

Online Doctor Consultation: A Review of Practice

Aastha Bhagat¹, Arushi Jain², Shubhii Verma³, Siddharth Aggarwal⁴

Department of Information Technology

Inderprastha Engineering College, Ghaziabad

Corresponding Author: arushijain81@gmail.com

Abstract

While the internet has long been a source of Doctor information, it has only recently been used for online private patient-doctor consultations. Online Doctor Consultation (ODC) provides a platform wherein patients can consult doctors directly without physically visiting them. It is now offered by many providers internationally with diverse models and features.

Keywords: Telemedicine, Remote Consultation.

INTRODUCTION

Online Doctor Consultation (ODC) is the term used in this paper to refer to internet-based remote patient-doctor (consumer-provider) Doctor consultations. ODC can be regarded as part of telemedicine where the term “Remote Consultation” refers to “consultation via remote telecommunications, generally for the purpose of diagnosis or treatment”. However, this paper distinguishes ODC from remote consultations in three main aspects. First, the definition of ODC excludes non-internet-based consultations like telephone-only or radio-based

consultations. Second, ODC carries a paradigm shift in the way patients seek Doctor consultation where they can independently “shop around” for Doctor consultation the same way they do for online services. Third, ODC is about direct patient-doctor consultations, therefore it will not include doctor-doctor (provider-provider) consultations or consultations for health education and other purposes.

ODC as a concept goes beyond the common “telemedicine” practices which are usually limited to specific Doctor

categories for patients within specific geographical/geopolitical regions[1].

With ODC, the service is usually open to patients with a wide range of Doctor needs coming from different regions or countries. Patients may choose or be assigned to any doctor/ care provider who is available online. They are not restricted to a specific provider either by previous knowledge or by geographical closeness.

The aim of the research reported in this paper is to explore ODC practices at the global level.

METHOD

A. Literature review

Databases including MEDLINE and Inspec were searched for relevant publications. Multiple search terms were used, combining “online consultation” with “health or Doctor”, using the term “remote consultation”, or using “e-visit”, “e-consultation”, and “video consultation”.

B. Review of various online portals

A convenience sample of current ODC web sites was derived from sites that appeared among Google’s first one hundred results when searching for “online health/Doctor

consultation” or “online doctor”. For example: icliniq.com and doctorinsta. These sites were examined against our ODC definition to eliminate web sites that did not match with the inclusion criteria such as health information sites, health advertising, telephone-only consultations, or sites with no private channel for communicating information.

FINDINGS FROM LITERATURE REVIEW

We did not find any published research that evaluated multiple ODC sites. The majority of papers provided an evaluation of remote consultation use for a particular Doctor practice but not for a large group. They mainly discussed Doctor implications, communication styles, and information exchange. Diverse terminology is used to label various Doctor services delivered through internet and there are no universally accepted definitions of these terms. Consultations over internet have many names: e-visit, e-Consultation, video consultation, or online Doctor consultation[2].

In the US, the term eVisit is more common. However, the term is associated in many references with the asynchronous form of ODC. In Australia, the common term is “video consultation”, apparently

referring to the synchronous form of ODC. To have a balanced and clear reference for both forms, the term online Doctor consultation (ODC) appears to be most appropriate[3].

ODC carries several opportunities for research and practice. ODC has attracted providers' and consumers' attention since the beginning of this century. In 2006, the editor of the Health Management Technology magazine reported that healthcare consumers have always wanted to be able to communicate with doctors - electronically - the way they now do with the rest of the world, especially for non-urgent matters not requiring a face-to-face office visit. The same point is affirmed by recent research[4]. ODC is expected to attract demand from patients who live in remote areas, from aged and disabled patients, and from patients with chronic diseases. It may also be favoured by young and internet-savvy people, and employees with inflexible working conditions. Academic reviews of telemedicine/ODC/e-Visits have cited several advantages for patients such as increased convenience and accessibility to health services, reduced travel and waiting time to see a doctor, and being a more cost-effective delivery mode.

With ODC, patients don't have to leave their homes or places of work, sit in traffic then sit in a room with other patients, perhaps catch or cause an infection meantime, and then return to where they came from. A baby's mother may not need to go with her child to a clinic for diagnosis of a simple condition such as diaper rash that doctors can accurately recognise from some images. Patients with chronic diseases may benefit from ODC to perform their regular routine checks and get test results with no need to go to a clinic unless requested.

The Mayo Clinic eVisit pilot program reported in 2010 that their online consultation service was used for patients aged from 4 days (for diaper rash) to 86 years (for insomnia and hypertension). ODC is a promising innovation. Several US publications have reported that eVisits were found to be feasible with high patient satisfaction. Internet-based video consultations have been practiced successfully in Australia in fields such as psychiatry, emergency care, and paediatrics[5].

Consumers have been reported to be in favour of ODC services. An evaluation study by researchers from Pittsburgh University (USA) reported that the eVisit

services offered benefits to patients in terms of access, speed and convenience, without increasing the risk of inappropriate or incomplete care. Over 90% of the eVisit patients indicated that their health problem was addressed fully during the eVisits, concluding that it is an appropriate alternative to office visits. The same study suggests that further investigation is required, to compare eVisit outcomes with office visits for similar Doctor conditions, and to investigate providers' perspectives.

On the other hand, concerns are being raised regarding safety and quality of ODC practices. A study in Australia showed that only 29% of the study population (young people) were willing to participate in a video consultation regarding their sexual health issues, while 63% gave higher preference to telephone.

Another review showed a slow uptake of telepsychiatry in Australia despite its reported successes internationally. A recent media release by the Royal Australian college of general practitioners (RACGP) stated that the service delivery model of certain ODC providers adds more difficulty for doctors, who may have to diagnose the patient without fully understanding the Doctor and social

context, or being able to do a physical examination (RACGP, 2012) [6].

Additionally, the economic advantages of ODC could be questioned. The cost of the healthcare system in Denmark was found to be escalating with the use of online GP consultations. Another study in the UK reported that there is lack of evidence regarding cost-effectiveness, quality, efficacy and patient satisfaction in teledental applications.

These conflicting reports indicate a lack of clarity as to the efficacy of ODC despite the apparent potential and reported benefits. ODC can be viewed as a disruptive technology to the traditional model of Doctor consultation. ODC may bring remarkable changes to the processes of doctor selection, patient examination, and treatment options.

FINDINGS FROM ONLINE PORTALS' ANALYSIS

A. *ODC growth in India*

Indian market is definitely is matured enough for having online doctors appointment booking service. Even though such a facility is not available for most government hospitals, there are private firms which provide such a facility. There are huge number of doctors that have

signed up under various online booking portals. The popular ones like the Continuous Care offers facilities like online consultancy and report sharing [7].

B. Doctor Specialty

Information obtained from almost all ODC sites showed no restriction to a specific Doctor specialty. They appear to have flexibility to expand services and ability to recruit specialist consultants in all fields. Some sites claim to have hundreds of participating consultants from multiple countries.

DISCUSSION AND CONCLUSION

ODC is a growing phenomenon featuring several interaction modalities, serving various Doctor consultation purposes, and accessible to millions across the world. Online Doctor consultations are readily accessible and very topical.

A simple internet search of ‘online doctor’, or ‘online Doctor consultation’, returns hundreds of links for sites ranging from free ask-the-doctor sites to highly prestigious sites with sophisticated diagnostic tools and multi-interactive options.

ODC may be unevenly available worldwide. The countries of operation for

ODC sites may need further analysis to correlate with local factors. Factors may include scale of internet services, recognition by professional bodies, and availability of reimbursement systems, not to mention cultural and linguistic factors that may have significant impact on ODC raise.

Future research is in progress to fully describe ODC models of service and models of care, and to investigate ODC services adoption and quality from both providers’ and consumers’ perspectives. Since ODC providers and consumers are more autonomous than conventional telemedicine, there is a need for their quality to be evaluated using innovative criteria that are adapted to their unique nature. Professional, legal, and financial systems will need to be modified in order to create the proper environment for ODC growth, and at the same time to ensure good health outcomes with patient and clinician satisfaction. The challenges and opportunities for health service provider organisations responding to the rise of ODC services also merit further investigation. Our work casts light on a new avenue for consumer choice, an open market space for health care providers, and a field of research with many unanswered questions.

FUTURE WORK

Increased Internet penetration and consumer awareness of maintaining health and hygiene, and consumers' desire to make better informed choices in terms of doctors, hospitals or diagnostic labs have led to the growth of ODC[8]. New advances in digital information technology mean that in future online doctors and healthcare websites may offer advanced scanning and diagnostic services over the internet. There are some companies who started cashing on it, few companies like Zocdoc or Ziffi have started providing online doctor booking service[9].

Some websites have also started including featured like video-conferencing wherein patients can take appointments and then can interact with doctors face-to-face. For example: on AIIMS website, patients can log into it and put a request for video consultation. The AIIMS video clinic allows uploading of discharge summary and investigation reports[10].

ACKNOWLEDGEMENT

First and foremost we would like to express our gratitude to The Lord, Almighty for bestowing upon us the knowledge to successfully complete our research. We would like to express my deep and sincere gratitude to our research

supervisor Ms. Archana Bhalla for giving us the opportunity to do research and providing invaluable guidance throughout this research. Her dynamism, vision, sincerity and motivation have deeply inspired us.

We would also like to thank HOD-IT Dr. Pooja Tripathi for providing her excellent feedback and critical analysis of this paper. We would also like to thank all the panel members for providing their valuable thoughts and insights which helped us immensely.

REFERENCES

- 1) www.americantelemed.org
- 2) Bailey, R. A. (2011): Legal, Financial, and Ethical Implications of Online Medical Consultations
- 3) Dudas, R. A., & Crocetti, M. (2013): Pediatric caregiver attitudes toward email communication: survey in an urban primary care setting
- 4) crpit.com- Conferences in Research and Practice in Information Technology

- 5) www.ncbi.nlm.nih.gov - National Centre for Biotechnology Information advance sciences and health
- 6) www.quora.com- question-and-answer site where questions are asked, answered and edited
- 7) www.racgp.org.au- website of Royal Australian college of General Practitioners
- 8) www.Franchiseindia.com
- 9) https://en.wikipedia.org/wiki/Online_doctor#Past_and_future_developments
- 10) <http://timesofindia.indiatimes.com/city/delhi/Avoid-AIIMS-rush-consult-doc-via-web/articleshow/55405218.cms>