

Nanotechnological impact on future clinical dental prospects: An insight

Sir,

Almost every discipline of human life is seems to be impacted by advances in nanotechnology in the forthcoming future. The fourfold increasing interest of research scholars in this field is giving emergence to a novel field called Nanomedicine, a science and technology of diagnosing, treating and preventing diseases, and preserving and improving human health, using nanoscale structured materials. Applications of

nanodentistry technologies in dental sciences have added a new portfolio that explains their potentially long-lasting impacts on clinical dental practice.^[1]

Dentistry has been significantly revolutionized in past, making it more reliable, authentic, dependable, and comfortable for the patients. It is undergoing yet another transformation in serving mankind, this time with the help of nanotechnology pooled with Nanomaterial's,

Biotechnology, and Nanorobotics. Nanodentistry will make possible the preservation of comprehensive oral health care by employing nanotissue strategy, which will allow dentine replacement therapy, permanent hypersensitivity cure, and complete orthodontic realignment etc., all in single office visit. Nanotechnological innovations must be scrutinized in the milieu of other expected developments relevant to oral health in future. Natural advancements such as tissue and genetic engineering will acquiesce original diagnostic and therapeutic approach much faster than nanotechnology. Simultaneously, the continual refinement of traditional methods, developments of advanced restorative materials and new medications and pharmacological approaches will continue to improve dental care.^[2]

Nanodentistry is still being confronted by several potential challenges in realizing its tremendous potential. In addition, there are larger social issues of public acceptance, ethics, regulation and human safety that must be addressed before molecular nano-technology can enter the modern medical armamentarium. However, there is uniformly potent motivation to conquer these challenges such as the possibility of providing high quality dental care to 80% of the world's population that currently receives no significant dental care. This letter is an endeavor for focusing the future prospects of nanotechnology in the field of dentistry, and I anticipate it will attest to do the same.

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