Self-Medication Practice among the Elderly Attending Primary Healthcare Centers in Lagos

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ABSTRACT

Background: There is a high incidence of self-medication with over-the-counter, complementary and prescription medicines in various localities. In order to use a non-prescription drug safely and with good results, the patients, specifically the elderly, need information such as, how to precisely identify symptoms and possible side effects of the medicine. Drug related problems are reported to be a contributing cause of hospitalizations in people over age fifty. The elderly are a neglected and vulnerable group that attention must be paid to in view of our ageing population. Data on self-medication practices in Nigeria, especially in the elderly population, are necessary to help with the planning of interventions and to improve on self-medication of medicines within this population.

Objective: This study was aimed at determining self-medication practice among elderly in Primary healthcare centers (PHCs) in selected Lagos state local government areas.

Methods: The study was a descriptive cross-sectional survey that consisted of 300 elderly participants visiting the PHCs at the selected local government areas (LGAs) of Lagos State. Categorical and continuous data were analyzed using SPSS VERSION 23.Chi square test was used to determine association between socio-demographic characteristics and knowledge of medicines and self-medication practice and a p-value less than 0.05 was considered statistically significant.

Results: The prevalence of self-medication was 62.3%. The commonest reasons for self-medication were time constraints [100%], the most common drugs used for self-medication were analgesics [100%], Antibiotics [82.0%], antimalarials [82.0%], there was a significant association between knowledge and educational level [p= 0.003], marital status [0.016], occupation [<0.001] and medical insurance [p=0.001]. There was also a statistically significant association between self-medication practice and age [p= 0.027], occupation [p< 0.001], marital status [p< 0.001], education [p< 0.001], health insurance [p= 0.004].

Conclusion: Considering the patterns and high prevalence of self-medication among the elderly in this study, enforcing the restriction of not selling prescription medicines over the counter and increasing the intensity of educational programs for the elderly to further understand the risks and potential harmful effects associated with self-medication is of paramount importance.

Keywords: Drug use, Self-medication, elderly, Primary healthcare centers.

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Pratique de l'automédication chez les personnes âgées visitant les centres de soins de santé primaires à Lagos

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RESUME

Contexte: Il existe une forte incidence d'automédication avec des médicaments en vente libre, complémentaires et sur ordonnance dans diverses localités. Afin d'utiliser un médicament en vente libre en toute sécurité et avec de bons résultats, les patients, en particulier les personnes âgées, ont besoin d'informations telles que, comment identifier précisément les symptômes et les effets secondaires possibles du médicament. Les problèmes liés aux médicaments seraient une cause d'hospitalisation chez les personnes de plus de cinquante ans. Les personnes âgées sont un groupe négligé et vulnérable auquel il faut prêter attention compte tenu de notre population vieillissante. Les données sur les pratiques d'automédication au Nigéria, en particulier dans la population âgée, sont nécessaires pour aider à la planification des interventions et pour améliorer l'automédication des médicaments au sein de cette population.

Objectif: Cette étude vise à déterminer la pratique de l'automédication chez les personnes âgées dans les centres de soins de santé primaires (SSP) dans certaines territoires administratifs de l'État de Lagos.

Méthodes: L'étude est une enquête transversale descriptive sur 300 participants âgés visitant les SSP dans les territoires administratifs locaux (LGA) de l'État de Lagos sélectionnées. Les données catégoriques et continues ont été analysées à l'aide de la VERSION 23 SPSS. Le test du x2 a été utilisé pour déterminer l'association entre les caractéristiques sociodémographiques et la connaissance des médicaments et de la pratique de l'automédication et une valeur-p inférieure à 0,05 a été considérée statistiquement significative.

Résultats: La prévalence de l'automédication était de 62,3%. Les raisons d'automédication les plus courantes étaient les contraintes de temps [100%], les médicaments les plus couramment utilisés pour l'automédication étaient les analgésiques [100%], les antibiotiques [82,0%], les antipaludiques [82,0%], il y avait une association significative entre connaissances et niveau d'éducation [p=0,003], situation de famille [0,016], profession [<0,001] et assurance médicale [p=0,001]. Il y avait également une association statistiquement significative entre la pratique de l'automédication et l'âge [p=0,027], la profession [p<0,001], la situation de famille [p<0,001], l'éducation [p<0,001], l'assurance maladie [p=0,004].

Conclusion: Compte tenu des tendances et de la forte prévalence de l'automédication chez les personnes âgées dans cette étude, appliquer la restriction de ne pas vendre de médicaments sur ordonnance en vente libre et augmenter l'intensité des programmes éducatifs destinés aux personnes âgées afin de mieux comprendre les risques et les effets néfastes potentiels associés à l'automédication est d'une importance capitale.

Mots clés: usage de médicaments, auto-médication, personnes âgées, centres de soins de santé primaires.

INTRODUCTION

According to the World Self-Medication Industry (WSMI), self-medication is defined as the treatment of common health problems with medicines specifically made and assigned for use with little or no medical supervision and approved as safe and effective for such use.[1] It involves making health choices, making responsible use of all medicines, self-recognition of symptoms, self-monitoring and self-management.[1] Self-medication constitutes one of the most current articulations of the present need of people to care for their health.[2] Each and every day around the globe, people, regardless of how knowledgeable they may be, act on their health with no consultation to qualified health personnel; they practice what is known as self-care, a conscious habit and culture, practiced all over the world, Nigeria inclusive.[3] Users commonly reach out for self-care products to resolve their common health problems which most times include fever, body pains, indigestion, diarrhea, vomiting, cough, and upper respiratory tract infections.[2] The unimaginable increase in the cost of health care in the previous couple of years, resulting in increase in health care needs surpassing the available money related resources, and the continued upgrading in people's education, general knowledge and socio-economic status have brought about a successful integration of self-medication into many health care systems throughout the world.[4] Responsible self- medication has been known to promote the rational use of medicines, such that the appropriate medicines for a clinical need, are used at the correct dosage, for an appropriate period of time, and at a lower cost to themselves and the community.[3] The World Self Medication Industry in its 2009 report highlighted the potentials of responsible self-medication in the reduction of pressure on medical services in areas of limited healthcare personnel and in helping patients control their own chronic conditions.[1] Several literatures reveal a high incidence of self-medication with over-the-counter, complementary and prescription medicines in a range of 15.0 - 81.5% in various localities.[5,6] Though self-medication is a popular preference worldwide, little is still known about its appropriateness, hence the need for a certain level of knowledge and health orientation which produces responsible self-medication.[7]

United Nations have set a cut-off of 60 years and above to denote the older population. According to the Nigerian Population Commission, (NPC), there are three categories of the elderly which are, the young old (60-74 years old), the aged (75-79 years old), while the oldest old are those 80 years and over. In industrialized countries, the term oldest old refers to people aged 85 and over.[8] In order to use a non-prescription drug safely and with good results, the patients, specifically the elderly, need information such as how to precisely identify symptoms and possible side effects of the medicines.[9,10] In self-medication, information is obtained from the labeling material, patient information texts, patient's previous personal experience, mass-media and product's advertisement. [3] Drug related problems are reported to be a major contributing cause of about 19-28% of hospitalizations in people over age fifty, increased emergency room visits, and increased need for assisted living arrangements.[5] The elderly are a neglected and vulnerable group that attention must be paid to in view of our ageing population.[2]

Data on the pattern of self-medication in Nigeria, especially in the elderly population, are necessary for planning of interventions and to improve on the self-use of medicines within this population. This study was aimed at evaluating the pattern of self-medication practice among elderly population in primary healthcare centers in Lagos state.

METHODS

The study had a descriptive cross-sectional design and comprised of elderly patients aged 60 years and above attending primary healthcare centers in the selected local government areas of Lagos state. The selection of subjects was done by multistage sampling method.

Sampling method

The selection was done by multistage sampling method.

Stage One: selection of Local Government Areas: Nine Local government areas from the three senatorial districts were selected by simple random sampling by balloting; Lagos Mainland, Surulere, Eti-osa, Shomolu, Kosofe, Ikorodu, Oshodi/isolo, Ikeja, and Mushin Local government areas.

Stage two: selection of Primary healthcare centers (PHC): one PHC was selected from each of the local government areas by simple random sampling using balloting.

Stage three: Selection of respondents: Proportionate sampling technique was used to recruit elderly patients in each primary healthcare center (PHC), this sampling method determined the exact number of respondents that participated in the study from each PHC.

Sample size determination

The level of significance was set at 5%

The sample size was estimated using the formula:

$$n = \frac{Z^2 pq}{d^2}$$

n = minimum sample size for a target population_> 10000

Z = standard normal deviate corresponding to 5% level of significance = 1.96

p = prevalence of self-medication from a previous study = 62.5%[7]

q = 1 – p = 1 – 0.625 = 0.375

d = degree of accuracy desired 0.05

$n = [1.96]^2 \times 0.625(0.375)/0.05^2$

n = 360.15

n ~360

It was however important to make provision for non – response rates in order to ensure high validity of the results obtained. A non – response rate of 10% was included.

Thus population size N can be calculated thus:

N = n + 10% (n)

361 + (10/100 X 361)

397.1 ~ 398

Approximately sample size was 398

For population less than 10,000, $n_f = n/(1+n)/N$

Where: n_f = the minimum required sample size for the target population < 10,000.

N = the population size = 1,080

$n_f = 398/(1+398/1,080)$

nf = 290.

The minimum sample size was taken as 290.

PRIMARY HEALTH CARE CENTRES	ELDER PATIENT TO BE SEEN PER MONTH	ELDERLY PATIENT RECRUITED FROM EACH
1. Ejire PHCC, Surulere.	124	124/1080 * 290 = 33
2. Rauf Aregbesola PHCC, Agege.	168	168/1080 * 290 = 45
3. Palm Avenue PHCC, Mushin	140	140/1080 * 290 = 38
4. Ita-elewa PHCC, Ikorodu	172	172/1080 * 290 = 46
5. Iga-Iduganran PHCC, Lagos Island.	.154	154/1080 * 290 = 42
6. Mende PHCC, Kosofe	72	72/1080 * 290 = 19
7. Somolu PHCC, Somolu	68	68/1080 *290 = 18
8. Abule-nla PHCC, Lagos Mainland.	96	96/1080 * 290 = 26
9. Shogunle PHCC, Oshodi	86	86/1080 * 290 = 23
Total	1080	290

One (1) extra questionnaire was added to each of the PHCs and an extra PHC was randomly selected making a total of 300 questionnaires distributed. A structured, interviewer-administered questionnaire was used for data collection. It was developed from review of literature on similar studies and designed to suit the research objectives.[9-11] The questionnaire was comprised mainly of closed-ended questions and few open-ended questions, with a total of 36 questions.

A team of 3 volunteers, undergraduates of the department of pharmacy, College of Medicine were recruited and trained. All the volunteers were trained by the researcher on how to complete the questionnaire correctly by role-playing and going through the process to be followed while completing the questionnaires for the respondents.

A total of 300 structured, interviewer-administered questionnaires were used for data collection.

Knowledge assessment: Every correct answer was scored one as a score and every incorrect and non-response was scored zero. The total score for each respondent was converted to percentage. A score of less than 50 % was considered poor, while a score of between 50 to 100 % good.[12] Practice was graded as appropriate for acceptable self-medication practice and inappropriate for unacceptable self-medication practice.[13]

Data analysis

The analyzed data was presented in frequencies, percentages, mean, and standard deviation. Chi square test was used to determine association between socio-demographic characteristics and knowledge of medicines and self-medication practice and p-value of less than 0.05 was considered statistically significant.

Ethical consideration

Ethical approval for the study was obtained from the Health Research and Ethics Committee (HREC) of the College of Medicine, University of Lagos with assigned number ADM/DCST/HREC/APP/213. In addition, consent was sought from the appropriate authorities. A letter of introduction was obtained from the department of community and primary health care, College of Medicine. Permission was obtained from the Lagos state primary health care board.

RESULTS

Table 1 showed the degree of knowledge of self-medication among respondents. It revealed that self-medication was rightly defined as the use of drugs not prescribed by an authorized medical personnel (a doctor) to treat ailments by 141 (47%) of the respondents. Majority, 273 (91.0%) were aware of the contra-indication between food and alcohol, 222 (74.0%) were also aware that some drugs cannot be taken together. When asked whether they check the expiry date of drugs purchased, 218 (72.7%) of the respondents gave positive responses while the remaining 27.3% gave negative responses.

Overall, the assessment of the respondents' knowledge of self-medication showed that 264 (88%) of the respondents had good knowledge of concept of self-medication while thirty-six respondents (12%) had poor knowledge of self-medication. Thus, the knowledge of the respondents on self-medication was well above average.

Table 1: Knowledge of self-medication

Variable	Frequency (n=300)	Percentage
Self-medication refers to:		
Use of drug purchased over-the-counter following doctor's prescription.	52	17.3
Use of drug not prescribed by authorized medical personnel	141	47.0
Use of home-made drugs and herbs to treat ailment	27	9.0
Use of medicine prescribed by health personnel to treat self-diagnosed conditions.	10	3.3
The use of drugs prescribed by doctors at home/ outside a health facility	52	17.3
No idea	18	6.0

Some drugs: (Multiple answers allowed)		
Cannot be taken with other drugs	222	74.0
Cannot be taken with alcoholic drinks	273	91.0
Cannot be taken with some kinds of foods	21	70.3
Some drugs are contraindicated or Cannot be given to children	246	82.0
Cannot be given to pregnant women	264	88.0
Cannot be given to breastfeeding mother	246	82.0
Cannot be taken by people with chronic disease	208	69.3
Same drugs can be given by oral, injection, topical or other route		
Yes	199	66.3
No	101	33.7
Discontinue taking drugs before the date advice by healthcare provider		
Yes	165	55.0
No	135	45.0
Share drugs with family member friend's neighbors.		
Yes	160	53.3
No	140	46.7
Believe same drugs can be remedy or a poison		
Yes	204	68.0
No	96	32.0
Check expiry date of drugs during purchasing or before use		
Yes	218	72.7
No	82	27.3

Table 2 showed practice of self-medication. A total of 187 (62.3%) respondents of the sampled population had practiced self-medication in the last two months. Amongst the patients who had used drugs without the doctor's prescription in the last two months, a wide array of drugs either singly or in combination was said to have been used by them. When asked about their source of information about orthodox drugs, 35% (43) of the respondents reported that they obtained drug information from health professionals especially pharmacy personnel and 65% (80) of the respondents confessed to experience from previous treatment while 65.8% (123) of them agreed to self-medicate with orthodox medicines.

Table 2: Practice of self-medication

Variable	Frequency (n=300)	Percentage
Ever taken medication not prescribe by a doctor in the past 2 months		
Yes	187	62.3
No	113	37.7
If no why (n=113)		
fear of wrong use of drug	69	61.0
Fear of side effect	9	8.0
I have no illness in specified time	35	31.0
Type of self-medication use (n=187)		
Orthodox medicine	123	65.8
Orthodox and traditional medicine	64	34.2

Source of information about orthodox medicine (n=123)		
Health professional	43	35.0
Experience from previous treatment	80	65.0
Source of drug for self-medication (n=123)		
From pharmacies/drug shops	96	78.0
From left over from previous treatment	27	22.0
How respondents request the drugs in retail outlet (n=96)		
Mention name of drug	70	72.9
Mentioning the signs and symptoms	16	16.7
Showing drug container	1	1.0
Others	9	9.4
Opinion about self-medication for self-health care(n=187)		
Acceptable practice	45	24.1
Not acceptable practice	97	
Don't know	45	51.9
Conditions for which respondents self-medicated (n=187)		24.1
Cough	60	32.1
Abdominal pain	43	22.9
Toothache	17	9.1
Diarrhea	5	2.7
Peptic ulcer disease	6	3.2
Eye disease	6	3.2
Constipation	6	3.2

Figure 1 showed drugs used for self-medication by the respondents in the last two months; analgesics ranked highest among the group of drugs the respondents used for self-medication. This was followed by antimalarial drugs, antibiotics, multivitamins, sedatives, antihypertensives, herbal remedy and cough syrups.

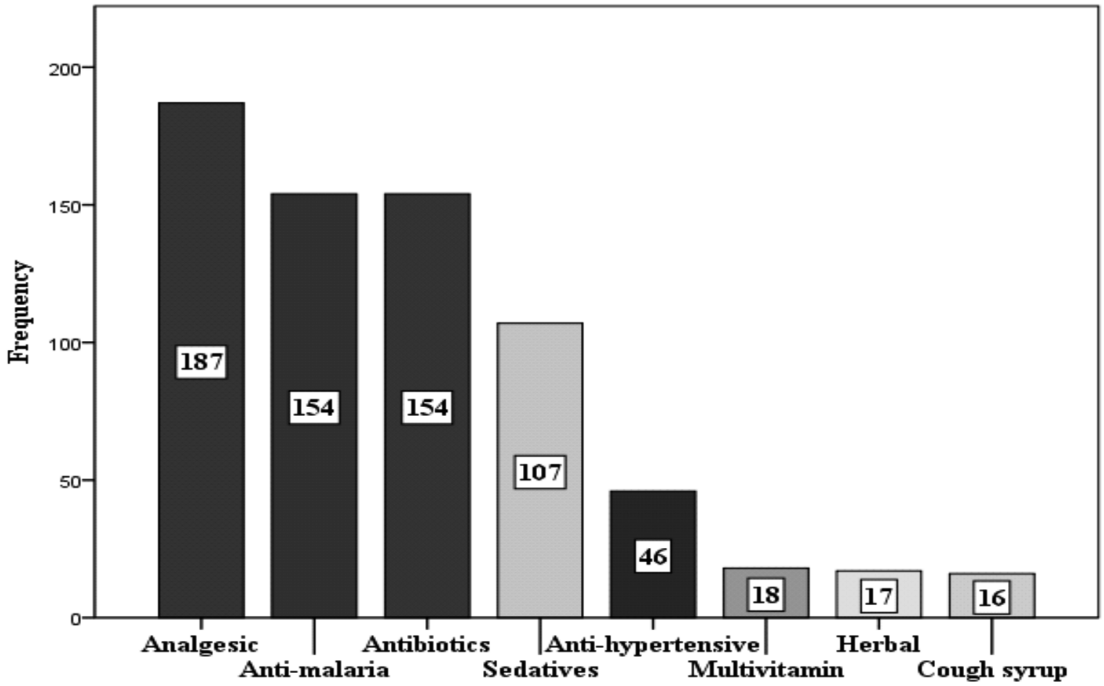

Figure 1: pattern of drugs used for self-medication

Figure 2 showed the association between knowledge and self-medication practice; 75% of the respondents with poor knowledge had inappropriate practice while only 60.6% of respondents with good knowledge had inappropriate practice. The proportion of respondents with appropriate practice was more among those with good knowledge. There was statistically significant association between knowledge and self-medication practice ($p < 0.001$)

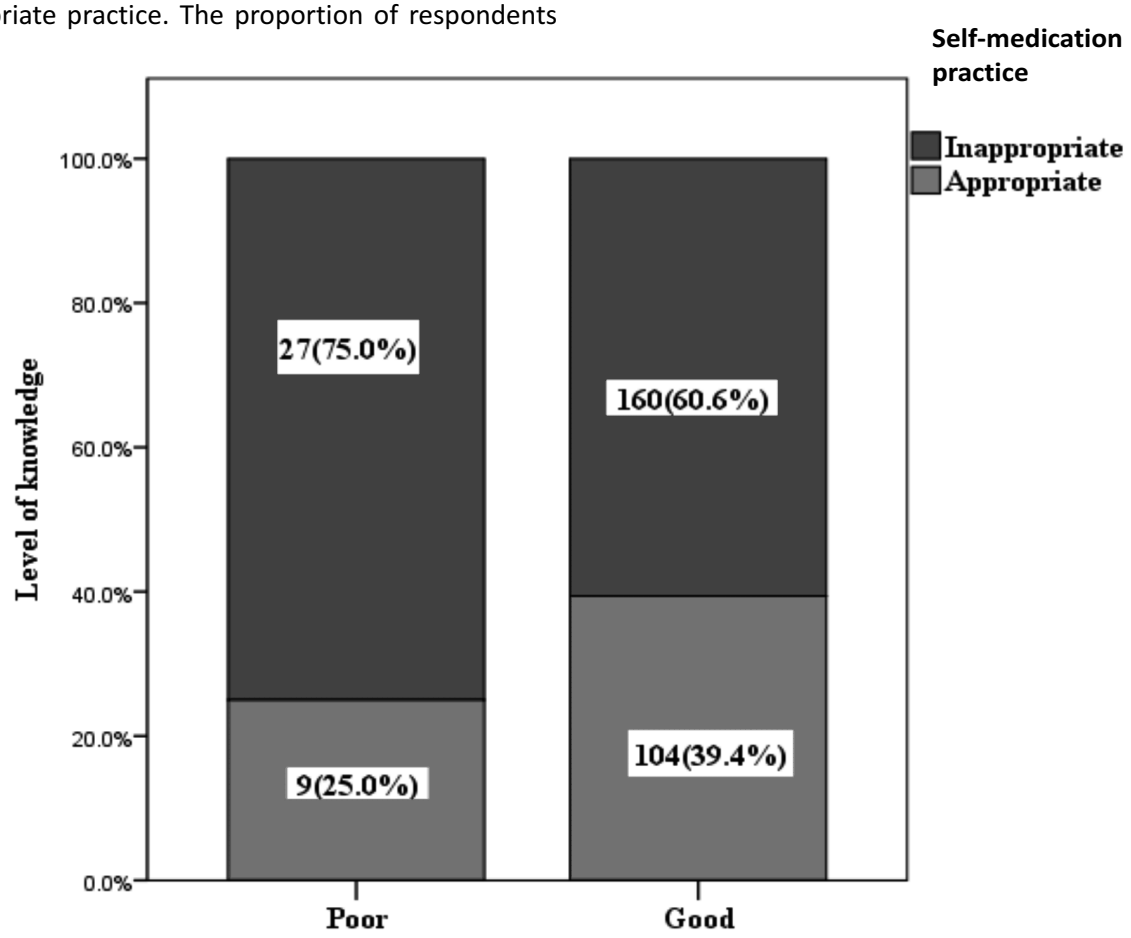

Figure 2: Association between knowledge and practice of self-medication

Table 3 showed factors that influenced self-medication. The most common reason given by the patients for practicing self-medication in the instances that occurred over the last two months was due to time constraints 100% (187), previous experience of treating the ailment was also mentioned as a reason by 72 respondents (38.5%) and the practice was also attributed to their perception of the ailment as a minor one by 62 respondents (33.2%).

Table 3: Factors influencing self-medication

Variable	Frequency (n=187)	Percentage
Opinions about reason for medication (Multiple responses)		
Time constraints	187	100.0
Minor illness	62	33.2
Health institution too far	0	0.0
Emergency cases	36	19.3
Self-medication is cheap	62	33.2
Know the drug before	72	38.5

Any perceived outcome of the self-medication		
Cured from illness	89	47.6
Get relief from illness	63	33.7
No improvement	35	18.7
Any special physiological/ pathological condition while self-medicating		
No special condition	177	94.7
Had chronic disease	10	5.3
Respondents selection of medication was based on (Multiple responses)		
Recommendation by community pharmacist	63	33.7
Opinion of family	10	5.3
Opinion of friends	9	4.8
Personal experience	55	29.4
Recommendation from internet	0	0.0
Previous for doctor prescription	55	29.4
Advertisement	0	0.0
Possible to treat common illness with self-medication successfully by oneself		
Yes	116	62.0
No	53	28.3
Not sure	18	9.6
Consideration when selecting medication		
Brand name	62	33.2
Price	35	18.7
Indication for use	179	95.7
Adverse reactions	18	9.6

Table 4 on adverse health events related to self-medication practice; majority of the patients 95% (178) said they had never reacted to any medication in the past two months while 5% reported to have had adverse reaction to medications. Out of the 5% (9) who had reacted to a drug before, all (100%) indicated that they stopped the medications without consulting their doctor or pharmacy staff.

Table 4: Adverse health events related to self-medication practice

Variable	Frequency (n=187)	Percentage
Ever had any adverse reaction when you took medication for self-care		
Yes	9	4.8
No	178	95.2
Response to adverse reaction (Multiple response)		
Stopped taking medication	9	4.8
Consulted pharmacy staff	9	4.8
Consulted a doctor	0	0.0
Others	0	0.0

Table 5: showed association between socio-demographic characteristics and knowledge of self-medication. There was a statistically significant association between knowledge and occupation with p-value = 0.001 (p<0.05). The study also showed statistical association between respondents' age, marital status, educational level, health insurance, size of family and knowledge of self-medication (p< 0.05)

Table 5: Association between Socio-Demographic Characteristics and Knowledge of Self-Medication

	Poor (n=36)	**Good (n=264)**	**X2**	**p-value**
Gender			0.598	**0.439**
Male	18(50.0)	150(56.8)		
Female	18(50.0)	114(43.2)		
Age group (Years)			6.543	**0.043***
60-64	29(80.6)	155(58.7)		
65-69	2(5.6)	40(15.2)		
70-74	2(5.6)	33(12.5)		
= 75	3(8.3)	36(13.6)		
Occupation			15.982	**0.001***
Employee	9(25.0)	99(37.5)		
Business	18(50.0)	64(24.2)		
Retired	9(25.0)	53(20.1)		
Others	0(0.0)	48(18.2)		
Marital status			4.211	**0.040***
Married	38(100.0)	236(89.4)		
Widowed	0(0.0)	28(10.6)		
Highest educational level			7.373	**0.043***
None	0(0.0)	9(3.4)		
Primary	9(25.0)	70(26.5)		
Secondary	18(50.0)	78(29.5)		
Tertiary	9(25.0)	107(40.5)		
Type of health Insurance			34.903	**<0.001***
No insurance	9(33.3)	162(68.1)		
Government insurance	9(33.3)	11(4.6)		
Private me dical insurance	9(33.3)	48(20.2)		
Others	0(0.0)	17(7.1)		
Number of family member living with respondents			28.958	**<0.001***
1-3	0(0.0)	112(42.4)		
4-6	27(75.0)	132(50.0)		
>6	9(25.0)	20(7.6)		

Table 6 showed association between practice of self-medication and socio-demographic characteristics. There was also a statistically significant association between self-medication practice and occupation [p< 0.001], marital status [p< 0.001], education [p< 0.001], health insurance [p= 0.004], and number of family members living with the elderly with (p=0.001).

There was a statistically significant association between Practice of self-medication and Age group (years), occupational status, marital status, highest educational level, type of health insurance, and number of family members living with respondents at p-value<0.05

Table 6: showed association between practice of self-medication and socio-demographic characteristics.

	Practice self-medication		X^2	p-value
	Yes	No		
Gender				
Male	98(52.4)	70(61.9)	2.602	0.107
Female	89(47.6)	43(38.1)		
Age group (Years)				
60-64	121(64.7)	63(55.8)	9.170	0.027*
65-69	22(11.8)	20(17.7)		
70-74	26(13.9)	9(8.0)		
=75	18(9.6)	21(18.6)		
Occupation				
Employee	62(33.2)	46(40.7)	37.024	<0.001*
Business	64(34.2)	18(15.9)		
Retired	47(25.1)	15(13.3)		
Others	14(7.5)	34(30.1)		
Marital status				
Married	159(85.0)	113(100.0)	18.662	<0.001*
Widowed	28(15.0)	0(0.0)		
Highest educational level				
None	0(0.0)	9(8.0)	35.903	<0.001*
Primary	36(19.3)	43(38.1)		
Secondary	61(32.6)	35(31.0)		
Tertiary	90(48.1)	26(23.0)		
Type of health Insurance			13.482	0.004*
No insurance	11(64.9)	60(35.1)		
Government insurance	11(55.0)	9(45.0)		
Private medical insurance	30(52.6)	27(47.4)		
Others	17(100.0)	0(0.0)		
Number of family member living with respondents				
1-3	72(38.5)	40(35.4)	10.692	0.005
4-6	105(56.1)	54(47.8)		
>6	10(5.3)	19(16.8)		

DISCUSSION

The study was done among elderly patients attending primary healthcare centers in Lagos state with the majority of the respondents being educated and over 75% of respondents were aged between 60 and 69 years. Most of the respondents were from the Yoruba tribe, most likely because they constituted the majority of people living in the various western states. Traders, business men and women, senior civil servants and retiree constituted the core participants in the study.

The respondents commonly understood what self-medication meant, which they simply defined as "the use of drugs not prescribed by authorized medical personnel" this is similar to the result obtained from elderly patients in healthcare centers [8] which showed the level of awareness among the elderly concerning self-medication and its potential harms to be good. Majority of the respondents had good knowledge of drugs and self-medication. About a tenth of the respondents had poor knowledge of drugs and self-medication practice. Thus, the overall knowledge of the respondents about drugs and self-medication was well above average. This is similar to other studies both in Nigeria and India.[7,12-14]

In this study, most of the respondents had a minimum of post-secondary education. Thus, the level of education could have contributed to the high level of awareness and knowledge of self-medication.[5] However, many still practiced self-medication, this is similar to the report of a study carried out among adult Nigerians where most of the elderly patients who participated agreed to the practice of self-medication despite their level of awareness of its harmful effects.[13,15]

The prevalence of self medication among the respondents in the last two months was found to be 62.3% in this study. This is similar to a number of studies[5,15,16] and generally, the absolute prevalence of self medication, varies widely in previous studies from 12.7% - 95%, perhaps owing to various factors ranging from differing socio-demographic and socio-economic profiles of respondents, environmental differences, varying determinants and time frame used in assessment.[11,17-20]

In contrast to the findings in this present study, another study in Nigeria found a low prevalence of self-medication practice among the elderly,[7] this could be as a result of the so many confounding factors including the presence of an existing chronic condition among the elderly and the availability of health insurance scheme. In this study, a large number of the patients considered self medication largely unsafe and most likely to be associated with side effects while others thought of it as a more affordable, readily available and time effective practice just like in similar studies in developing countries, and hence practiced it frequently. In spite of the varying opinions, over 62.3% of interviewed elderly patients still confessed to have practiced self-medication in the last two months, as reported in previous studies.[16,17]

The pattern of drugs mostly used by the elderly attending primary healthcare centers in the selected local government areas of Lagos state in the last two months included analgesics, antibiotics, antimalarials, vitamins and Herbal remedies as well as sleep aids while majority of the patients were on other medications prescribed by their healthcare professionals for various chronic conditions. This shows the need for more probing of patients about what they have done on their own before presenting at the clinic in a friendly manner in order to obtain the necessary information; because from the result obtained in this study, every patient sitting in front of the physician might have practiced self-medication before presenting at the healthcare center. Headaches, fever and common cold, toothaches, body aches, sleep disturbance and eye issues were the conditions for which self medication was commonly practiced among the elderly in this study. This is comparable to other local studies [11,13,16,] as well as studies in other African countries [14,16,21]

This study revealed that the main reasons for self-medication by the 62.3% patients who practiced it in the last two months were previous experience of treating the ailment, time constraint and the perception of the ailment as a minor one, just as it was revealed in studies done in Nigeria by Afolabi [17,22] and Omolase. [15]

The questionnaire for this study was developed from review of literature on similar studies and designed to suit the research objectives. There is need to develop validated tool for evaluating self-medication in the elderly. Also, the responses were prone to recall bias as the elderly may have difficulty in remembering appropriate answers to the questions. Enforcing the restriction of not selling prescription medicines over the counter and increasing the intensity of educational programs for the elderly to further understand the risks associated with self-medication and the danger of inappropriate self -medication is of paramount importance.

CONCLUSION

The prevalence of self-medication is on the increased as shown by the results obtained in this study; it is well practiced amongst the predominantly well educated elderly patients attending primary healthcare centers in the selected local government areas, despite majority being aware of its harmful effects. Self-medication is

largely preferred among the patients because of its time and cost effectiveness.

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