

## Use of Internet for Health Information Amongst Nigerian Ophthalmologists

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**Abstract:** This study aimed at assessing the use of internet for health information among Nigerian Ophthalmologists. About 100 Nigerian Ophthalmologists out of the one hundred and forty selected by simple random sampling returned their filled self-administered questionnaire. The information obtained included the bio-data of the respondents, access to internet and their desire for further training in internet use. The data obtained with the aid of the study instrument (questionnaire) was collated and analyzed with the aid of Statistical Package for Social Sciences (SPSS) 15.0.1. The respondents comprised of 51 consultants, 37 resident doctors and 12 diplomates. Majority of the respondents (98%) had access to the internet while the remaining (2%) did not. Most of the respondents (72%) expressed desire for further training in accessing health information on the internet while the remaining (28%) did not. Most respondents had access to the internet however, majority of them expressed desire for further training in accessing health information on the internet. There is need for further training of Nigerian Ophthalmologists on use of internet for health information.

**Key words:** Ophthalmologists, internet use, health information, accessing statistical instrument, accessing Nigeria

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### INTRODUCTION

The internet is a global network of interconnected computers enabling users to share information along multiple channels. Typically a computer that connects to the internet can access information from a vast array of available servers and other computers by moving information from them to the computer's local memory. The same connection allows the computer to send information to servers on the network. The information is in turn accessed and potentially modified by a variety of other interconnected computers. The terms internet and world wide web are often used without much distinction. However, the internet and the world wide web are not the same. The internet is a hardware and software infrastructure that provides connectivity between computers. In contrast the web is one of the services communicated via the internet. It is a collection of interconnected documents and other resources linked by hyperlinks and Universal Resource Locators (URLs). The internet is one of the sources of health information for consumers (Wohlers, 2000). It is however the fastest growing source of health information with over 5 million web sites worldwide of which 100,000 are health related. The health information available on the internet can be categorised into the following (Eysenbach, 1997).

**Telemedicine:** It is defined as diagnostic and curative medicine. Its main target audience is the medical profession and it is usually provided by professional health organization which publish and disseminate research based information in both print and electronic format.

**Cyber medicine:** It is defined as preventive medicine and public health. It is usually published by community based non profit organizations who work from the social model of health. Econ medicine is health information readily accessible on the internet but which is profit motivated (Wohlers, 2000).

The internet is gaining ground as the central source of health-related information (Baker *et al.*, 2003; Eysenbach and Kohler, 2003). In the United States of America, studies have found that between 56 and 79% of internet users seek health information (Hesse, 2005; Fox, 2005; Ybarra and Suman, 2006; Cotton and Gupta, 2004).

The internet has traditionally provided avenue for limitless open communication. However, unlike radio or television this communication medium remains largely unregulated. People using the internet for medical education tend to fall into three categories (Doyle, 2002). The categories are:

- Patients and their families looking for easily understood non technical health information
- Health care providers looking for health information in varying degrees of technical detail
- Health care educators looking for high-quality resources that can be recommended to their students

Medical education is a life long journey requiring a commitment to the acquisition of new knowledge, skills and attitudes (Janes *et al.*, 2005). Internet use by physicians has played a vital role in medical practice for many years (Kwon and Yuxie, 2003). The internet provides a new opportunity to overcome problems of access and provide clinically appropriate information to practitioners (Cullen, 2002). Studies have consistently shown that many health care providers have poor computer skills and little ability to perform on line data base searches (Curtis *et al.*, 1993; Ehikhamenor, 2003; Badu and Markwei, 2003). Only a very small percentage of those possessing computer skills could use the internet for treatment purposes (Schleyer *et al.*, 1999). In view of the importance of internet in medical practice, this study was designed to assess the use of internet for health information among Nigerian Ophthalmologists. The authors are not aware of any previous study on internet use by Nigerian Ophthalmologists. It is hoped that the findings of this study shall guide policy formulators and Ophthalmological Society of Nigeria in evolving strategies to stimulate the use of internet for health information among Nigerian Ophthalmologists so as to promote eye care in this part of the world.

## MATERIALS AND METHODS

This study was conducted during the annual congress and scientific conference of Ophthalmological Society of Nigeria which took place at Eko Hotel, Lagos between 23rd and 26th, 2009. About 220 Nigerian Ophthalmologists and Ophthalmologists in training attended the conference. One hundred and forty of them selected by simple random sampling were asked to participate in this study by filling a structured questionnaire. The questionnaire used in this study was a modified form of validated internet use among health care professionals questionnaire (Podichetty, 2006). Information obtained from the respondents with the aid of the questionnaire included their bio-data, computer ownership, access to internet, ownership of website and their views on use of internet for health information by patients as well as their desire for further training in internet use. The data obtained was collated and analyzed with SPSS 15.0.1. Relevant policy implication was then drawn from the ensuing findings.

## RESULTS

A total of 100 filled questionnaire were retrieved out of 140 administered giving a response rate of 71.4%. The one hundred respondents comprised of 54 males and 46 females. The ages of the respondents ranged from 29-60 years with a mean age of 41.4 years  $\pm 7.7$ . Majority of the respondents (51) were consultants, 37 were residents and 12 were diplomates. About 55% respondents were Yorubas, 18% were Ibos, 11% were Hausas while the remaining (16%) belonged to the other ethnic groups. Most respondents (75%) were Christians while the rest (25%) were Muslims.

**Computer ownership:** All the respondents owned computer.

**Internet access:** About 98% of the respondents had access to internet while only 2% did not have access to internet (Table 1).

**Ownership of web site:** Few respondents (10%) owned web site while the remaining 90% did not own web site.

**Desire to own web site in future:** Majority of the respondents (63%) planned to own web site in future, 32% did not have such plans while the remaining 5% were not sure.

**Regular use of internet for professional updating:** Majority of the respondents (91%) used the internet regularly for professional updating while the remaining 9% did not.

**Proficiency in internet use:** Most respondents (82%) were proficient in internet use while the remaining 18% were not.

**Desire for further training in internet use:** Majority of the respondents (72%) expressed the desire for further training in internet use while the rest (28%) were not interested.

Table 1: Location of internet access

Location	Frequency	Percentage
Home at work and cybercafe	28	28.6
Home and at work	26	26.5
Home	18	18.4
At work	14	14.3
At work and cybercafe	7	7.1
Home and cybercafe	3	3.1
Cybercafe	2	2.0
Total	98	100.0

**Influence of information obtained from the internet on management of patients:** Most respondents (94%) admitted that information obtained from the internet influenced their decision in patients management while 6% did not utilize such information.

**Reliability of health information obtained from the internet:** Majority of the respondents (93%) considered the information obtained from the internet reliable and the rest (7%) did not consider the information reliable.

**Support for patients accessing health information on the internet:** Most respondents (96%) expressed support for patients accessing health information on the internet and the remaining 4% objected.

**Request for names of web sites by patients:** Only few respondents (13%) have been asked web sites by their patients while the remaining 87% have not been asked.

**Recommendation of web site to patients:** About 43% of the respondents have recommended web sites to patients while the majority (57%) have not.

**Discussion of health information obtained from the internet with patients:** Majority of the respondents (63%) had discussed information obtained on the internet with patients while the remaining 37% had not.

## DISCUSSION

The age range of the respondents is in keeping with the dynamic workforce that they belong to and this is a big boost to eye care in Nigeria. The fact that we had more male respondents could be related to the fact there are more male Nigerian Ophthalmologists than females. Over 29% of the respondents enrolled in this study did not return their filled questionnaire and this is likely due to the very tight schedule of participants during the conference. It is not surprising that most of the respondents were Yorubas in view of the fact that the conference took place in Lagos a Yoruba community which means that it was easier for Ophthalmologists in South-Western Nigeria to attend. The study population included all cadres of Doctors involved in ophthalmic practice in Nigeria thus helping to reduce cadre related bias.

Ophthalmology is rapidly advancing into a discipline in which technology is closely related to the provision of patients care (Somali *et al.*, 2009). The increasing knowledge acquired through the internet has the potential of improving health, the ultimate goal of health policy makers (Shaikh *et al.*, 2008). Computer ownership is expected to promote utilization of internet. Thus it is quite

commendable that all the respondents owned computers. Majority of the respondents had access to internet and this is expected to enhance their practice. This assertion is supported by the fact the internet has become easier to use and more bio-medical resources are available on the internet (Madhan, 1998). Physicians use internet and electronic information resources to obtain answers to specific questions and to keep abreast of the latest development in their practice (Thompson, 1997; Koller *et al.*, 2001).

Almost one fifth of the respondents accessed internet from home. This finding is at variance with that of Nicholas *et al.* (2003) in UK though not among Ophthalmologists which revealed that 66% of their respondents accessed internet from home. The poorer internet access in Nigeria compared with UK and Kuwait could account for the limited number of the respondents who had internet access at home. The provision of internet access by Nigeria's major telecommunication companies could promote the availability of internet access to Nigerian Ophthalmologists at home. Improved internet access shall promote the use of internet for health information. The later assertion is substantiated by the finding of Asemi (2005) in a study done at Medical Sciences University of Isfahan, Iran in which all the respondents used the internet frequently because all the faculties had internet connection.

It was reported that the researchers of the University were getting health information on patients care through the internet (Asemi, 2005). Few respondents owned their own practice web site. This finding is not encouraging but it is likely to be related to the depressed state of Nigeria's economy at the time of this study. A study conducted by Podichetty *et al.* (2006) revealed that 27% of their respondents had their own web site. It is interesting to note that most respondents had desire to own their practice web site as this is indeed reassuring. This finding could be related to the fact that most of the respondents expressed the opinion that ownership of practice web site will improve their practice. Majority of the respondents expressed interest in further training on internet use. Lack of training may be a barrier to access to on line resources (Shaikh *et al.*, 2008).

Thus there is need for relevant authorities to address the training needs of Nigerian Ophthalmologists on the use of internet.

## CONCLUSION

Most respondents had access to internet, however majority of them accessed internet services at home, work and cybercafe. Majority of the respondents expressed the desire for further training on internet use.

## RECOMMENDATIONS

- The Ophthalmological Society of Nigeria should organize training programmes for Nigerian Ophthalmologists on internet use
- Nigerian Ophthalmologists should be encouraged to own practice web site
- Similar studies should be conducted among other health professionals

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