

## INTERNET USAGE BY PATIENTS ATTENDING HOSPITAL FOR ORAL AND MAXILLOFACIAL PROCEDURES

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**ABSTRACT:** Today is the age of computer-mediated learning and internet-mediated education. The Internet provides a vast information regarding medical procedures which are disorganized and can be disconcerting to the users. The aims of this study were to assess the use of the Internet by patients attending hospital for oral and maxillofacial procedures and to assess the quality of information provided at consultation. A confidential questionnaire, which was distributed to consecutive patients attending for elective operations at Department of oral and maxillofacial surgery in Government Dental College & Hospital, Vijayawada and data was obtained.

**KEYWORDS:** Oral , Maxillofacial, Surgery, Internet, Questionnaire

### INTRODUCTION

Usage of computer technology has expanded manifold in recent times. The Internet is used for various reasons in the field of medicine and research, including teaching, diagnosis and the conduct of the medical examination. Technological advances have brought the internet into our hands by the means of smartphones. Internet usage and access to it in India and the rest of the world are generally on the increase. The digital population in India as of January 2016, it was found that India had 462.1 million internet users, of which 442.7 million were mobile internet users<sup>1</sup>. Indians often turn to the mobile internet, as the large majority of the digital population in India were mobile internet users in 2016. About [323](#) million people in India accessed the internet through their mobile phones in 2016.

Very little literature is available on the use of the Internet by patients to gain information on their medical condition or management. The most recent publications relate to patients who have been diagnosed with cancer. 30–50% of patients used the Internet to gain further information on their condition or procedure. Another study relating to maxillofacial surgery was done by Shafi et al<sup>2</sup> in 2014 in U.K. The Internet is an important resource for many, and the information offered is wide-ranging and varied. However, it is often disorganized and not trustworthy always, and can alter a patient's perception to their condition or management, and many users fail to reason the information as relevant or not.

The aim is to assess the use of the Internet by patients attending hospital for oral and maxillofacial procedures. To be precise which patients used it, the information they found, and their idea about them. We also wanted to find out patients' view about the information given at consultation.

### Method

Data were collected prospectively using a confidential questionnaire, which was distributed to 100 consecutive patients attending for elective operations at Department of oral and maxillofacial surgery in Government Dental College & Hospital, Vijayawada. Only patients of 18 years and above were included. The questionnaire was given irrespective of the procedure involved and patients were asked to complete it on the day of operation. At the consultation, their condition or procedure was discussed without mention of the study. No patients declined to take part. A written explanation of the survey printed at the beginning of the questionnaire highlighted the fact that it was confidential and voluntary, and would take around 5 min to complete.

### Results

All the questionnaires were returned (100). The mean age of patients was 28.69 (range 19-50). The mean age of males 27.96(range 20-50) and mean age of females was 29.42(range 19-49).

**Table:1 Responses to questions about information given at consultation.**

Was your condition/procedure discussed at the consultation?	
Yes	95
No	5
How useful was this discussion?	
Good or very good	90
Poor	10
Were you given written information at the consultation?	
Yes	95
No	5
How useful was the written information?	
Good or very good	83/95
Poor	12

**Table:2 Patients' use of the Internet for information on their condition or procedure**

No. (%) of patients using the Internet for information	29/64(45%)
Average hours of internet use for further information	1.3.
No. of patients using Google search engine	29 (100%)
Proportion of men to women	1:1

**Table:3 Usefulness of the information obtained /found on the Internet.**

The number of patients that answered "yes" to questions on information found on the Internet.	29(100%)
Did the information ease concerns?	20(68.98%)
Was the information useful?	17(58.62%)
Did it make the information from your consultation clearer?	22(75.86%)
Would you use the Internet again for medical information?	23(79.31%)

**Information at consultation**

Patients were questioned about the verbal and written information provided at the initial consultation. Responses could be rated as very poor, poor, satisfactory, good, or very good. 90 patients thought that discussion at initial consultation was good or very good. No one thought that the information given was poor. (Table:1) Most of those who stated that they had written information thought that it was good or very good. A total of 12 patients thought that the verbal or written information given at the initial consultation was inadequate. The main reason for this was a lack of information about the procedure they were about to undergo.

**Internet access**

64 patients stated that they had access to the Internet with an average usage of 7.3 hours/ week. Only 29 patients had used the Internet for information on their

condition or procedure. All of them used Google search engine for obtaining information (Table:2). Responses to questions about the usefulness of the information obtained are shown in Table 3. Analysis showed that access was consistently high among all age groups up to the age of 35 but it dropped considerably in those over 35.

**Discussion**

Internet access to the people is growing worldwide.<sup>1</sup> The Internet is increasingly used as a means of continuing education for healthcare practitioners. At the same time, a rapidly growing number of patients rely on the Internet for the search and acquisition of healthcare-related information and services. While several questions, such as quality assurance and information retrieval methods, are still unresolved, current usage patterns and perceptions of usefulness are encouraging. This fact has introduced new challenges for the oral health care personnel, which must not only often face the misperceptions of ill-informed

**Questionnarre Format**

Dear sir/madam,

This study is to help us in the Oral and Maxillofacial department better understand internet use by our patients and to try and ensure we provide adequate information to our patients. We would be grateful if you felt able to complete the enclosed questionnaire, which should take less than 5 minutes. **The information you give is in complete confidence. We will use this only to improve future quality of care. There are no right or wrong answers, and the questionnaire is strictly confidential.** Thank you for your help.

Yours faithfully, **Department Oral and Maxillofacial Surgery, Government dental college & hospital, Vijayawada.**

1. What age are you?
2. What is your sex?      Male              Female
3. Are you currently employed?      Yes              No
4. If employed what is your occupation? (please state below) .....
5. What is your level of education?      Standard Grades/GCSE Highers/ Graduate/ Postgraduate / None
6. What procedure are you having? (please state below) .....

**Information**

7. Was your surgical procedure/condition discussed at the time of consultation(1st visit)? (please circle) Yes No If yes, how would you rate this Very good Good Satisfactory Poor Very poor
8. Were you given written information explaining the procedure at the time of your consultation(1st visit)? (please circle) Yes No If yes, how would you rate this? Very good Good Satisfactory Poor Very poor
9. Do you have access to the internet? Yes No If yes, how many hours do you spend on the internet per week? (please state below) .....hours
10. Did you use the internet to find information on your surgical procedure/condition? (please circle) Yes No If yes, go to Q 11 If no, go to Q 20
11. How many hours did you spend on the internet looking for further information? (please state below) .....hours
12. Did you use a search engine? (please circle) Yes No If yes, please state the search engine used .....
13. Did you use a specific website? (please circle) Yes No If yes, please state the website/organization below .....
14. How would you rate the information you found? (please circle) Very good Good Satisfactory Poor Very poor
15. Did the information found on the internet create any concerns? (please circle) Yes No
16. Did the information on the internet help ease concerns? (please circle) Yes No
17. Do you feel the internet was useful for you in this instance? (please circle) Yes No
18. Do you feel the internet made the information given at your initial consultation clearer? (please circle) Yes No
19. Would you use the internet in the future, for medical/dental purposes, after this experience? (please circle) Yes No
20. Do you feel the information given at initial consultation could be improved? (please circle) Yes No If yes, how? (please state below) .....

**Thank you for your time. Please hand the completed questionnaire to a member of staff.**

patients but also be able to redirect them to quality sources of healthcare related information. Consequently, there is a great need for the whole oral healthcare team to further understand the potential and dangers of Internet-based information.

An increasing amount of medical resources are available as the Internet develops, but they can vary in their quality, reliability, and relevance to individual treatments. Patients may find that information is confusing and worrying. However, if used correctly, it can be of benefit to the patient, their family, and the clinical team.

The growth of the Internet has enabled a whole new approach to patient empowerment, in terms of assisting people to undertake a more active and well-informed role

in health-related decision making. The Internet has opened public access to medical information previously restricted only to healthcare professionals. In 2003, more than 40% of the Americans<sup>4</sup> and 25% of Europeans<sup>5</sup> turned to the Internet for healthcare-related information. A recent Ph.D. thesis in Sweden showed a rapidly increasing use of Internet-based 'Ask the doctor' services<sup>6</sup>. In another study in the USA, 60% of the Internet users felt that the healthcare-related information on the Internet was the 'same as' or 'better than' information from their doctors<sup>7</sup>.

Usage of the internet in the study (64%) was higher to that among Indian population as of January 2016 (34.8%). But significantly lower than the study of Shafi et al which was 84%<sup>2</sup>. All patients with access to the Internet used Google to search for their information. The mean time

spent searching for information was around 1.3 hrs. Many patients thought that the information obtained was useful to them, and an appreciable proportion stated that it helped them to understand the information given at consultation clearer. Most of them stated that they would use the Internet again to obtain medical information.

### CONCLUSION

Internet-based databases and search engines have already acquired a significant importance as sources of up-to-date healthcare information, for both healthcare professionals and patients. The oral healthcare team must be trained in search strategies and evaluation of Internet-based information services. In addition, healthcare professionals must be prepared to face misinformed patients and be able to direct them to reliable sources of quality-assured healthcare information.

Not all resources are free of bias and information sites and services to serve commercial, political or personal interests without a clear disclaimer. It has been shown that healthcare-related information on the Internet is often of questionable quality and can even be hazardous to health. This study highlights the need for regulated and appropriate websites and medical resources to which patients should be directed. We recommend that reliable websites be listed on information leaflets for patients. The Association of Oral and Maxillofacial Surgery (AOMSI) website now provides a public info section, which gives an outline of most of the conditions and procedures in Oral and Maxillofacial Surgery.

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