



## What are the Sources for Health Information among Patients Attending Otolaryngology Outpatient Clinics in Israel? A Questionnaire Survey

Nili Segal<sup>1\*</sup>, Ofer Gluck<sup>1</sup>, Dan Sternbach<sup>2</sup>, Ygal Plakht<sup>3</sup>, Avichai Segal<sup>4</sup>  
and Yaacov G. Bachner<sup>5</sup>

<sup>1</sup>Department of Otolaryngology-Head & Neck Surgery, Soroka Medical Center, Faculty of Health Science Ben Gurion University, Israel.

<sup>2</sup>Pediatric Otolaryngology Unit, Tel Aviv Sourasky Medical Center, Sackler Faculty of Medicine, Tel Aviv University, Israel.

<sup>3</sup>Unit of Nursing Research, Soroka University Medical Center, Israel.

<sup>4</sup>Department of Ophthalmology, Soroka University Medical Center, Israel.

<sup>5</sup>Department of Sociology of Health, Faculty of Health Sciences Ben Gurion University of the Negev, Israel.

### Authors' contributions

This work was carried out in collaboration between all authors. Author NS was main investigator, manuscript writing. Authors OG and DScO performed the investigator, data collection. Author YP performed the data collection, statistical analysis. Authors AS and YGB co investigator, manuscript editing. All authors read and approved the final manuscript.

### Article Information

DOI: 10.9734/BJMMR/2015/13506

Editor(s):

(1) Philippe E. Spiess, Department of Genitourinary Oncology, Moffitt Cancer Center, USA and Department of Urology and Department of Oncologic Sciences (Joint Appointment), College of Medicine, University of South Florida, Tampa, FL, USA.

Reviewers:

(1) Philip Rajan, Department of Ent, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia.

(2) Anonymous, Saitama Medical Center, Saitama Medical University, Japan.

Complete Peer review History: <http://www.sciencedomain.org/review-history.php?iid=696&id=12&aid=6414>

Original Research Article

Received 20<sup>th</sup> August 2014  
Accepted 6<sup>th</sup> September 2014  
Published 8<sup>th</sup> October 2014

### ABSTRACT

**Aim:** Sources for health information are continually growing and become easily accessible to the public. The aim of the study was to investigate the sources of health information and the satisfaction level with the sources among patients attending otolaryngology (ENT) outpatient clinics in Israel.

**Study Design:** A structured questionnaire was given to patients attending ENT clinics at a tertiary medical center.

\*Corresponding author: Email: [segalnil@gmail.com](mailto:segalnil@gmail.com);

**Place and Duration of Study:** Department of Otolaryngology, Soroka university medical center during the years 2011-2012.

**Methodology:** We included adult patients attending the otolaryngology clinic at our medical center that agree to fulfill the questionnaire.

**Results:** 186 questionnaires were completed. 74% of the patients thought that prior information would have helped them in their visit, 54% actually obtained information. Internet access was not age or education-dependent. 71 patients consulted their family physician, 94% were satisfied. The percentage of satisfaction from friends, medical leaflets, Internet, books and newspapers were 91%, 83%, 80%, 78% and 66%, respectively. 71% wanted to know more about their disease, 17% to reduce anxiety, 7% to accept their disease and 5% to treat themselves. Among patients who did not obtain information; 50% expected to get enough information at the visit, 17% did not think it was important, 27% did not have time and 6% did not have information access.

**Conclusions:** Obtaining information prior to medical consultation is important to patients. The main and best source is family physicians. The patient - doctor encounter is expected by patients to provide information on their diseases.

*Keywords: Questionnaire; outpatient clinic; health information; otolaryngology; word count: 1354.*

## 1. INTRODUCTION

The health-related information sources are important for physicians and health administrators responsible for medical education. Traditional sources like magazines, leaflets, friends and relatives are gradually being replaced by the electronic media such as television and Internet [1,2].

It is well documented that better patient information improves health care by improving compliance, reducing anxiety levels and improving doctor-patient relationship. Patients who are well informed about prognosis and treatment options are more likely to adhere to their treatment plan and have better outcomes [3,4,5]. However, unregulated and inaccurate health information can have negative implications. Vulnerable people may adopt unproven and dangerous treatment options at the expense of proven and safe conventional ones [6,7].

Successful doctor-patient partnerships are based on a knowledgeable well-informed patient who is aware of his illness and the treatment options, and who is ready for a shared decision-making process with his consultant. It is therefore important for medical practitioners to be familiar with health information sources in order to improve patient's cooperation and quality of treatment.

Soroka Medical Center is a tertiary hospital that provides medical consultation to most of the southern region of Israel. Ear nose and throat (ENT) clinics at Soroka are unique in that most of

the patients are being referred by their primary physician or by another ENT for further evaluation. This offers patients the opportunity to search for medical information prior to their visit.

The purpose of our study is threefold: to describe the sources for health information of patients attending ENT outpatient clinics, to examine the patients' satisfaction from those sources and to describe the reasons for obtaining health information.

## 2. METHODS

### 2.1 Participants and Procedure

The study was conducted during the years 2011-2012. The study was approved by the institutional ethics committee. A detailed structured questionnaire was given to all the patients visiting the ENT outpatient clinics at the Soroka University Medical Center. Potential respondents were notified that participation is voluntary and that the data will be used for research purposes only. Measures included: demographic details, whether health information was obtained prior to the visit (yes/no), sources for health information (family physician/ leaflets/ friends/ books/ newspapers/ Internet), reasons for health information search (more knowledge about the illness/reduce anxiety/ accept the illness/ self-treatment). Patients who used an information source were asked to grade their satisfaction level from it (low, medium, high). The questionnaire was administered in the two main languages in Israel- Hebrew and Arabic.

## 2.2 Statistic Analysis

Statistical analyses were carried out using PASW statistics (version 18.0 for Windows). Chi-square test and Student's t-test were used to evaluate the differences between the groups. For each test a p-value of less than 0.05 was considered significant.

## 3. RESULTS

Of the 186 patients who completed the questionnaire 60% were males. The mean age was 32 years (SD=20). Seventy five percent were Jews, 18% Bedouins and 7% were others. Seventy-five percent were born in Israel, 11% in the former Soviet Union, 6% in Europe, 7% in northern Africa and 1% in other countries. Twenty-two percent of the patients had post high school education. One hundred and thirty six (73%) patients had access to the Internet whether at home or at work.

We divided the patients into three age groups: under 40 years, 40-60 and above 60. The number of patients who reported Internet availability was similar in all age groups (p=0.429). Fifty-four percent reported searching for health information prior to the visit in the ENT clinic. Seventy-three percent of the patients thought that obtaining health information helped them in their visit. The difference between postgraduates and patients without academic education in obtaining health information was not statistically significant (P=0.309). Thirty-two percent of the patients (71) consulted their family physician; of those 94% (67) reported medium and high satisfaction. Only 10% of the patients (18) reported using leaflets as a source for health information, of those 83% (15) had medium and high satisfaction. Twelve percent of the patients (22) consulted their friends; of those, 91% (20) reported medium and high satisfaction. Eight percent (14) consulted books prior to their visit; of those 78% (11) reported medium or high satisfaction. Six percent of the patients (12) obtained medical information from newspapers; 66% (8) reported medium or high satisfaction. Sixteen percent of the patients (30) used the Internet; 80% (24) reported medium or high satisfaction (Table 1).

The reasons to search for health information were diverse; 71% (85) wanted to know more about their disease, 17% (21) wanted to reduce anxiety, 7% (8) in order to accept their disease and 5% (6) for self-treatment (Fig. 1). Of those

who did not search for medical information prior to their visit; 50% (53) thought they would receive enough information at their visit, 27% (28) stated lack of time as the main reason. 17% (18) did not think it was necessary and 6% (6) stated they did not have access to medical information.

**Table 1. Sources of information and satisfaction rates from each source among patients attending ENT clinics in Israel**

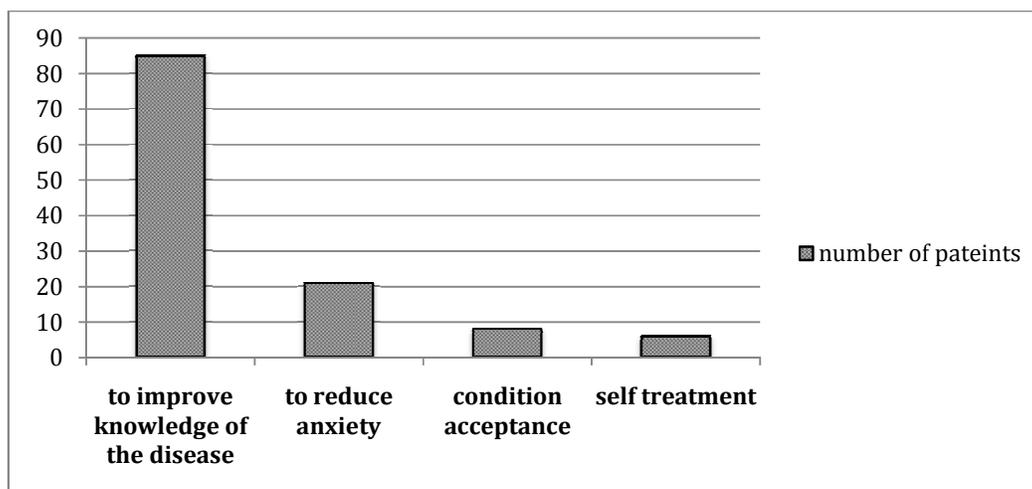
Information source	Number of patients(n)	Percentage of patients reporting medium & high satisfaction rates from the source (%)
Family physician	71(42.5%)	94
Leaflets	18 (10.8%)	83
Friends	22 (13.2%)	91
Health related books	14 (8.4%)	78
Newspapers	12 (7.2)	66
Internet	30 (17.9%)	80

## 4. DISCUSSION

The availability of health information is increasing steadily. In the US, 43% of the citizens with Internet access used it to obtain health care information [2,8]. Accurate information is useful in improving patients' understanding of their medical condition while inaccurate information can have devastating results [9]. Thus knowing the main sources from which the patients receive health information is important both to health care providers and to health administrators. Routing resources to encourage and strengthen sources of medical information that are widely used and considered to be reliable by a certain population is required in contemporary medicine.

Otolaryngology is a diverse field and the patients who are referred present a wide spectrum of pathologies that overlap other fields in medicine such as oncology, pediatric, family medicine, and allergy. Therefore we assume that patterns of acquiring health information, as were discovered in our study, are somewhat similar to those disciplines.

In our survey we have found that most people believe that obtaining prior information helps in their visit at the otolaryngology outpatient clinic. More than 50% of the patients actively search for health information, similar to what was reported in the UK [2].



**Fig. 1. Reasons stated for obtaining health information among patients attending ENT clinics in Israel**

Family physicians were found to be the most common source for health information and were the most trusted. This important finding was reported in other studies as well for example among parents seeking online information for pediatric cancer [10]. Especially today in the era of multiple subspecialties and wide-ranging health information sources, patients prefer a trusted professional healthcare provider regardless of socioeconomic status [11].

Internet access was found to be available in similar percentage in all age groups and educational levels, however, only relatively few patients utilized it. We think that this low percentage may change after the ENT consultation. Some patients are informed of the need for further investigations or surgical interventions which may urge them to seek information. Newspapers were the least popular sources and also had the lowest satisfaction rate.

Most of the patients searched for medical information in order to know more about their disease. Interestingly, the second reason was to reduce anxiety. This finding may highlight the emotional state of patients who attend the clinic.

Of those patients who did not seek medical information, lack of access was the least common reason. It seems that health information is no longer available only for medical personnel and is now easily accessible for most patients. Half of the patients who did not obtain health information expected to receive enough information during their visit at the clinic. This

finding does not contradict the fact that most patients seek health-related information.

Several studies have shown that Internet-based information provided by health care professional personnel could be an efficient source. In recent years, the term “tailored web-based advice” was coined to describe this new method of providing information to the population [12,13]. Our study demonstrates the leading role of the family physician, in conjunction with other information sources, in supplying medical information to patients.

## 5. CONCLUSION

Prior acquisition of medical information is believed to be important by most patients who attend ENT outpatient clinics in Israel. The family physician is the most common and reliable source. Information transferred by a physician who directs the patient to reliable web sites may be the optimal method to supply health information in the 21<sup>th</sup> century.

## CONSENT

Not applicable.

## ETHICAL APPROVAL

Not applicable.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Boston M, Ruwe E, Duggins A, Willging JP. Internet use by parents of children undergoing outpatient otolaryngology procedures. Arch Otolaryngol Head Neck Surg. 2005;131(8):719-22.
2. Rokade A, Kapoor PK, Rao S, Rokade V, Reddy KT, Kumar BN. Has the Internet overtaken other traditional sources of health information? Questionnaire survey of patients attending ENT outpatient clinics. Clin Otolaryngol Allied Sci. 2002;27(6):526-8.
3. Coulter A. After Bristol: putting patients at the center. Qual Saf Health Care. 2002;11(2):186-8.
4. Mullen PD. Compliance becomes concordance. BMJ. 1997;314(7082):691-2.
5. Peridis S, Roberts D, Hopkins C. Outpatient clinic letters in ENT. Is there any margin of improvement? B-ENT. 2012;8(1):33-5.
6. Kiley R. Does the Internet harm health? BMJ. 2002;324(7331):238-9.
7. Anderson AS, Klemm P. The Internet: friend or foe when providing patient education? Clin J Oncol Nurs. 2008;12(1):55-63
8. A NATION ONLINE: How Americans are expanding their use of the Internet. Joint report of the national telecommunication and information administration and the economics and statistics administration, Washington, D.C. February 2002.
9. Zun LS, Blume DN, Lester J, Simpson G, Downey L. Accuracy of emergency medical information on the web. Am J Emerg Med. 2004;22(2):94-7.
10. Gage EA, Panagakis C. The devil you know: parents seeking information online for paediatric cancer. Social Health Illn; 2011.
11. Gutierrez N, Kindratt TB, Pagels P, Foster B, Gimpel NE. Health Literacy, Health Information Seeking Behaviors and Internet Use Among Patients Attending a Private and Public Clinic in the Same Geographic Area. J Community Health; 2013.
12. Tian L, Tang S, Cao W, Zhang K, Li V, Detels R. Evaluation of a web-based intervention for improving HIV/AIDS knowledge in rural Yunnan, China. AIDS. 2007;21(Suppl 8):S137-42.
13. Yardley L, Joseph J, Michie S, Weal M, Wills G, Little P. Evaluation of a Web-based intervention providing tailored advice for self-management of minor respiratory symptoms: exploratory randomized controlled trial. J Med Internet Res. 2010;12(4).

© 2015 Segal et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*

*The peer review history for this paper can be accessed here:*  
<http://www.sciencedomain.org/review-history.php?iid=696&id=12&aid=6414>