

Geriatric customers' satisfaction with community pharmacy services in Sagamu South West Nigeria

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ABSTRACT

Background: The geriatrics due to their frailty and impairments have different perception of health needs from their younger cohorts and require special care. Little is however known about the extent to which their needs are met in community pharmacy.

Objective: This study aimed at evaluating geriatric patients' satisfaction with community pharmacy services in Sagamu, southwest Nigeria.

Methods: The study was cross sectional utilizing questionnaires administered to 269 geriatric customers in 12 community pharmacies in Sagamu, Nigeria between 5th of January and 28th of March 2015. Convenience sampling was used for customers' selection. A 22 -item instrument was used to explore respondents' satisfaction with various aspects of pharmaceutical care services offered by community pharmacies such as provision of drug information among others. Descriptive statistics including frequency and percentage were used to summarise the data while Chi square was used for test of proportions. The priori level for statistical significance was considered at $p < 0.05$.

Results: The response rate was 250 (92.9%). Majority 141 (56.4%) of the respondents were female and married 136 (54.4%). Majority of the respondents 225 (92.6%) were satisfied with pharmacists' assessment of therapy; 201 (85.9%) were satisfied with pharmacists' intervention in cases of therapeutic failure. Pharmacist services were considered helpful in improving the health of majority 239(95.6%) of the respondents.

Conclusion: The Geriatrics respondents were satisfied with the medication information management skill and pharmaceutical care services offered by pharmacists. However, pharmacists' availability at their premises was less satisfactory. Pharmacists' accessibility to the geriatrics needs to be improved upon.

Key words: Geriatrics, customer, satisfaction, community pharmacy

La satisfaction des clients gériatriques des services de pharmacie communautaire à Sagamu au sud-ouest du Nigeria

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Résumé

Contexte: Les gériatriques en raison de leur fragilité et des déficiences ont une perception différente des besoins de santé de leurs cohortes plus jeunes et nécessitent des soins spéciaux. On sait peu cependant de la mesure dans laquelle leurs besoins sont satisfaits dans la pharmacie communautaire.

Objectif: Cette étude visait à évaluer la satisfaction des patients gériatriques des services de pharmacie communautaire à Sagamu, sud-ouest du Nigeria.

Méthode: L'étude était représentative et a utilisé des questionnaires administrés à 269 clients gériatriques dans 12 pharmacies communautaires à Sagamu, au Nigeria entre le 5 janvier et le 28 mars 2015. L'échantillonnage aléatoire a été utilisé pour la sélection des clients. Un instrument à 22 éléments a été utilisé pour explorer la satisfaction des répondants à divers aspects des services de soins pharmaceutiques offerts par les pharmacies communautaires, tels que la livraison d'information sur les médicaments, entre autres. Les statistiques descriptives y compris la fréquence et le pourcentage ont été utilisés pour faire le bilan des données, tandis que le chi carré a été utilisé pour le test des proportions. Le niveau a priori de signification statistique a été examiné à $p < 0,05$.

Résultats : Le taux de réponses était de 250 (92,9%). La majorité 141 (56,4%) des répondants étaient des femmes et mariées 136 (54,4%). La majorité des répondants 225 (92,6%) étaient satisfaits de l'évaluation de la thérapie des pharmaciens; 201 (85,9%) étaient satisfaits de l'intervention des pharmaciens en cas d'échec thérapeutique. Les services de pharmacien ont été considérés comme utiles dans l'amélioration de la santé de la majorité 239 (95,6%) des répondants.

Conclusion : Les répondants de Gériatrie étaient satisfaits de la compétence de gestion de l'information sur les médicaments et les services de soins pharmaceutiques offerts par les pharmaciens. Cependant, la disponibilité des pharmaciens dans leurs locaux était moins satisfaisante. Cependant, l'accessibilité des pharmaciens aux besoins gériatriques doit être améliorée.

Mots clés: gériatrie, client, satisfaction, pharmacie communautaire

INTRODUCTION

Patient satisfaction has been defined in various ways by different authors. While Rossiter defined it as the degree to which services rendered to an individual meets his needs and wants, Risser considered it as a measure of variance between patient's expectation of service delivery and the actual service offered. Patient satisfaction therefore, is an individual judgement and reactions to his or her service experience.¹⁻³ Within the pharmaceutical care concept however, it may be conceptualised within the four frameworks of performance evaluation, disconfirmation of expectations, affect and equity based assessments.⁴ Customers' assessment of service aspects falls under performance evaluation. The disconfirmation of expectations is a measure of the gap between expectation and actual experience. Affect-based assessment is the emotional response to service. It is both cognitive and specialized with regard to pharmaceutical care or disease management, and relates to patient counselling, medication management and patient follow-up.⁵ Equity based assessment on the other hand, measures perception of fairness in dealing with patients. The extent of customers' satisfaction with the various aspects of services, apart from influencing their future patronage, loyalty and retention of the pharmacies for healthcare needs, also affects their medication adherence and treatment outcomes.^{6,7} It is therefore not surprising that patient satisfaction has emerged as an important measure of the quality of care rendered by health care providers.^{1,5,6} Furthermore, measurement of patient satisfaction with service delivery especially in community pharmacy, may contribute to positive change in the healthcare providers' attitude and behaviours, thus improving pharmacy practice.⁸ In addition, it is also of paramount importance with respect to quality improvement programmes and total quality management. This explains to a large extent, the reason a growing number of researchers are using patient satisfaction to assess the competency of community pharmacists and quality of service they offer to their clients.^{7,9,10}

Several studies that investigated patient satisfaction with community pharmacy services revealed that patients' expectations and satisfaction vary among different cohorts of patients, and from one country to the other, as a result of differences in perception of needs.^{10,11} For instance, it is reported that over three quarters of Australian patients expected pharmacists to explain the use of medication to them, while the Japanese public satisfaction was more influenced by adequate communication time with the pharmacists

and convenient opening hours.^{10,12} Although many studies that evaluated patient satisfaction with community pharmacies especially in developed nations reported positive impression, a large number of them suffer from "generalisation of perception".^{7,11,13,14} It is known that different cohorts of patients have different perception of health needs, and therefore their satisfaction with services offered to meet the needs vary.¹⁵

The elderly accounts for a significant population in many nations of the world, with over 60% of them found in the developing nations.¹⁶ These seniors rely on medications more than their younger cohorts because of the increased number and impact of co-morbidities.¹⁷ They also tend to suffer from both physical and cognitive impairments.¹⁸ It is therefore reasonable to expect their pharmaceutical care needs to be more specific and tasking for pharmacists to meet than their younger cohorts. While several studies have been carried out on patient satisfaction with community pharmacy services in developed nations, literature is scanty about Africans' experience. Consequently, little is known about geriatric satisfaction with pharmaceutical care services they receive in Nigerian community pharmacies. This study therefore aimed at evaluating geriatric customers' satisfaction with community pharmacy services in Sagamu, southwest Nigeria using the different conceptualizations mentioned above.

METHODS

Study design

A cross sectional study involving 269 elderly clients that visited 12 community pharmacies in Sagamu, southwest Nigeria from January to March, 2015 was carried out. Sagamu is a cosmopolitan city in Ogun State which is inhabited by many Nigerian ethnic groups, although Yoruba is the dominant ethnic group. The community pharmacies were randomly selected based on their geographical distributions (north, south, west, east). They represent about 40% of the registered community pharmacies in the city. Convenience sampling was used for clients' selection. Customers aged 60 years and above who consented to participate in the study were included. Elderly clients who did not have direct encounter with pharmacists and those with impairments that severely affected their comprehension were excluded. The study protocol was approved by the Ethical Committee of the Ogun State Ministry of Health. The pharmacists and the customers also gave their consents after the study rationale and methods were explained to them.

Data collection instrument

A 22-item instrument was used to explore clients' opinions about pharmacists' attitude, provision of medication information and clients' satisfaction with the community pharmacy services in general. The questionnaire was developed from the instruments used in previous studies.^{13, 14} Questions considered not too relevant to Nigerian situations were removed, while some that might create ambiguity were reframed. A pilot study of 40 participants was carried out in a community pharmacy in Ijebu-Ode; a neighbouring city to Sagamu. The result of the pilot study was used for the questionnaire validation. Reliability study was carried out using Cronbach's Alpha value. The questionnaire took about 10 minutes to complete. The questionnaire was translated into local languages for easy comprehension.

Pharmacists' attitudes were evaluated using a 4- point Likert scale ranging from regularly to rarely. Pharmacists' attitudes evaluated included his availability, accessibility and courtesy to clients. Close ended questions were used to explore clients' opinions about adequacy of medication information and their satisfaction with services offered in the community pharmacy. A close ended question on willingness to pay for services was also included.

Data collection and analysis

The responses were fed into Microsoft excel software for easy sorting and double checked to ensure accuracy. Survey responses were treated with utmost confidentiality. The data was analysed using Statistical Package of Social Sciences (SPSS) Inc. Chicago, IL., USA version 16. Descriptive statistics including frequency and percentage were used to summarise the data. Chi square was used for test of proportions while relationship between various variables was determined using cross tabulation. The priori level for statistical significance was considered at $p < 0.05$.

RESULTS

Response rate and questionnaire reliability test

The questionnaire was distributed to 269 geriatric clients. Responses were received from 250 clients yielding a response rate of 92.9%. Reliability test showed that questions on pharmacists' attitude dimension have a Cronbach's value of 0.784, medication information management 0.507 and customers' satisfaction 0.810.

Demographics of the respondents

Majority of the respondents were females 141(56.4%), married 136(54.4%) and were in the age group of 66-70 years 82 (32.8%). The Socio-demographic distribution of the respondents is as shown in Table 1.

Table 1: Socio-demographic data of the respondents

		Number	% frequency
Gender	Male	109	43.6
	Female	141	56.4
Age	60-65 years	69	27.6
	66-70 years	82	32.8
	71-75 years	60	24.0
	> 75 years	39	15.6
Educational level	No schooling	46	18.4
	Primary school	49	19.6
	Secondary	58	23.2
	Tertiary	97	38.8
Occupation	unemployed	25	10
	Retired	104	41.6
	Self employed	59	23.6
	Private employed	62	24.8
Marital Status	Single	11	4.4
	Married	136	54.4
	Separated	4	1.6
	Widow	99	39.6
Ethnicity	Yoruba	203	81.2
	Ibo	19	7.6
	Hausa	15	6.0
	Others	13	5.2

Respondents' co-morbidities:

Fifty respondents (20%) were managing diabetes, 65 (26%) had hypertension, 54 (21.6%) had diabetes and hypertension, 11 (4.4%) had peptic ulcer disease at the time of study. The remaining 70 (28%) had different co-morbid diseases. More females 70 (28%) than males 49 (19.6%) reported hypertension in this study. There was significant association between gender and prevalence of hypertension in the study respondents ($X^2= 17.195$, $p=0.000$).

Pharmacists' availability, accessibility and courtesy

In the opinion of a large number of respondents 150 (60%), pharmacists were not regularly available at the premises during their visits. Ninety nine respondents (39.6%) claimed they met pharmacists on ground occasionally. Customers who had tertiary education 68 (27.2%) visited the pharmacies more than those with secondary 43 (17.2%) and primary education 41 (16.4%). There was significant association between educational level, marital status, employment status, disease conditions being treated by the clients and

frequency of visitation $p = 0.001, 0.02, 0.005$ and 0.000 respectively. However, no significant association was found between gender and frequency of visitation $X^2=5.007$, $p=0.171$. Pharmacists' accessibility, availability, courtesy and counselling time were significantly associated with frequency of clients visitation to the community pharmacies $p= 0.000, 0.000, 0.001, 0.000$ respectively.

The results analysis also showed that educated clients were more likely to be shown courtesy and respect more than the illiterates $X^2=34.588$, $p=0.000$. Majority 132(52.8%) of the respondents claimed that pharmacists were not regularly accessible to them; 133 (53.2%) respondents believed that pharmacists created enough time to address their medication needs. Few respondents 26 (10.4%) however, claimed that pharmacists had never given them medication information. The opinions of the respondents about the frequency of pharmacist's courtesy, availability and accessibility is presented in Table 2 below.

Table 2: Respondents' opinions about community pharmacists' attitude

Question items		Response	Occs & Rly	*p-value
		Reg & Smt		
How often are you shown courtesy by your pharmacists?	Male	84(33.6%)	25(10%)	0.208
	Female	114(45.6%)	27(10.8%)	
How will you describe pharmacists' accessibility to you?	No schooling	20(8%)	26(10.4%)	0.003*
	Primary	43(17.2%)	6(2.4%)	
	Secondary	38(15.2%)	20(8%)	
	Tertiary	77(30.8%)	20(8%)	
How regular do you meet pharmacists On duty during your prescription refill	Unemployed	21(8.4%)	4(1.6%)	0.057
	Retired	64(25.6%)	40(16%)	
	Self employed	14(5.6%)	45(18%)	
	Private employed	35(14%)	27(10.8%)	

^a Reg= regularly, Smt= sometimes, Occs= occasionally, Rly= rarely

*Chi square test, level of significance $p < 0.05$

Pharmacists' provision of medication information

Pharmacy environment was considered friendly by majority 234 (93.6%) of the respondents. There was significant association between level of literacy and the

perception of respondents about conduciveness of pharmacy environment $p=0.046$. The respondents' opinions about pharmacists' medication information management are as presented in Table 3 below.

Table 3: Respondents' opinions about pharmacists' medication information management

	Yes	No
1. Does he enquire about your health problems? (n=246)	223(90.7%)	23(9.3%)
2. Does he give you proper information on the storage of your medication? (n= 242)	211(87.2%)	31(12.8%)
3. Does your pharmacist work with you to plan your medication for effectiveness? (n=248)	223(89.9%)	25(10.1%)
4. Do you get help from your pharmacist when you have a health problem related to your medication? (n=243)	226(93.0%)	17(7.0%)
5. Does the pharmacist provide you with an advice on life style modification? (n= 246)	214(87.0%)	32(13.0%)

^b Only the valid respondents were considered for analysis, n= number

Customers' satisfaction with pharmacy service and willingness to pay

Majority of the clients 136 (54.4%) agreed that pharmacists regularly checked with them the effectiveness of their medication, while 41 (16.4%) claimed they had never had such opportunity. A few

respondents 46 (18.4%) claimed that pharmacists hurriedly explained doses and side effects of their medications. The respondents' opinions about satisfaction with quality of service are as presented in Table 4.

Table 4: Respondents' satisfaction with quality of services offered in the community pharmacies

Item question	Yes	No
1. Does your pharmacists efforts help to improve your health? (n=242)	231(95.5%)	11(4.5%)
2. Are you satisfied with the way your pharmacist answers your questions? (n=245)	232(94.7%)	13(5.3%)
3. Are you satisfied with your pharmacists' help when a medication does not have the expected effect? (n=234)	201(85.9%)	33(14.1%)
4. Are you satisfied with how your pharmacists use information about your previous conditions when assessing your therapy? (n=243)	225(92.6%)	18(7.4%)
5. Will you be willing to pay for the services rendered to you by your pharmacist ? (n=246)	239(97.2%)	7(2.8%)

^c Number may not add to 250 because only valid respondents were considered, n= number

Majority 243 (97.2%) of the respondents were willing to pay for the pharmaceutical care services offered by the community pharmacists. There was no significant association between age, employment status, level of education and willingness to pay in this study $p=0.203, 0.082, 0.281$. Pharmacists' accessibility was however found to be significantly associated with willingness to pay among the survey respondents $p=0.012$.

DISCUSSION

From this study, a greater percentage of the respondents were females. This may be related to the greater life expectancy of women compared to men. This observation is consistent with the theory of feminization of ageing.¹⁹ Level of literacy had influence on the frequency of visitation to the pharmacies. The geriatric patients who had tertiary education patronised the community pharmacies most. Similar observation had been reported in a previous study on impact of education on consumer behaviour.²⁰ Availability of the pharmacists at their duty sites was less than satisfactory. Just 40% of the respondents agreed that the community pharmacists were on ground every time during their visits, this is below expectation. The finding from this study was lower than 71.4% and 56.5% earlier reported in similar studies in Saudi Arabia and Nigeria respectively.^{11,21} Pharmacists' availability in their premises at all times is a fundamental requirement of the profession. The dwindling economic fortunes from community pharmacy practice in Nigeria, which has made many pharmacists to seek extra income elsewhere, could have accounted for the observation.

Pharmacists as an integral part of health care system are expected by the society to play pharmaceutical care roles. These roles can only be successfully discharged when they are accessible to the public. In addition, the

public image of community pharmacists as health care providers will only be appreciated when they are regularly accessible. Pharmacists' accessibility in this study was below average. There was also discrimination in accessibility pattern as the educated customers had better access to the pharmacists than the illiterates. This is consistent with many other studies which reported that pharmacists were not always accessible for medication information.^{11,22,23} It is important that pharmacists realise that their availability and accessibility to the public, apart from enhancing their public image as professionals, also have strong impact on customers' behaviours including future patronage, loyalty and building of therapeutic relationship.⁷ Studies have shown that more time is needed to communicate effectively with the elderly than their younger counterparts.^{24,25} There may also be the temptation for pharmacists to ignore the elderly from many pharmaceutical care services due to their impairments, and as a result of perceived "business loss" when attending to them.²⁶ From this study, a great number of geriatric clients were dissatisfied with time spent by the pharmacists for medication information. This finding is similar to an observation from a previous study where 44.8% of the survey respondents had the same view.⁹ Community pharmacists need to devote more time for effective communication with their clients, and also create a balance between professional

responsibility and business inclination if their public image as healthcare providers is to be enhanced. It is however noted in this study that the customers' perception of time spent by pharmacists for medication information had influence on the frequency of patronage. This indicates that both the professional and economic interests of pharmacists could be enhanced by creating enough time for their clients.

Pharmacists also have a responsibility to show adequate courtesy and respect to clients irrespective of their age and social status. A good pharmacy practice is described as one in which Clients feel they are treated like any other customers. This was not the case in this study. The educated clients were shown courtesy and respect more frequently than the illiterates. This however, may be due to the fact that pharmacists found it easier to communicate with the educated customers and therefore, built a more cordial relationship with them. Conduciveness of pharmacy environment for professional roles helps in developing general satisfaction in community pharmacy services.^{13,27} There seems to be a general satisfaction with the pharmacy environment among the study population irrespective of age and gender.

Provision of medication information to customers is an essential part of pharmaceutical care, which has been reported to influence medication adherence and patient satisfaction.¹³ Geriatric clients in this study were generally satisfied with the provision of medication information and intervention by the pharmacists. The pharmaceutical care services rendered by the pharmacists were also well appreciated as overwhelming majority of the customers confirmed that the pharmacists' efforts helped to improve their health. This observation should however be taken with caution, because it has been argued that many patients due to lack of understanding about the expanded counselling role that pharmacists should provide, based their judgements on the traditional role of pharmacists, their expectations are thus set so low that they are easily satisfied.^{10,15} However, it may be argued that the reliability of instrument used for medication information management was poor based on its Chronbach's alpha value. The cut off points of Chronbach alpha of 0.7 on which this assumption is based has been shown to be legendary and in fact lower thresholds have been used in literature.^{28,29}

Satisfaction of the respondents with community pharmacy services was generally satisfactory and this translated to their willingness to pay for the pharmaceutical care services, as majority of the respondents (97.2%) were willing to pay for the

services. This is an improvement over the reported 25% respondents who were willing to pay in a similar study two decades ago.³⁰ Although studies on effect of age on willingness to pay for services have been very inconsistent,^{14,30} in this study however, age was found to have no significant effect on willingness to pay. Pharmacists' accessibility was the only factor found to influence clients' willingness to pay for the pharmaceutical care services. This implies that pharmacists' attitudes and customers' satisfaction with services may be major factors responsible for willingness to pay for community pharmacy services. This study is limited by inability to explore knowledge of the respondents about the expanded roles of community pharmacists. Thus, there may be need for further research on knowledge of clients about the expanded role of community pharmacists.

CONCLUSION

Geriatrics customers were satisfied with pharmacists' medication information management and pharmacists' efforts at resolving their medication therapy problem. However, pharmacists' accessibility and availability were less satisfactory. Geriatrics satisfaction with pharmacists' medication therapy management and services may have translated to their willingness to pay for pharmacy service. The perception that age and income status influence willingness to pay for services may not be factual in health services, but rather, the health care providers' attitudes may be a major factor influencing willingness to pay for health care services. Community pharmacists need to devote adequate time to geriatric customers' medication information need. Pharmacists' availability and accessibility also need to be improved upon.

ACKNOWLEDGEMENTS

We declare that there is no conflict of interest on this research study. This research study did not receive fund or support from any source. The authors are highly grateful to Dr Adisa Rasaq for proof reading the article and for offering useful criticism.

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