

**International Journal of Biology, Pharmacy  
and Allied Sciences (IJBPAS)**

*'A Bridge Between Laboratory and Reader'*

[www.ijbpas.com](http://www.ijbpas.com)

---

---

**A COMPARATIVE SURVEY OF PHARMACISTS' PERCEPTION OF COMMUNITY  
PHARMACY SERVICES PROVIDED IN TWO LOCAL GOVERNMENT AREAS IN  
LAGOS STATE**

**JODA AE\* AND OYENEKAN OS**

Department of Clinical Pharmacy and Biopharmacy, Faculty of Pharmacy, University of Lagos,  
Idiaraba Campus, Idiaraba, Lagos, Nigeria

\* Corresponding Author: E Mail: [arinolaj@yahoo.com](mailto:arinolaj@yahoo.com); [ajoda@unilag.edu.ng](mailto:ajoda@unilag.edu.ng);

Ph.: 234-802-307-3233; 234-1-8787-247

**ABSTRACT**

Community pharmacists work according to legal and ethical guidelines to ensure rational use of medicines. Recently, the professional role of pharmacists is changing to one in which they assist the public to get the best possible outcome from medication use through various interventions. In response to this change, various kinds of services are provided by pharmacists. The main objective was to document community pharmacists' perception of services rendered, patients' satisfaction and their satisfaction with the services they render to patients. Study settings are community pharmacies from two LGAs in Lagos State (Surulere representing Mainland LGA and Eti-Osa representing Island LGA). Pretested, semi-structured questionnaires were administered to 60 pharmacists in 30 pharmacies in the LGAs. Results obtained were analyzed using EPIinfo and SPSS. Descriptive and inferential statistics were carried out as required at 95% confidence interval. Response rate obtained was 87%. Most of the respondents were male and married. The results showed that the perception of respondents on services rendered were similar in the 2 areas though slightly more respondents on the Island had higher frequencies. Most of the respondents believed that their patients are satisfied with their interactions. Most of them are also satisfied with the interaction with patients. No statistically significant differences were obtained. The survey showed that the pharmacy services rendered can be categorized into

clinical pharmacy or pharmaceutical care services. It also showed that their perception of patient satisfaction as well as their own satisfaction with patient interaction is generally good.

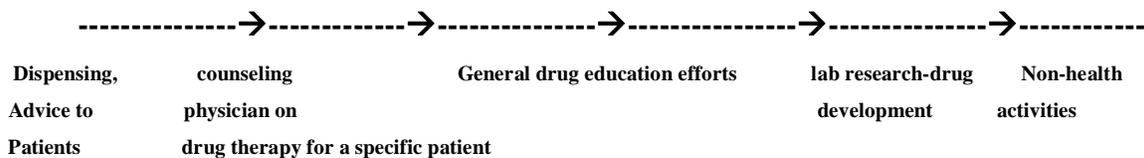
**Keywords: Pharmacy Services, Pharmaceutical Care, Patient-Pharmacists’ Interaction, Patient Satisfaction, Pharmacists’ Perception, Pharmacists Satisfaction**

**INTRODUCTION**

Pharmacy is the health profession that links the health sciences with the chemical sciences and it is charged with ensuring the safe and effective use of medicines [1]. According to the World Health Organization in 1946, health is a state of complete physical, mental and social well-being and not merely the absence of disease [2]. Pharmacy is that profession concerned with the art and science of preparing from natural and synthetic sources, suitable and convenient materials for distribution and use in the treatment and prevention of diseases and the provision of drug information to the public [3, 4]. The practice of pharmacy has traditionally been delineated into hospital, community, academic, research and industrial pharmacy [5]. In a study carried out by Oguntonade in 2000 [6], it was reported that it is, however, useful to define the practice of pharmacy in

terms of a continuum, measuring the distance of the pharmacist from the specific patient. An illustration of this concept is shown below (Figure 1):

At the extreme left of the continuum, is the pharmacist who dispenses drugs or gives advice to or for a specific patient. He is most directly involved in the health care of specific individuals and is typified by the community pharmacist. Moving, further to the right on the continuum, the “distance” from the patient increases. The drug consultant who discusses a specific patient’s drug therapy, is not much further down the continuum, as he is still concerned with the health of an individual patient. If this pharmacist was giving general information about a class of drugs without reference to a specific patient he would be further down the line



**Figure 1: Increasing Distance from Patient**

- as are the pharmacists, involved in research, laboratory work, quality control etc. At the extreme right of the continuum, are the pharmacists performing activities that not only are unrelated to specific patients, but also do not involve health care services at all. Community pharmacies are recognized by members of the public as a vital, integral part of the health services in their country. They are also known to be conveniently accessible places where sound, objective advice on health issues can be obtained from a knowledgeable health professional, in an informal environment in which they feel relaxed, without the need for appointment [7, 8]. Every pharmacy is required to operate under the control of a 'responsible or superintendent pharmacist'. This superintendent pharmacist (who can only superintendent one pharmacy) must be satisfied that the operation of the pharmacy is safe and ethical taking into account operating procedures, staffing levels on the day and any other relevant circumstances. A community pharmacist works according to legal and ethical guidelines to ensure the correct and safe supply of medical products to the general public. They are involved in maintaining and improving people's health by providing advice and information as well as supplying prescription medicines. The daily life of a

community pharmacist is varied drawing on a wide range of clinical and non-clinical competencies and skills. These competencies and skills include communication and attending skills, interpersonal skills, counseling and interviewing skills, history taking skills, physical examination skills, prescription evaluation skills, problem solving skills, to mention a few [9, 10].

Daily tasks undertaken by community pharmacists include (but are not limited to):

- Clinical scrutiny of prescriptions;
- Oversight of safe dispensing processes;
- Assessment and treatment for minor ailments;
- Liaison with other healthcare professionals;
- Providing patients with advice about medicines and treatments;
- Provision of public health information to patients and customers, and promotion of wellness;
- Professional oversight of the sales of OTC medicines;
- Screening services, public health interventions and treatments [9-11]

Today, the professional role of the pharmacist in hospitals and community pharmacies is changing from a focus on preparation, dispensing and sale of medications to one in which pharmacists assist the public to get the

best possible results from medications through patient education, physician consultation, and patient monitoring [12, 13]. The role of pharmacists in the community has expanded beyond dispensing medications. It also now involves identifying, preventing, and resolving drug-related problems, as well as encouraging proper use of medications and general health promotion and education [14, 15]. Pharmaceutical care is a patient oriented practice that enables pharmacists help their patients attain positive outcomes from drug use [16]. Studies have shown that pharmacists can reduce medication errors, improve patient outcomes, and decrease costs by providing patient-care services in a variety of settings [17, 18]. Literature has shown that community pharmacists are one of the most accessible healthcare practitioners globally. They are recognized by members of the public as a vital, integral part of the health services in their country. They are available in communities and are consulted by large proportions of the health-seeking public [19]. Community pharmacies in Nigeria, as in many developing countries, are a widely used source of advice [20-23] about health concerns and medication for reasons including easy accessibility, short waiting time, convenient hours of operation, cheaper products, access to credit, and option to buy

medications in small amounts [8, 20, 24, 25]. While pharmacists are an important source of care for all social strata, they are often primary healthcare “providers” for poor and less educated clients and for those undertaking riskier health behaviours [25-27]. For decades, pharmacists in the community setting have performed an invaluable service for patients and their communities by avoiding medication-related problems with the use of drug utilization review and patient counseling. Although these services were regarded as essential, they often were not documented. As the profession began to emphasize pharmaceutical care and define the role of the pharmacist, it was recognized that there was a paucity of data documenting the community pharmacist's role in ensuring safe medication use [18]. Thus different pharmacies undertake different service components in meeting the needs of the drug-seeking public in their communities.

The objectives of this study are to document the perception of community pharmacists of the services they render and their self assessment of their communication skills in the two areas. The study also sought to document the perception of community pharmacists of patients' satisfaction with the services they render as well as their

satisfaction with the services they render to patients.

## **MATERIALS AND METHODS**

### **Location and Target Population**

Lagos is one of the largest cities in Nigeria with a growing population of about 17 million inhabitants. Of this population, Metropolitan Lagos, an area covering 37% of the land area of Lagos state is home to over 85% of the State population. The UN estimates that at its present growth rate, Lagos state will be the third largest mega city in the world by the year 2015 after Tokyo in Japan and Bombay in India [28]. The city of Lagos can be divided into the “Mainland and Island” and is the state (Nigeria) with the highest number of community pharmacies.

For the purpose of this study, 30 community pharmacies were conveniently sampled from two local government areas (LGA) from the list of community pharmacies in the state. The LGAs are Eti-Osa LGA representing the Island and Surulere LGA representing the Mainland. A total of 60 pharmacists (30 in each area) were served the research instrument in the pharmacies.

### **Research Instrument**

The research instrument is a pretested, semi-structured 22-item questionnaire. Pre-testing took place in pharmacies in Mushin LGA and result obtained was used to fine-tune and

validate the questionnaire. Reliability of the questionnaire using split halves method with Cronbach-alpha values was 0.79. The questionnaires were self-administered to the pharmacists in each pharmacy.

### **Analysis of Results**

The data obtained from the survey was collated using Microsoft excel and analyzed with EPI Info Version 6 (EPI-6 Info) statistical software and the Statistical Package for Social Sciences (SPSS). Results are presented as frequencies and percentages. Inferential statistics was carried out using chi square analysis and results were considered significant at 95% confidence interval or  $p < 0.05$ . In some cases (services rendered, communication skills and opinion on patient satisfaction) data generated for a group of questions were transformed and new variables computed using SPSS.

## **RESULTS**

Of the 60 respondents assessed for this study, 52 questionnaires were returned (30 in Mainland, 22 from the Island), giving a response rate of 86.7% (100.0% and 73.3% respectively for each location). Demographic profile of the 52 pharmacists surveyed revealed that 51.9% were males, 43.2% were single and 60% of them graduated less than 10 years ago. The median and modal age range was 25 – 34 (**Table 1**).

Respondents were asked about the services they carry out in their pharmacies. The original responses ranged from “Always” to “Never”. The responses were then computed into two (2) variables – Clinical Pharmacy services denoting the usual services carried out including dispensing, drug information and advice, as well as patient counseling and reassurance; and Pharmaceutical Care services including Health Screening, documentation, immunization services, home management and telephone follow-up and outcome monitoring. Though no statistically significant difference exists in both categories of services, a higher distribution of responses for “Always” was recorded for Clinical pharmacy services than for Pharmaceutical care services (**Table 2**).

**Table 2** also shows respondents current engagement with pharmaceutical care. The differences in the responses were not statistically significant in the two LGAs. Respondents views on entrenching of pharmaceutical care (PC) in community pharmacies shows that most of them strongly agree that PC should be entrenched in pharmacy practice (**Figure 2**).

**Table 3** shows a computed variable on communication with patients. The computation involves fields such as respondents’ openness to questions, personal

information by patients, empathy, use of appropriate language and details provided on drugs. Again, the original responses ranged from “Always” to “Never”. The computed scale was rated as Good, Moderate, Fair and Poor. Most of the respondents in both locations had only moderately okay communication skill after transformation of the responses.

The respondents opinion of patients’ satisfaction with services rendered in the pharmacies were sought. A scale of the various variables included in this assessment (if patients are satisfied with services, if patients trust their judgment and if patients consider PC services as being necessary) was computed to provide the responses in **Table 4**. Again, the original responses ranged from “Always” to “Never”. **Table 4** also shows respondents opinion of PC improving the image of the pharmacy. Most of the respondents believe their patients are always satisfied with the interactions they have and that PC enhances pharmacy image.

**Figure 3** shows pharmacists’ satisfaction with their interaction with patients. Most of the responses ranged from often to always though more pharmacists on the mainland seem to be more satisfied with their interaction than those on the Island.

**Table 1: Demographic Information of Respondents**

VARIABLES/LOCATION	MAINLAND	ISLAND	$\chi^2$ (Critical value)
<b>SEX</b>			
Male	14 (46.7%)	13 (59.1%)	0.79 (3.84)
Female	16 (53.3%)	9 (40.9%)	
<b>AGE</b>			
<25	3 (10%)	1 (4.5%)	2.01 (9.49)
25-34	14 (46.7%)	12 (54.5%)	
35-44	7 (23.3%)	3 (13.6%)	
45-54	4 (13.3%)	5 (22.7%)	
>55	2 (6.7%)	1 (4.5%)	
<b>MARITAL STATUS</b>			
Single	15 (50%)	8 (36.4%)	3.02 (5.99)
Married	13 (43.3%)	14 (63.6%)	
Divorced	2 (6.7%)	0 (0.0%)	
<b>GRADUATE</b>			
<10	17 (56.7%)	13 (59.1%)	2.29 (7.82)
10-19	7 (23.3%)	4 (18.2%)	
20-29	4 (13.3%)	5 (22.7%)	
>30	2 (6.6%)	0 (0.0%)	

$\chi^2$  is Discarded if Critical Value is Larger Than Calculated Value

**Table 2: Pharmacy Services Carried Out by Respondents**

VARIABLES/LOCATION	MAINLAND	ISLAND	TOTAL
<b>CP SERVICES – SCALE</b>			
Always	22 (73.3%)	18 (81.8%)	40 (76.9%)
Often	8 (26.7%)	4 (18.2%)	12 (23.1%)
$\chi^2$ (Critical value)	0.52 (3.84)		
<b>PC SERVICES – SCALE</b>			
Always	0 (0.0%)	2 (9.1%)	2 (3.8%)
Often	24 (80.0%)	19 (86.4%)	43 (82.7%)
Rarely	6 (20.0%)	1 (4.5%)	7 (13.5%)
$\chi^2$ (Critical value)	5.02 (5.99)		
<b>CURRENTLY ENGAGING IN PC</b>			
Always	10 (33.3%)	12 (54.5%)	22 (42.3%)
Often	19 (63.3%)	10 (45.5%)	29 (55.8%)
Rarely	1 (3.3%)	0 (0.0%)	1 (1.9%)
$\chi^2$ (Critical value)	2.80 (5.99)		

$\chi^2$  is Discarded if Critical Value is Larger than Calculated Value

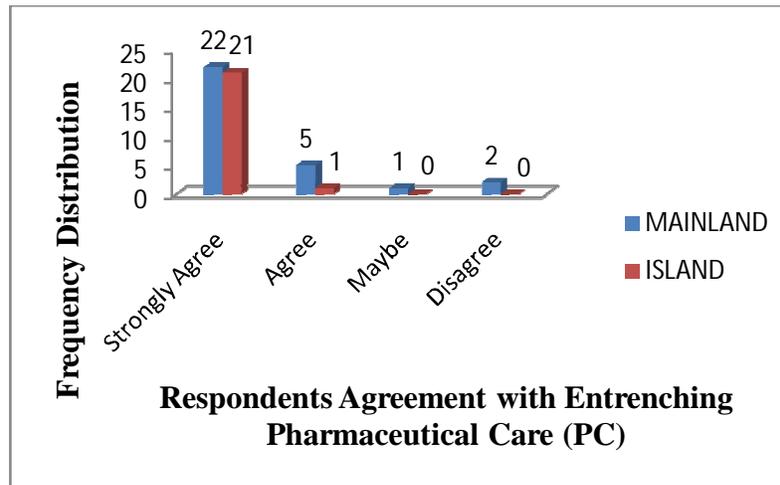


Figure 2: Respondents Agreement with Entrenching Pharmaceutical Care (PC)

Table 3: Communication Skill

COMMUNICATION SKILL - SCALE /LOCATION	MAINLAND (%) (N=30)	ISLAND (%) (N=22)	TOTAL (%) (N=52)
Good	4 (13.3%)	3 (13.6%)	7 (13.5%)
Moderate	26 (86.7%)	19 (86.4%)	45 (86.5%)
$\chi^2$ (Critical value)	0.001 (3.84)		

$\chi^2$  is Discarded if Critical Value is Larger Than Calculated Value

Table 4: Respondents Opinion on Satisfaction

VARIABLES/LOCATION	MAINLAND (%) (N=30)	ISLAND (%) (N=22)	TOTAL (%) (N=52)
<b>PATIENT SATISFACTION – SCALE</b>			
Always	14 (46.7%)	14 (63.6%)	28 (53.8%)
Often	16 (53.3%)	8 (36.4%)	24 (46.2%)
$\chi^2$ (Critical value)	1.47 (3.84)		
<b>PC ENHANCES PHARMACY IMAGE</b>			
Always	26 (96.7%)	19 (86.4%)	45 (86.5%)
Often	4 (13.3%)	2 (9.1%)	6 (11.5%)
Rarely	0	1 (4.5%)	1 (1.9%)
$\chi^2$ (Critical value)	1.58 (5.99)		

$\chi^2$  is Discarded if Critical Value is Larger Than Calculated Value

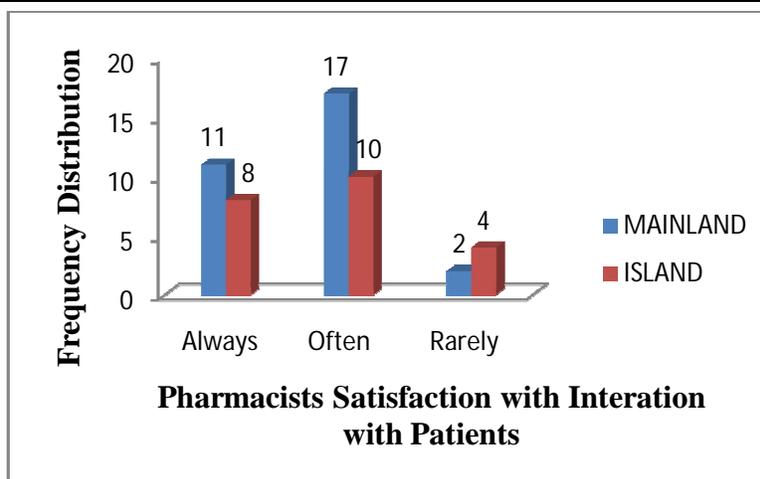


Figure 3: Respondents Satisfaction with Interaction with Patients in Lagos Mainland and Lagos Island

## DISCUSSION

The pharmacist is a readily accessible healthcare professional, a fact confirmed by the approximately six million visitors to pharmacies each day in the UK [29]. This survey focused on the perception of the pharmacists on the services they render, their communication skills as well as satisfaction of both the patients and the pharmacists. Most surveys carried out have measured the perception of the patients rather than that of the pharmacists [30-36] so an apparent dearth of data on pharmacists' satisfaction with patient interaction was observed. One previous study assessed pharmacists' satisfaction with patient interaction [37, 38]. More male pharmacists were involved in this survey than females though no statistically significant difference exists between the proportions of males to females in the two local government areas surveyed. In a

previous study, a similar result of more males (61%) was obtained [37, 38]. In this study most of the respondents surveyed were married and had spent 10 years or less in community pharmacy practice but no statistically significant difference was found in all the demographic details of pharmacists surveyed (sex, age, marital status and years spent in community pharmacy practice) in the two areas.

The services presented as Clinical Pharmacy services in this survey include dispensing, drug information and advice, as well as patient counseling and reassurance and the result shows that these services were often or always carried out by the respondents. The differences recorded were not statistically significant. Dispensing is one of the main clinical pharmacy functions carried out by pharmacists globally [36, 39-44]. This is borne out in the results obtained in this study.

Dispensing is a crucial step in ensuring rational use of drugs as accurate interpretation of the prescribers' instructions and the precise preparation and labeling of medicines help to assure patient adherence [36]. Counseling and drug information services are also common activities carried out by community pharmacists though counseling rates and content differ across locations [45-48].

Additional services such as home management, documentation of interventions, health screening, telephone follow-up and immunizations activities termed cognitive services [49] are increasingly being engaged in by pharmacists in Nigeria as elsewhere [50] though responses ranged more between rarely and often in the survey than for the usual clinical pharmacy services where responses ranged between often and always. The respondents on the Island seemed to have more positive responses than those on the Mainland though the differences were not statistically significant. This disproves an earlier unpublished study which reported that majority of the pharmacies in Lagos do not render such services [51] though Pharmacists remain challenged to establish the value of their non-dispensing-related pharmaceutical care services in the private sector [42]. Chande and Exum, 1994, [52] showed that telephone follow-up as a pharmaceutical care

service is one of the mechanisms that can improve patient satisfaction with the pharmacist as it improves communication. Furthermore, Kelly *et al.*, 1995, in another study found that a telephone call was a valuable tool in assessing adverse effects and for enhancing the image of the pharmacist with the patient [53]. In another study, the authors concluded that the performance of cognitive services was strongly affected by payment and other situational factors [54].

The implementation of pharmaceutical care is geared to improve the image of the pharmacy by the patients and this is borne out in this survey with 98% of the pharmacists indicating that this would happen often or always. This result is similar to the result obtained in an earlier survey [55] which showed that nearly all the pharmacists surveyed believed pharmaceutical care would enhance patients' appreciation of the pharmacist. Jones *et al.*, 2005, reported that evidence of the value of pharmaceutical care in Canadian community pharmacies has been supported by pharmacy practice research projects [56] while it was posited, in another study, that the future of pharmacy would depend on the provision of services other than dispensing [57].

In this study, majority of the respondents are of the opinion that pharmaceutical care should

---

be entrenched in pharmacy practice as it is practiced elsewhere [58-62].

The results show that pharmaceutical care is already being engaged in to a good extent though pharmacists on the Island seem to be more fully engaged in it than those on the Mainland. However, the differences are not statistically significant. In an editorial in 2005, it was stated that pharmaceutical care is integrated to a large extent with the Dutch and in Australia [63]. Pharmaceutical care integration has progressed to impressive heights around the world [56, 64-67] as shown in responses on the Island. Pharmaceutical care practice on the Mainland can be compared to that in Thailand which is described as being at its infancy stage [68].

Almost 60% of the pharmacist respondents believe that their patients are satisfied with non drug services they provide such as drug information and advice, reassurance, follow up etc. This is unlike a previous study carried out in Nigeria which described the non drug services provided by pharmacists as poor [69] though they had moderate service satisfaction with their community pharmacy encounters. Another study on patient satisfaction provides evidence that patients experience low satisfaction with the pharmaceutical services rendered and a case is further made for the entrenchment of pharmaceutical care services

in all pharmacy practice settings [34]. In like manner, a good percentage of the pharmacists indicated satisfaction (about 93% Mainland and 82% Island) revealed that they were often or always satisfied with the interactions they have with patients though most of them had moderate communication skills. A previous study assessed pharmacists' satisfaction with patient interaction and showed that about 62% of the respondents were satisfied with the interactions they have with the patients [37, 38]. In other studies, researchers showed that the attitudes of Nigerian pharmacists towards pharmaceutical care are favorably high irrespective of practice settings [55, 70].

## **CONCLUSION**

The survey was able to establish the various pharmaceutical services carried out in community pharmacies which can be categorized as either clinical pharmacy or pharmaceutical care services and that the opinions of the respondents on patient satisfaction as well as their own satisfaction with patient interaction is generally good. The relevant regulatory bodies should establish and monitor appropriate regulations and guidelines to encourage full implementation of pharmaceutical care by all community pharmacists. Also, further research work targeting various aspects of patient and

pharmacist satisfaction should be developed and implemented.

## REFERENCES

- [1] Watkins ES, From History of Pharmacy to Pharmaceutical History; Pharmacy in History, 51, 2009, 3-13.
- [2] WHO, Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946, Signed on 22 July 1946. by the representatives of 61 States (Official Records of the World Health Organization, No. 2, p. 100) and entered into force on 7 April 1948, Accessed 8/12/2012, Available at: <http://www.who.int/about/definition/en/print.html>.
- [3] Fink JL, The Scope of Pharmacy. In: Remington: The Science and Practice of Pharmacy, 20<sup>th</sup> Ed., (Editors: Gennaro A. R. *et al*) Published by Lippincott Williams and Wilkins, 2000, 3-6.
- [4] Olurinola PF, The Pharmacy Profession: A Focus on Nigeria, Zaria, Onis Excel Publishing, 2003.
- [5] WHO, World Health Organization. The role of the pharmacist in the health care system, 1994, Report of a WHO consultative group, New Delhi, India, 13-16 December 1988. Geneva: World Health Organization, Accessed 8/12/2012, Available at: <http://apps.who.int/medicinedocs/en/d/Jh2995e/1.html#Jh2995e.1>
- [6] Oguntonade AO, The impact of the quality of community pharmacy practice on drug use habit across selected communities in Lagos State. Department of Clinical Pharmacy and Biopharmacy, University of Lagos, (Unpublished), 2000, 13-14.
- [7] Oreagba I, Pharmacovigilance and the role of the hospital and community pharmacist. Nig. J. Pharm., 42 (2), 2009, 24-28.
- [8] Tayo F, *et al.*, The Pharmacist in Public Health: Challenges of the Millennium. West Afr. J. Pharm., 15 (1), 2001, 11-22
- [9] AGCAS & Graduate Prospects Limited, Prospects: UKs Official Graduate Careers Website,
- [10] Pharmaceutical Services Negotiating Committee, About Community Pharmacy, [http://www.psnc.org.uk/pages/about\\_community\\_pharmacy.html](http://www.psnc.org.uk/pages/about_community_pharmacy.html), 2012, Accessed 18/12/2012.
- [11] NHS Employers, The community pharmacy – a guide for general practitioners and practice staff, 2010,
- [12] Erah PO, The Changing Roles of Pharmacists in Hospital and Community

- Pharmacy Practice in Nigeria (Editorial), *Tropical J. Pharma. Res.*, 2 (2), 2003, 195-196
- [13] Hammouda EI and Hammouda SE, Outpatient (Ambulatory) Pharmacy; an Innovation in Dispensing System to Optimize Performance and Meet Standards. *Pharmaceutic. Regulat. Affair.* 1: 101, 2012, Available on: <http://www.omicsgroup.org/journals/PROA/PROA-1-101.pdf>, Accessed 20/12/2012.
- [14] Beney J, Bero L and Bond CM, Expanding the roles of outpatient pharmacists: effects on health services utilisation, costs, and patient outcomes, *Cochrane Database of Systematic Reviews*, Issue 2. Art. No.: CD000336, 2000, DOI: 10.1002/14651858.CD000336.
- [15] Schumock GT, Butler MG, Meek PD, Vermeulen LC, Arondekar BV and Bauman JL, Evidence of the economic benefit of clinical pharmacy services, *Pharmacotherapy*, 23 (1), 2003, 113-132.
- [16] Helper CD and Strand LM, Opportunities and responsibilities in pharmaceutical Care, *Am. J. Hosp. Pharm.*, 47 (3), 1990, 533-543.
- [17] Schumock GT, Meek PD, Ploetz PA and Vermeulen LC, Economic evaluations of clinical pharmacy services- 1988-1995, The publications committee of the American college of clinical pharmacy, *Pharmacotherapy*, 16, 1996, 1188-1208.
- [18] Cerulli J, Medication Errors - The Role of the Community Pharmacist in Identifying, Preventing, and Resolving Drug-Related Problems, 2001, Available at: <http://www.rxrama.com/news20010804.html>, Accessed: 3rd June 2012
- [19] Stergachis A, Roles of Pharmacists in the Prevention and Control of Sexually Transmitted Dis., *Sexually Transmitted Dis.*, 26 (4), 1999, S44-S47.
- [20] Paswa B and Barnett L, Care or cash: assessing quality of care provided by drug retailers in Nepal, *International Quarterly of Community Health Edu.*, 13, 1993, 317-28.
- [21] Igun UA, The knowledge-practice gap: an empirical example from prescription for diarrhea in Nigeria, *J. Diarrhoeal Dis. Res.*, 12, 1994, 65-69
- [22] Goel P, Ross-Degnan D, Berman P and Soumerai S, Retail pharmacies in developing countries: A behavior and intervention framework. *Social Science & Medicine*, 42, 1996, 1155-61.
- [23] Leiva AM, Shaw M, Paine K, Manneh K, McAdam K and Mayaud P, Management

- of sexually transmitted diseases in urban pharmacies in the Gambia, *Int. J. STD AIDS*, 12, 2001, 444-52.
- [24] Crabbe F, Carsauw H, Buve A, Laga M, Tchupo JP and Trebucq A, Why do men with urethritis in Cameroon prefer to seek care in the informal health sector? *Genitourinary Med.*, 72, 1996, 220-2.
- [25] Benjarattanaporn P, Lindan CP, Mills S, Barclay J, Bennett A, Mugrditchian D, Mandel JS, Pongswatanakulsiri P and Warnnissorn T, Men with sexually transmitted diseases in Bangkok: where do they go for treatment and why? *AIDS*, 11, 1997, S87-95.
- [26] Pick S, Reyes J, Alvarez M, Cohen S, Craige J and Troya A, AIDS prevention training for pharmacy workers in Mexico City, *AIDS Care*, 8, 1996, 55-69
- [27] Ferguson A, Commercial pharmaceutical medicine and medicalization: a case study from El Salvador. In: van der Geestand, S., Whyte, S. R. (Eds.) *the context of medicines in developing countries*, Dordrecht, Netherlands: kluwer Academic Publishers, 1998, 19-46
- [28] Lagos State Governments' Official Website. Lagos State Social Security Exercise and Population
- [29] Harman RJ and Mason P, *Handbook of Pharmacy Healthcare: Diseases and Patient Advice*, Pharmaceutical Press. London, 2002.
- [30] Schommer JC and Wiedepholt JB, The association of Prescription status, patient age, gender and patient question asking behavior with the content of pharmacist-patient communication, *Pharmaceu. Res.*, 14, 1997, 145- 151.
- [31] Briesacher BB and Corey RR, Patient satisfaction with pharmaceutical services at independent and chain pharmacies, *Am. J. Health Syst- Pharm.*, 54 (5), 1997, 531-536.
- [32] Angelo LB, Christensen DB and Ferreri SP, Impact of Community Pharmacy Automation on Workflow, Workload, and Patient Interaction, *J. Am. Pharm. Assoc.*, 45, 2005, 138-144.
- [33] Joda AE and Eniojukan J, Patients view about level of their interaction with pharmacists, *Nig. J. Pharm.*, 36 (3), 2004, 14-18.
- [34] Oparah AC, Enato EFO and Akoria OA, Assessment of patient satisfaction with pharmaceutical services in a Nigerian teaching hospital, *Int. J. Pharm. Practice*, 12, 2004, 7-12.
- [35] Gu NY, Gai Y and Hay JW, The effect of patient satisfaction with pharmacist

- consultation on medication adherence: an instrumental variable approach, *Pharm. Practice*, 6 (4), 2008.
- [36] Garjani A, Rahbar M, Ghafourian T, Maleki N, Garjani Af, Salimnejad M, Shamsmohammadi M, Baghchevan V and Aghajani H, Relationship of pharmacist interaction with patient knowledge of dispensed drugs and patient satisfaction, *Eastern Mediterranean Health J.*, 15 (4), 2009, 934-943
- [37] Joda AE and Eniojukan JF, Pharmacists views on their level interaction with patients in Lagos, Nigeria, Abstract presented at the Congress of the Int. Federation of Pharmacists (FIP), Salvador, Bahia, 2006.
- [38] Joda AE and Eniojukan JF, Pharmacists views on their level of interaction with patients in Lagos, Nigeria, *Nig. J. Pharm.*, 46 (2), 2012, 44-53
- [39] Roberts D, Dispensing by the community pharmacists: an unstoppable decline? *J. R. Coll. Gen. Pract.*, 38, 1988, 563.
- [40] Oparah AC and Arigbe-Osula E, Evaluation of Community Pharmacists involvement in primary health care, *Tropical J. Pharmaceu. Res.*, 1 (2), 2002, 67-74
- [41] Taylor K, Nettleton S and Harding G, *Sociology for pharmacists: an introduction* Taylor & Francis. London, New York, 2003.
- [42] Christensen DB and Farris KB, Pharmaceutical care in community pharmacies: practice and research in the US, *Ann. Pharmacother.*, 40 (7-8), 2006, 1400-6.
- [43] George PP, Molina JAD, Jason Cheah J, Soo Chung Chan SC and Lim BP, The Evolving Role of the Community Pharmacist in Chronic Disease Management - A Literature Review, *Ann. Acad. Med. Singapore*, 39, 2010, 861-7.
- [44] Oparah AC, Models of Pharmacy Practice, In: Oparah, A.C. (Ed.) *Essentials of Pharmaceutical Care*. Lagos. All Deals Investment Company Limited, 2010, 1-20.
- [45] Hassell K, Noyce P, Rogers A, Harris J and Wilkinson J, Advice provided in British community pharmacies: what people want and what they get, *J. Health Serv. Res. Policy*, 3 (4), 1998, 219-25.
- [46] Tully MP, Hassell K and Noyce PR, Advice-giving in community pharmacies in the UK, *J. Health. Serv. Res. Policy*, 2 (1), 1997, 38-50.

- [47] Puspitasari HP, Aslani P and Krass I, A review of counseling practices on prescription medicines in community pharmacies, *Res. Social Adm. Pharm.*, 5 (3), 2009, 197-210, Epub., 2009, Jan 31.
- [48] Puspitasari HP, Aslani P and Krass I, Pharmacists' and consumers' viewpoints on counselling on prescription medicines in Australian community pharmacies, *Int. J. Pharm. Pract.*, 18 (4), 2010, 202-8.
- [49] AMCP, Academy of Managed Care Pharmacy, Pharmacists' cognitive services, Alexandria, VA: AMCP, 2007.
- [50] Noyce PR, Providing patient care through community pharmacies in the UK: policy, practice, and research, *Ann. Pharmacother.*, 41 (5), 2007, 861-868.
- [51] Chukwumah AC, Critical review of community pharmacy practice in Lagos area, Department of Clinical pharmacy and biopharmacy CMUL, (Unpublished), 1999, 23-29.
- [52] Chande VT and Exum V, Follow-up phone calls after an emergency department visit: *Pediatrics*. 93, 1994, 513-514.
- [53] Kelly DF, Faught WJ and Holmes LA, Ovarian cancer treatment: the benefit of patient telephone follow-up post-chemotherapy, *Can. Oncol. Nurs. J.*, 9, 1995, 175-178.
- [54] Christensen DB and Hansen RW, Characteristics of pharmacies and pharmacists associated with the provision of cognitive services in the community setting, *J. Am. Pharm. Assoc. (Wash.)*, 39 (5), 1999, 640-9.
- [55] Oparah AC and Eferakeya AE, Attitudes of Nigerian pharmacists towards pharmaceutical care, *Pharm World Sci.*, 27 (3), 2005, 208-14.
- [56] Jones EJ, Mackinnon NJ and Tsuyuki RT, Pharmaceutical care in community pharmacies: practice and research in Canada, *Ann. Pharmacother.*, 39 (9), 2005, 1527-33.
- [57] Dunlop JA and Shaw JP, Community pharmacists' perspectives on pharmaceutical care implementation in New Zealand, *Pharm. World Sci.*, 24 (6), 2002, 224-30.
- [58] Cipolle RJ, Strand LM and Morley PC, *Pharmaceutical Care Practice*, McGraw-Hill, New York, 1998.
- [59] Cipolle RJ, Strand LM and Morley PC, *Pharmaceutical Care Practice: the Clinicians Guide*, McGraw-Hill, New York, 2004.
- [60] Penna RP, Pharmaceutical care: Pharmacy's mission for the 1990's, *Am. J. Hosp. pharm.*, 47, 1990, 543-549.

- 
- [61] Varma S, McElnay C, Hughes CM, Passmore AP and Varma M, Pharmaceutical care of patients with congestive heart failure: interventions and outcomes, *Pharmacother.*, 19, 1999, 860-869.
- [62] Austin Z, Gregory PA and Martin JC, Characterizing the professional relationships of community pharmacists, *Res. in Social and Administrative Pharm.*, 2, 2006, 533-546.
- [63] Van Mil F, Barriers or facilitators? (Editorial), *Pharm. World Sci.*, 27, 2005, 69.
- [64] Mason P, Pharmaceutical care- the German experience, *The Pharm. J.*, 266 (7132), 2001, 122-123.
- [65] Berenguer B, La Casa C, De La Matta MJ and Martin-Calero MJ, Pharmaceutical care: Past, Present and Future, *Curr. Pharmaceu. Design*, 10 (31), 2004, 3931-3946.
- [66] Farris KB, Fernanadez-Llimos F and Benrimoj S, Pharmaceutical care in community pharmacies: practice and research around the world, *Ann. Pharmacother.*, 39, 2005, 1539-1541.
- [67] Westerlund LT and Björk HT, Pharmaceutical care in community pharmacies: practice and research in Sweden, *Ann. Pharmacother.*, 40 (6), 2006, 1162-9.
- [68] Sakolchai S, Critically examining pharmaceutical care. Paper presented at the annual meeting of American Pharmaceutical Association, Philadelphia, March 19, 2002.
- [69] Oparah AC and Kikanme LC, Consumer satisfaction with community pharmacies in Warri, Nigeria, *Res. Soc. Admin. Pharm.*, 2, 2006, 499-511.
- [70] Suleiman IA and Onaneye O, Pharmaceutical Care Implementation: A Survey of Attitude, Perception and Practice of Pharmacists in Ogun State, South-Western Nigeria, *Int. J. Health Res.*, 4 (2), 2011, 91-97.
-