



Barriers to Implementation of Pharmaceutical Care by Pharmacists in Nsukka and Enugu Metropolis of Enugu State

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ABSTRACT

Objective: To identify the possible barriers to the implementation of Pharmaceutical care among Community and Hospital pharmacists in Enugu State using Nsukka and Enugu metropolis as a case study.

Method: A semi structured questionnaire was designed to carry out a cross sectional descriptive study. The questionnaires were distributed to community and hospital pharmacists from designated areas during one of their quarterly meeting and their practice sites in 2009.

Results: Eighty completed questionnaires were collected with 22.8% from community pharmacists, and 77.2% from hospital pharmacists. The important barriers identified were lack of space, enough personnel in pharmacy to handle routine technical tasks, time, need for too much effort, and need for payment for services.

Conclusion: The opinions on barriers to Pharmaceutical care of Pharmacists from community and hospital practice areas in these two metropolises of Enugu State are majorly 'lack of time, space and routine technical task personnel.

KEY WORDS

Barriers, Pharmaceutical care, implementation, Pharmacist, study.

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INTRODUCTION

Pharmacist's professional focus, until early 1990s, was primarily on controlling the availability and distribution of the drug products. Thus originally, the Pharmacist's baseline roles were dispensing and supply of drugs to patient without much concern about the treatment outcomes of the patient. But the profession of pharmacy has experienced significant changes in the last two decades globally though slowly in the developing world like ours, Nigeria. One of such changes is the introduction and practice of Pharmaceutical care (PC) concept.

In 2005, the Pharmacist Council of Nigeria (PCN) set up minimum standards for the assurance of PC in Nigeria [1]. Pharmaceutical care, as an emerging professional area, has the mandate to provide patient with the best practice of pharmacy such as drug safety, efficacy, quality and rational cost. It has been advocated to enable the pharmacists to describe their emerging role of patient-focused healthcare provision. It is defined as the responsible provision of drug-related care for the purpose of achieving definite outcomes that improve and/or maintain a patient's quality of life [2]. It is both patient-centered and outcome-oriented pharmacy practice that requires the Pharmacist to work together with the patient and other Healthcare providers to promote health, prevent disease, assess, monitor, initiate, and modify medication use to assure the safety and effectiveness of drug therapy regimens [3].

As pharmaceutical care is outcome-oriented and has accomplishment process (assessment of drug related problems, development of care plan and evaluation of treatment outcome), [4-5] it requires the Pharmacist to acquire skills, qualifications, and capacity to be able to overcome the challenges that come with such responsibility. One primary setback to the practice of Pharmaceutical Care in our environment is the lack of ar-

ticulated standards for pharmacists to conform to in their daily practice [6]. Studies have been conducted to establish the challenges to Pharmaceutical care implementation in community and hospital pharmacies in developed countries. The pharmacists' attitudes such as the lack of understanding of the concept, misconception such as patients' unwillingness to pay, fear of changing roles and lack of personal motivation [4]; lack of appropriate setting such as lack of counseling areas [7] and non availability of space in premises to consult with patients are among the numerous constraints identified in the other parts of the world where PC practice has gained acceptance, but not much has been done in Nigeria. In this study therefore, we aimed to identify some of the barriers to effective implementation of PC in hospital and community pharmacies in two cities in Enugu state, Eastern Nigeria.

METHOD

Study Areas

The study areas were hospital and community pharmacies in Enugu and Nsukka towns of Enugu State. The hospital pharmacies used were those in University of Nigeria Teaching Hospital (UNTH), Parklane Specialist Hospital, and National Orthopedic Hospital all in Enugu town, and University of Nigeria Medical Center (UNMC) in Nsukka. Community pharmacies visited in both towns were those that had superintendent/ or resident pharmacists that patients could always consult. The Pharmacists population comprised of Intern, Corper, Chief Pharmacists and other cadre of pharmacists who were given the study questionnaire as they were seen.

Instrument for data collection

The survey instrument, a pre-tested self administered questionnaire, was constructed and validated, consisting of three sections: demographic

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Table 1: Demographic Data of Respondents.

Age in years	Respondents (%)
21-30	27 (33.8)
31-40	29 (36.3)
41-50	5 (18.8)
51-60	8 (10.0)
Above 61	1 (1.1)
Total	80 (100)
Gender	
Male	38 (47.5)
Female	42 (52.5)
Total	80 (100)
Marital Status	
Married	54 (67.5)
Single	24 (30.0)
Widow	2 (2.5)
Total	80(100)

information section such as age of respondent, gender, marital status, current qualification, practice area and years of experience; pharmacist's knowledge of pharmaceutical care practice section, and knowledge of militating factors against their practice of pharmaceutical care section that was classified into patient factors, environmental factors, monetary factors and Pharmacist's attitudinal factors.

Data collection

A total of one hundred and twenty questionnaires were distributed. Some were delivered to Pharmacists in their practice premises or to the Attendants when the Pharmacist-in-Charge was not available. Other ones, especially those in the hospital pharmacies, were distributed in a Pharmaceutical Society of Nigeria (PSN) Enugu state quarterly meeting in 2009. The participants were educated on the reasons for and content of the questionnaire as their consents were obtained and questionnaire distributed.

Data analysis

The retrieved questionnaires were sorted and entered into version 14 of Statistical Package for the Social Sciences (SPSS Inc. Chicago) for analysis. Questionnaires with scanty information were rejected. Descriptive statistics was used and the 5-point likert scale section of the questionnaire was analyzed using mean and standard error of mean.

RESULTS

A total of 80 pharmacists responded to the questionnaire resulting in 67% response rate. There were 38 (47.5%) male and 42 (52.5%) female respondents. Majority of the respondents were within the age range of

Table 2: Professional Data of Respondents.

Qualification	Respondents (%)
B.Pharm.	65 (81.2)
Pharm. D	2 (2.5)
M. Pharm.	4 (5.1)
Fellowship of WAPGCP	9(11.2)
Total	80 (100)
Practice Area	
Community	19 (22.8)
Hospital	61 (77.2)
Total	80 (100)
Experience in years	
1-5	35 (43.7)
6-10	13 (16.2)
11-15	11 (13.7)
16-20	7 (8.9)
≥ 20	14 (17.5)
Total	80 (100)

WAPGCP: West Africa Post graduate College of Pharmacist; Pharm.D: Doctor of pharmacy

21-30 years (33.8%) and 31-40 years (38.3%), and their marital status were: married 54(67.5%), single 24 (30.0%) and widowed 2 (2.5%). These and other demographic data are all presented in Table 1.

The data in Table 2 include the frequency valid percent of highest academic qualifications relevant to Pharmacy practice possessed by the respondent, respondent's practice area and the working experience in years. Majority of the respondents were Bachelor of Pharmacy degree holders 81.2%, those practicing in hospitals 77.2%, and those that have practiced the profession for 1-5 years were 43.7%.

The Pharmacist's knowledge of various activities relating to Pharmaceutical care practice (PCP) is shown in Table 3. This data consists of activities undertaken by respondents, the kind of patients respondents provide pharmaceutical care, and the availability of consultation area. In the activities undertaken by respondents, 93.8% of the respondents agreed to evaluating patients prescriptions before dispensing, 61.3% conduct patient interview, 88.8% counsel their patients and 23.8% measure patient's blood pressure. On the kind of patient respondents provide pharmaceutical care, 1.3% and 1.3% agreed to providing pharmaceutical care to Tuberculosis and Psychiatric patients respectively. On consultation space, 62.5% of the respondents do not have reserved area for private consultation in their practice area.

The barriers to pharmaceutical care practice among community and hospital pharmacists in the two cities in Enugu state are shown in Table 4 with their respective mean \pm SEM. The descriptive statistics of

Table 3: Pharmacist's knowledge of pharmaceutical care practice.

Activities you undertake	Respondents (%)
Evaluate prescription before dispensing	75 (93.8)
Conduct patient interview	49 (61.3)
Monitor patient drug therapy	29 (36.3)
Monitoring patient compliance	28 (35.0)
Counseling patients	71(88.8)
Measuring patients blood pressure	24 (23.8)
Unit dose dispensing system	2 (2.5)
Drug costing	1(1.3)
Medications review with health providers' and patient's consent	64 (80)
Kind of patient you provide pharmaceutical care	
Pediatrics	44 (55)
Geriatrics	51 (63.8)
Pregnant patients	38 (47.5)
Chronic illness patients	45 (56.3)
No special patients	35 (43.8)
Tuberculosis	1 (1.3)
Psychiatry	1 (1.3)
Any consultation area?	
Yes	30 (37.5)
No	50 (62.5)
Total	80 (100)

the respondents' opinions have been grouped into four factors namely: patient, environmental, monetary and pharmacist/respondent's factors. On patient factors, the respondents disagreed to the opinion that patients are opposed to either their prescriptions being evaluated or themselves being interviewed. From the environmental factors, most respondents agreed that more space and personnel are needed to effectively practice pharmaceutical care while most respondents are undecided about physicians being uncooperative, Pharmacist Council of Nigeria (PCN) rules and regulations not being supportive, and tend to disagree that Hospital Management are not supportive. On the monetary factors most respondents were undecided about the fact that Pharmaceutical care is not feasible without payment, and large sum of money being required for the practice take-off and sustenance. On Pharmacist factors, the respondents were near neutrality on 'it is easier to focus on treating the disease symptoms', 'Pharmaceutical care requires too much effort' and

Table 4: Descriptive statistics of barriers to pharmaceutical care practice in enugu and Nsukka towns of Enugu state.

Patient factors	Mean ± Sem
Patients do not want their prescriptions evaluated	4.2250±0.1096
Patients do not want to be interviewed	3.9494±0.1079
Pharmacist factors	
It is easier to focus on treating the disease symptoms	2.9155±0.1576
My knowledge of therapeutics may not be adequate in counselling patients	4.2025±0.1200
Conducting patient interview is the role of the physician	4.1500±0.1054
I am not sure what to look out for in drug-related problems	4.5195±0.0682
Monitoring patient improvement is the role of the physician	4.1558±0.1095
Pharmaceutical care requires too much effort	2.7848±0.1438
Pharmaceutical care requires too much time	2.8500±0.1457
Environmental factor	
Physicians are not cooperative	3.1667±0.1296
More space is needed in the pharmacy to provide pharmaceutical care	2.1667±0.1346
There are not enough personnel in the pharmacy to handle routine technical tasks	2.3205±0.1454
Hospital management does not accept the concept of pharmaceutical care	3.5570±0.1333
PCN regulations do not support the practice of pharmaceutical care	3.3205±0.1667
Monetary factors	
Pharmaceutical care is not feasible without payments	2.9873±0.1523
Large sums of money is needed to implement pharmaceutical care	3.2375±0.1448

Scale: 1= strongly agree, 2= agree, 3= neutral, 4= disagree and 5= strongly disagree

'Pharmaceutical care requires too much time.' But they disagreed that conducting patient interview or monitoring patient improvement /outcomes is the role of the physician alone. They also disagreed that they have inadequate knowledge of therapeutics for the pharmaceutical care practice, and that they do not know what to look out for in drug-related problems (DRPs).

DISCUSSION

The concept of Pharmaceutical care is sweeping over the pharmaceutical world but not much of it has been implemented. It has been severally

reported that Pharmacists perceive a number of barriers to the implementation of pharmaceutical care. These barriers have been found to vary among countries [8] according to their peculiarities. Time and money are the major barriers to the implementation of Pharmaceutical care in European countries and United States of America [9-10]. But in most other countries, barriers related to providing pharmaceutical care reported by community pharmacists included lack of funds, difficulty in accessing patient's clinical and laboratory data, lack of clinical knowledge and motivation, lack of time and a private counseling area, little financial incentive, and low expectation of the pharmacy profession [11-13].

As espoused by Strand in 1998[14] that Pharmaceutical care is a practitioner driven service, this portrays that pharmacist's perceived barriers are very important in the implementation of the service. According to the responses of the Pharmacists in patient factors segment, the pharmacists seem not to perceive any barrier to the implementation of their service as the patients' prescriptions are readily evaluated and patients grant them interview without objection. This could be due to patient satisfaction with the practitioners' services especially as it is a process that calls for pharmacist-patient co-operation, in part [6].

From the Pharmacist factors segment of this study, the practitioners were majorly of the opinion that pharmaceutical care services require too much efforts and time to carry them through to the patients. They disagreed with the opinion that 'the pharmacist is not sure what to look out for in drug-related problems' and that 'conducting patient interview is the role of the physician'. On the environmental factors such as insufficient space and presence of other assisting personals in the pharmacy to handle the routine tasks, the pharmacists agreed to their inadequacies.

The results of this study has revealed sets of barriers that limit pharmaceutical care implementation, such as lack of time and need of effort, insufficient remuneration, lack of space and deficiency in staff strength. These findings reinforced the findings of similar studies [15, 16] that identified time, and skills as major barriers to the implementation of pharmaceutical care.

CONCLUSION

Pharmacists in these cities in Enugu State showed good level of knowledge of pharmaceutical care practice like patient prescription evaluation, patient counselling and medications review. But a good number of them accented to lack of consultation area in their practice sites; hence in their response to barriers to pharmaceutical care implementation, they concurred to the need of more space in their practice sites. They also indicated that insufficient time and lack of personnel are among the factors hindering the implementation of Pharmaceutical care in Enugu state healthcare facilities.

A joint collaboration between health facility authorities and Pharmacists' regulatory body, Pharmacist Council of Nigeria, is highly demanded for the promotion of pharmaceutical care in the country especially through space creation and engagement of more pharmacists and assistant staff to free enough man hour to the Pharmacist to implement Pharmaceutical care.

CONFLICT OF INTEREST

None

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