



Assessment of Knowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in Kaduna State, Nigeria

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Research Article

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Abstract

Objective: The aim of this study was to evaluate the knowledge, attitude and practice of community pharmacists towards pharmaceutical care services in Kaduna state, Nigeria.

Method: A prospective study was conducted among community pharmacists in Kaduna State. Self-administered questionnaire were distributed to forty community pharmacists. Data were analyzed descriptively using simple percentages and frequency distribution.

Results: The result of the current study showed that 97.5% of respondents had knowledge deficit of pharmaceutical care concepts but there is a positive attitude towards the practice of pharmaceutical care.

Conclusion: These results shows knowledge deficit and low practice but attitude to practice of pharmaceutical care is positive. Therefore, it is important for regulatory bodies to implement standard guidelines on qualification of community pharmacists in the provision of pharmaceutical care in Nigeria.

Keywords: Attitude, knowledge, practice, community pharmacists, pharmaceutical care

Introduction

The philosophy of Pharmaceutical care focuses on the responsibility of pharmacist to meet all of the patient's drug related needs, and assist the patients in achieving their goal through collaboration with other health professionals.^[1] An adequate pharmaceutical services provided by pharmacist is a vital component of health care delivery system.

Pharmaceutical care (PC) as defined by Heplar and Strand^[1] is the responsible provision of drug therapy for the purpose of achieving definite outcomes that improves the patient's quality of life. While the international Pharmaceutical Federation (FIP) defined Pharmaceutical care as the responsible provision of Pharmacotherapy for the purpose of achieving definite outcomes that improves or maintain a patient's quality of life. Pharmaceutical care is recognized as a prominent activity within a health care system, it is a structured, systematic and documented type of pharmacy practice which comprises of the detection, prevention and solution to drug related problems. The goal of pharmaceutical care is to optimize the patients' health related quality of life, and achieve positive clinical outcomes, within realistic economic expenditure^[2]

Earlier reports indicated that not much Pharmaceutical care (PC) appears to be known in the entire West African sub region^[3]. In a study carried out in Nigeria, PC is said to be in its theoretical statement in most settings^[4]. In another study carried out, it was stated that PC is still in its infancy stage in Nigeria^[5]. In 2005, The Pharmacist Council of Nigeria (PCN) set a minimum standard to practice pharmaceutical care in Pharmacy premises^[6]. However, studies have been carried out on the knowledge, attitude and Practice of Pharmaceutical Care in Benin Nigeria, Oparah and Eferakeya showed that the attitudes of Nigerian Pharmacist towards pharmaceutical care are favorably high irrespective of practice setting. the study also indicated the willingness to implement Pharmaceutical care by Nigerian Pharmacist but expressed major concerns about their Knowledge, professional skills and pharmacy layout^[7]. Another study carried out in Ogun state assessed the attitude, perception and practice of Pharmacist towards pharmaceutical care implementation^[8]. In Northern Nigeria studies conducted on pharmaceutical care includes a study that examined the roles of pharmacists in optimizing pharmaceutical care for HIV patients in Maiduguri North Eastern Nigeria^[9]. Hospital pharmacist's knowledge of pharmaceutical care in North Eastern Nigeria was also assessed. It revealed that



pharmacist in the studied areas have good knowledge of pharmaceutical care [10].

None of these studies conducted dwelt on the Assessment of knowledge, attitude and practice of community pharmacists within North Western Nigeria. Thus the objective of the study was to assess the knowledge, attitude and practice of community pharmacists and to determine their competence in providing pharmaceutical care services in North western Nigeria.

Material and Method

We conducted a prospective study between January and March, 2013. It involved community pharmacists working in pharmacies within Kaduna state, North Western Nigeria. Data were collected from forty (40) pharmacists working in community pharmacies, between January and March; 2013. Verbal consent was obtained from all participants prior to study. Self-administered, pretested, and structured; mostly close ended questions were used. The questionnaire was structured such that it consists of different sections, as follows: section one: Demographic characteristics, section two: Knowledge on pharmaceutical services. Section three: attitude towards the practice of pharmaceutical care. Section four, pharmaceutical care practice and section five: Barriers to implementation of pharmaceutical care. A pilot test was conducted on 10 pharmacists to determine the applicability of the questionnaire. Descriptive statistics was used to summarise the data and organize them into groups according to the sections of the questionnaires. It was designed also using a 2 point likert response format consisting of Yes and No, Agree and Disagree, and a few open ended questions.

Data Analysis

Statistical package for social sciences (SPSS) version 16.0 for windows was used for analysis of Data it was presented using frequency distribution and simple percentages

Results

50 questionnaires were administered out of which 40 were completed giving a response rate of 80.0%. 75% of respondents were males while females accounts for 25%. Age distribution of respondents showed that 40% of the workforces are above age 31. Those within 1-10 years of working experience forms 72.5% of respondents (Table 1).

Table 1. Demographic data of Respondents

Characteristics (n=40)	No of Respondents	%
Sex:		
Male	30	75
Female	10	25
Age:		
21-25	11	27.5
26-30	13	32.5
31 and above	16	15

Years of Experience:

1 to 5	16	40
6 to 10	13	32.5
11 to 15	6	15
16 to 20	3	7.5
21 and above	2	5

Table 2. Distribution of knowledge on Pharmaceutical care services

Pharmaceutical care services	Agree (%)	Disagree (%)
Dispensing of medication to patients only.	32(80)	8(20)
Offering advice and counselling during drug dispensing.	39(97.5)	1(2.5)
Offering advice to patients only.	5(12.5)	35(87.5)
The pharmacist only responsibility is to dispense and counsel the patients on drug prescribed by him or the physician's.	15(37.5)	22(55)
Reviewing patients drug therapy and secondary changes where necessary.	37(92.5)	3(7.5)
The Pharmacist takes full responsibility of drug related	37(92.5)	3(7.5)

Ninety-seven percent of the respondents offered advice and counseling during dispensing. 80% defined pharmaceutical care as dispensing of medication to patient only. 92.5% feels review of patient's drug therapy and secondary changes to prescriptions was necessary. And 92.5% agree that pharmacists should take full responsibility of drug related needs of patients. However, 37.5% defined PC as a responsibility of pharmacists to dispense and counsel the on drugs prescribed by the physician. (Table 2)

On attitude to practice of PC 65% of respondents feels PC is a mandate of pharmacists only, 90% see it as a primary responsibility of pharmacists only. High proportions 95% are of believe that pharmaceutical care is a valuable mode of practice and will serve to improve patients health needs. 92.5% agrees that practicing pharmaceutical care in community pharmacies will increase patients' confidence in the profession and enhance pharmacy practice. While 27.5% are of the opinion that practicing pharmaceutical care is resource intensive that is time consuming, requires more man power and is



Table 3: Community pharmacist's attitude towards practice of pharmaceutical care.

Attitude	Yes (%)	No (%)
Pharmaceutical care is a mandate of pharmacist only	26(65)	14(35)
The primary responsibility of pharmacists in general and community pharmacists is to provide pharmaceutical care	36(90)	4(10)
Pharmaceutical care is a valuable mode of practice and will serve to improve patient health needs	38(95)	2(5)
Practicing pharmaceutical care in community pharmacies will increase patients confidence in the profession and enhance pharmacy practice	37(92.5)	3(7.5)
Continuous pharmaceutical education is necessary for community pharmacists to practice pharmaceutical care	37(92.5)	3(7.5)
In order to assure themselves a place in health care team, community pharmacists must practice pharmaceutical care	38(95)	2(5)
Practicing pharmaceutical care is too resource intensive, time consuming and requires more man power.	11(27.5)	29(72.5)

not worth the trouble. 95% believes in order to assure themselves a place in health care team, community pharmacist must practice pharmaceutical care.(Table 3)

On practice of respondents to PC, 35% of community pharmacists collect information from patients before dispensing the prescribed drug. 91% normally identifies prescription problems. 42.5% had a case of adverse drug reactions (ADR'S) report by patients while 55% agree that changing of prescribed medication is part of pharmaceutical care.(Table 4).

On barriers to implementation of pharmaceutical care, 82.5% agrees that poor relationship of community pharmacists with other health care members is one of the barriers while 55% agrees to the fact that lack of confidence in pharmacist themselves is the reason. 75% agrees that lack of trained personnel and support staff needed to offer pharmaceutical care is a barrier. (Table 5)

Discussion

In the present study male respondents were higher than female respondents which are in contrast to a study carried

out in Iran where there is a relationship between gender and attitude to good pharmacy practice, female pharmacist had better attitude towards Good pharmacy practice than male^[11]. The highest years of professional experience of which 72.5% of the respondents fell within 1-10 years (Table 1). These are the young generation pharmacists who are more knowledgeable and form the major determinant of workforce. The finding is consistent with the study conducted in Ogun state south western Nigeria^[12]

Table 4: Community pharmacist's pharmaceutical care practices

Practice	Yes (%)	No (%)
Collection of data from your patients.	14(35)	26(65)
Identify prescription problems	34(91.1)	3(8.1)
Have you had any reported cases of ADR'S by your patients?	17(42.5)	23(57.5)
As a pharmacist do you think changing of prescribed medication is part of pharmaceutical care?	22(55)	18(45)

Table 5. Barriers to the implementation of Pharmaceutical Care

Barriers	Agree (%)	Disagree (%)	No Response (%)
Poor relationship of community-Pharmacists with other health providers.	32 (80)	8(20)	
The current curriculum for pharmacy education is not adequate to support the practice	22 (55)	8 (20)	10 (25)
Lack of confidence in pharmacists themselves	33 (82.5)	7 (17.5)	
Lack of trained personnel and support staff to offer Pharmaceutical care.	30 (75)	10 (25)	



The respondents had a knowledge deficit of pharmaceutical care concept, 97.5% of the respondents defined PC as pharmacists offering advice and counselling during drug dispensing only, while 80% defined it as dispensing of medication only. This is in line with a study carried out in metro manila where hospital pharmacists had low perceived level of understanding the concept of pharmaceutical care. Most of the respondents believed that a postgraduate degree is a requirement to provide Pharmaceutical care in the Philippines^[13] However according to a WHO document which highlighted that the role of pharmacist as an active member of the healthcare team, who is involved in the provision of healthcare both in hospital, community pharmacy, laboratory, industry and academic institution.it showed that there is a need for continued mandatory pharmacy education for all community pharmacists^[14].

The present study showed that community pharmacists in Kaduna state have a positive attitude towards Pharmaceutical care. This is similar to studies carried out by the Faculty of Pharmacy University of Nigeria Nsukka, where the students showed positive attitude towards Pharmaceutical care^[15] and Faculty of Pharmacy University of Benin, Nigeria where the students showed moderately positive attitude towards Pharmaceutical Care^[16].In contrast to the study carried out in Nigeria where hospital pharmacists showed a negative attitude toward Pharmaceutical Care.^[17] Also in a study carried out in Moldova, to assess community Pharmacists attitude towards Professional Practice. Pharmacists in Moldova appear to be deeply rooted in traditional Practice of dispensing and counselling and are distant from practice such as Pharmaceutical care, drug information and self-care^[18]. Most of the respondents are well experienced having being in practice for more than five (5) years which is important for optimum therapeutic outcome. It is similar to what has been reported in Nigeria which showed the attitude of Nigerian pharmacists towards pharmaceutical care as favorably high irrespective of the practice settings^[7]. It is also similar to the study carried out in Nigeria, where he reported to have found the attitude of respondents in the study to be favorable.^[8]

In the present study, the respondents were asked the barriers to the implementation of Pharmaceutical care. 82.5% of respondents agreed that lack of confidence by pharmacists themselves play a major role while 80% agreed that poor relationship of community pharmacist with other health care providers plays a role and 75% sees lack of trained personnel and support staff to offer pharmaceutical care as the major barrier to its implementation. This study is in line with another one carried out in northwest China where the community pharmacists reported lack of time, information, skills and support from other health professionals and economic issues as the barrier to provision of Pharmaceutical care services^[19]

Conclusion

There is a deficit in knowledge and practice of pharmaceutical care, and a positive attitude towards pharmaceutical care. There is also a lack of competence to practice PC .Pharmacists role in improving patients care and their quality of life, made it

necessary for regulatory bodies to implement a standard guideline on qualification of community pharmacists in the provision of Pharmaceutical care in Nigeria.

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AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

PEER REVIEW

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests.