PHARMACISTS' KNOWLEDGE AND ATTITUDE TOWARDS ADVERSE DRUG REACTION (ADR) REPORTING IN NIGERIA'S TERTIARY HOSPITALS

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ABSTRACT

Objective: To study the knowledge and attitudes of pharmacists in Nigeria's tertiary hospitals toward the reporting of adverse drug reactions (ADRs).

Methods: A sample survey which purposefully chose the federal government owned teaching hospitals in Nigeria was used for the study. From each zone of the six zones in the country, two teaching hospitals were selected for coverage by random sampling. A highly structured questionnaire duly validated and pre-tested was self administered on all the pharmacists in the tertiary hospitals selected for the study after explaining the purpose of the survey to the pharmacists. Data analysis was with Microsoft Excel package using descriptive statistics.

Results: A response rate of 79.0% was obtained when a total number of 291 pharmacists are considered. Most of the respondents (85.71%) were not aware of any organized ADR reporting in Nigeria's tertiary hospitals. Although 93.50% of pharmacists agreed that it is necessary to report ADRs, a very insignificant proportion (5.19%) had actually done so in the previous year. There appeared to be a relationship between ADR reporting and the length of practice and workload.

Conclusion: Most pharmacists in Nigeria's tertiary hospitals agreed on the necessity of reporting ADRs. The lack of awareness of an ADR reporting programme might have led to non-reporting in the past. It is very important that there be continuing efforts to promote ADR reporting programmes.

INTRODUCTION

The expansion of the pharmaceutical industry since the late 1950s and the resultant plethora of drug products have created concern for iatrogenic diseases associated with poor drug use. The high cost and potential risk of unwanted drug reactions require heath care professionals to be extremely proficient in their decision to use drug therapy[1]. Proper monitoring of drug therapy entails the prevention or early detection of adverse drug reactions (ADRs). Unfortunately, too many of these drug reactions are not detected or identified and even when identified are not reported. Although some ADRs have been extremely severe and resulted in death, the literature has emphasized morbidity, drug-related admissions, increased hospital stay and related costs[2-4].

In a recent single practice study in a university teaching hospital in Nigeria, general practitioners estimated that the presenting symptom of 1.7% of their consultations over a six-month period was a manifestation of an ADR[5]. Reports indicate that 10.2% of all hospitalized patients experience ADRs. In a survey carried out in a university hospital in England, the mean duration of stay for patients with one or more ADR was 13.7 days longer than for patients with no ADRs[2,3]. It is believed that these figures may under-estimate the true incidence and consequence of ADRs in Nigeria's tertiary hospitals. From the foregoing, it is important to have a monitoring programme that facilitates early recognition and/or prevention of these events. In addition, since regulatory bodies sometimes grant approvals for certain new drugs in a shorter time frame without much adverse event information being available it is necessary to have a more rigorous post marketing surveillance put in place. Pharmacists and other heath professionals in all settings are encouraged by regulatory bodies to report adverse events and product problems[6].

The lack of monitoring for previously unreported ADRs is one problem that is of particular concern with new medications. Physicians often fail to suspect drugs as a cause of patients' illness. In this regard, pharmacists are more apt to suspect drugs when evaluating a patient's symptoms while physicians or nurses are more likely to suspect a disease state[7]. Pharmacists, therefore, play an important role in ADR reporting world wide[8-10]. In many countries, Pharmacists have devised ADR reporting systems within their institutional settings and have initiated many ADR reports. They are members of many hospital-based ADR teams involved in collecting and evaluating ADR reports. A comprehensive ongoing ADR programme should include mechanisms for monitoring, detecting, evaluating, documenting, and reporting ADRs as well as intervening and providing educational feedback to prescribers, other healthcare providers, and patients[11-12].

This study was undertaken to find out if there exists any ADR reporting systems in Nigeria's tertiary hospitals and to determine Pharmacists attitudes toward this systems as this has been found to be an important factor affecting reporting among healthcare professionals in developed countries.

METHODOLOGY ▸

administrative procedures. Also since majority of pharmacists in Nigeria are community based, pharmacists in hospital settings should be prepared to accept ADR reports from community pharmacists for ease of reporting and to scrutinize them before submission.

The response of pharmacists in these tertiary hospitals is encouraging however, as the great majority of them agreed on the necessity to report ADRs. The lack of awareness of an organized ADR reporting system might have led to non-reporting in the past. It is important that there be continuing efforts to promote ADR reporting programme. One key to increasing ADR reporting is to convince physicians, pharmacists, and allied health professionals through publicity campaigns of the importance of post-marketing surveillance in providing safety information about drugs[15,16]. Health professionals should be reminded constantly that the possible adverse effects of new drugs cannot be completely elucidated at the time of marketing and much of the development of knowledge about the adverse effect profiles of drugs depends on recognition of and reporting of ADRs[17]. Another key to improved reporting is to have immediate and easy access to a valid reporting system. However, despite the development and widely publicized apparent availability of the report forms by NAFDAC, little indication of this was documented in this survey. Further studies designed to find out the attitudes of physicians in Nigeria's tertiary hospitals towards ADR reporting, physician - pharmacist relationship, and pharmacists-patient relationship, and availability of NAFDAC reporting forms for use in tertiary healthcare centres may be steps in the right direction. Finally, pharmacists in all practice settings in conjunction with drug information specialists need to work to develop drug use evaluation (DUE) and ADR monitoring and reporting programmes that will maximize positive patient outcomes.

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Table 1: Demographic parameters (Age, Gender, Length of practice) including number of prescriptions filled per day by Respondents and number of respondents reporting ADR in last year.

Parameter	No. of Pharmacists (n=231)	No. who reported ADR in previous year
Age		
30 years and below	130	8
31 40	71	4
41 50	25	-
51 7	5	-
Gender		
Male	134	10
Female	97	2
Length of practice (Years)		
1 10	177	12
11 20	45	-
21 30	8	-
31 7	1	-
Prescriptions filled/day (Inpatient)		
10 50	20	7
51 100	79	3
101 200	105	1
201 300	27	1
300	-	-

Table 2: Attitudes toward and factors perceived to be of importance in deciding to report ADRs in Nigeria's tertiary hospitals.

Factor	% of Pharmacists responding (n=231)
It is necessary to report ADR	
Yes	93.50
No	4.76
No opinion	1.73
Factors perceived to be important in deciding to report ADR	
Severity of ADR	72.29
Unusual ADR	65.37
Awareness of similar report	22.90
ADR involving new product	42.90
Others	
Adequate number of personnel	10.00
Free access to in-patients	88.31
Committed hospital management	11.70

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