The Future of Dentistry

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Dental health is one of the most important components of the overall health of an individual. The individual’s health not only depends on the physical fitness but also on mental fitness. By mental fitness, I mean a person who is content with all he has and is happy. The dental health affects both, to a very large extent. One will be curious about how dental health affects the mental health of an individual? The answer is simple; the oral cavity is located on the face which is the part of the body which is presented to the world. Therefore if a person has a healthy smile, he automatically becomes more pleasing to the world rather than the ones with bad oral health. Therefore we can say that a dentist plays a vital role in influencing one’s life by giving them a better smile.

The first person to describe a comprehensive system for the practice of dentistry would be Pierre Fauchard who is known as the father of modern dentistry. He had provided us with the basic functions and various techniques for the treatment of oral defects. He had compiled all this in Le Chirurgien Dentiste ("The Surgeon Dentist"), which was published in 1728 [1]. Since then we have come a long way and we have reached the digital era of dentistry. Digital dentistry may be defined in a broad scope as any dental technology or device that incorporates digital or computer-controlled components in contrast to that of mechanical or electrical alone [2]. Digital dentistry has not only made things more accurate but has also helped in reducing the time required for various clinical procedures.
Digital dentistry begins as soon as a patient enters the clinic where the basic details are provided and stored on a computer. He/she doesn’t have to provide the details time and again for the next appointment as a simple scan of the barcode will do the job. The next step would be the diagnosis and treatment planning which forms the basis for all the clinical procedures. This includes record taking which involves obtaining the oral and extraoral photographs of the patient along with the intraoral impression. The radiographs are also taken depending on the treatment requirements. Now the impressions don’t have to be taken, rather an intraoral scanner does the job. If require a study model it can be 3D printed and be studied accurately. 3D printing not only accurately produces the model but this also removes any errors which can be caused when done conventionally by using the cast pour method. The storage of these models also become easy as we don’t need a physical space but it can be stored on a hard drive and produced on demand. We can also plan the treatment using various computer softwares and educate the patient at the same time. The production of the appliance also becomes effortless as we can send the digital model directly to the lab and they can fabricate it accurately. It also becomes easier to communicate with other clinicians regarding the treatment plan in case of a multidisciplinary treatment protocol.

So the question of the hour is, will the value of dentists reduce as computers and robots are taking over? The answer is no. The dentist will be the backbone and always be the ones controlling the digital world as we possess the set of skills and experience. We cannot solely rely on computers. There has to be someone to guide them. So how far are we from total digitalization of the dental world? We are far away from reaching that mark, digitalization may have far more advantages than the conventional procedures but the thing which limits its use is the cost. Not everyone can afford going digital so it’s definitely going to take a while before we can say that we have totally digitalized.

References