



Kinapse White Paper

Internet usage of Indian General Practitioners

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A rapid development has taken place in the use of the Internet by the medical fraternity in India over past few years. General Practitioners (GPs) form a vital part of medical fraternity in India. To evaluate the opinions and perceptions of Indian GPs on the use of Internet for professional purposes, a survey was conducted. The survey was conducted in 3 Indian cities - Delhi, Gurgaon and Chandigarh in 2008. It was found that 69% of the surveyed GPs use the Internet as an aide to their professional activities and 92% confirmed the proposition that Internet has potential to add immense value to the medical practice. Lack of time and poor Internet skills are major challenges towards the use of the Internet by the GP community.

OVERVIEW

The Internet is now seen as the most widespread and easily accessible information resource. It has become a prerequisite for most types of advanced information exchange between the GP and other parties, including pharmaceutical companies, healthcare service providers, pharmacists, laboratories, etc. In addition, the Internet can be used to support the GP practice, especially patient monitoring and information research.

Development is taking place in the use of Internet by medical fraternity over the last few years and GPs are being able to benefit from it. A basic infrastructure consisting of computers and Internet connections is available in a majority of GP practices in India. Use of the Internet in patient consulting and academic purposes is becoming widespread. Nevertheless, there remains a wide gap in terms of the extent of the Internet use and development of skills of GPs towards its usage.

To evaluate this scenario, a survey was conducted which involved interviewing more than 100 GPs over their use of the Internet for professional purposes. Interviews were carried out face-to-face as well as telephonically. The population was classified into 'Users' and 'Nonusers'. Non-users were GPs using the Internet for non-professional activities or not using it at all. The questionnaire composed of 2 sections, one common for 'Users' and 'Non-users' and the other only for 'Users'. The questionnaire consisted of both open-and-close-ended questions.

➡ GPs prefer home over work place to access the Internet and 65% users spend less than 7 hours per week on the Internet.

RESULTS

INTERNET USAGE BY GPS

Questionnaire-analysis results showed that of the surveyed GPs, Delhi and Gurgaon had 70% Users each as compared to Chandigarh which had only 56% Users.

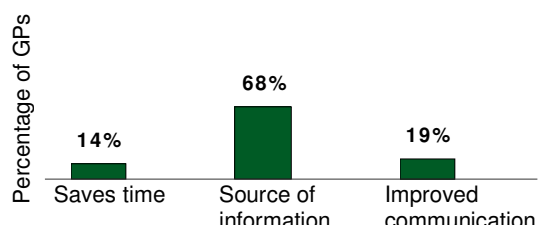
It was seen that the 69% of GPs surveyed use the Internet in their medical practice. The uses primarily include accessing online brochures and diagnostic reports, planning and conducting case discussions with other GPs, using it as an aide to patient consulting and for several other academic purposes. 84% GPs prefer home to access the Internet while 40% GPs use the Internet at workplace. Internet usage still has a long way to come to the fore as 65% of the Internet Users use it for less than 7 hours per week.

PROFESSIONAL BENEFITS FROM THE INTERNET

A vast majority of GPs (88%) agree that there exist various professional benefits of the Internet. Benefits from the Internet include: Source of domain knowledge and trends, better communication tool and support to search for relevant books and journals. Moreover, the Internet also acts a medium for providing consulting to the travelling patients and to share experiences with other doctors.

Fig. 1 provides the responses of GPs (52% Users provided detailed response) on various benefits from the internet.

Fig 1: GPs response to benefits from the Internet



Internet usage for patient consulting

The Internet improves the quality of healthcare service provided by GPs. It is of immense importance to GPs in the age of competition. GPs widely use the Internet during the patient consultation process: 63% of the Users use email as a medium to connect to patients and other primary care parties such as peers, pharmaceutical companies (e.g. medical representatives), etc. GPs receive information in the form of medical cases, diagnostic reports, regular communications from peers that supports them in diagnosis and being abreast with the updates in Medicine and allied practices.

Medical cases are obtained from the Internet by 54% Users. Other related uses of the Internet include: Receiving online diagnostic reports (30% Users), case discussion with other GPs through online messengers (27% Users), and medical discussion through networking sites (14% Users).

None of the surveyed GPs utilise the Internet to manage online appointments or to maintain a formal website for the advertisement of services offered by them.

Fig. 2 indicates the responses provided by Users regarding Internet usage for patient consulting.

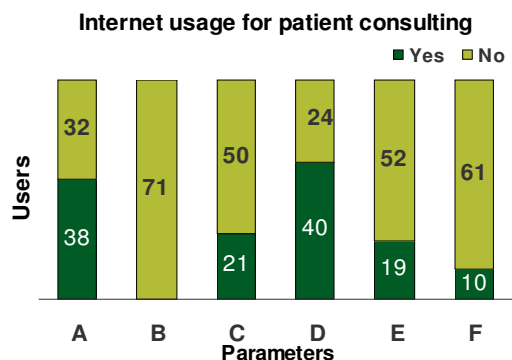


Fig.2: A: Download medical cases (1 non-respondent); B: Online appointments; C: Online diagnostic reports; D: Professional emails (7 non-respondents); E: Online messenger; F: Networking sites

Yahoo! Mail is a preferred web-based email service for 60% Users. Yahoo! Messenger, a chat appellate and Orkut, a social networking site are the most commonly used mediums of interaction for these set of GPs. GPs active on networking sites use bulletin boards / online forums to share their experiences.

➡ GPs utilise e-mails, instant messengers and networking sites to provide continued consulting to the travelling patients

Internet usage for academic purposes

GPs need to be aware of the latest treatments and techniques to remain competitive and provide the best patient care. The Internet can be used to access extensive knowledge repositories available online easily and quickly. Users agree that the Internet is a faster means of acquiring knowledge as compared to books.

80% of the Users prefer Google search engine to find medical information on the Internet over other search engines. 42% of the Users refer to specific websites hosted by pharmaceutical companies to search medical information.

GPs also use the Internet to refer to other academic / research information sources such as online databases (42% Users), online journals (52% Users), newsletters (24% Users) and online books (27% Users), information on seminars (25% Users) and online conferences (27% Users).

38% of Users use *Indian Medicine* and the same percentage uses *Medline* as the most commonly used online databases.

Journal of Indian Medical Association (65.3% Users) is the most widely read online journal. The other journals referred by Users are *British Medical Journal*, *Lancet*, *Journal of American Medical Association*, *Journal of Association of GPs of India*, *Indian Journal of Pharmacology*, and *Indian Journal of Pathology*. GPs also receive e-newsletters from pharmaceutical companies and subscribed websites. *Harrison* and *Continual Medical Education* are the most widely read online books used by the GPs. Users also participate in online conferences including online symposiums.

Fig. 3 indicates all the responses provided by Users regarding Internet usage for academic purposes.

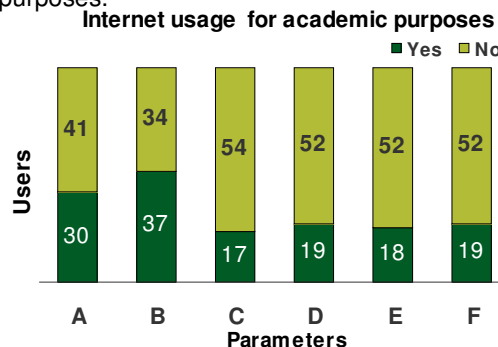


Fig.3: A: Online Databases; B: Online Journals; C: Newsletters; D: Online books; E: Seminars on internet (1 non-respondent); F: Online conferences

Case study 1: "Internet usage is relevant only for complicated cases in the medical profession"
 A 42 year old GP, having a private practice in a busy location was interviewed during the survey. He did not use the Internet but was well aware of the benefits of the Internet for the medical community. He said, "Internet provides substantial support in complicated cases and specialists who deal with complex cases use the Internet to search for break-through techniques and treatments, but Internet usage is not going to help GPs much in dealing with common ailments." He also said, "Internet is not going to be beneficial in the normal course of my business." He predicted that the Internet usage would gain popularity among the GPs but would take at least 30 years to reach the Internet usage levels prevalent in U.K. and U.S.A.

CHALLENGES TO INTERNET USAGE

Despite increased use of the Internet by GPs in India in the past few years, they face a lot of challenges in initiating or increasing use of the Internet in their professional practice. The GPs interviewed blamed lack of time and inadequate training for GPs as the primary factors hindering their Internet usage. 75% Users see lack of time as a major barrier to the Internet usage for professional activities. Among Non-users, 53% see lack of time as a major challenge and 66% see lack of time as a major challenge and 66% Non-users find inadequate training as other major challenge. Further challenges include available IT infrastructure such as slow Internet speed and information overload.

Fig. 4 provides response distribution on the various challenges of the Internet to GPs.

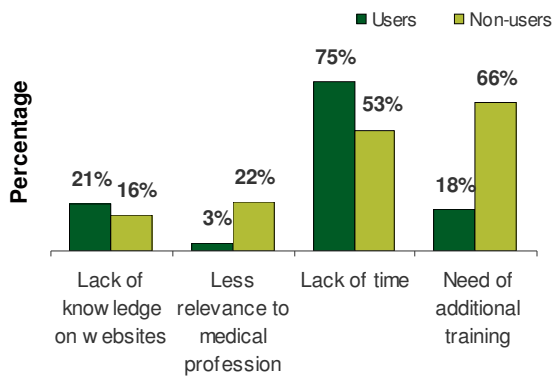


Fig.4: Users and Non-users response to challenges faced by the GPs

SUGGESTIVE OPTIONS TO IMPROVE INTERNET USAGE

45% Users and 69% Non-users believe that better training will improve their ability to use the Internet for professional purposes.

48% Users expressed the need for pharmaceutical companies to take initiatives to provide Internet training to GPs and hosting websites with medical information on diseases and drugs. GPs would also like *Indian Medical Association* and *Indian Medical Council* to take initiatives like organising seminars, etc. for the provision of medical information. GPs opposed

introduction of any Government regulation that mandates the use of Internet for professional purposes.

Fig. 5 provides detailed analysis of responses on the suggestive initiatives.

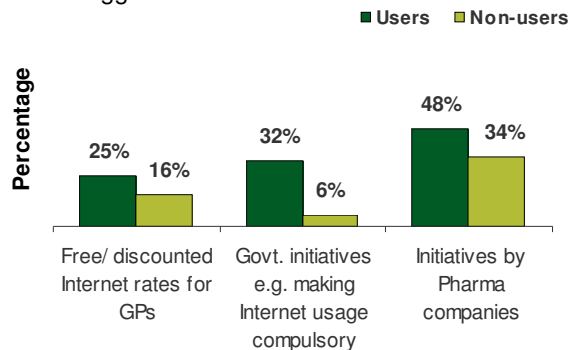


Fig.5: Users and Non-users response to suggestive initiatives

COMPARISON BETWEEN INTERNET AND OTHER SOURCES OF INFORMATION FOR GPs

The analysis showed that although, the Internet is considered as a reliable source of medical information by 76% Users, 66% Users still favour print material over the Internet. 69% prefer Internet to find either new or medical information that is released out of India. Among Non-users, 80% considered print material to be the most reliable source of medical information.

Both Users (75%) and Non-users (52%) consider medical representatives as the least reliable and least preferred source of medical information. This finding reflects the contradiction prevalent in Indian medical community where medical representatives are the easiest yet the most unreliable source of information. Most of the times, GPs validate the information provided by medical representatives with other sources they consider more-reliable.

Case study 2: Patients now-a-days do their homework before visiting a doctor

A 49-year old GP, Head of the Department at a multi-speciality hospital at Gurgaon, who has written medical books and also authored several research papers, and is an avid Internet user, remarked, "Patients nowadays bring along on-line medical information to discuss with their GPs. These patients usually understand and trust the information found online. However, GPs need to carefully examine whether the information found by a patient is relevant to that patient's condition."

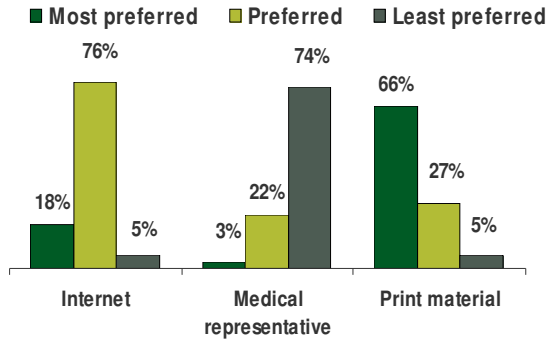


Fig.6.1: Users response on reliability of information source

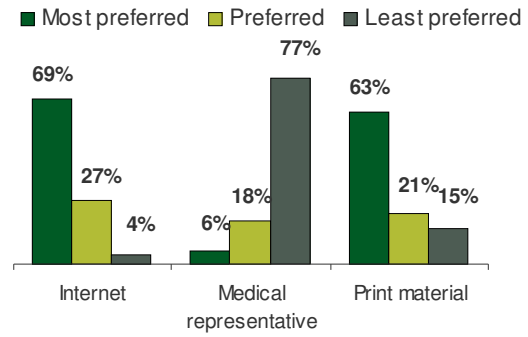


Fig.7.1: Users response on preference for new information source

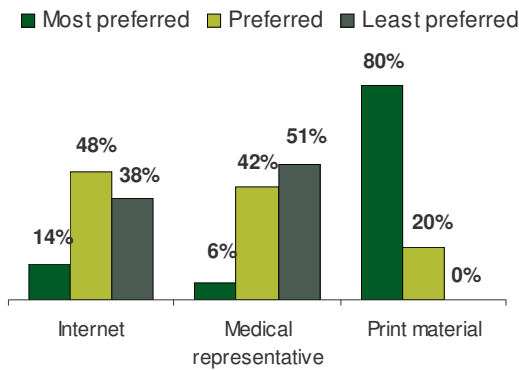


Fig.6.2: Non-users response on reliability of information source

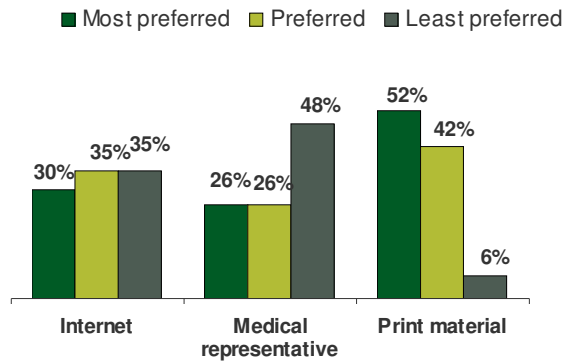


Fig.7.2: Non-Users response on preference for new information source

SECURITY OF INFORMATION SHARING

Security has always been the major point of concern when it comes to Internet use for professional and commercial activities. This has seen a rub-off effect in the GP practice as well. GPs respect patient confidentiality and remain totally committed towards data security. Techniques to make electronic patient data transfer secure include password protection of the system and the transmitted files, encryption of transmitted files and e-mails as well as the use of e-signatures. GPs also put efforts trying to ensure that the information remains secure. 49% Users and 35% Non-users agree that communications with patient and sharing of patient information like patient case summaries, diagnoses, etc. over the Internet is safe.

➔ Sharing medical case records of patients over the Internet is not considered safe by more than 50 % of GPs.

SCOPE / FUTURE OF THE INTERNET IN THE MEDICAL PROFESSION

GPs believe that the scope of the Internet use in the Indian medical profession will increase in the future. The medical community has proposed to make e-prescription legal in India, which if approved will lead to a wider use of the Internet by the medical profession.

➔ The younger generation of GPs recognizes the benefits of the Internet and uses the Internet more extensively.

CONCLUSION

Use of the Internet is prevalent among GPs across cities. GPs use the Internet for two main purposes: (1) Academic / reference purposes and (2) Professional communication with peers, medical community and patients. Professional benefits from the Internet are being received a majority of the GPs.

Lack of time and need for better training are the major obstacles to the Internet use by GPs. Insufficient knowledge and inadequate training on Internet use force GPs to search for information by 'hit-and-trial' methods, which in turn leads to wastage of their practice time and discouragement for further use.

GPs suggest that they would welcome initiatives from the Government and pharmaceutical companies to promote Internet usage through training and awareness campaigns. Medical representatives seem to be the easiest interface between companies and GPs, but are considered as the least reliable source of information by GPs. Medical representatives are believed to be biased to promote their company's products.

Hence, pharmaceutical companies can provide information on their drugs through websites. This information on websites will be in public domain and GPs would be assured of its reliability. GPs also suggested that setting up disease and drug related portals / websites e.g. Merck Index can provide several benefits.

Survey also concludes that GPs are unlikely to use or adopt a new source of information that does not save them time or provide an additional benefit over the currently available/ adopted sources. The Internet emerges as a cost-effective and time-saving means of seeking new and latest information among the Users.

Survey also concludes that GPs attached to hospitals use Internet more frequently as compared to GPs who primarily practice in personal clinics. Better infrastructure and provision of training to GPs in hospitals can enable them using the Internet more effectively.

In the ever evolving pharmaceutical market, quick access to reliable information will always be a key requirement. Although the Internet has facilitated the transfer of information to the GPs' desk, the use of this vast amount of information is still in its nascent stage. Information management must be taught, learned, practised and continuously improved, before the Internet can begin to have an impact on routine patient care in India.

RECOMMENDATIONS

The survey establishes that Indian GPs acknowledge the professional benefits of using the Internet. Hence, use of the Internet by the GPs will increase in future. This opportunity could be utilized by the pharmaceutical companies and service providers to use the Internet as a means to reach out to GPs with their products and services. General marketing through websites and personalized one-to-one marketing through emails can be used by pharma companies as an alternative to cut-down costs incurred on promotions. Access to authentic and unbiased information through company-sponsored websites would lead to enhanced brand recognition for the companies. Companies should also organize seminars, workshops, etc. to increase awareness of the GPs on Internet usage. This will help the Users to be more effective as well as initiate the use of Internet among non-users. Pharma service providers can utilize the data provided by the GPs to provide a number of services to different stakeholders of the medical and allied community.

LIMITATIONS

- The modest sample size of the survey may be seen as the primary limitation.
- Survey was conducted in metros/mini-metros (Delhi, Gurgaon, and Chandigarh) which may have a higher rate of Internet connectivity than other population strata. It is possible that because of this environment, the subjects have greater exposure to the Internet than GPs based in smaller cities and rural areas with low Internet connectivity.

REFERENCES

(1) An Empirical Study of Internet Usage and Difficulties among Medical Practice Management in the UK.

(2) Physician Use of IT: Results from the Deloitte Research Survey by Robert H. Miller, PhD, John M. Hillman, PhD, MBA, and Ruth S. Given, PhD

(3) Doctors On-line: Using Diffusion of Innovations Theory to Understand Internet Use by Fiona Chew, PhD; William Grant, EdD; Rohit Tote, MS

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About Kinapse

Kinapse provides consulting and outsourcing services to the life sciences industries, globally. Our mission statement is: 'Collaborating with our clients to innovate for exceptional results'. Kinapse clients include many of the world's leading pharmaceutical, biotechnology, medical device and specialty pharmaceutical companies, government organizations and life sciences service providers. Our key advantages are:

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- Track-record of innovative solutions and results

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