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Attitude of hospital pharmacists in Nigeria towards pharmaceutical care

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Abstract

Pharmaceutical care (PC) is a patient- centered care associated with improved health and economic outcomes, reduction in medicine-related adverse events, improved quality of life and reduced morbidity and mortality. To assess the attitude of hospital pharmacists in Nigeria towards pharmaceutical care. A validated pharmaceutical care attitude survey (PCAS) questionnaire with 25 - items and a 5-point likert - type response scale was used for the study. Mean item scores were computed for each item while mean scale scores were computed for each respondent. One - way ANOVA with post-hoc test, Sheffe's or students t - test were used to examine the variance in attitude scores among the different demographic variables. A two - tailed significance level of 0.05 was also used. Eight (8) items had a mean item score above the mid-point score of 2.02 (positive attitude) while sixteen (16) items had mean item score below 2.02 (Negative attitude). Hospital pharmacists in Nigeria showed a negative attitude towards pharmaceutical care.

Keywords: Pharmaceutical care, Attitudes, Hospital pharmacists, Rating scale, Nigeria

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1. Introduction

Pharmaceutical care is a ground-breaking concept in the practice of pharmacy which emerged in mid 1970s. The concept includes emotional commitment to the welfare of patients as individuals who require and deserve the pharmacist's compassion, concern and trust. It is a patient- centered care associated with improved health and economic outcomes, reduction in medicine-related adverse events, improved quality of life and reduced morbidity and mortality. It represents the era of pharmacists taking responsibility in the performance of clinical functions such as disease management, with the product as the foundation. Its benefits to patient care are immense.

Pharmaceutical care (PC) has been defined as the responsible provision of drug therapy for the purpose of achieving definite outcomes that improves or maintains a patient's quality of life (Hepler and Strand, 1990) as modified by (FIP, 1998). It has been shown to improve the outcome of drug therapy in many disease conditions.

The concept and philosophy of pharmaceutical care has been adopted and implemented in many developed countries for many years now. It has achieved great successes in the care of patients in the US, UK and other developed countries of the world as patients in these places now get better care from Pharmacists who alongside the patients and healthcare managers are delighted about the initiative (Erah & Nwazuoke, 2002).

1.1. Objective

This study was designed to assess the attitude of pharmacists from different parts of Nigeria towards pharmaceutical care.

2. Methods

The study was carried out at a national conference of the Nigerian association of hospital and administrative pharmacists. Nigeria is the most populous country in Africa with a population of about 162,470,737 (World Bank, 2011). The pharmacists' population in Nigeria is about 16,970 (Abumere, 2012). This gives a Pharmacist - population ratio of 1:9,574 or 11:100,000 Nigerians. This is grossly inadequate considering the volume of work required of pharmacists in pharmaceutical care. Out of this number of pharmacists, more than 2000 are practicing in the various hospitals in Nigeria. Though there is no international recommendation for number of pharmacists per population (FIP, 2009), yet there is need to reduce this ratio to ensure adequate coverage of the Nigerian population by pharmacists.

The standard of pharmacy practice in Nigeria is not the same as it is in most other countries as practice settings are different (Erah and Nwaznoke, 2002). Pharmaceutical care has for many years been more theoretical than operational. Many factors constitute potential barriers to and have largely contributed in compromising the standard of pharmacy practice as well as the implementation of pharmaceutical care in Nigeria. These factors have been enumerated and described by many scholars. One of the most important of

these factors is the initial inertia in accepting the concept and philosophy of pharmaceutical care when it was first introduced. This poor attitude has gradually improved significantly over the years as some studies on students have shown (Opara et al., 2006; Udeogaranya et al., 2009). Pharmaceutical care seems to pose a great challenge for the pharmacy profession in Nigeria. These challenges facing it must be addressed or the concept will remain a theoretical concept in Nigeria. The population of the study comprises of pharmacist from all the 36 states of Nigeria and the federal capital territory Abuja.

About three hundred and sixty four (364) Pharmacists attended the conference. About two hundred and ninety six (296) questionnaires were distributed to the pharmacists at the entrance to the conference venue with instruction to return it to the conference venue entrance which was close to the registration desk. Some respondents returned their filled questionnaires to the researcher directly. The questionnaire was a self-administered Pharmaceutical are attitude survey (PCAS) questionnaire. It is a 25 - item instrument with a 5-point likert - type response scale. It was developed and revalidated in the US (Opara et al., 2006; Udeogaranya et al., 2009). Three of the items were negatively worded. A demographic section was also included to provide information on age, gender, years of practice and area/unit of hospital practice.

The retrieved questionnaires were entered into the statistical package for social science version 15 (SPSS 15.0, Chicago IL) and double-checked by another colleague. Demographic data were represented by frequency (percentage) and median (interquartile range). The three (3) negatively worded items were reversed. Mean item scores was computed for each item while mean scale scores were computed for each respondent. A midpoint of 2.02 was used for this 5 - point scale. This was gotten by adding all the scores and computing the average. Mean scale scores above the mid – point score were regarded as positive attitude while those below this mid - point were regarded as negative attitude. Because mean scale scores are normally distributed, parametric tests were used for inferential statistics. One - way ANOVA with post-hoc test, Sheffe's or students t - test were used to examine the variance in attitude scores among the different demographic variables. A two - tailed significance level of 0.05 was used.

3. Results

About 251 questionnaires were retrieved from the respondents. Eighteen (18) of these were from non - hospital pharmacists and were removed. About half of the respondents (50.4%) were aged 36 and above. The details of the demographics are shown in table 1 below. One item contributed poorly to the reliability analysis scale and was deleted.

Table 2 shows the attitude score of the responding pharmacists on the 24 remaining items in the questionnaire. Only 8 items had a mean item score above the mid-point score of 2.02 while the other 16 items had mean item score below 2.02. Thus the pharmacists showed positive attitude to only 8 items and negative attitude to 16 items.

Table 1. Demographic distribution of Nigeria pharmacists participating in the Pharmaceutical Care Attitude Survey

Characteristics	n (%)	p value (95% CI)
Age, years (N=228)		
20-25	16 (6.9)	
26-30	48 (20.7)	
31-35	47 (20.3)	
36 and above	117 (50.4)	<0.0001 (3.03-3.29)
Gender (N=218)		
Female	100 (45.9)	
Male	118 (54.1)	<0.0001 (0.47-0.61)
Practice experience, years (N=226)		
1-5	82 (36.3)	
6-10	48 (21.2)	
Above 10 yrs	93 (41.2)	<0.0001 (1.95-2.19)
Hospital unit (N=219)		
Emergency/ICU	34 (15.5)	
Inpatient	58 (26.5)	
Outpatient	62 (28.3)	
Drug Information	28 (12.8)	
Special unit	28 (12.8)	
Anesthetics	1 (0.5)	
Administration	8 (3.7)	<0.0001 (2.77-3.16)

Table 2. Pharmaceutical care attitude questions and pharmacists' response (N=233)

S/N	ITEM	MEAN SCORE ± SD	% POSITIVE RESPONSE
1	You have a fair understanding of the pharmaceutical concept	1.56±0.93	92.5
2	Pharmaceutical care centers on patient rather than other product	1.22±0.76	94.4
3	The pharmacist emphasizing patient care over the drug product is not suitable for our developing country R	1.77±1.21	82.7
4	Pharmacy practice which centers more on the patient rather than the dispensed drug should not replace the traditional practice R	1.87±1.19.7	87.7
5	There is no need to abandon traditional practice R	2.35±1.32	77.7
6	We can secure your willingness to abandon the traditional practice to embrace a patient centered practice	4.15±1.07	10.5
7	Pharmacists should concentrate on drug therapy needs of the patient	1.72±0.94	87.0
8	Pharmacists should care about drug product and leave patient care to doctors and nursesR	1.23±0.62	98.3
9	Pharmacist should abandon pharmaceutical	1.13±0.52	98.7

S/N	ITEM	MEAN SCORE ± SD	% POSITIVE RESPONSE
	care if there is an opposition from doctors and nurses R		
10	The present knowledge and skill of the pharmacist are inadequate for patient centered practice R	2.63±1.48	56.3
11	You consider your knowledge of drug therapy outcomes inadequate R	2.22±1.21	70.9
12	Your current pharmaceutical practice is not adequately patient caring R	3.19±1.29	38.5
13	The pharmacist hitherto has paid less attention to economic outcome of therapy	2.78±1.23	47.6
14	At present the layout of our pharmacies is not suited for patient centered practice R	3.55±1.21	25.0
15	Patients will resist pharmacists' close interactions with them R	1.47±0.90	93.0
16	Law should back pharmacist close interaction with patients R	4.21±1.25	13.0
17	There is need for the pharmacist to improve his communication with patient and other care givers	1.36±0.68	97.0
18	If pharmaceutical care does not attract additional income, pharmacists should not embrace it R	1.93±1.06	84.5
19	There is no need for the pharmacist to devote extra time for the patient R	1.36±0.68	86.6
20	Pharmaceutical care will enhance the patient's appreciation of the pharmacist's value	1.11±0.35	99.6
21	You will implement a pharmacists' guideline for managing the individual patient in your practice	1.58±0.69	94.0
22	You will be prepared to create enough time to interact with the patient	1.46±0.58	98.3
23	You will surely be ready to document all your patient care activities	1.43±0.61	96.1
24	You will participate in any training program to enable you practice pharmaceutical care	1.18±0.50	97.8

Table 3 shows the attitude scores of the pharmacists based on demographic sub - groups. Male pharmacists showed significantly more positive attitude than females at p - value of 0.51. Pharmacists within the age range of 26 - 30 years also showed significantly more positive attitude than pharmacists within the age range of 31 - 35 years at p - value of < 0.0001. The 26 - 30 years old pharmacists gave the highest positive attitude score.

Pharmacist with 1 - 5 years of experience also showed the highest positive attitude score while those with more than 10 years of experiences showed significantly higher positive attitude score than those with 6 - 10 years of experience at p-value of 0.41.

Table 3. Attitude scores of hospital pharmacists based on demographic characteristics

Variable	Frequency	Mean sum scores	p-value
Gender			
Female	100	2.06 (0.32)	
Male	118	2.09 (0.36)	0.51
Age, years			
20-25	16	2.08 (0.26)	
26-30	48	2.18 (0.29)	
31-35	47	1.93 (0.30)	<0.0001[b]
Above 36	117	2.09 (0.36)	
Year of experience, years			
1-5	82	2.11 (0.33)	
6-10	48	2.02 (0.32)	
Above 10	93	2.07 (0.35)	0.41

[b] *represents statistical difference between age groups 26-30 and 31-35*

4. Discussion

The fore - going study identified the attitude of Nigerian hospital pharmacists towards pharmaceutical care. It also assessed factors that could have contributed to the observed scores. The item analysis that identified the poor contribution of one item resulting in its deletion also indicates that the question may have been poorly understood by the respondents.

Generally, the study showed that Nigerian hospital pharmacists have a negative attitude towards pharmaceutical care. This is in contrast to similar studies carried out at the faculty of pharmacy, University of Nigeria Nsukka where the students showed positive attitude towards pharmaceutical care (Udeogaranya et al., 2009) and faculty of pharmacy University of Benin, Nigeria where the students showed moderately positive attitude towards pharmaceutical care (Oparah et al., 2006). The negative attitude towards Pharmaceutical care identified in this study calls for concern as the hospital pharmacies in Nigeria are the most prominent sites of pharmacy practice in Nigeria and hence the pace-setting sites for the implementation of pharmaceutical care in Nigeria.. If they have a negative attitude towards this revolutionary pharmacy practice model, then the future of pharmacy practice could be described as bleak. At an age when pharmacists in other countries of the world have long embraced and integrated pharmaceutical care into their practice with outstanding results and benefit to their patients, institutions, governments, their practice and even themselves, Nigerian hospital pharmacists cannot afford to be left out. Negative attitudes are a barrier to performing pharmaceutical care. Therefore the need to foster positive attitudes in Nigerian hospital pharmacists has now become more imperative than ever considering the results of this study.

That male pharmacists in the study showed more positive attitude towards pharmaceutical care than female pharmacists also contrasted with the findings of the study referred to above where the female pharmacy students showed higher positive attitude toward pharmaceutical care than male pharmacy

students (Udeogaranya et al., 2009). That younger pharmacists showed higher positive attitude towards pharmaceutical care than the older pharmacists gives a ray of hope for the future of pharmacy practice in Nigeria. This was reflected in the fact that 26 - 30 year old pharmacists and pharmacists with 1 - 5 years of experience showed the highest positive attitude towards pharmaceutical care in the sub-demographic groups.

Nevertheless, attention need to be paid to older pharmacists to foster positive attitude in them as these represent the leaders of the profession who should show the younger pharmacists the way forward in the practice of pharmacy. The poor attitude identified in this study could have been caused by the lack of adequate infrastructure and logistics for the implementation and sustenance of pharmaceutical care. As such efforts need to be made towards the provision of the necessary infrastructure and logistics that will encourage the integration of the philosophy and principles of pharmaceutical care in the practice of pharmacy in Nigeria.

5. Limitations

We cannot be absolutely be sure that all the pharmacist from all the states in Nigeria and the federal capital territory were evenly represented in the study as pharmacists from states far away from the conference venue may not have attended or only fewer numbers of them may have attended.

Also not all the conference attendees participated in the study and not all the questionnaires distributed were retrieved. Had all the attendees responded and had all the distributed questionnaires been retrieved, the results of this study may also have been different.

6. Conclusion

Hospital pharmacists in Nigeria showed a negative attitude towards pharmaceutical care. Efforts should be made to foster positive attitudes towards pharmaceutical care in Nigerian hospital pharmacists. The necessary infrastructure and logistics should be provided for pharmacists to enable them integrate pharmaceutical care into their practice.

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