

Patient-Reported Assessment of Pharmaceutical Services and Level of Satisfaction in Amassoma General Hospital in Bayelsa State, South-South of Nigeria

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Abstract

Background: Pharmacy practice has changed from the traditional dispensing to more sophisticated health care delivery. This study evaluated patient satisfaction with pharmaceutical services and their level of awareness of pharmaceutical services they are expected to be given at the pharmacy.

Method: This study was carried out in Amassoma, Southern Ijaw local Government Area of Bayelsa State, South- South region of Nigeria. Questionnaires were administered to the patients at the pharmacy department, after carefully explaining the objectives of the study and equally seeking their consent. Questionnaires were given to patients on the basis of availability and willingness to fill the questionnaires.

Result: About 67% of the respondents were females; 84.4% of respondents were within the age group of 18-30; 95.5% of respondents were students; 56.9% of the respondents were Ijaws; 85.3% of respondents reported that information on adverse effects of drugs/side effects noticed were not given; 91.7% of respondents reported that information on food not to be taken with drugs were not given; 89.0% of respondents reported that information on drug-drug interactions were not given; 86.2% of respondents reported that information on what to do when adverse effects of drugs/side effects of drugs are noticed were not given. About 20% of respondents reported that they were not sure of the quality of information provided on

adverse effects of drugs/side effects noticed. Same for information provided on food not to be taken with drugs, drug-drug interactions and what to do when adverse effects of drugs/side effects of drugs were noticed. Over 80% of respondents rated the time spent in the pharmacy as satisfactory while 70.6% of respondent rated the pharmacists' concern to solve medication problems was satisfactory and 69.7% of respondent rated the neatness of the pharmacist was satisfactory.

Conclusion: Patients reported satisfaction of pharmaceutical services and their awareness of pharmaceutical services were poor. Robust training of pharmacy staff is required. Government intervention by posting more pharmacists to the Hospital and implementation/enforcement of provision of pharmaceutical services are required.

Key words: Pharmaceutical services; Satisfaction; Hospital and Pharmacist

INTRODUCTION

In contemporary pharmacy practice, patient's rights constitute a critical aspect, especially the right to be adequately informed about their health, to take active part in process of treatment, to be educated and counseled in managing a chronic disease and coping with everyday life and, indeed, the right for a better quality of life¹.

Pharmaceutical care, the contemporary model of pharmacy practice, entails accepting responsibility for patients' pharmacotherapeutic outcomes. With this model, pharmacists can contribute to positive outcomes by educating and counseling patients to prepare and motivate them to follow their pharmacotherapeutic regimens and monitoring plans².

As a part of their professional obligation, pharmacists are required to educate and counsel all patients to the extent possible, going beyond the minimum requirements of laws and regulations; simply offering to counsel is considered inconsistent with pharmacists' responsibilities. In pharmaceutical care, pharmacists are obliged to encourage patients to seek education and counseling and should eliminate barriers to providing it².

Patient Education (PE) has been defined as a planned learning experience using various methods which improve patient's knowledge and influence health and illness³.

As a sum of Therapeutic Education (TE) and Health Education (HE), PE is seen as an important integrated part of treatment and care especially for long-term care patients. It is perceived as a multi-professional and inter-sectoral team work and includes networking. TE would enable patients to acquire and maintain abilities that allow them to cope with disease; it is patient-centered and generally includes organized awareness, information, self-care learning and psychosocial support regarding disease, prescribed treatment, care, hospital and other health care settings, organizational information and behavior related to health and illness¹.

On the other hand, Patient Counseling has been defined as "an individualized process involving guidance and collaborative problem solving to help the patient to better manage the health problem"³.

The ultimate goal of Patient Education and Counseling is to empower the patient to gain greater control over decisions and actions affecting their health. It will help patients manage their chronic illness; ensure greater humanistic, clinical and economic outcomes. It is a consensus that a well trained patient obtains a higher quality of life, the disease remains under control, the treatment is consistent and hospital costs are smaller for both the individual and the state¹.

The human and economic consequences of inappropriate medication use have been the subject of professional, public, and congressional discourse for more than three decades^{4, 5, 6, 7, 8}.

Lack of sufficient knowledge about their health problems and medications is reported as one cause of patients' non-adherence to their pharmacotherapeutic plans. It is very clear that without adequate knowledge, patients cannot be effective partners in managing their own care. The pharmacy profession has accepted responsibility for providing patient education and counseling in the context of pharmaceutical care to improve patient adherence and reduce medication-related problems^{9, 10, 11, 12}.

Current concepts propose that Education and Counseling are most effective when conducted in a room or space that ensures privacy and opportunity to engage in confidential communication. It is recommended that the environment should be equipped with appropriate learning aids².

Patient satisfaction is a key factor in quality assessment of the health care systems¹³ and has been categorized as an important humanistic outcome measure in pharmaceutical care.

Various authors have given different definitions to patient satisfaction. Gourley et al¹³ defined it as a predictive measure of the probability that a patient will continue to use the service of a particular provider, while Schommerand Kucukarslan¹⁴ considered it a personal evaluation or appraisal of a service or product. Further, various survey instruments to assess patient satisfaction with pharmacy services have been developed, validated and used in many countries including Nigeria^{13, 14, 15, 16, 17, 18, 19}.

Patient satisfaction is a valuable humanistic outcome which needs to be measured. It can determine the sustainability of a healthcare service²⁰, as well as reflecting the influence of pharmacy services on patients' lives. However, owing to its subjective nature, it is difficult to evaluate and it is not a structure or process measure¹³. Additionally, satisfaction is more subjective than reports of care, which provide objective evidence about what occurs in an encounter¹⁶.

No single patient satisfaction measure is valid in every pharmacy situation¹⁴.

Patient satisfaction has many different facets, reflecting the type and quality of service provided by healthcare providers, how well service is delivered, and the extent to which the expectations and needs of patients are met. In measuring performance, patient satisfaction has been defined as the personal evaluation of healthcare services and providers²¹.

Most of the studies that provided a means of measuring patient satisfaction with pharmaceutical services showed satisfaction in terms of evaluating performance, focusing on three to nine dimensions of satisfaction. Some authors included eight dimensions: explanation, consideration, technical competence, financial aspects, accessibility, drug efficacy, non-prescription products, and quality of the drug product dispensed²², while Lang and Fullerton²³ reported only four underlying dimensions of patient satisfaction, namely professional communication, physical and emotional comfort, demographic issues and location plus convenience. Other researchers who had developed scales to measure patient satisfaction have come up with various dimensions of satisfaction, and these studies portray satisfaction as an experience-based performance evaluation of the services²⁴.

Patient satisfaction is the function which underpins ideas of satisfaction, and includes satisfaction with the primary provider's staff and waiting time²⁵. With an understanding of these elements, pharmacy managers can improve those areas, thus generating more satisfied patients and developing the pharmacy's feasibility.

This study was to evaluate pharmacist-patient interaction by specifically investigating both the content and quality of patient education and counseling; it also assessed patients' level of satisfaction with pharmaceutical services provided by pharmacy staff in a General Hospital in Bayelsa State, South Nigeria.

METHOD:

Study Site/Population

This study was carried out among patients attending Amassoma General Hospital Southern Ijaw local Government Area of Bayelsa State, South- South region of Nigeria. Amassoma is one of the largest Communities in Bayelsa State with a Population of less than 10,000 people²⁶. Their occupation is majorly fishing and farming. Their major language is Ijaw. However, other tribes also live in the Community. The town is host to the state-owned Niger Delta University.

Study Design and Data Collection

A Cross-sectional study based on quantitative self-reported anonymous questionnaire.

A multiple-choice questionnaire was administered to obtain socio-demographic information, pharmaceutical services provided and satisfaction with pharmaceutical services provided.

This study sample comprised of 109 patients.

Data Analysis

Descriptive statistics was used in the analysis of the collected data Statistical analysis was performed using SPSS for windows version 20.0 (SPSS, Chicago, IL). Chi square and student t-test were used to analyze the data. P-values<0.05 were considered to be of statistical significance.

Ethical Approval

Ethical approval was obtained from the hospital management. All patients provided informed consent before any data collection.

RESULTS:

Demographic Data of Respondents:

From the result in Table 1, 67% of respondents were reported to be females; 84.4% of respondents were within the age group of 18-30; 95.5% of respondents were students; 84.4% were single; 7.3% of respondent’s monthly income falls within 10,000-20,000 and 56.9% of the respondents were Ijaws.

Table1: Socio-demographic characteristics of respondents

Variable	Freq.	%
	<i>N=109</i>	
Gender		
Male	36	33.0
Female	73	67.0
Age group		
18-30	92	84.4
31-50	17	15.6
Occupation		
Civil servant	4	3.7
Business	2	1.8
Student	103	94.5
Marital status		
Single	92	84.4
Married	17	15.6
Monthly income		
10,000-20,000	8	7.3

21,000-50,000	3	2.8
No information	98	89.9
Education		
Primary	6	5.5
Secondary	3	2.8
No information	98	89.9
Ethnicity		
Ijaw	62	56.9
Igbo	22	20.2
Hausa	3	2.8
Yoruba	12	11.0
Others	10	9.2

Respondents' Audit of Information provided by Pharmacists

Of all, 85.3% reported that information on adverse effects of drugs/side effects expected were not given; 91.7% reported that information on food not to be taken with drugs were not given; 89.0% reported that information on drug-drug interactions were not given; 86.2% reported that information on what to do when adverse effects of drugs/side effects of drugs are noticed were not given; 85.3% reported that information on storage of medications were not given; 82.6% reported that information on importance/need for adherence to medication regimen were not given; 83.5% reported that information on the need for follow-up were not given; 85.3% reported that information on how medications work were not given; 87.2% reported that information on change of drugs if any side effects or adverse effects occur were not given; 81.7% reported that information on reason for taking medication and name of medications were not given.

Table 2: Respondents' Audit of information provided by Pharmacists

Information provided by pharmacist:	Yes		No		Not sure	
	Freq.	%	Freq.	%	Freq.	%
Adverse effects of drugs/side effects noticed	5	4.6	93	85.3	9	8.3
Food not to be taken with drugs	4	3.7	100	91.7	4	3.7
Drug-drug interactions	5	4.6	97	89.0	6	5.5
What to do when adverse effects of drugs/side effects of drugs are noticed	5	4.6	94	86.2	9	8.3
Storage of medication	6	5.5	93	85.3	9	8.3
Importance/need for adherence to medication regimen	9	8.3	90	82.6	9	8.3
Need for follow-up	9	8.3	91	83.5	8	7.3
How medications work	5	4.6	93	85.3	9	8.3
Reason for taking medication	9	8.3	89	81.7	10	9.2
Name of medications	11	10.1	89	81.7	8	7.3
Change of drugs if any side effects or adverse effects occur	3	2.8	95	87.2	10	9.2

Respondents' Assessment of the Quality of Information provided by Pharmacists

Less than 10% of all respondents rated the quality of most of the information domain they received from the pharmacist as Good / Very Good except the information on when to take the medications; 55% and 23.9% rated the latter information as Good and Very Good respectively. Majority of the respondents did not respond to this question or were not too sure of the response to give. See Table 3 for details.

Table 3: Respondents' Assessment of the Quality of Information provided by Pharmacists

Information	Rating			
	Good	V. Good	Excellent	Not sure

	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
Adverse effects of drugs/side effects noticed	7	6.7	1	0.9	0	0.00	22	20.2
Food not to be taken with drugs	7	6.4	1	0.9	0	0.00	22	20.2
Drug-drug interactions	7	6.4	0	0.0	0	0.0	23	21.1
What to do when adverse effects of drugs/side effects of drugs are noticed	4	3.7	1	0.9	0	0.0	24	22.0
Storage of medication	7	6.4	1	0.9	0	0.0	22	20.4
Importance/need for adherence to medication regimen	8	7.3	1	0.9	0	0.0	21	19.3
Need for follow-up	6	5.5	0	0.0	0	0.0	23	21.1
How medications work	8	7.3	0	0.0	0	0.0	22	20.2
Name of medication	7	6.4	0	0.0	0	0.0	22	20.2
Reason for taking medication	10	9.2	0	0.0	0	0.0	19	17.4
Evaluation of therapeutic response	5	4.6	1	0.9	0	0.0	24	22.0
When to take medications	60	55.0	26	23.9	8	7.3	10	9.2

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Table 4: Impact of socio-demographic variables on satisfaction

Predictor	Standardized coefficient Beta	CI at 95%	*p-value
Gender	0.651	-0.099 – 0.839	0.098
Age	-0.098	-0.061 – 0.490	0.804
Occupation	0.014	-0.059 – 0.070	0.866
Marital status	-0.571	-1.502 – 0.510	0.261
Monthly income	-0.571	-1.502 – 0.510	0.261

Education	0.264	-0.401 – 0.690	0.526
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*p-value >0.05. CI Confidence interval

Overall model (R Square) = 0.559, F (4, 5) = 1.584, p=0.310

When cross-tabulated, patient satisfaction was not statistically correlated with gender, age, occupation, marital status and monthly income (p>0.05).

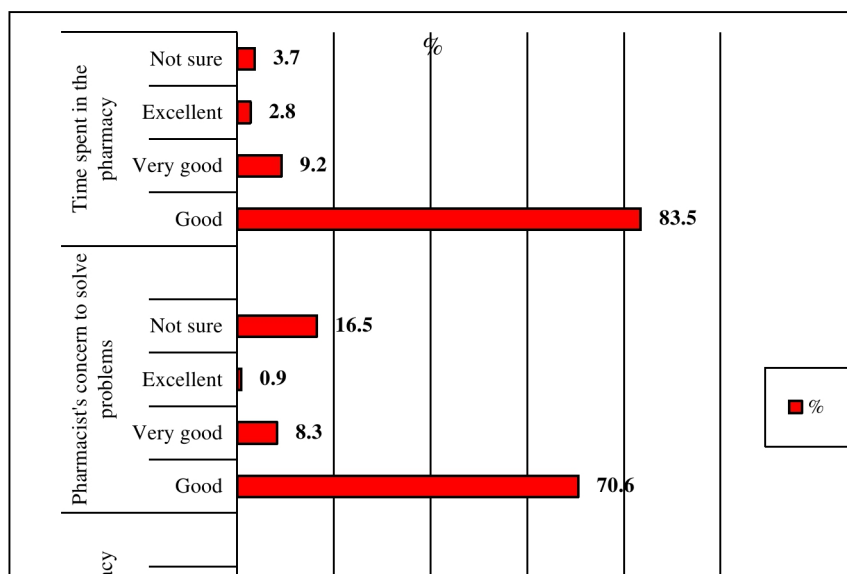


Figure 1. Assessment of Patient Satisfaction

From this study it was revealed that 83.5% of respondents rated the time spent in the pharmacy as good, 70.6% of respondent rated the pharmacist concern to solve medication problem as good, and 69.7% of respondent rated neatness of the pharmacy was good (Fig 1).

DISCUSSION

This study revealed that more female participated. This is expected since more female visit the health facility for their medical problems more than the male counterpart. The respondents were mostly within the age group of 18-30 years. The patients were mostly students of the Niger Delta University. They were mostly single, with a monthly income of 10,000-20,000 and were mostly Ijaws.

Reported information provided by Pharmacists

Regarding information provided by the pharmacist, majority (over 80%) of respondents stated that information on adverse effects of drugs/side effects expected, food not to be taken with drugs, drug-drug interactions, what to do when adverse effects of drugs/side effects of drugs are noticed, storage of medications, importance/need for adherence to medication regimen, the need for follow-up, how medications work, change of drugs if any side effects or adverse effects occur, reason for taking medication and name of medications were not given. . This poor state of pharmaceutical care must be due to the inadequate number of skilled personnel (pharmacists) and shallow knowledge of available hands in the hospital

pharmacy. This hospital has only one pharmacist who handles administrative chores as well; therefore most of the patient interactions are effected by non-pharmacists. The strategy for redress is increase the number of pharmacists to reduce workload, motivate the staff and/or provide basic training on patient communication and interaction to existing staff concordant with literature recommendations^{27, 28, 29, 30, 31, 32}.

Respondents' Assessment of the Quality of Information provided by Pharmacists

Only a tenth of respondents rated the quality of most categories of information they received from the pharmacy staff as Good or Very Good except the information on when to take the medications which was rated Good (55%) and Very Good (23.9%). Majority of the respondents did not respond to this question or were not too sure of the response to give. This dismal state of pharmacy interaction obviously stemmed from the fact that there were no skilled or trained pharmacy staff to provide appropriate pharmaceutical services; you cannot give what you do not have. One of the key activities in patient interaction is patient education and counseling; data obtained in this study clearly showed that the department has failed in this regard casting aspersions on patient outcomes. This hospital requires more adequate number of skilled staff to provide appropriate and optimum pharmaceutical care.

Impact of socio-demographic variables on satisfaction

When cross-tabulated, patient satisfaction was not statistical correlated with gender, age, occupation, marital status and monthly income ($p > 0.05$). This is at variance with previous studies where some level of correlations were reported with various demographic data^{27, 28}

Level of Patient Satisfaction with Pharmaceutical Services

From the study it was revealed that most of the patients were satisfied with time spent in the pharmacy. Most of the patients reported that the pharmacist showed concern to solve their medication problems. The pharmacy department was rated high for neatness of the pharmacist and the pharmacy.

Regarding the high level of satisfaction with time spent in the pharmacy, this is expected since patients are not properly attended to in terms of counseling and education which are activities that would have demanded a greater passage of time.

. The pharmacy department remains the best and appropriate place for patients to be educated on their medications. Since, the expected services were not forthcoming, it is expected that time spent in the pharmacy department will be short. Many research articles have illustrated that waiting time reduction improves the efficiency and resulting increased patient satisfaction³³.

For the high level of satisfaction reported in this study regarding showing concern to solve patient medication problems, Ijaws are very hospitable people and this community is a closely knit one. Nevertheless, this is highly commendable. Similarly, the high level of satisfaction recorded for neatness of the pharmacist and pharmacy is not unexpected; this pharmacy is a small one which must have been closely monitored; it is also customary and ethical for all pharmacy staff to dress and appear professional.

Other studies have equally reported satisfaction with time spent in the pharmacy and rated pharmacists high on neatness of staff and the pharmacy environment^{27, 28}. An earlier study on patient satisfaction with pharmacy services in greater details however reported a low level of satisfaction³⁴.

CONCLUSION

Optimum pharmaceutical services were not provided to patients. Paradoxically, patients expressed satisfaction for time spent in the pharmacy, prompt attention received and neatness of pharmacist /pharmacy. More qualified pharmacy staff are needed in this hospital and the existing staff need to be adequately orientated on optimal pharmaceutical services that ought to be provided to patients.

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