Nigerian Journal of Pharmaceutical Research
Vol. 3 no. 1, pp. 23-34 (September 2004)

ASSESSMENT OF PHARMACIST-PATIENT COMMUNICATION IN SOME HEALTH CARE FACILITIES IN SOUTHERN NIGERIA

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Abstract
Effective communication between the pharmacist and the patient is an important aspect of pharmacotherapy as it ensures patient's compliance to drug therapy. Therefore, a study of the communication between the pharmacist and patient was carried out to determine the level of communication between the pharmacist and the patient, and to examine the factors that can effectively predict question asking behaviour by the patient and the provision of medication information by the pharmacist to the patient. Pharmacy departments in three government hospitals in Edo and Delta States were used for the study. In each of the hospitals, both the pharmacists (n=59) and the patients (96 males and 104 females) were observed as the patients were being attended to by the pharmacists within the drug dispensing area. This involved 265 new prescriptions sheets and 44 refill prescriptions sheets. Information on the prescriptions was obtained from the patients as they came into the pharmacy dispensing areas. The likelihood that specific types of information were provided under different conditions of prescription status, patient age, patient gender and patient question asking were investigated. Factors associated with administrative elements, continuity of therapy, contraindications, directions for use, interactions, monitoring, name of medication, purpose of medication, side effects, and solicitation of feedback were determined by an observation of pharmacist-patient encounters and recording whether or not each type of information was provided to patients. The effects of independent variables (socio-demographic characteristics, prescription status, patient age, patient gender and patient question asking) on the provision of information to patients were investigated using logistic regression analysis. Results indicate that the level of communication between the pharmacists and their patients was generally very poor. The pharmacists provided information to the patients mainly in connection with the prices of their medications (98.5%) and the directions for their use (98.5%). They hardly provided information to the patients in areas such as continuity of therapy, contraindications, interactions, monitoring, solicitation of feedback and the name, source, nature, purpose and side effects of their drugs. Patient's question asking was also generally poor and most patients tend to ask questions in relation to the price of their medications. The socio-demographic characteristics, prescription status and patient question asking were major predictors for the provision of information to patients. Pharmacists in the hospitals studied do not provide adequate drug information to their patients. This necessitates the re-orientation of pharmacists if they are to be able to provide effective pharmaceutical care services to patients.

Keywords: Consultation; counseling; dispensing; question-asking; pharmacist-patient communication

INTRODUCTION

The communication of appropriate drug information to the patient by the pharmacist is a key role of the pharmacist in the provision of pharmaceutical care. Effective communication between the pharmacist and the patient is important in improving compliance to drug therapy. It leads to increase in the level of patient satisfaction with pharmacist consultation (Schommer &

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ISSN 0189-8434

Wiederholt, 1997) which is important in retaining and attracting patients as customers (Ross et al., 1987). As communication between pharmacists and patients about drug therapy continue to increase, there are often additional benefits for patients. Such benefits include acquiring the intended health objectives, and better management of problems associated with drug therapy (Wiederhelt et al., 1992). When the pharmacist communicates appropriately with the patient, the patient often exhibits a positive perception of the pharmacist. The work of Herman and Wiederholt has shown that a patient's perception of the pharmacist, and not the therapy, may lead to increased interpersonal exchange and patient collaboration in care (Hermansen & Wiederholt, 2001).

In Nigeria today, the professional roles of the pharmacists working in hospitals and community pharmacies are changing from a focus on preparation, dispensing, and sale of medications to those roles in which the pharmacists assist the public to get the best possible results from medications through patient education, physician consultation, and patient monitoring (Erah, 2003). After almost two decades of the acceptance of patient-oriented pharmacy practice in our hospitals and community pharmacies, poor staffing, infrastructure, willingness of the pharmacists to add new evolving roles to their duties, lack of proper coordination of activities, and lack of proper training for pharmacists have visibly produced a negative impact on effective communication of drug information to patients.

Many theoretical and conceptual frameworks have been used by researchers in the study of provider-patient communication. These include the role theory, behavioral theories of compliance, commonsense model of illness, and communication based models (Leventhal et al., 1991; Schommer & Wiederholt, 1997; Svarstad, 1986). Previous work examined four contextual cues that may be associated with the level of communication between the pharmacist and the patient. These cues are prescription status, patient age, patient gender and question asking behaviour (Schommer and Wiederholt, 1997). This study which was carried out in the Unites States indicated that these contextual cues have different effects on the content of information provided to patients. There was association between prescription status and the provision of five types of information, patient age and gender were associated with the provision of the same two types of information, and patient question asking behaviour was associated with the provision of eight types of information. The practice standards in the Unites States is different from those in Nigeria, and may not reflect the association of the cues with the content of pharmacist-patient communication in Nigeria.

The goal of this study, therefore, was to evaluate the four contextual cues in hospital pharmacy practice settings that may be associated with the content of pharmacist-patient communication in Nigeria, using the model adopted by Schommer and Wiederholt (1997). We sought to provide answers to the following questions:

- Do pharmacists communicate effectively with their patients?
- If so, are the pharmacists giving out information in-depth as their professional duty demands?
- What are the relationships between the content of pharmacist-patient communication and the variables: prescription status, patient age, patient gender, and patient questing asking behaviour?

METHODS

Setting:

The study was carried out in hospital pharmacies in University of Benin Teaching Hospital (UBTH) and Central Hospital (CH) (both in Edo State), Central Hospital, Warri (in Delta State). These facilities, providing mainly primary and secondary health care services for their communities and environs, were selected because each of the hospital pharmacies had an annual attendance of over 50,000 patients. Pharmaceutical services were provided in the pharmacy departments by 5 - 37 pharmacists with 1 – 20 years post-qualification experiences. The number of pharmacists in each of these hospitals were considered suitable for the assessment of the content of pharmacist-patient communication. Drugs prescribed in each of the facilities were usually dispensed in the hospital pharmacy and in instances where the drugs were not available, patients were advised by the pharmacists to purchase their drugs from private pharmacies. As in other public hospitals in Nigeria, patients pay for the drugs that are supplied to them by the hospital pharmacy. Records of prescriptions were properly kept in the health facilities.

Patients and Data Collection

Prior to this study, we sought for and obtained approval from the head of pharmacy departments of each of the hospitals. Three hundred and fifty (350) patients were approached for this study. Out of this number, only 200 patients (about 57%) agreed to provide the relevant information and were included in the study. These were 29 males and 35 females in UBTH, 25 males and 25 females in Central Hospital Benin City, and 42 males and 44 females in Central Hospital Warri. The study involved 265 new prescriptions sheets and 44 refill prescriptions sheets. Information on the prescriptions was obtained from the patients as they came into the pharmacy dispensing areas. Observation of pharmacist-patient encounter was done within a time interval of 5 to 6 hr daily in each of the study sites on Mondays through Saturdays for two months; each patient was observed once. Throughout this period, all activities of the pharmacists attending to patients were observed and recorded as appropriate. To avoid bias, precautions were taken to avoid the pharmacists being observed knowing that his/her communication with the patients was being observed.

The likelihood that specific types of information were provided under different conditions of prescription status, patient age, patient gender and patient question asking were investigated. Twelve variables were used to represent the content of pharmacist-patient communication. These were made up of the 12 variables (administrative elements, continuity of therapy, contraindications, directions for use, interactions, monitoring, name of medication, purpose of medication, side effects, and solicitation of feedback) previously used by Schommer and Wiederholt (1997), and the source of medication, and nature of medication which were added because of their peculiar importance in the local environment. Factors associated with each of these variables (21 factors for all variables) were considered in the study. These were investigated by an unobtrusive observation of pharmacist-patient encounters and recording whether or not each type of information was provided to patients.

Four independent variables – prescription status, patient age, patient gender and patient question asking – were determined. The prescription status (number of new prescriptions, refill prescriptions, and over-the-counter – OTC - or prescription only medicines – POM) was measured through patient interviews during which patients were asked the new or refill prescription status of their medications. The status of each

medicine as to whether it is an OTC or POM medicine was determined using the Nigeria Essential Drugs list. Patient's age and sex were also noted as each patient was interviewed. Data for patients below the age of 17 years were obtained from those who accompanied them to the hospital pharmacies. Finally, patient question asking was determined by observing pharmacist-patient encounters and recording whether or not patients asked questions about their prescriptions or health. Included in the question asking list were whether the patients asked questions about prescription, health, price of drugs, repeat visit, side effects of their medicines, use of their medication, and duration of their therapy. Data collected were recorded using a data collection format.

Analysis of Data

The data obtained were coded and entered into a computer using a computer software, Epi-info 2000 (Centre for Disease Control, USA/World Health Organization, Geneva). The data fed into the computer software were double-checked to ensure accuracy and then analysed using descriptive statistics.

As appropriate, data were categorized and analyzed using Chi square (χ^2) test or Fisher's exact test (for small values). The association between the dependent variables (administrative elements, continuity of therapy, contraindications, directions for use, interactions, monitoring, name of medication, purpose of medication, side effects, and solicitation of feedback) and the independent variables (socio-demographic data, prescription status, and patient question-asking) were determined using a logistic regression analysis. Logistic regression model was used to determine the independent variables that were the best predictors of what motivated the pharmacists to provide information to the patient, and the patients to ask questions relating to their medications.

The independent variables included in the regression model for the patient question-asking behaviour were age, sex, educational status, religion, personal monthly income, and the prescription status. On the content of communication, two regression models were used in the prediction of the factors associated with the provision of information. The first model consisted of the socio-demographic data and the prescription status as the independent variables while the second model consisted of only patient question-asking variables as the independent variables for the provision of specific type of information outlined in the content of communication. Any factor with odd ratio greater than 1 was considered to be predictive of the dependent variable related to the factor in the model. Statistical analysis were performed at a confidence interval of 95%; 2-tailed probability values (p-values) of less than or equal to 0.05 were considered to be significant.

RESULTS

Socio-Demographic Characteristics

The frequency distribution of the socio-demographic characteristics of the patients studied based on gender is given in Table 1. The data were those for male patients (mean age, 26.5 ± 19.4 years; age range, 6 weeks to 98 years) and females (mean age, 26.3 ± 17.7 years; age range, 3 months to 84 years). There was no significant difference between the proportion of males and the females included in the study ($p > 0.05$). Majority of the patients fell within the age of 25 – 60 years. Most of the patients (83.5%) had formal education with a reasonable proportion (33.6%) being graduates of tertiary institutions. The patients were mainly Christians (91.8%). Some of them (14%) were on monthly income below ₦10,000.00 (1 US$ = ₦138.50 at present) but majority of them earned a monthly income within the range of ₦10,000 – ₦ 20,000. A

few of them (7.5%) gave an indication that they have not been on any income.

Prescription Status

There were 465 new prescriptions accounting for 85.7% of the total number of prescriptions issued to the patients studied while the rest were refill prescriptions. A prescription here, as distinct from a prescription sheet, implies a single drug recommended by a physician in a prescription sheet. Of the total number of prescriptions, OTC drugs accounted for 62.4% while POMs accounted for the remaining 31.6%. The rest were refill prescriptions. POM accounted for only 37.5% of these drugs while the rest were OTC drugs.

Patient Question-asking

The patients' question-asking was generally poor. Most patients (61.0%) tend to ask questions in relation to the price of their medications. The proportions of patients asking questions in relation to prescription, health, repeat of visit, side effects, medication use, and duration of therapy were 4.5%, 8.0%, 7.5%, 17.5%, 47.5%, and 29.5%, respectively. There was no significant difference between question-asking behavior of males when compared to the females ($p = 0.7649$, $\chi^2 = 3.342$, $df = 6$).

Content of Pharmacist-Patient Communication

The 21 factors associated with the 12 dependent variables (specific types of information) and the proportion of the patients that were provided the information are given in Table 2. The proportion of the patients who received the specific types of information, in descending order were: administrative element (98.5%), direction for use (98.5%), interaction (17.5%), continuity of therapy (10.5%), monitoring (9.5%), contraindications (7.5%), side effects (7.5%), purpose of medication (6.5%), nature of medication (4%), solicitation of feedback (3.5%), name of medication (2.5%), and source of medication (2%). Overall, 98.5% of the patients in this study received at least one of these types of information from the pharmacists. Virtually every patient received information on prices of drugs (98.5%), when to use their medication (90%), how long to use their medication (98.5%), how often to take their medication (98.5%), and how many to take at a time (98.5%).

Association of dependent variables with communication

The predictor factors relating to patient question-asking behaviour determined by the logistic regression analysis are given in Table 3. Age was found to be a general predictor for patient question-asking. Sex was also found to be a general predictor factor except for the question-asking in relation to medication use. Although most of the patients studied were Christians, religion was found to be associated with patient question-asking in relation to their prescriptions, and prices of drugs. Educational status was found to be associated with question-asking in relation to prices of drugs, side effects, medication use, and duration of therapy while personal income was a predictor for prices of drugs, side effects and medication use.

The evaluation of the association of specific types of information provided to the patients and the independent variables indicated that socio-demographic characteristics and prescription status significantly affected the administrative elements, continuity of therapy, and direction for use (Table 4), and interactions. The socio-demographic characteristics also significantly affected contraindications, monitoring, purpose of medication, and solicitation of feedback. The prescription status was found to significantly influence the administrative elements, continuity of therapy, contraindications, direction for use, interactions, monitoring, solicitation of feedback, and name, source,

nature, purpose and side effects of medications.

The prescriptions status (new or refill) was a major predictor for the provision of information on generic substitution available, renewal of medications, what the medication replaces, and interactions with other medications and food. Patient question-asking on price of drugs was a major predictor for the provision of information on generic substitution available, how the medication works with others, what the medication replaces, contraindications, when and how long to use the medication, interactions with other medications and what to avoid, how to assess the medication effectiveness, actions to take if a problem occurs, and the name, source, nature and purpose of the medications. The type of drugs (OTC or POM) only predicted the provision of information on when to use the medications. Educational status was one of the main predictors for the provision of information on renewal of drugs and solicitation of feedback. Patient question-asking on the duration of therapy significantly predicted the provision of information on the prices of drugs, when to use the medications received, and the name, source and side effects as well as solicitation for feedback. Also, patient question-asking on repeat visit was a major predictor for the provision of information on renewal of medications, conditions under which the medication should not be used, interaction

Table 1: Socio-demographic characteristics of patients

Variable	Male (%)	Female (%)
Age (years)		
0 - <10	26 (13)	19 (9.5)
10 – 14	4 (2)	7 (3.5)
15 – 19	5 (2.5)	7 (3.5)
20 – 24	9 (4.5)	18 (9.0)
25 – 60	46 (23)	48 (24)
>60	6 (3)	5 (2.5)
Total	96 (48)	104 (52)
($p = 0.4084$, $\chi^2 = 5.062$, $df = 5$)		
Educational Status		
Primary	25 (15.0)	23 (13.8)
Secondary	33 (19.8)	30 (18.0)
Tertiary	28 (16.8)	28 (16.8)
Did not go to school	10 (5.0)	23 (11.5)
Total	96 (48.0)	104 (52.0))
($p = 0.1692$, $\chi^2 = 5.035$, $df = 3$)		
Religion		
Christian	85 (43.6)	94 (48.2)
Moslem	5 (2.6)	5 (2.6)
Traditional religion	1 (0.5)	2 (1.0)
Pagan	1 (0.5)	2 (1.0)
Total	92 (47.2)	103 (52.8)
Personal Income per month		
<₦10,000.00	15 (8.1)	11 (5.9)
₦10,000.00 – ₦20,000.00	54 (29.2)	64 (34..6)
₦20,000.00 – ₦40,000.00	12 (6.5)	10 (5.4)
>₦40,000.00	8 (4.3)	11 (5.9)
Total	89 (48.1)	96 (51.9)
($p = 0.6028$, $\chi^2 = 1.856$, $df = 3$)		

with other medications, how to assess the medication effectiveness and action to take if a problem occurs. Similarly, patient question-asking on medication use was a major predictor of the provision of information on how the medication works with others, contraindications, how often to take the medication, monitoring of drug use, and solicitation of feedback.

Table 2: Information provided to the patients by the pharmacists (n = 200)

Variable	Factors	Male (%)	Female (%)
Administrative element	Generic substitution available	6 (3.0)	3 (2.0)
	Price	95 (47.5)	102 (51.0)
	Renewal	4 (2.0)	6 (3.0)
Continuity of therapy	How medication works with others	2 (1.0)	5 (2.5)
	What it replaces	12 (6.0)	9 (4.5)
Contra-indications	Conditions under which the medication should not be used	8 (4.0)	7 (3.5)
Direction for use	When to use the medication	88 (44.0)	92 (46.0)
	How long to use the medication	95 (47.5)	102 (51.0)
	How often to take the medication	95 (47.5)	102 (51.0)
	How many to take at a time	94 (47.0)	103 (51.5)
Interactions	Interactions with other medications	5 (2.5)	4 (2.0)
	Interactions with food	23 (11.5)	12 (6.0)
	What to avoid	10 (5.0)	11 (5.5)
Monitoring	How to assess the medication effectiveness	7 (3.5)	12 (6.0)
	Action to take if a problem occurs	5 (2.5)	11 (5.5)
Name of medication	Brand name or generic name	3 (1.5)	2 (1.0)
Source of medication	Reliable or unreliable	3 (1.5)	1.0 (0.5)
Nature of medication	Potency established or not	4 (2.0)	4 (2.0)
Purpose of medication	What the medication is for	5 (2.5)	8 (4.0)
Side effects	Side effects which may occur	7 (3.5)	8 (4.0)
Solicitation of feedback	Pharmacist asks patient for feedback	4 (2.0)	3 (1.5)

Table 3: Logistic regression model for patient question-asking behavior

Variable	*Predictor variable*	*Odd ratio*	*95% confidence interval of odd ratio*
PRICE	Age	1.019	0.996 - 1.043
	Sex	2.306	0.641 - 2,664
	Education status	1.396	0.887 - 2.198
	No. of new prescription	3.410	0.303 – 38.403
	Religion	1.201	0.599 – 2.407
	Monthly income	1.610	1.067 - 2.429
SIDE EFFECTS	Age	1.040	1.007 - 1.074
	Sex	1.762	0.674 - 4.607
	Education status	2.295	1.176 - 4.480
	No. of new prescription	1.290	0.225 - 6.596
	No. of refill prescription	1.109	0.249 - 4.939
	Monthly income	1.814	1.141 - 2.884
	No. of OTC drugs	1.513	0.280 - 8.186
	No. of POM drugs	1.613	0.222 - 6.098
MEDICATION USE	Age	1.005	0.981 - 1.029
	Monthly income	1.345	0.924 - 1.958
	Education status	2.916	1.772 - 4.799
	No. of refill prescription	1.459	0.349 - 6.069
	No. of OTC drugs	2.658	0.539 - 13.108
	No. of POM drugs	2.934	0.619 - 13.902
DURATION OF THERAPY	Age	1.017	0.991 - 1.043
	Sex	1.868	0.833 - 4.189
	Education status	1.747	1.041 - 2.931
	No. of OTC drugs	1.862	0.407 - 8.511
	No.of POM drugs	2.057	0.471 - 8.933

DISCUSSION

The results of this study have shown that the proportions of patients who received the specific types of information differ significantly from those previously reported by Schommer and Wiederholt (1997). While the pharmacists provided information on the direction for use and administrative elements to 37 – 39% of the patients in the earlier report by Schommer and Wiederholt, our investigation showed significantly higher proportions (98.5%). Conversely, the provision of information on purpose of medication, solicitation on feedback, name of medication, and side effects were significantly lower in our study. These findings are not surprising as the previous study was carried out in a developed country (USA) where pharmaceutical care is effectively practiced. Moreover, all the hospital pharmacies in the areas we studied did not have sufficient number of registered pharmacists to effectively cope with the large numbers of patients that were attended to by the pharmacists who attended to the patients. Though pharmacy technicians are often engaged in pharmacy departments to assist the pharmacists, they are often given limited roles in dispensing of drugs in the hospitals studied. Thus, the pharmacists often spent very short time, often less than 5 minutes with each patient, to have sufficient time to attend to other patients. This reason can also explain why the pharmacist hardly provided information on drug monitoring, contraindications, side effects, purpose of medication, nature of medication, solicitation of feedback, name of medication, and source of medication.

Table 4: Logistic regression model for some specific type of information

Variable	*Predictor Variable*	*Odd ratio*	*95% confidence interval of odd ratio*
	ADMINISTRATIVE ELEMENTS:		
Price	Duration of therapy	3.835	0.106 -138.381
CONTINUITY OF THERAPY:			
How this medication work with others	Age	1.009	0.995 - 1.066
	Sex	1.458	0.204 - 10.437
	Price of drugs	3.672	0.369 - 36.565
	Medication use	1.889	0.274 - 13.025
	Duration of therapy	1.743	0.301 - 10.106
What it replaces	Education status	1.036	0.472 - 2.274
	No. of new prescription	6.397	0.789 - 51.880
	No. of refill prescription	6.096	0.758 - 49.008
	Health	2.452	0.635 - 9.463
	Price of drugs	5.807	1.166 - 28.928
	Side effect	1.390	0.445 - 4.344
	Duration of therapy	1.605	0.498 - 5.173
DIRECTION FOR USE			
When to use the medication	Age	1.011	0.973 - 1.051
	Education status	1.051	0.513 - 2.156
	No. of OTC drug	18.812	0.780 - 453.665
	No. of POM drug	24.933	0.976 – 857.408
	Monthly income	1.243	0.544 - 2.837
	Price of drugs	3.288	1.64 - 10.155
	Duration of therapy	9.888	1.162 - 84.132
How long to use the medication	Age	1.154	0.904 - 1.472
	Price of drugs	2.022	0.162 - 25.289
How often to take the medication	Medication use	3.054	0.140 - 66.630
How many to take at a time	Age	1.334	0.659 - 2.701

In Nigerian hospitals, drugs prescribed in each of the facilities are usually dispensed in the hospital pharmacy. Where the drugs prescribed are not available in the hospital pharmacy, patients are often advised by the pharmacists to purchase their drugs from private pharmacies. Unlike what obtains in many developed countries, patients pay directly for the drugs that are supplied to them in the hospitals, often before they receive the drugs (Erah *et al*., 2003). However, some patients prefer to obtain their drugs outside the hospitals, usually in private pharmacies, and occasionally, from patent medicines stores. Patients' decision to obtain drugs from the hospital is often driven by the prices, and quality of the drugs. They often request the pharmacist to supply only the drugs in a prescription sheet they can afford to pay for at the time of the pharmacist-patient encounter based on how much money the patient can spend. As most citizens (like in other sub-Saharan Africa) live below the poverty line (Magarinos, 2004), the amount of money to

be spent at any time, and hence the prices of drugs, is a major consideration. Furthermore, many patients are conscious of the presence of fake and counterfeit drugs in Nigeria drug market (Raufu, 2002) and have strong belief that drugs available in hospitals are of good quality unlike those that may be obtained outside the hospitals.

Like previous work (Schommer and Wiederholt, 1997), our study indicated that the independent variables – socio-demographic characteristics, prescription status, and patient question-asking – have varied effects on the content of information provided to the patients. For example, when a new prescription was being dispensed, the pharmacists were more likely to provide information on generic substitution available, renewal of medications, what the medication replaces, and interactions with other medications and food than when a refill prescription was dispensed. The age and sex of the patients were determinants of request for information on prices, side effects, and duration of therapy.

Patient question-asking served as an important cue to the pharmacists to provide different types of information to the patients on prices, side effects, medication use and duration of therapy. For example, the educational status and age of the patients, number of new prescriptions, sex, and age were major predictors of patients' request for information on prices, side effects, and duration of therapy as well as use of medication. Similarly, patient's request for information on price of drugs more likely prompted the pharmacists to provide information on generic substitution available, how the medication works with others, what the medication replaces, contraindications, when and how long to use the medication, interactions with other medications, what to avoid, how to assess the medication effectiveness, actions to take if a problem occurs, and the name, source, nature and purpose of the medications. The request for information on the duration of therapy likely made the pharmacists tell the patient the prices of the medications, when to use the medications received, what the medication replaces, and how the medication works with others.

Researchers have suggested that many patients are not even aware that the pharmacist can be asked question about medication therapies (Morris *et al*., 1987). While it cannot be disputed that every pharmacist dispensing drugs to patients must provide all appropriate information to the patients that will enhance their compliance and ensure achievement of treatment goals, it does appears that patients may need to be educated to ask pharmacists questions about their medications. Therefore, pharmacist should not rely on patients to initiate communication, but rather actively assess patients' need for information and be prepared to discuss sensitive pharmacotherapeutic issues at patient levels of comprehension. Our investigation from a sample of 25% of the patients indicates that all patients are interested in asking questions about their medications. However, they would often not want to ask such questions about their health in the patients' waiting areas in the presence of other patients, unless it is absolutely necessary to do so. Unfortunately, none of the hospital pharmacies studied, like nearly all hospital pharmacies in Nigeria, have patients' consultation rooms for pharmacists to provide privacy for pharmacist-patient consultation. Therefore, information is usually provided to each patient in the open dispensing area, often through a window with the patients in the patients' waiting area and the pharmacists inside the drug dispensing room. This lack of confidentiality the patients are subjected to is

a major factor while the patients often do not to ask questions about their medication. In the light of the above, an educational intervention about pharmacists' roles could be applied to influence information provision by the pharmacists.

CONCLUSION

The provision of information on medication to the patients by the pharmacists in southern Nigeria is generally poor. Pharmacists generally provide information to the patients in connection with the prices of their medications and the directions for their use. They hardly provided information on continuity of therapy, contraindications, interactions, monitoring, solicitation of feedback and the name, source, nature, purpose and side effects of their drugs. Poor staffing of hospital pharmacies and proper training are limiting factors militating against the provision of appropriate information on drugs to patients in the hospitals studied.

Since patient question-asking is currently such an important determinant of the provision of many types of information, it is imperative to consider education of the public on the need to communicate with pharmacist in addition to organizing an educational intervention programmes for pharmacists, themselves. It is important to point out that: (1) pharmacists (rather than technicians) should physically hand over medicines to patients in order to develop face-to-face contact between pharmacists and patient and to show that the pharmacist is available to answer questions that the patient might have, (2) pharmacists and patients should interact in a private area so that the patient feels comfortable enough to asking questions, (3) pharmacists should always ask patients if they have any questions and be willing to probe and be patient enough for the patients' response, (4) pharmacists should ask for feedback from patients about how they plan to use their medications, what they are for and what to do if a problem occurs. An educational intervention involving the use of inexpensive educational materials distributed to patients can be applied to foster communication between pharmacist and patients. The need for hospital authorities to employ sufficient number of pharmacists to be able to cope with the large number of patients cannot be overemphasized.

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