AUCTORES
Globalize your Research

Journal of Clinical Case Reports and Studies
Maryam Izadi Laybidi *

Open Access

Short Communication

Mkhitar Heratsi Yerevan State Medical University

Maryam Izadi Laybidi

Dental Student Digital Dentistry in Implantology, Iran.

***Corresponding Author:** Maryam Izadi Laybidi, Dental Student Digital Dentistry in Implantology, Iran.

Received date: October 24, 2025; **Accepted date:** November 13, 2025; **Published date:** November 25, 2025

Citation: Maryam I. Laybidi, (2025), Mkhitar Heratsi Yerevan State Medical University, *J, Clinical Case Reports and Studies*, 6(8); **DOI**:10.31579/2690-8808/288

Abstract

Digital dentistry is the term used to describe the different modalities of dental treatment workflow that are mostly performed with the use of digital technologies. Several digital methods have been incorporated to dental practice to replace conventional methods and techniques in order to enhance treatment planning and predictability of execution. Nowadays, digital dentistry is considered a whole field of study within dentistry. As with any other field of study, digital dentistry involves a learning curve to be mastered and used in the clinical routine. Ultimately, the dental professional is responsible for using existing digital tools appropriately for patient treatment. In other words, the basic theories of dentistry are still the same and should be very well known by the professional, who will be able to use these new digital tools to enhance predictability in executing the treatment plan.

Key Words: dentistry; techniques; computer

Introduction

Without a doubt, dentistry is quickly modernizing and transitioning to digital technology. In the past, taking dental impression, making dental models, and assembling dental laboratory prostheses took a lot of time. However, the advent of the intraoral scanner, digital radiography, -aided design (CAD)/computer-aided manufacturing (CAM), 3D printers, and artificial intelligence (AI) software revolutionized the field of dentistry as we know it today[1]

Additionally, improved patient education and communication are provided by digital dentistry. Dental professionals may more easily and effectively communicate treatment alternatives to patients by using digital imaging and planning tools to show them their dental condition. Over traditional dentistry, digital dentistry has a number of benefits. Higher precision and accuracy, shorter treatment durations, more patient comfort, more effective teamwork and communication, and greater patient education are a few of these benefits. By lowering waste, energy use, chemical use, transportation emissions, and paper use, digital dentistry has the potential to lessen the environmental impact of dental care. [2]

Dental clinics may take strides toward improved environmental sustainability by implementing digital dentistry technology. By enhancing patient outcomes, boosting efficiency, improving patient communication and happiness, encouraging teamwork among dental professionals, and improving record keeping, digital dentistry may help both private practice and dental hospitals.

Digital dentistry has revolutionized dental education and transformed oral health practices. The integration of digital resources, such as simulation software and virtual reality technologies, within dentistry schools has significantly enhanced the effectiveness and efficiency of instruction for students [3].

In summary, digital dentistry represents a paradigm shift in oral health care, revolutionizing the field and propelling it into a future of cutting-edge advancements. Through its transformative potential, it empowers dental professionals to deliver exceptional care, elevating patient experiences, and paving the way for a brighter future in dental education and oral health.

Conclusion

In conclusion, the advent of digital dentistry has ushered in a new era of advancements in both oral health and dental education. Through its utilization of precise imaging, efficient treatment planning, and personalized restorations, digital dentistry has successfully transformed traditional practices. Moreover, the integration of digital technologies has led to substantial improvements in patient education, fostering enhanced communication and understanding between dental professionals and patients. Additionally, digital dentistry offers significant environmental benefits by reducing waste, energy consumption, and chemical usthe purpose of digital dentistry is the integration of hardware and software in the context of dentistry and, to subsequently promote the development of user-friendly, efficient and cost-effective computer applications for diagnosis and treatment of patients for dental health care over the last 30 yearsage, aligning with sustainable practices to preserve our planet.

References

1. Wimmer T, Gallus K, Eichberger M, Stawarczyk B. (2016). Complete denture fabrication supported by CAD/CAM. *J Prosthet Dent.* 115(05):541–546.
2. Duane B, Harford S, Steinbach I et al. (2019). Environmentally sustainable dentistry: energy use within the dental practice. *Br Dent J.* 226(05):367–373.
3. Imran E, Adanir N, Khurshid Z. (2021). Significance of haptic and virtual reality simulation (VRS) in the dental education: a review of literature. Appl Sci (Basel) 11(21):10196.

DOI:10.31579/2690-8808/288