

Patient self-referral for ultrasonography among women in a private diagnostic centre in Calabar, Nigeria.

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Abstract

Background: Patients are participating more in deciding the path to their healthcare. This has been taking a step further by patients who now self-refer for ultrasonography. However, there are concerns that, some women initiate the request for ultrasonography for non-medical reasons. Also, there is the challenge of the next line of action after the scan. The incidence of patient self-referral for ultrasonography and the factors influencing this behaviour have not been reviewed in this environment, hence the reason for this study. The focus of this study, are the female clients because they make up the bulk of patients attended to most private ultrasonography centres in Nigeria.

Subjects and materials: This was a cross sectional questionnaire based prospective study over one month in a private diagnostic centre in Calabar. A total of 122 female patients with varying indications for ultrasound scan were randomly recruited into the study.

Results: Most (n=106) of the patients were married, had tertiary education (n=89), belong to the 21 – 30 years (n=71) age group and worked in the public service (n=76). Twenty three percent (n=28) of the patients self-referred. Obstetrics scan was the commonest (42.86%) ultrasonography examination requested for among self-referred group.

Conclusion: Patient self-referral for Ultrasonography is common among women. Age above 30 years, primary level of education, single mother-wood and being self-employed are the observed associated socio-demographic characteristics. A major reason given for this practice is ignorance of the need to first see a physician.

Keywords: Indications, Patient self-referral, Reasons, Ultrasonography, Women.

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I. Introduction

Patient self-referral for Ultrasonography refers to a patient requesting for a scan in an Ultrasound unit without referral by a physician. This practice is not peculiar to Radiology, as it is also observed with other ancillary services like the laboratory and pharmacy. Several reasons may be adduced for this trend in different parts of the globe.

One of which is the tremendous amount of medical information now available and accessible to the patients on the internet in the developed and the enlightened in under-developed countries. This group are more aware of their health problems, the different approaches to diagnosis and the treatment options. Consequently, patients are participating more in deciding the path to obtaining their healthcare.¹ It is however of concern that, some women also initiate the request for ultrasonography for non-medical reasons as observed by several studies in a systematic review.² This increased level of awareness has been taking a step further by patients who now self-refer for ultrasonography, throwing up more concerns. What happens to the self-referred client after the ultrasound examination? Should the radiologist become a primary care or referring physician because he or she is the first to attend to the medical need of the patient in his or her current state of health?³ Patient self-referrals almost always occur in private centres. The practice is observed for both diagnostic and screening tests.⁴

A lot of patients in under-developed countries like Nigeria have other reasons for self-referral besides awareness. One of these might be due to the fact that most private Ultrasound centres in Nigeria are manned by Physicians, with a good number been specialist Radiologists, so the patients expect more besides undergoing the examination. Often a time, after history taking and performing the appropriate examination on a self-referred client, the Radiologists are faced with these questions “tell me what is wrong with me, what other investigation should I do or which medications should I take”? The primary care or specialist physician who should have seen initially and refer patients for ultrasonography if need be, is also faced with a new phenomenon of clients coming for their first consultation with test results from radiology and the laboratories. The incidence of patient self-referral for ultrasonography and the factors influencing this behaviour have not been reviewed in this

environment, hence the reason for this study. The focus of this study, are the female clients because they make up the critical mass (95%) of the end user of this service at the study site.

II. Subjects and Methods

This was a cross sectional questionnaire based prospective study over one month in a private radio-diagnostic centre in Calabar. Approval was obtained from the management of the facility and informed consents were given by the subjects. A total of 122 female patients with varying indications for ultrasound scan were randomly recruited into the study.

Inclusion criteria: Adult female patients who came for ultrasound scan irrespective of the indications.
Exclusion criteria: Female patients below 18 years.

The questionnaires were administered to all the consenting patients. The socio-demographic data, indication for scan and reason for self-referral were recorded. The data of patients who self-referred were compared with that of the entire sample. The data were analysed with excel and the results presented as frequencies, means and percentages in tables and figure.

III. Results

Most of the 122 patients were married, had tertiary education, belong to the 21 – 30 years age group and worked in the public service (table 1). Twenty three percent (n=28) of the patients self-referred (figure 1). The most common (42.86%) type of ultrasonography examination requested for by the patients who self-referred was obstetrics: on-going viable pregnancy (n = 8), suspected to be pregnant (n = 3) or have an early complication (n = 1). Gynaecological related ultrasonography was the second common (25.00%) type of request, making a total of 67.86% that were peculiar to the female gender (table 2).

Figure 3 shows the percentage distribution of self-referrers in each socio-demographic category. The subgroups in each socio-demographic category were not equally matched, so direct comparison cannot be made between in terms of absolute numbers but rather in percentages. It was observed that the 31 – 40 years age group had the highest incidence (32.56%) of patient self-referral, while there was none among those below 20years. In like manner, the single group had a higher incidence (25.00%) than the married (22.64%). Also, those with primary level of education contributed the highest percentage (40.80) of self-referrers, while those with tertiary education were the least with 17.98%. Finally, in terms of occupational influence on self-referring, the highest incidence (50.00%) came from the Artisans, followed by business women (41.18%). From the rear, are the student group who had no incidence and the un-employed with only 9.09%.

The different reasons given for patient self-referral are presented in table 4. The commonest (20.00%) reason given was that they were not aware of the need to first see a physician before referral for ultrasonography. This is followed by the responses that the physician will still request for it and the long waiting time to see the physician in the hospital especially in the public sector (13.33% each).

Table 1. Shows the socio-demographic distribution of the subjects.

Socio-demographic characteristics	Frequency (n)	Percentage (%)
Age (years)		
≤ 20	4	03.28
21 – 30	71	58.20
31 – 40	43	35.24
41 – 50	4	03.28
Marital status		
Married	106	86.88
Single	16	13.12
Educational status		
Primary	5	04.10
Secondary	28	22.95
Tertiary	89	72.95
Occupation		
Health worker	9	07.38
Other public servant	68	55.74
Business	17	13.93
Artisan	8	06.56
Unemployed	11	09.01
Student	9	07.38

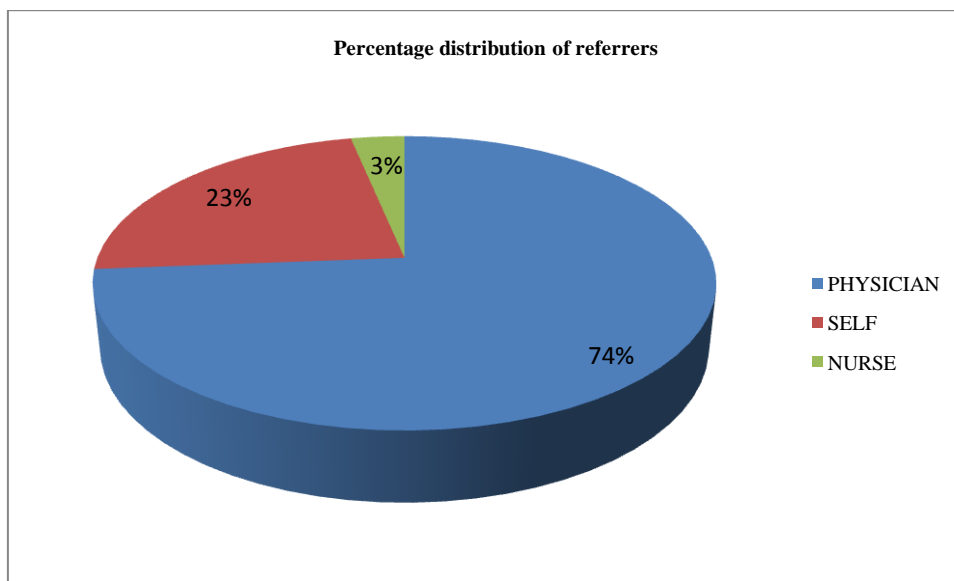


Figure1. Shows the sources of patient referrals.

Table 2. Outlines the indications for Ultrasonography by self-referrers

Indications	Frequency (n)	Percentage (%)
Infertility	3	10.71
Cyesis	8	28.57
Amenorrhoea	3	10.71
Low back pain	1	03.57
Left flank pain	1	03.57
Scanty menses	1	03.57
Irregular menses	3	10.71
Right iliac fossa pain	1	03.57
Missed abortion	1	03.57
Galactorrhoea	1	03.57
Second opinion	1	03.57
Routine check up	2	07.14
Fibroid	2	07.14
Total	28	

Table 3. Shows the percentage distribution of the socio-demographic characteristics of Self referrers

Socio-demographic characteristics	Frequency of patients in each subgroup (n)	Patient self-referrals in each subgroup (n)	Percentage of self-referrers in each subgroup (%)
Age (years)			
≤ 20	0	0	00.00
21 – 30	71	13	18.31
31 – 40	43	14	32.56
41 – 50	4	1	25.00
Marital status			
Married	106	24	22.64
Single	16	4	25.00
Educational status			
Primary	5	2	40.80
Secondary	28	10	35.71
Tertiary	89	16	17.98
Occupation			
Health worker	9	3	33.33
Other public servants	68	13	19.12
Business	17	7	41.18
Artisan	8	4	50.00
Unemployed	11	1	09.09
Student	9	0	00.00

Table 4. Percentage distribution of reasons for Patient self-referral

Reasons for self-referrals	Frequency (n)	Percentage (%)
Doctors are on strike	2	07.14
Long waiting time to see a doctor	4	14.29
Not aware of the need to first see a doctor	6	21.43

To confirm the clinical diagnosis of the doctor	2	07.14
The doctor will still request for it	4	14.29
To confirm cyesis before booking for ante-natal care	2	07.14
Registered with a traditional birth attendant	2	07.14
Too much of protocols in hospitals before seeing a doctor	2	07.14
Referring physician didn't reveal the findings of the last scan report	2	07.14
Advised by a friend	2	07.14

IV. Discussion

Reasons for patient self-referral in Nigeria may differ from and might be multifaceted compared to that in developed countries. This study revealed a 22.95% incidence of patient self-referral. This is a bit lower than the 29.6% observed in a similar study involving 250 patients by Ezem et al in the south eastern part of Nigeria.⁵

Public healthcare facilities abound in all states in Nigeria at the primary, secondary and tertiary levels but they are sometimes under-utilized. Healthcare utilization is partly influenced by access to it. Several barriers to accessing healthcare in public hospitals have been identified in our environment. These include out of pocket payment for healthcare due to low enrolment rate into the national health insurance scheme (NHIS) and a few at the state level. A study involving 487 participants in Lagos state, southwest Nigeria, showed that 80.7% of the respondents had poor knowledge of NHIS and only 12.3% had registered with the scheme⁶

Another barrier is the bureaucracy processes patients go through before seeing the physician in the public hospitals.⁷ This study showed that 07.14% of our subjects who self-referred, did so because of there was too much of protocols in the public hospital. These protocols include encouraging all patients to arrive in the hospital very early about the time, in-person registration and payment for new folders or physical retrieval of an existing one which might be missing, taking the biometric measurements and vital signs and queuing up to see the primary care physician, who might still refer the patient to the specialist clinic before he or she can get a request for ultrasonography. The ultrasound unit might also schedule the scan for a later date. These protocols ultimately lead to a long patient waiting time (PWT) which impacts negatively on the future use of the facility. A long PWT was the second highest (14.28%) reason why the patients in this study self-referred. A main cause of a long PWT is an ineffective appointment scheduling in which an average of 51.26% of the patients each day are given the same time (8:00 am) to arrive in the ultrasound unit of a public health facility in Nigeria.⁸

A reasonable number (28.57%) of patients were aware of the healthcare system and needs as demonstrated by those who wanted to confirm pregnancy before antennal clinic registration and those who knew the scan could guide the obstetrician or traditional birth attendant in their care. An interest in their health status and a need to be carried along is shown by those (14.29%) who wanted to confirm the clinical diagnosis of the physician or know the undisclosed findings of prior scans.

The index study shows that most (42.86%) of the self-referrers requested for obstetrics scan. A high incidence of patient self-referral for obstetrics scan was also demonstrated in a related questionnaire based cross sectional study among only pregnant women (n=198) in a Nigerian teaching hospital. It revealed that 91.9% of them had self-referred for obstetrics scan previously.⁹ A similar study on obstetric scans in a private diagnostic facility in north-central Nigeria, showed that patient self-referral was the highest (40.60%) source of referral.¹⁰ These observed high incidences of patient self-referral for pregnancy related ultrasonography may be due to anxiety which was shown to accompany this state among Nigerian women.¹¹ A study by Enakpene et al in south west Nigeria, revealed that the commonest reasons for pre-natal ultrasound scan among 222 patients were fetal viability (64.7%) and gender determination (22.6%),¹² so it can be inferred that these are the major causes of anxiety. Gynaecological related ultrasonography scans (25.00%) were the second common requests among the self-referring patients in this study, making a total of 67.86% of the requests that are peculiar to the female gender.

The socio-demographic characteristics of patient self-referrals in this study are the older age group (31 – 50 years), primary level of education, single expectant mothers and being self-employed (artisans and business women). The higher incidence among the older age groups could be due to their level of awareness from previous experiences of the public health system. It can also be inferred that, artisans and business women place more value on time and would not want to waste it in the public health facilities that are known for long protocols and patient waiting time. This is because artisans like hair stylists and seamstresses are paid according to how much job they deliver within a time frame and off course, “time is money” for a business woman On the other hand, students and the un-employed had the lowest incidence of self-referral probably because of financial constraints.

Major limitations were the overall sample size and the un-matched size of the socio-demographic subgroups.

IV. Conclusion

Patient self-referral for Ultrasonography is common among Nigerian women. Age above 30 years, primary level of education, single mother-hood and being self-employed are influencing factors. A major reason for this practice is ignorance of the need to first see a physician. Most of the self-referrers requested for obstetric scans.

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