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EVALUATION OF SERVICE QUALITY IN COMMUNITY PHARMACIES IN PORT HARCOURT, RIVERS STATE, NIGERIA

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ABSTRACT

Community Pharmacies play a vital role in bringing healthcare much closer to patients. The pharmacist can serve as the first and last link in the healthcare provision chain so there is need to ensure good quality pharmacy practice is routinely carried out. The community Pharmacist therefore has an obligation to deliver quality service to the community. The aim of the study is to evaluate the quality of pharmaceutical services rendered in the Community Pharmacies with focus on the drug product and patients in relation to pharmaceutical care philosophy. Questionnaires were given to both patients and pharmacists in 173 community pharmacies choosing appropriate process, structure and outcome indicators. The study showed that all 173 pharmacists have personal encounters with patients so as to interact and establish a relationship with them in order to promote the safe and effective use of medications and to maximize therapeutic outcomes and these are critical components of pharmaceutical care. Of the 173 pharmacies used for the study, 70.2% pharmacies have functional facilities for proper drug storage. The remaining 29.8% have their storage facilities at different sub optimal levels of functionality. The study shows that there are appropriate structures and processes put in place in community pharmacies in Port Harcourt which aids quality service delivery and provision of pharmaceutical care however, not all have written Guidelines supportive of this new philosophy of pharmacy practice.

KEYWORDS: Pharmacist, Quality service, Pharmaceutical care.

INTRODUCTION

Pharmacists play a vital role in bringing healthcare to patients. And Community Pharmacists makes health care much more accessible in specific localities and the community. Therefore, the role of the pharmacist in the healthcare chain can be described as a unique and important one. Studies on pharmacy service began more than 30 years ago and have been the subject of a considerable amount of studies ever since (Traverso *et al*, 2007). The number of services delivered through community pharmacy is increasing, as community pharmacy staff now takes up new roles with the management of long term conditions, sexual health services and more. According to business dictionary, "quality is a measure of excellence or a state of being free from defects, deficiencies and significant variations. It is brought about by strict and consistent commitment to certain standards that achieve uniformity of a product in order to satisfy specific customer or user requirements". The International Organization for Standardization defines quality as "the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs". It is often considered as one of the keys to success. The

competitive advantage of a firm is said to depend on the quality and value of its goods and services.

The issue of quality becomes critical to consumer satisfaction in terms of either product or service delivery and requires periodic evaluation to ensure that expected standards are met all the time. Zeithaml and Bitner (2003) opined that "service quality is a focused evaluation that reflects the customer's perception of specific dimensions of service namely reliability, responsiveness, assurance, empathy and tangibles." Different authors have stated that service quality is clearly related to the following: Costs (Crosby, 1979); Profitability (Buzzell and Gale, 1987; Rust and Zahorik, 1993); Customer satisfaction (Boltan and Drew, 1991; Boulding *et al.* 1993); Customer retention (Reichheld and Sasser, 1990); Behavioural intention and positive word of mouth (Philips *et al*. 1983; Anderson and Zeithmal, 1984).

Evaluation is an essential part of improving the quality of healthcare and understanding whether the services being provided are delivering what they set out to deliver. As well, there is an increasing focus on patients'

involvement and experience of their healthcare, which can influence decision making.

Aim of the study
The aim of the study is to evaluate the pharmaceutical service quality in community pharmacies in Port Harcourt.

Objectives of the study
1. To evaluate the quality of pharmaceutical services rendered with focus on the drug product.
2. To evaluate the quality of patient centered pharmaceutical services in Community Pharmacies in Port Harcourt.

METHODS
Study design
A cross sectional design was adopted for the study.

Instrument for data collection
A structured questionnaire was designed for data collection. The interview questions were given to both patients and pharmacists in community pharmacies choosing appropriate process, structure and outcome indicators. The questionnaire has three sections:
Section A: Consisted of the demographics and information pertaining to clients' reasons for calling on community pharmacy service.
Section B: Consisted of 15 questions pertaining to the clients' perception of the community pharmacy based on its structure, the process of service rendered and the outcome of received service.
Section C: Consisted of 16 questions for the community pharmacist to answer concerning the structure, process and outcome of services rendered in the premises. Respondents were required to fill the questionnaire in the Pharmacy so as to secure a good response rate.

Validation of instrument
The questionnaire was subject to face validation by senior members of staff including the Head of Department of Clinical Pharmacy and Management, University of Port Harcourt.

Following the validation, some corrections were made which involved addition and deletion of some items. The final questionnaire was then considered suitable for proper data collection.

Study area
Port Harcourt metropolis, the capital city of Rivers State, comprising of Obio-Akpor and Port Harcourt Local Government Areas.

Study population
This consists of Community Pharmacists from 173 community pharmacies in Port Harcourt metropolis, and 1038 Clients of these community pharmacies.

Sample size determination
The number of community pharmacies to be involved in the survey was determined using the Taro Yamane formula (1967): $n = \dfrac{N}{1 + N(e)^2}$

Where, n = sample size; N = total population; e = allowable error (0.05)
The number of community pharmacies to be involved in the survey was determined to be 173
The number of patients/clients was put at 6 per Community Pharmacy totaling 1038

Ethical considerations
Informed consent was sought from the respondents before their participation in the study. They were provided with information regarding the purpose of the study and what was expected of them, and were given the option to withdraw from the study at any time.

Respondents were also assured about confidentiality of the information obtained in the course of study by not using personal identifiers anywhere on the questionnaire.

The interviews were conducted in the patients waiting area. Each participant gave informed consent before proceeding with the interview. Each interview lasted between 5 - 10 minutes.

Data analysis
Data were entered into an excel spreadsheet and subsequently transferred to the Statistical Package for Social Sciences (SPSS) software version 20. Descriptive statistics including frequency distribution were used for the characteristics of respondents.

RESULTS
A total of no. of questionnaires distributed = 1211
173 and 865 were properly filled and returned by Pharmacists and patients respectively
For Pharmacists, 76(43.9%) were male and 97 (56.1%) were female while 418 (48.3%) and 447 (51.7%) were respectively male and female for the patients
A total of 380 (43.9%) of the respondents have been visiting the pharmacy between 1 – 2 years. Majority of the respondents (515) representing 59.5% of the participants consult either their doctor or pharmacist based on the degree of medical conditions they have and 790 (91.3%) do visit the pharmacy when necessary.

Table 1: Clients' assessment of service quality of the community pharmacies.

Variables	Response	Freq	%
Gender	Male	418	48.3
	Female	447	51.7
Why do you seek the service of a Pharmacy?	To fill prescription	0	0
	For general accessories & medication	380	43.9
	Both	485	56.1
How long have you been a client of this Pharmacy?	Under 1 year	140	16.2
	1 – 2 years	380	43.9
	2 – 3 years	245	28.3
	More than 3 years	80	9.2
	This is my first time	20	2.3
When you have any medical problem, Who do you contact first?	Your doctor	70	8.1
	Your Pharmacist	250	28.9
	It depends on the type of problem	515	59.5
	Others	130	15.0
How often do you go to the Pharmacy?	Once a week	0	0
	More than once a week	0	0
	Monthly	75	8.7
	When necessary	790	91.3

Table 2: Clients' assessment of structure and service provided.

Structure variables	Response	Freq	%
Is the Pharmacy visually appealing?	Yes	800	92.5
	No	65	7.5
Does the Pharmacy have modern looking equipment?	Yes	825	95.4
	No	40	4.6
Are materials associated with services in the Pharmacy neat?	Yes	845	97.7
	No	20	2.3
Does the Pharmacy have convenient operating hours?	Yes	830	96.0
	No	35	4.1
Are the staffs neatly dressed?	Yes	830	96.0
	No	35	4.1
Would you describe services rendered by the staff as prompt?	Yes	805	93.1
	No	60	6.9
Do the staffs show interest in your general wellbeing?	Yes	775	89.6
	No	90	10.4
Are the staffs well-mannered and polite?	Yes	820	94.8
	No	45	5.2
Does the Pharmacist explain treatment clearly?	Yes	860	99.4
	No	5	0.6
Do you always get appropriate treatment for your condition?	Yes	810	93.6
	No	55	6.4
Do you get advice concerning general hygiene or any other Health issues?	Yes	795	91.9
	No	70	8.1
Does the behavior of staff instill confidence in you?	Yes	825	95.4
	No	40	4.6
Do you feel safe in your transactions with this Pharmacy?	Yes	835	96.5
	No	30	3.5
Do you always receive error free services from this Pharmacy?	Yes	845	97.7
	No	20	2.3
Having considered the above would you want to visit this Pharmacy again?	Yes	840	97.1
	No	25	2.9

The study showed that most pharmacies (92.5%) are visually appealing to the respondents and have modern looking equipment and materials for delivery of quality service to the respondents. A total of 166 (96.0%) of the respondent noted that the pharmacies do operate within convenient hours adding that the staff are always neatly dressed. A greater number of pharmacies do explain treatment options clearly to the respondents.

Table 3: Structure and service indicator variables for pharmacists.

Structure indicator questions	Response	Freq	%
Does your Pharmacy have sufficient privacy for patient consultations	Yes	173	100
	No	0	0
Do you always maintain patient records?	Yes	0	0
	No	90	54.7
	Only for regular patients	80	45.3
Do you have refrigerator for wet drugs?	Yes	117	70.2
	No	56	29.8
Does your Pharmacy have written guidelines for Pharmaceutical care process?	Yes	21	12.1
	No	152	87.9
Is the Pharmacy easily accessible to the physically challenged?	Yes	70	40.5
	No	103	59.5
Service indicator questions			
Do you have personal encounter with patients?	Always	173	100
	Sometimes	0	0
How often do you use treatment guidelines in Your medication therapy management?	Always	11	6.4
	Sometimes	162	93.6
	Never	0	0
Do you always provide extemporaneous preparation for patients that need them?	Yes	112	64.7
	No	61	35.3
Where do you always source your medicines From?	Wholesale	173	100
	Manufacturers	126	72.8
	Registered importers	162	93.6
Do you always refer patients to Hospital or Specialists?	Yes	0	0
	No	0	0
	When necessary	173	100

Table 4: Outcome indicator variables for pharmacists

Outcome indicator questions	Response	Freq	%
Do you observe increase in patient/client Number based on your services?	Yes	173	100
	No	0	0
Do you have new patients based on earlier Patients' recommendations?	Yes	173	100
	No	0	0
How would you estimate patient satisfaction In your Pharmacy	Always satisfied	129	74.6
	Satisfied sometimes	44	25.4
How would you rate your interaction with Other health professionals?	Cordial	134	77.5
	Very cordial	39	22.5
	I don't interact	0	0

Structure indicator variables for pharmacists
A total of 173 pharmacists from the community pharmacies used for the study participated and the study showed that the pharmacies have a consulting room for pharmacist to consult with the patients for them to lay their complaint but only 80 (45.3%) maintain patient records for regularly visiting patients and majority of the pharmacies have a refrigerator for wet drugs (70.2%).

Process indicator variables for pharmacist
All the pharmacist from this study do have personal encounter with patients however, only 12.1% have written Guidelines for Pharmaceutical care process for the medication therapy management of patients. About 112 (64.7%) of the pharmacists do provide extemporaneous preparations for their patients. Most of the pharmacists source their medicines from wholesale pharmacies and registered importers. The pharmacists do refer the patients to the hospital or specialist when necessary.

Outcome indicator variables for pharmacists
From the study, majority of the participants (pharmacist) do observe an increase in client/patient number base due to the services rendered to their current clients/patients. It was also observed that they encounter new clients/patients based on referral /recommendation of earlier patients. It was observed that majority of the patients/clients they have do experience a great level of satisfaction. The interaction of the participants with other healthcare professionals was seen to be cordial.

DISCUSSION, CONCLUSION AND RECOMMENDATION
Discussion
The study was carried out to assess the quality of service rendered in community pharmacies via administration of

structured questionnaires following the Donabedian model of service quality evaluation. The indicators of quality given in the model which are structure, process and outcome were used to examine the quality of service rendered in community pharmacies in Port Harcourt.

Considering the structure indicators, the study showed that most respondents (92.5%) found the pharmacy they visit to be visually appealing, had neatly dressed staff (96.0%), neat (97.7%) and modern looking equipment and materials (95.4%) for delivery of quality service and this contributed to the satisfaction they derived. This is in agreement with a study carried out by Alhuwitat and Salem, (2017) in which they found out that it is necessary to focus on the internal aspects of the pharmacies including its tangibles and staff such as the way of displaying pharmaceutical products and providing tools to facilitate services to clients which increase their psychological comfort, and thus, contributes to the success of the service provided by the pharmacy. Also, majority of the respondents (93,1%) agreed to receiving prompt service from well-mannered and polite staff (94.8%) and this also contributed to the satisfaction they derived.

Key aspect of pharmaceutical care provision: patient counseling and education seem to have been responsible for the most satisfaction derived by respondents as 99.4% of the respondents agreed that treatments were clearly explained by the pharmacist, showing that quality of communication by community pharmacists contributes immensely to quality service and high level of satisfaction and this is in agreement with past studies, one carried out in the United States of America in 2002(Larson *et al*., 2002) and the other in Iran in 2014 (Mehralian *et al.,* 2014).

Consequently, positive outcome was seen as 97.7% of respondents stated that they do receive error free services while 93.6% agreed to always getting appropriate treatment for their conditions and 96.5% felt safe in their transacting with the premises they visit making 97.1% of the respondents agree to return to the pharmacy again. This is in agreement with a study carried out by Parasuraman *et al*., (1985) where competence, reliability, credibility and security among others where mentioned among the ten dimensions that determine service quality.

From the study, all the pharmacy premises (100 %) have sufficient privacy where patients can lay complaints so that they can freely interact with the pharmacist and be examined if necessary while still maintaining privacy and confidentiality. This will also enable the pharmacist to establish a relationship with the patient that is based upon care, trust, open communication, cooperation and mutual decision making in appropriate therapy plan and these are aspects of pharmaceutical care (PC) which is the new philosophy of pharmacy practice. From the study, only 45.3% of the community pharmacies maintain patient records for regularly visiting patients.

This is not impressive because proper patient records are an important aspect of pharmaceutical care because complete, accurate and up-to-date patient records help in clearly identifying patients and alerting any errors or discrepancies and they can be contacted if necessary.

An impressive number of pharmacies (70.2%) have refrigerators for wet drugs. This is significant because if drug products are not stored under appropriate conditions, their quality will be compromised and they would degrade and lose their effectiveness.

Less than 50% of the pharmacists that participated in the study (12.1%) have written guidelines in their premises for pharmaceutical care process and only 6.4% always use treatment guidelines in medication therapy management for all conditions while 93.6% said they sometimes used medication guidelines in medication therapy management especially for conditions such as malaria, typhoid, hypertension and diabetes which are prevalent among most people in the community. The pharmacists expressed that preference of medications by patients and clients and loss of confidence in pharmacists when they consult books and guidelines in the presence of the patients has led to the poor use of treatment guidelines by the pharmacists but this is not excuse enough as providing the best quality of care for patients should be the paramount objective and this is the aim of the guidelines provided.

Again, in keeping with the new philosophy of pharmacy practice, PC, all the pharmacists (100%) have personal encounters with patients especially to give medication counseling in order to promote the safe and effective use of medications and to maximize therapeutic outcomes which is a critical component of pharmaceutical care.

All the pharmacists (100%) refer patients to hospitals and specialists and none of them (0%) source drugs from open market and as a result the pharmacists see an increase in clientele/patient number based on their services and referrals.

CONCLUSION
The study showed that there were appropriate structures and processes in place in community pharmacies in Port Harcourt that protect drug products and assist in providing patients/clients quality healthcare services to an extent based on pharmaceutical care philosophy of pharmacy practice though many did not have written Guidelines for delivery of pharmaceutical care.

Recommendation
Policies should be made to ensure guidelines are available at community pharmacy premises and they are duly updated and followed in practice.

Regulatory bodies should implement laws that would ensure the structure of pharmacies are such that the premises are accessible to physically challenged persons.

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