WHO (2003) medicine availability in the public sector is lower than in the private sector and this has been the case in this study. Availability is reported as the percentage of the medicine outlets where the medicine was found on the day of data collection. In a study conducted by Tumwine *et al.*, (2010) the most important reason given for lack of availability was lack of funds and due to this the quantity of drugs purchased is less and cannot meet the demands of the populace. Wangu and Osuga (2014) also reported that stock-outs of medicines were caused by poor distribution but in this study, 92.6% of the respondent attributed the lack of availability to poor funding while 55.6% attributed this to poor and inefficient delivery and supply systems.

Irrational prescription and prescription outside the essential drug list was attributed by 70.4% of the respondent for lack of availability. Inappropriate drug prescriptions delays correct diagnosis and treatment ,drug resistance ,drug interactions and adverse events are increased and wastage of the drugs that should have been used for the correct condition .Rational use means that patients will receive medications that are appropriate to their needs ,in adequate doses to meet these needs for an adequate period of time and at the lowest cost to them and the community .Another opinion is unavailability of suitable drugs alternatives lead to irrational prescription and the use of medicines is also influenced by factors such as lifestyle, habits and knowledge of the health care personnel (Youseffi *et al.*, 2012).

Drugs not delivered on time were ascribed by 55.6% of respondents responsible for unavailability. Yusuf and Tayo (2004) in a study found that public drug supply in Nigeria is governed by the National Drug Policy of 1990 and the strategy used are the Central Medical Store system and in this study, 33.3% of the respondents obtained their drugs from the central medical stores. Financing of drug supply is by the various government agencies and is inadequate to ensure sustained availability of essential drugs. The factors responsible for this in this study was also highlighted by Yusuf and Tayo (2004) .Procurement methods involve open tender and direct purchase .These methods contribute to stock outs and late order placement ,delay in payment and poor supplier lead time due to lateness in payment for previous supplies.

5.0   Conclusion

This study revealed that all the pharmacists both in the private and public sector are aware of the concept of essential drugs and majority of them are of the opinion that the goals have not been achieved. The availability of essential drugs in the private sector though adequate costs of drugs are a barrier to their accessibility while in the public sector the costs of drugs are higher than in the private sector and the level of availability is poor. Factors that lead to the unavailability of these essential drugs are multifactorial. These include defects in the distribution and supply of the essential drugs to their points of usage, Inadequate funding for purchasing quantities of drugs that are needed, inability to pay suppliers so that they do not extend credit facilities to the health facilities .Drugs are wasted through expiries because correct quantification is not being done.

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