

Patients Utilization of Alternative Health Care Services Prior to Hospital Visit in Sokoto, North-Western Nigeria

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SUMMARY

Objective: The pattern of health care utilization among community members is indicative of their health seeking behaviour. Results of such studies are crucial to understanding and meeting the health care needs of communities.

This study aimed to investigate the pattern and source of health care utilized by patients prior to hospital visit.

Methodology: A cross-sectional design was employed, using a semi-structured questionnaire for data collection. A total of 1300 respondents from nine (primary and secondary) health care facilities were surveyed out of which 1,020 patients responded.

Results: Five hundred and sixty three patients (55.2%) had utilized alternative sources of care and used drugs at home for their current illnesses prior to hospital visit. Majority, 326 patients (58.0%) sourced their drugs from Patent medicine shops (PMSs). The commonest reason given by 240 (73.6%) respondents, for patronizing the PMSs before coming to hospital was their easy accessibility. Other reasons given by 178 (54.6%) and 170 (52.1%) were cheap cost and better attention by care provider respectively. Educational status and sex of the respondents were two factors that significantly influenced respondents' decision to particularly patronize the patent medicine shops.

Conclusion: Utilization of alternative health care services prior to hospital visit is a common practice in Sokoto. Patent medicine shops constituted the largest sector of care patronized prior to hospital visit because of their easy accessibility.

There is therefore a need for government and other stakeholders to work in closer proximity with the PMSs to ensure the safety of their practice. Accessibility of modern health care services to community members should be improved.

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INTRODUCTION

Home management for minor ailments is a very common approach to the treatment of illnesses such as malaria, acute respiratory infections, tuberculosis, diarrhoea and sexually transmitted infections. Drugs used for this purpose are frequently obtained by community members through over-the-counter purchase from patent medicine shops¹. A number of studies have shown that about 50-80% of the population in sub-Saharan Africa choose to first consult private drug shops and informal providers for advice and assistance with treatment of common ailments including childhood illnesses²⁻⁷. However, while the level of patronage/utilization of Patent medicine shops (PMSs) is very high in most developing countries, a fact is that they are not officially recognized in the healthcare delivery system of most countries. Their practice is neither professionally supervised/monitored nor regulated by government⁸⁻¹⁰. The consequence of this scenario for the PMSs is their lack of appropriate knowledge and skill for effective management of common ailments which they usually attend to, compounding the problem of irrational use of drug, drug resistance and other medication errors.

Interestingly, while PMSs are not officially recognised and regulated by government, international organizations, the federal government and some state governments have often collaborated with them in the implementation of some special health programmes. The Federal Ministry of Health (FMOH) in Nigeria, in collaboration with partners, designed approaches to utilize patent medicine vendors (PMVs) for the delivery of basic child survival strategies and products to those populations less served by the public sector^{11,12}. Thus, patent medicine vendors and shops play an important role in supplying the medication needs of these communities. Other care providers such as traditional and spiritual care providers also contribute significantly to health care delivery in the developing countries.

Reasons given by clients for their patronage of patent medicine shops (PMSs) include, ease of

access; constant availability of medicines; no waiting or minimal waiting time and convenient hours of operation; cheaper products, opportunity to purchase on credit, or the option to buy drugs in small quantities at a time⁷. However, the formal health establishments often view the activities of PMSs as unprofessional and sub-standard because of their inappropriate and unacceptable prescribing practices⁸ which has led to widespread ineffective treatment of fevers, increased risks of drug toxicity and accelerating drug resistance¹³. These are clear indications of the need for innovative and effective approaches to achieve rational prescribing practices.

This study therefore sought to determine the proportion of patients who had used medicine before coming to the hospital, to determine the sources of medicines used by the patients prior to their hospital visit, and to determine the proportion of patients who accessed care from patent medicine shops. The study also aims to investigate the factors that determine patients' patronage of the patent medicine shops. This is with a view to establish the perceived relevance of PMSs by community members and to establish the basis of need for appropriate intervention to improve the knowledge and skills of PMSs in the provision of quality care for their clientele.

METHODOLOGY

The study employed a cross sectional descriptive design in the selection and investigation of 1020 patients accessing health care in public health facilities in Sokoto metropolis. Three public health facilities each were randomly selected by balloting from the list of healthcare facilities in the three local government areas (Sokoto North, Sokoto South and Wamako) in the Sokoto metropolis. A total of nine health facilities (4 secondary and 5 primary) were enrolled into the study. A minimum sample size of 354 subjects was estimated using the sample size formula, $n = z^2 pq/d^2$ for descriptive, cross-sectional surveys. The sample size estimation was based on a 64% prevalent use of alternative sources of care in a pilot survey in a health facility in another local

government area (Dange-Shuni) where the instrument and procedure of study were pre-tested. However, a larger sample size of 1300 respondents was enrolled. Two hundred and 100 questionnaires each were distributed to patients at the secondary and primary care facilities respectively. The questionnaires were self and interviewers administered for literate and non-literate subjects respectively, and were administered on patients in the waiting rooms/area before entering the consulting room to be attended to by the consulting doctor. Data collection spanned a period of two weeks.

Data processing, analysis and presentation were accomplished using the Epi info 3.3.2, graph pad in stat and Microsoft excel software computer programs. The chi-square test for independence was used to compare association between observed discrete variables.

RESULTS

The mean age of the subjects was 36.6 ± 2.97 , and their ages ranged from 18 to 60 years. The majority, 286 (28.0%) of the respondents was in the age group 21-25 years. Only 432 (42.3%) of the subjects had formal education, table 1.

Parameter	Frequency (n = 1020)	Percentage (%)
AGE		
16-20	216	21.2
21-25	286	28.0
26-30	160	15.7
31-35	110	10.8
36-40	128	12.5
>40	120	11.8
TOTAL	1020	100
SEX		
Male	562	55.1
Female	458	44.9
TOTAL	1020	100
EDUCATIONAL STATUS		
Primary	142	13.9
Secondary	101	9.9
Post secondary	189	18.5
Qur'anic only	417	40.9
No education	171	16.8
TOTAL	1020	100
ETHNICITY		
Hausa/ Fulani	759	74.4
Ibo	99	9.7
Yoruba	92	9.0
Others	70	6.9
TOTAL	1020	100
USE OF MEDICINES PRIOR TO HOSPITAL VISIT		
Used medicine	563	55.2
Did not use medicine	457	44.8
TOTAL	1020	100

Five hundred and sixty three (55.2%) of the patients used drugs at home for their current illnesses before presenting to the hospitals. The majority, 326 (58.0%) sourced their drugs from PMSs, while 93 (16.0%) mentioned other health centres (PHC and private clinics), relatives/friends, 83 (15.0%) and non orthodox sources, 53 (10.0%) as the common sources for their treatment. Details of respondents' sources of the drugs they used prior to hospital visits are as shown in table 2.

Table 2
Respondents' sources of medications prior to hospital visit

Source of medications	No.ofrespondents	Percentage (%)
Relatives/ friends	83	15
PHC centre	28	5
PMSs	326	58
Private clinics	65	11
Spiritual care provider	37	7
Traditional care provider	16	3
Others	8	1
Total	563	100

Fever, 160 (49.1%) and diarrhoea, 104 (33.1%) were the two most common complaints that took the subjects to patent medicine shops. However, all the respondents had multiple complaints at the time they visited the patent medicine shops, table 3.

Table 3
Respondents' symptoms on presentation to patent medicine shops

Symptoms	No. of respondents	Percentage (%)
(n = 326)		
*Fever	160	49.1
*Headache	85	26.1
*Fatigue	84	25.7
*Weight loss	56	17.2
*Diarrhoea	104	33.1
*Jaundice	24	7.4

*Multiple responses

The most common reason given by 240 (73.6%) respondents for patronizing PMSs prior to hospital visit was that they are easy to reach. Others, 178 (54.6%) said that they spend less money in the medicine Shops compared to what is required in the hospitals, while others, 170 (52.1%) claim to receive better attention in the medicine shops than in the hospitals. Other reasons given by the respondents are as indicated in table 4. All the respondents gave more than one reason for their action.

Table 4
Respondents' reasons for patronizing PMSs before presenting to hospitals

Reason	No. of respondents	(n = 326)	Percentage (%)
*Easy to reach	240		73.6
*Always present	155		47.5
*Cheap cost	178		54.6
*Better treatment	130		39.8
*Shorter waiting time	115		35.3
*Good attention	170		52.1

*Multiple responses

Educational status and sex of the respondents were the two factors that significantly influenced respondents' patronage of PMSs before they attend hospitals. The non-literate patients patronize the patent medicine shops more compared to the literate ones amongst them, and the association between the use of patent medicine shops prior to hospital attendance and educational status was statistically significant ($p < 0.05$). This study also observed that the male patients patronized the patent medicine shops more than the female patients and the association between PMSs patronage before hospital attendance and sex of the respondents was statistically significant ($p < 0.05$), table 5.

Table 5
Factors influencing respondents' patronage of PMSs prior to hospital visits

	Total	Users		
EDUCATIONAL STATUS*				
Literate	432	99 (22.9)	28.2	0.001(S)
Non-literate	588	227 (38.6)		
TOTAL	1020	326 (61.5)		
ETHNICITY				
Hausa/ Fulani	759	250 (32.9)	1.94	0.58 (NS)
Igbo	99	27 (27.3)		
Yoruba	92	26 (28.3)		
Others	70	23 (32.8)		
TOTAL	1020	326		
SEX				
SEX				
Male	562	196 (34.5)	4.38	0.04 (S)
Female	458	130 (28.4)		
TOTAL	1020	326 (62.9)		

*Ability to read and write in English

DISCUSSION

A significant percentage of our respondents had used some form of drugs for the treatment of the same condition they presented with to the hospitals. This finding corroborates reports of other studies that 50-80% of people in sub-Saharan Africa where communicable diseases are commoner and public health facilities are not very accessible first visit private drug outlets or private practitioners for treatment².

Patent medicine vendors are individuals ideally licensed by government to retail drugs in the communities. These individuals, trained or untrained are important sources of drugs for home management of minor ailments in the communities. The finding reflects the scenario that patent medicine shops turned out to be the commonest source through which the patients obtained their drugs in this study. This is similarly reported by other workers from Nigeria and from other parts of the world over^{1,8,12-14}. The most common complaints that

these subjects presented with to the PMSs were fever and diarrhoea. Ajayi et al¹² and Ezechukwu et al¹⁴ from Southwest and Southeast of Nigeria respectively, also reported that these same symptoms were among those that topped the lists of complaints that their subjects presented to patent medicine shops. These findings suggest the need to find out the adequacy of knowledge of PMS vendors on the case management of these conditions with a view to the identification and meeting their training needs.

Researchers have identified that ease of access; availability of medicines; quality of service (no or minimal waiting time to meet care provider and convenient hours of operation); and cheaper products, availability of credit, or the option to buy drugs in small amounts are among the reasons that clients gave for patronizing patent medicine shops in developing countries⁸. This study similarly

observed that being easy to reach; spending less money in the medicine Shops compared to what is required in the hospitals and the claim of receiving more attention in the patent medicine shops were important reasons given by respondents for the patronage of patent medicine shops.

Home treatment for malaria and other common childhood illnesses are being advocated by both the World Health Organization (WHO) and UNICEF as a strategy to promote early and effective treatment for malaria and other common ailments such as diarrhoea; acute respiratory infections (ARIs); sexually transmitted infections (STIs); and to promote strategies for child survival, particularly in developing countries where morbidity and mortality resulting from these common diseases are high^{15,16}. The Roll back malaria and Integrated Management for Childhood Illness (IMCI) are examples of such strategies that aim to deliver interventions at the community level for improving family practices such as appropriate care seeking and home management of illness using patent medicine vendors, traditional birth attendants and other voluntary health workers as community resource persons (CORPS). These CORPS are trained to take responsibility of the health care needs of the communities¹⁵. Thus the use of patent medicine vendors as CORPS is ideal only if they have undergone training on the recognition and management of these common diseases. This is particularly so because patent medicine vendors also double as a source of advice and for consultations to the public on health matters in most places in Nigeria and perhaps in other African countries¹².

Bearing in mind that the jurisdiction of practice of patent medicine vendors should not be beyond treatment of minor ailments, a prevailing assumption is that most of the patent vendors do not maintain borders in their management of illnesses. This problem is compounded by the fact that most of the vendors never attended any health institution nor received any formal training on the management of these common illnesses. Thus mismanagement of cases, irrational drug use, adverse drug reaction, drug toxicity and

development of resistance to antibacterial chemotherapy are common envisaged and observed problems that emanate from lack of orientation and training of this group of care providers. For instance, a study from Bangkok, Thailand reported that 50-80% of drug shops dispensed antibiotics for each of urethral discharge, acute watery diarrhoea, fever with sore throat, coryza, skin infection and acute dysuria, and most antibiotics prescribed were dispensed inappropriately with respect to choice of drug and duration of treatment¹⁷. Other workers also observed that oral rehydration salt (ORS), the appropriate diarrhoea treatment is recommended much less than the pharmaceuticals of little value, such as antimotility agents, absorbents e.t.c.⁸. These and several others have been a source of serious concern for health professionals in the health sector.

Training of PMVs is therefore crucial to ensuring effective treatment for common illnesses such as malaria, diarrhoea, ARI and STIs among others. This is no doubt a low cost intervention for increasing access to effective health care particularly in low resourced underdeveloped countries.

Educational status and gender were factors that significantly influenced respondents' patronage of PMSs in this study. It is not surprising that the PMSs were more patronized by non-literate respondents. This may be due to lack of awareness of appropriate care seeking, but perhaps more important was the respondents low socioeconomic status. The PMSs were more patronized by male respondents in this study, perhaps because they believed that their tight schedules may not allow them to attend hospitals, more so because they believe that they can be readily attended to in the PMSs in their convenient hours without much waiting. This has been identified as one of the major reasons why the respondents patronize PMSs in this study.

CONCLUSION

Majority of the patients had utilized alternative sources of healthcare and used drugs at home for their current illnesses before presenting to the hospitals. The patent medicine shop was the

commonest source of care and drugs used by the respondents prior to hospital visit. Fever and diarrhoea were the two commonest complaints that the subjects presented with to the patent medicine shops. The commonest reasons given by the respondents for patronizing the PMSs before presenting to the hospital were ease of geographical access, cheapness of cost and better attention. These reasons and several other factors are to the advantage of PMSs. This is evident by their wide acceptance by community members and a justification of the need to organise this sector and to integrate them into the official health care delivery system in developing countries. The integration of the PMSs into the official health care delivery system will provide an opportunity to utilize them as an effective and efficient avenue for the dissemination of primary health care services. Government therefore need to make every effort to ensure the registration of patent medicine shops and their operators as a formidable strategy to control/regulate their operations.

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