

**Perception Mapping of Websites, Networking Sites and Mobile
Medical Applications their Use by the Doctors in their Clinical
Practice**

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**Post Graduate Diploma in Pharmaceutical Management
2012-2014**



**Institute of Health Management Research,
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TO WHOMSOEVER MAY CONCERN

This is to certify that Ms. Tanvi Gupta student of Post Graduate Diploma Pharmaceutical Management (PGDPM) from Institute of Health Management Research, Jaipur has undergone internship training from 20th February to 28th May 2014.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.



Dr Ashok Kaushik
Dean, Academics and Student Affairs
IIHMR Jaipur

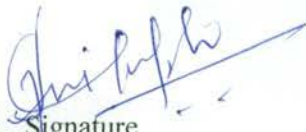


Dr. S.K Puri
Academic Advisor
IIHMR Jaipur

29/5/2014

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **“Perception mapping of websites networking sites and mobile application, their use by doctors in their clinical practice”**, submitted by Tanvi Gupta, Enrollment No. IIHMR/PGDPM/2012-14/04-192 under the supervision of Dr.S.K.Puri for award of Postgraduate Diploma in Pharmaceutical Management of the Institute carried out during the period from 20th February 2014 to 28th may 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.



Signature

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without mentioning people who constantly encouraged and guided us in the completion of project.

We would like to express our heartfelt indebtedness to Dr. S.K Puri, for her continuous support and guidance throughout the project in Epidemiology report on diabetes.

Finally I would like to thank God almighty, my parents and my friends for their continuous support and love.

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“PERCEPTION MAPPING OF WEBSITES, NETWORKING SITES AND MOBILE MEDICAL APPLICATIONS THEIR USE BY THE DOCTORS IN THEIR CLINICAL PRACTICE”

INTRODUCTION

Social media is ubiquitous. Health care industry and digital world collide so dramatically. Since the introduction of electronic health records, telemedicine and mobile devices, modern medicine has benefited greatly from these technologies. There are hundreds of blogs, forums and social networking sites offering medical advice, patient support, and health-related news 24/7. New docs are embracing the use of Facebook, Twitter, LinkedIn and YouTube as a way to strengthen the doctor-patient relationship in addition to simplifying the way health news is received and distributed.

REVIEW OF LITERATURE

<http://source.southuniversity.edu/healthcare-professionals-and-social-networking-33211.aspx>

e-Online medical websites:

The health industry is responding to the increasing popularity and availability of technological innovations, such as tablets and smartphones.

Health and wellbeing applications are estimated to make up approximately 40% of new smartphone apps currently being developed. This is a huge market and only set to increase as the benefits become more apparent and smartphone and tablet technology become more widespread.

Health applications have the potential to be adapted and used by healthcare professionals and consumers, helping to revolutionise the sector and reflect the digital age we live in.

Networking sites:

Social networking sites can be a great way for healthcare professionals to network with colleagues and share health information. However, they should be aware of the potential risks of using social media, and especially use caution when connecting with patients online. Healthcare professionals, including physicians, nurses, pharmacists, and physical therapists, have plenty of options when it comes to establishing an online presence. Like all of us, they can start a blog or join networks like Facebook, Twitter, LinkedIn, and MySpace. There are also online communities exclusively for healthcare practitioners.

Although it has taken them time to catch up, healthcare professionals have entered Health 2.0 and are now turning to ways they can personalize health care, collaborate, and promote health education.

SOCIAL USE BY HEALTHCARE PROFESSIONALS:

As social media grows, so does its use by healthcare professionals.

Healthcare organizations entering the social network need to make sure they have social media policies that specify what uses by their employees are permitted and prohibited.

In order to draw clear lines drawn between interactions as a healthcare provider and those as a friend, some advise keeping separate personal and professional social networking accounts. When carefully handled, social media can help strengthen the relationship between the patient and their healthcare provider.

Mobile applications:

We are now relying more and more on our various mobile devices to complete many every day, even the more complicated, tasks for us. Users from all fields are increasingly using their smart phones and tablets for their extreme multitasking abilities and their efficiency. The medical field is no exception. Where medics and paramedics of the bygone days used expensive medical equipment to help patients during emergencies, they now use their highly data-driven, easy-to-use and much less expensive mobile devices and the medical apps available therein

Issues Faced by Medical Mobile App Developers.

However, developers of medical apps often face many issues while creating the same. They are as follows:

- Results not Always Predictable

No matter how much an app developer tries to create a foolproof medical app, he or she can never be certain that it be totally trouble-free, until and unless it has actually been developed and deployed to a particular mobile platform.

Certain issues may crop up during the testing phase of the app and that is when the actual problem will arise, while trying to fix the problem.

- No Life-Saving App Available

The US Food and Drug Administration acknowledge the tremendous utility of medical apps. In fact, research indicates that the number of smart phone users taking advantage of medical mobile apps by way of mobile healthcare, may rise to an amazing 500,000,000 by the year 2015.

However, no developer can ever claim to create a life-saving app. The available apps are good to test a certain condition, but they cannot hope to bring relief to a critically ill patient. Not only that, these apps can be dangerous for use to patients in case there have been technical glitches during the app development or testing phase.

One of the biggest issues faced by developers of medical mobile apps is the variety of mobile devices today, as also operating systems. While these issues are big enough to tackle, there are also the other problems such as non-standardization of mobile design, network connectivity issues and so on.

Creating apps for different mobile devices with different mobile features and requisites can pose a huge challenge to the developer. Cross-platform formatting and choosing the right mobile platform or platforms poses an even bigger problem.

The above issues may collectively result in a medical app that does not quite meet the expectations of the end-user.

PURPOSE OF THE STUDY

The purpose of this report is to study the preference for the use of websites, networking sites and mobile applications by the doctors, and determine the potential use of medical (paid and free) websites and mobile applications by the doctors.

Research will cover following points-

- Extent of use of e-online websites by the doctors.
- Use of networking sites that will help the doctors professionally.
- Scope of mobile applications in the regular clinical practice of the doctors.
- Extent of current satisfaction with the use of networking sites and mobile applications

OBJECTIVES

PRIMARY OBJECTIVES

“PERCEPTION MAPPING OF MEDICAL WEBSITES, NETWORKING SITES AND MOBILE APPLICATIONS IN THEIR CLINICAL PRACTICE”

SECONDARY OBJECTIVES:

- To get insight about the use of e-websites, networking sites and mobile applications in their clinical practice.
- Extent of usage of medical websites
- To get insight of the current level of satisfaction of the doctors in using these online websites, networking sites and medical mobile applications.

RESEARCH METHODOLOGY

SECONDARY RESEARCH:

Secondary data was collected before designing the questionnaire relevant to the project to get brief insights about the research work. Information was collected through various sources on various websites.

Following information was collected:-

- Digital media and its applications in medical sector.
- Various advantages of using these e-online medical websites, networking sites and the medical mobile applications.
- Various medical websites, networking sites and medical mobile applications currently available.
- Recent advances in these sites and applications.
- Then a questionnaire was designed containing both open and close ended questions.

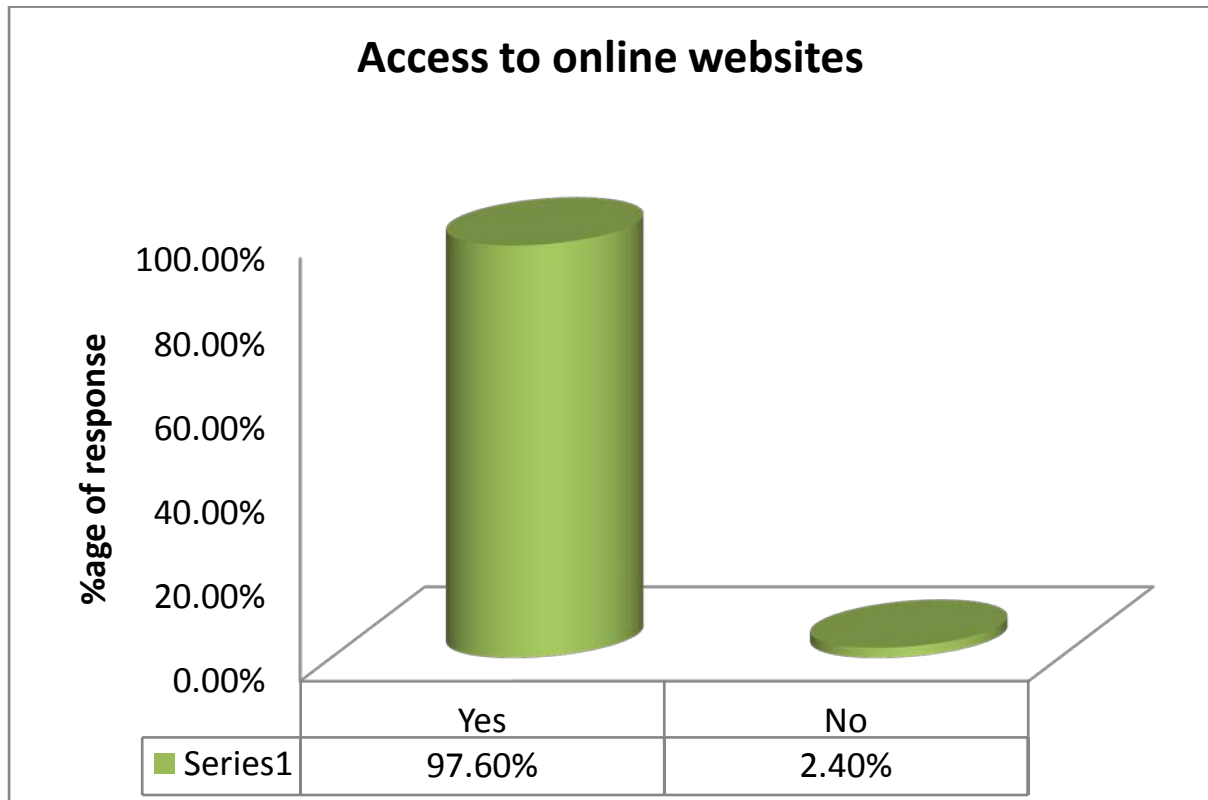
PRIMARY RESEARCH

- TYPE OF DATA: Primary data.
- TOOL OF DATA COLLECTION: A market Research Questionnaire with open ended as well as close-ended questions were used for data collection.
- TYPE OF QUESTIONNAIRE: Structured.
- MODE OF DATA COLLECTION: One to one interview.
- INTERVIEW TECHNIQUE: In depth interview was conducted by using probing method for each question.
- SAMPLING METHOD: Random sampling.
- TYPE OF RESEARCH: Quantitative research.
- RESEARCH AREA: Ambala+ Chandigarh
- TARGET RESPONDENTS: Doctors
- Sampling Unit- 50 doctors
- SAMPLING FRAME: dissertation company
- SAMPLING TECHNIQUE: Convenience sampling based on geography

DATA ANALYSIS AND FINDINGS

TO KNOW THE USE OF e- ONLINE WEBSITES BY THE DOCTORS

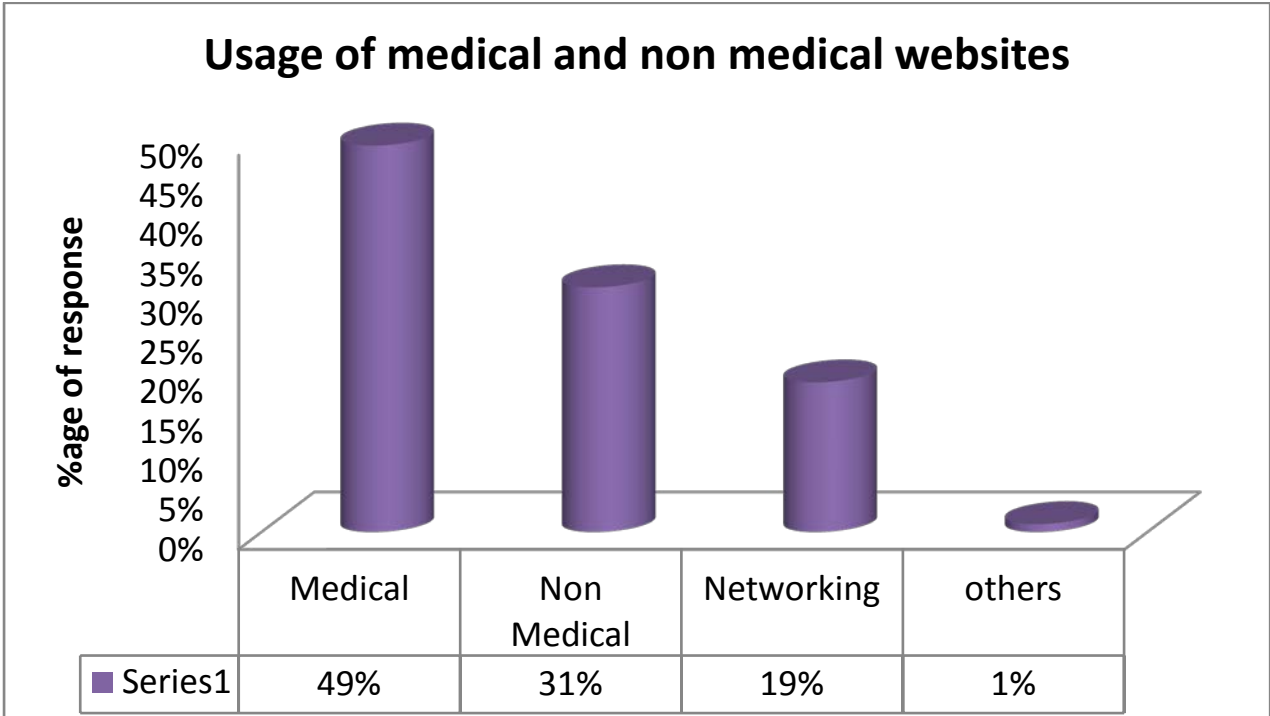
1. Do you access e online websites?



Well in this internet driven world, 97.6% doctors accessing the e-online websites around 20% of the doctors have recently started using the websites and networking.

STUDY THE EXTENT OF USE OF MEDICAL AND NONMEDICAL WEBSITES

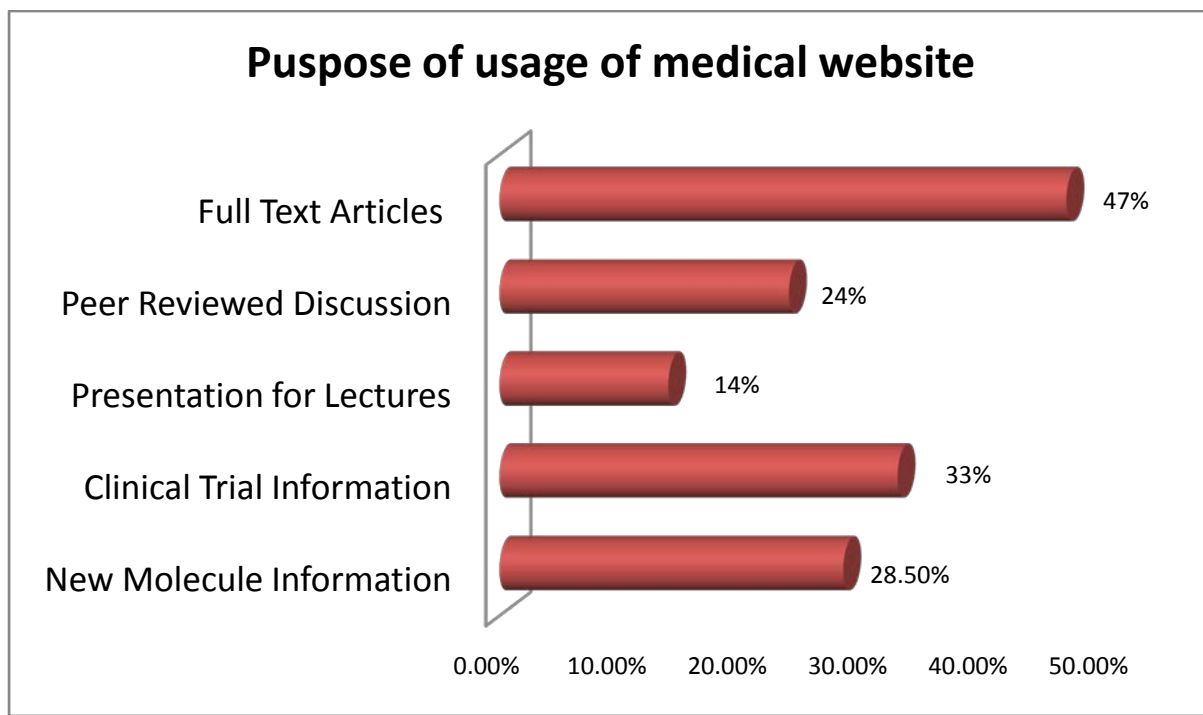
2. If YES, for which of the following purpose do you access?



49% of the doctors access the medical websites to review clinical trial data, text articles and for more medical information , followed by non-medical sites (31%), networking (19%) and others (1%).

KNOW THE PURPOSE OF USE OF MEDICAL WEBSITES AND PREFERENCES

3. What information do you usually look for in medical sites. Please rank your preferences?

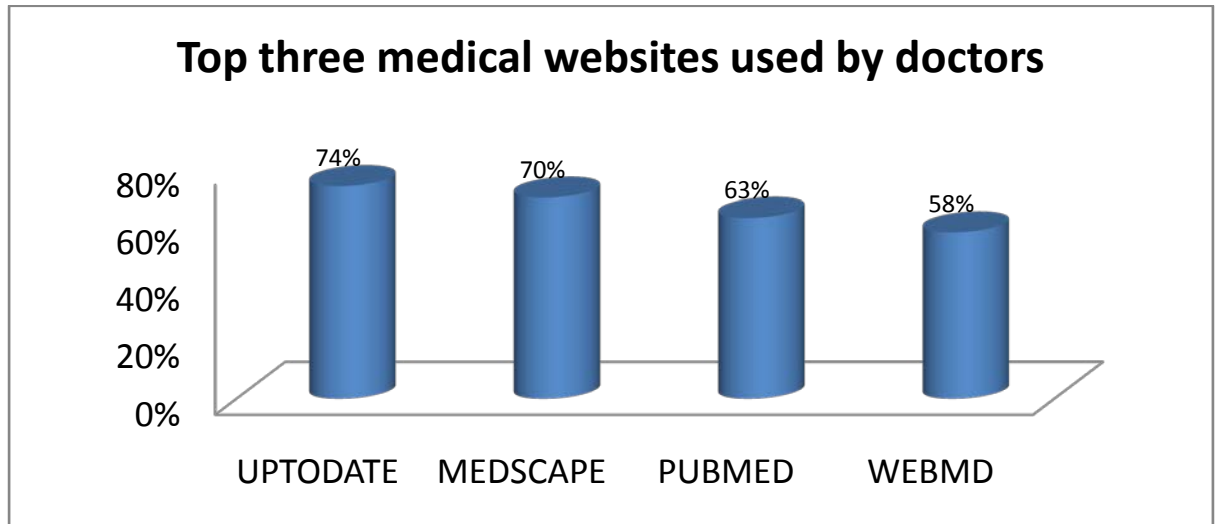


47% doctors prefer full text articles followed by clinical trials information (33%), new molecule information (28.5%), peer reviewed discussions (24%) and presentations for lectures (14%).

Doctors prefer to review Full text articles and clinical trial information of new launched drugs or they prefer to read articles on new market and trends in medical field.

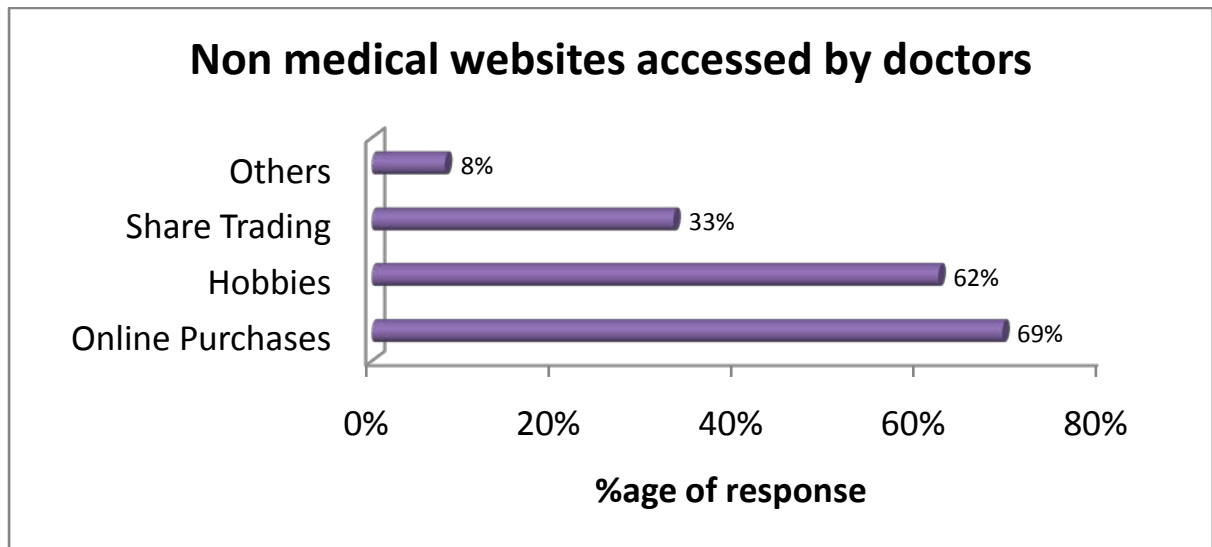
TO KNOW TOP THREE MEDICAL WEBSITES USED BY DOCTORS

4. Mention the top 3 medical sites you access the most?



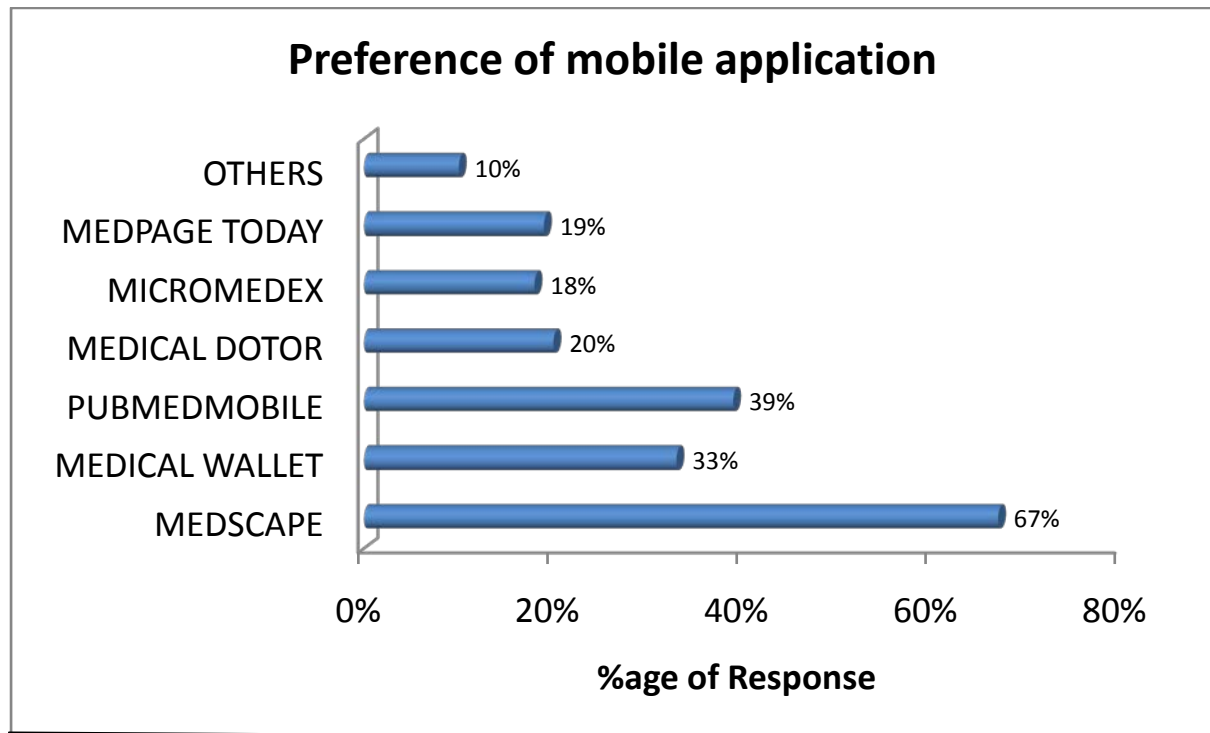
Use of medical websites and applications by the doctors is increasing day by day, Majority of the doctors preference is more for Uptodate (74), followed by Medscape (70%).

KNOW THE PURPOSE OF USE OF NON-MEDICAL WEBSITES AND PREFERENCES



Majority of the doctors are using non medical websites for online purchases like flipkart, amazon.

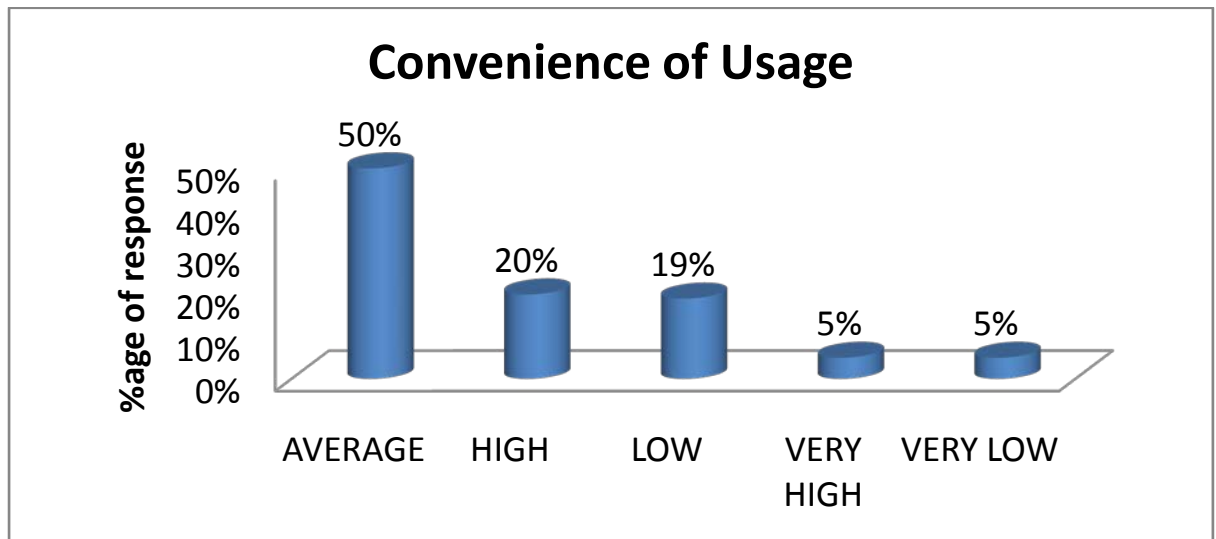
KNOW THE PREFERENCE FOR THE MOBILE APPLICATIONS



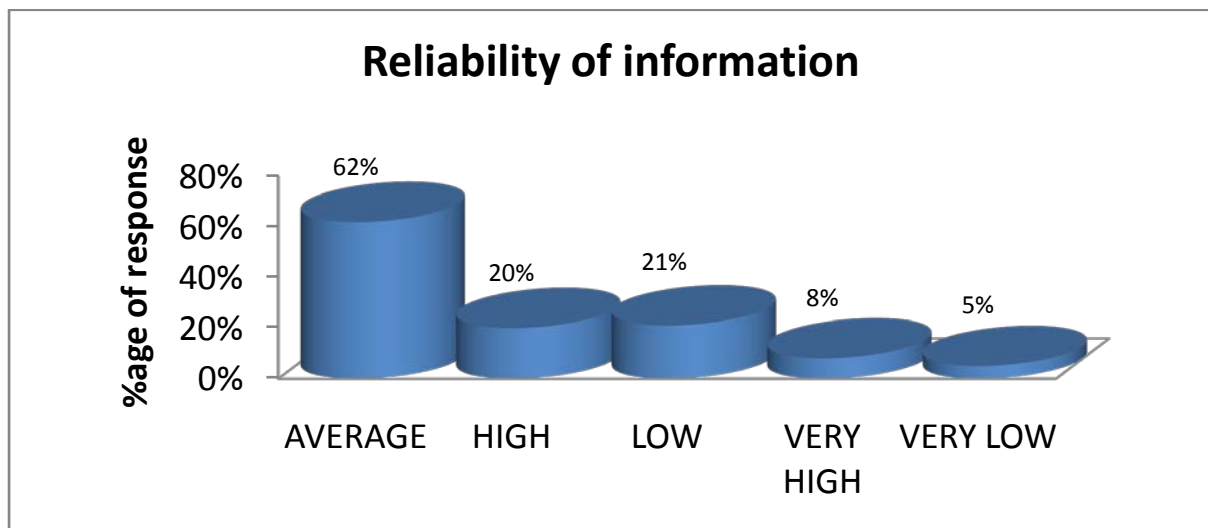
Usage of mobile application has also increased, 67% of the doctors access MEDSCAPE, followed by PUBMED mobile application (33.3%) and Medical Doctor (19.4%).

STUDY THE CURRENT SATISFACTION LEVEL WITH THE USE OF MEDICAL SITES AND APPLICATIONS

A) Convenience of usage



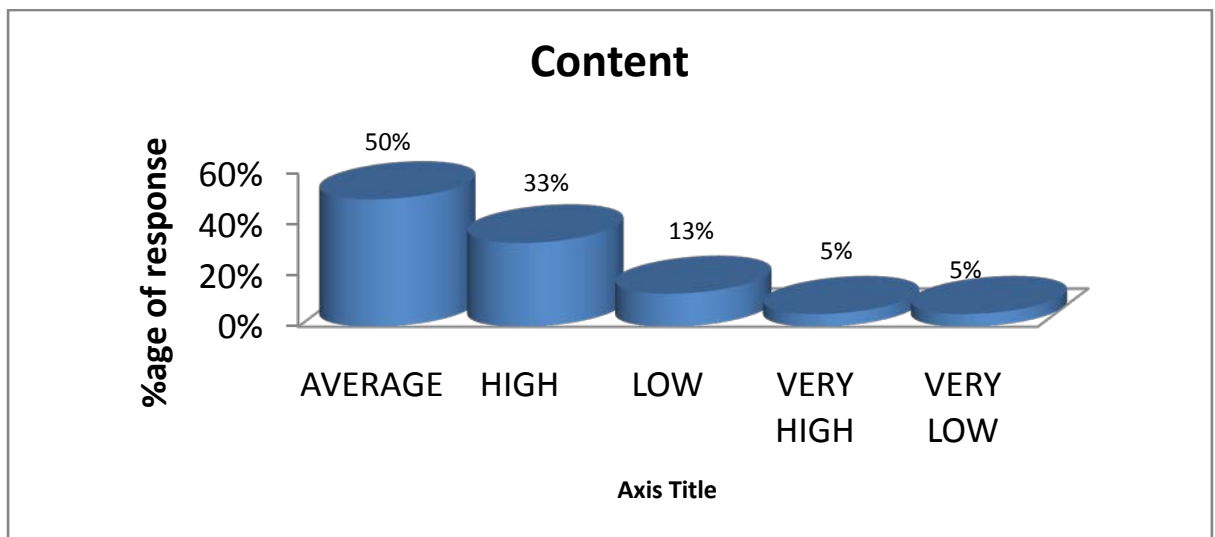
B) RELIABILITY OF INFORMATION:



B) TIME SAVING:



C) CONTENT:



Majority of the doctors using the medical sites have the current satisfaction level: Average level of satisfaction with convenience of usage, reliability of information and content and high level of satisfaction with time saving parameter.

KEY FINDINGS:

Majority of the doctors accessing the online websites have almost equal proportion of use of the medical and non medical websites, followed by the networking sites.

- ✓ Maximum doctors prefer to look for the full text articles and clinical trials information and new molecules information in the medical websites.
- ✓ Major proportion of the doctors access uptodate, pubmed and webmd medical sites and access entertainment, online purchases and hobbies related sites (non-medical sites).
- ✓ Applications most commonly accessed by the doctors are medscape, pubmed mobile and medical doctor.
- ✓ Majority of the doctors use networking sites for information sharing and for the latest reviews and case discussions.

CONCLUSIONS

The overall use of the medical websites by the doctors is prominent than the use of mobile medical applications.

- ✓ The complete professional use of the networking sites has not been completely utilized by many of the doctors.
- ✓ Doctors with the latest smart phones are also not very aware and not accessing the medical applications.

RECOMMENDATIONS

The use of medical websites, networking sites and applications, their benefits and impact on clinical practice should be emphasized more while targeting various doctors through advertisements.

Frequent interaction and regular E-mail, SMS drop to the doctors regarding the applications and the upgraded and new versions available will help to drag the doctor's attention.

Use of 3D-leaflets, attractive brochures, giving free trial of the application for a period of time will help attract the doctor's.

Application usage demo and experience sharing during the Doctors Group Meeting can help in easy penetration and information spread.

Medical students (Final year) can be targeted more, as it is easy to communicate and convince.

Identification of key opinion leaders and with effective use of their influencing capabilities also helps in wide spread of awareness among the doctors.

QUESTIONNAIRE

1. Do you access e online websites?

☐

YES

☐

NO

2. If YES, for which of the following purpose do you access?

S.NO	PURPOSE	PERCENTAGE USEGE
1	Medical	
2	Non-medical	
3	Networking	
4	others	

1. What information do you usually look for in medical sites. Please rank your preference?
5-most preferred, 1 least preferred

S.NO	INFORMATION	Rank (%)
1	Full text articles	
2	Peer reviewed discussions	
3	Presentation for lectures	
4	Clinical trials information	
5	New molecules information	

2. Mention the top 3 medical sites you access the most?
5-most preferred, 1 least preferred

RANK

a) uptodate _____

b) Medscape _____

c) WebMD _____

d) Cardio source _____

e) Pubmet _____

f) I Health spot _____

g) Others _____

5. Mention the non-medical sites you access? 5-most preferred, 1- least preferred

Paid/Free	Sites	Rank(%)
1) Share trading -		_____
2) Medico legal-		_____
3) Online purchases-		_____
4) Entertainment- _____		_____
5) Hobbies- _____		_____
6) Others-		_____

6. Which of the following mobile application do you access?

	RANK
a) Medscape	_____
b) PubMedMobile	_____
c) Medical doctor	_____
d) Medical wallet	_____
e) Micromedex	_____
f) Medpage today	_____
g) Others _____	

7. Please specify your current satisfaction level using the medical sites based on the following parameters?

S.NO:	PARAMETERS	Very low	Low	Average	High	Very high
1	Convenience of usage					
2	Reliability of information					
3	Time saving					
4	Content					

8. Please give your comments on the impact use of websites, applications and networking sites on current medical practice

Name of the doctor _____

City _____

Specialty _____

Hospital _____

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