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From the desk of Editor-in-Chief.....



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Green Dentistry: A Global Imperative for Sustainable Oral Healthcare

"The greatest threat to our planet is the belief that someone else will save 'it."

—Robert Swan

Today our professional commitment doesn't extend to the patient done in the chair but extends its breadth to the environment in which we live. We all have been witnessing climate change, depletion of the resources and huge waste generation due to overuse of disposable items. This transition has transformed sustainability from an environmental concern into a priority for the healthcare professionals.

Healthcare, ironically safeguarding the lives, adds to the greenhouse gas emissions, including dentistry, to around 5% due to high consumption of energy, travel, water consumption, and amount of biomedical waste generated. Although, at a microcosm level, the contribution of a clinic is modest, at the cumulative level, the impact is substantial.

The green dentistry concept, introduced a decade back and concentrated on waste reduction and resource conservation, has expanded to integrating environmental responsibility while delivering quality care, digital innovation and value-based care.

At its core lie the 4R's—Reduce, Reuse, Recycle, and Rethink—simple yet powerful principles that remind us that meaningful change often begins with small, thoughtful decisions made in everyday clinical practice. Reducing unnecessary consumption, reusing materials where safety permits, recycling responsibly, and rethinking conventional workflows collectively foster a culture of environmental stewardship without compromising patient safety or quality of care.

Digital adoption, emphasis on prevention, and resource stewardship in dentistry are steps toward sustainability. Digital radiography, intraoral scanners, electronic health records, teledentistry, and artificial intelligence have transformed clinical workflows by reducing paper use, impression materials, chemical waste, unnecessary travel, and inefficient resource utilization. Technology, however, is only an enabler; its true value lies in helping clinicians deliver high-quality care while consuming fewer resources. Evidence has demonstrated that following preventive dentistry adds not only clinical and economic benefits but also provides significant environmental advantages.

The concept of Green dentistry has gone beyond reducing waste generation to resource stewardship and smart designing of dental clinics, with strategies like sensor taps, sensor lights, digital workflows, and energy-efficient infrastructure. It is no longer a responsibility but a commitment and a deeply rooted culture where environmental stability is ingrained in every clinical decision made.

The future of dentistry will not be judged solely by the treatments we provide, but also by the responsibility with which we provide them. While caring for our patients today, we must also safeguard the planet for generations to come.

Regards,

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