

TELEMEDICINE IN DENTISTRY

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Abstract:

INTRODUCTION

Dental care is being constantly transformed by the opportunities which are provided by technology and telecommunication. Technologic innovations in the field of dentistry have been extensive in recent years. Most important advances have been made in the use of computers, telecommunication technology, digital diagnostic imaging services, devices and software for analysis and follow-up.

The term “teledentistry” was first used in 1997, when Cook defined it as “the practice of using video-conferencing technologies to diagnose and provide advice about treatment over a distance”. Teledentistry is a combination of telecommunications and dentistry, involving the exchange of clinical information and images over remote distances for dental consultation and treatment planning.

Use of teledentistry to provide dental-care is an upcoming source of delivering timely dental care without any delay for those people who are in least possible situation to visit the dental facility. It has been previously utilized to connect with rural areas and deliver care to patients remotely with satisfying results. Since internet is now widely available, this treatment modality being low-cost, time friendly is widely accepted by physicians and patients.

ADVANTAGES OF TELEDENTISTRY

Teledentistry is essentially for individuals who may not ordinarily be able to afford or go to a traditional dentist's office. They may be unable to leave home or work for an appointment or live in a rural area without access to a dental professional can visit a dentist from their computer.

Teledentistry offers flexible, convenient hours and locations, so patients can get the care they need as it fits into their busy schedules. The dentist can analyze them and give suitable medications through teleprescription after enquiring about the proper medical and allergy history of the patient.

The use of teledentistry for specialist consultations, diagnosis, treatment planning and coordination, and continuity of care will provide aspects of decision support and facilitate a sharing of the contextual knowledge of the patient among dentists. Second opinions, pre-authorization and other insurance requirements will be most instantaneously online, with the use of real images of dental problems rather than tooth charts and written descriptions. Teledentistry will also provide an opportunity to supplement traditional teaching methods in dental education, and provide new opportunities for dental students and dentists.

LOCATION OF THE STUDY

JOSHI DENTAL CLINIC is a 2 chaired dental clinic located at the main road of lower Pandeykhola, Almora, Uttarakhand. It is a well-connected area on single lane national highway located in a favourable neighbourhood, exactly at Almora National Highway 87.

It has a good OPD of local patients as well as nearby areas of ranikhet, kosi, khairna.

Patients who are living in distant places use the technology of telemedicine in dentistry over here by taking prior medications, sharing photographs, X – rays, medical & dental history.

The dental clinic is equipped with modern and traditional dental chair, ultrasonic scalar, modern X- ray machine (RVG) , autoclave for sterilization , UV chamber ,wide number of instruments , laptop ,wifi.

A receptionist is appointed to maintain telephonic records of the patient as well as co-ordinate with the patient and the dentist for consultation. A separate entry is maintained for teleconsultation patients which helps in maintaining the record

AIMS AND OBJECTIVE OF THE STUDY

To evaluate the performance of teledentistry at the Joshi Dental Clinic , Almora

OBJECTIVES

1. To find out the parameters for evaluation of patients in and around Almora
2. To evaluate the performance of the services at Joshi Dental Clinic
3. To identify the satisfaction level among patient and attendant from services provided by the clinic

MATERIALS AND METHODOLGY

This cross-sectional study was conducted for JOSHI DENTAL CLINIC, ALMORA,UTTARAKHAND. Data was collected based on a researcher-designed checklist after ensuring its validity and reliability

The research design used in this study was both 'Descriptive' and 'exploratory'. The data was collected using both primary data collection methods as well as secondary sources.

PRIMARY DATA: Most of the information was gathered through primary sources. The methods that were used to collect primary data were:

1. Questionnaire
2. Interview

Cross-sectional survey was conducted using personal phone calls. Feedbacks from the visitors were also collected at the clinic. The contact numbers were collected for the feedbacks from the clinic patient's detail diary. Close ended and open ended both type of questions were used to collect the responses. Questionnaire was bilingual so, that maximum responses were collected. The questionnaire consists of three parts:-

First part consists of contact details: Name and contact number

Second part consists of demographic details: Age, gender, education, occupation

Third part consists of knowledge, perception and practices related to services beneficiary facilities provided by the hospital.

SECONDARY DATA: The secondary data was collected through:

1. Past studies, research papers, articles on telemedication performances
2. web searches, etc.

A sample size of 60 was collected following Non-Probabilistic Convenient Sampling Technique. The data was collected and entered in MS excel 2010.

RESULTS

The results from the questionnaire were that 63% of the patient who participated were female and 37% are male.

13% of the responses are of age 15-20, 22% of the responses are of age 20-30, 18% of the responses are of age 30-40 and 35% are of age above 40.

33% responses have education below Primary, 32% responses have Primary education, 25% responses have Secondary, 8% responses have graduated, 2% responses have post graduated.