

The Modern Era of new eco-friendly dentistry: Green dentistry

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Abstract

In this modernistic sphere, it is necessary to Prioritize being ecofriendly in our lifestyles and dental practice as well which have the huge collision on the globe because the innumerable waste produced by various dental health care workers due to the result of excessive use of water and electricity, which calls us to a massive step to move towards ‘Green dentistry’. . The new upcoming movement in dentistry is eco – friendly dentistry. this over all Eco friendly dentistry involves a high-tech approach, which is effective in reducing the environmental impact of dental practices which is moving towards an ecologically sustainable health care system Green dentistry or environment friendly dentistry is not merely a eco-friendly dentistry as it minimizes waste , save energy

save money and time and diminishing the environmental impurity by using modern technology and procedure .By the help of modern technique as green dentistry help us in saving globe and human race by the loom fast development of urban area in developing countries.

Keywords: Eco-Friendly, Green Dentistry, Environment.

Introduction

Green color has some curative powers which can understand to be the most unwinding which possesses relaxing powers and relaxation to the human eye. This color affects us substantially and intellectually 1. Green is a color that helps to get rid of anxiety, depression, and nervousness This color has healing power and which is understood to be the most restful and relaxing color for the human eye to view . the above mention color is directly

analogous to nature and energy. According to WHO, SEARO, approx. 35,000 tons of health care waste yearly and about 1000 tons per day is produced by 11 South Asian countries. There is a need for dentists to go in the eco-friendly way². Dr. Malden Kralj, the founder of Ora Dental Studio gives the term “ecofriendly dentistry”, first green dental group of America³. The new upcoming movement in dentistry is eco – friendly dentistry. This overall ecofriendly dentistry involves a high-tech approach, which is effective in reducing the environmental impact of dental practices which is moving towards an ecologically sustainable health care system. Green Dentistry' may be regarded as the best way to practice clean and environmentally conscious dentistry. According to article the Canadian Dental Association, 2007 “eco-friendly dentistry” is an attempt to reduce the impact of industrial detriments on the environment and is used to promote environmental awareness along with sustainability to Patients⁴. This is an environment friendly and a high tech way to reduce the impact of dental practice on environment and fringe a model of service to the dental professional for support and maintain wellness. The overall concept of eco- friendly dentistry involves a person, family, or group which in return helps to reduce waste or become more energy efficient. Eco-dentistry association defines green dentistry as “a high-tech approach that reduces the environmental impact of dental practices and encompasses a service model for dentistry that supports and maintains wellness”.⁵⁻⁶

History

In 2000 US green building council ornamented a Leadership in Energy and Environmental Design, Dr Fred P and his wife was the benefactor of Eco-dentistry Association (EDA) ⁷. Its main goals included better research alternatives towards inventing safe and reusable products and also reducing the operating cost of dentists.

The switch from paper to digital dental consultation was widely promoted. It also helps dental professionals to practice green dentistry. In dental industry so many dental professionals opt to make their dental offices environmentally friendly after the initiation of EDA. The eco-dentistry association was launched internationally in the month of June in the year 2009 ⁸. In EDA there are 600 members by 2011 February and are working towards a common goal of more eco-friendly dentistry ⁹

Why to adopt Green Dentistry?

Green dentistry or environment friendly dentistry is not merely an eco-friendly dentistry as it minimizes waste, saves energy, saves money and time and diminishes the environmental impurity by using modern technology and procedure. Green dentistry saves the environment from the pitfall of fleeting urbanization mainly in developing countries. Although individual dental practitioners generate plenty of environment unfriendly waste the small agglomeration produced by practitioners may have significant environmental impact. We can have a thought that a small agglomeration of dental waste from one nation the amount of waste agglomerated by the other nation and effect they will create on environment.

According to eco-dentistry Association prime aid of using Eco friendly dentistry¹⁰ –

- ✓ It is high tech.
- ✓ It Reduces pollution and waste.
- ✓ It Saves money time and energy.
- ✓ It Promotes wellness.

How the dentist is responsible for Pollution: Some Major source of pollution are

- ✓ By increase in use of Toxic substance.
- ✓ By using silver amalgam and mercury
- ✓ By using chemical disinfectants, x rays, infected bio medical waste
- ✓ By increase in use of disposables like plastics

Foremost points in Green dentistry

According to the figure of ballpark hand over by Environment Protection Agency (EPA), annually as a deadweight approximately 3.7 tons of mercury is disposed of in the local waste-water treatment plan, or incinerated in other sediments. The huge chunk of the dental waste is contributed by an estimate of 65% - 75% dental office that uses conventional X-ray systems in which 4.8 million lead foils and 28 million liters of X-ray fixer is discarded annually¹¹. Dental professional can limit the strain on the environment by adopting the "Four R's of Going Green," they are, "Re-think, Reduce, Reuse, and Recycle".

Reduce

The first and most active element of the waste hierarchy. The apparent key to achieve extra resource is the minimal usage. It also help to prolong the use of items. This will trim the waste contribution in landfills. In order to reduce pressure on environment people must reduce the use of resources. Packing of products produces 33 % of waste from dental office it is advice that one should purchase product with less packing or reusable plastic¹². Other options that should be taken in consideration are reduction in use and wastage of resources like petrol paper. We can reduce paper usage by swapping to digital software like dent soft, eagle dent e.t.c, patient file information bills e.t.c can be saved in laptops and desktop by the help of these software. By using digital dental software we can increase man power and trim the cost of different material like leaflet, recycle paper products can be use in place of normal paper.

✓ We can reduce the consumption of water, by closing the water at the time of lathering as we know 1 % of water on globe is considered fit for human utilization¹¹. According to eco dentistry association we waste 90 glass of water per day if we leave tap at the

time of brushing. there is a need of time to commit save 90 a Day campaign of environment protection agency that aware the patient to turn off water while brushing¹¹

- ✓ Guideline delivered by center for disease control for hand sanitization doctor can use alcohol-based rub-in product despite of water and soap¹¹
- ✓ According to the guideline of hand sanitization by center of disease control use of hand sanitizer instead of washing hands.¹¹
- ✓ Use of dry vacuum dental pump instead of wet dental pumps.¹³
- ✓ Check for leakage of water in the office in every 6 month

Re think

It is the utmost important R's. it means rethinking of the dental procedure, administration and construction of dental clinic, according to the set of belief of eco friendly dentistry as a paradigm disposable items like sharps, mouth mask, gloves, cotton glass, chemical waste etc for instance, up to now there is no substitute for disposal of waste generated by the use of disposable items. In our country India we give minimal attention to waste management¹⁴. It illustrate eternal number of plastic items which will end up overflow of landfills. Plastic impression tray utilize a large amount of heat energy. Plastic impression trays are the fundamentally heap of waste in landfills which create an issue for next generation. therefore trays should be made up of corn or stainless steel tray.

It is an act of rethinking that matters: asking oneself as there is an alternative to do the things so that it declare to be more effective and drains the burden on earth

Reuse

The word reuse means to use the item again after it is already used. This step helps us to use our resources for the longer period of time. We can reduce the burden of globe by reusing the items despite of throwing them in this way energy and resource are the main ingredient necessary for the manufacturing of the new product will be saved.

Example of reusable in dental office

1. Despite of disposable plastic or patient drape once can use reusable operating room cotton towel⁵
2. Despite of disposable suction tips one can use reusable stainless steel suction tips⁵
3. Despite of disposable plastic syringe one can use reusable glass irrigation syringe⁵
4. Despite of regular paper cups one can use biodegradable disposable cups⁵
5. One can use recycle paper. Used paper can be shredded and utilize as packing material.⁵

Recycle

It is the process of converting the waste material to reusable object¹¹. It is a most feasible way to reduce over exertion of big materials, fresh raw materials, energy consumption, air pollution and water pollution. Recycling is a triangle of three chasing arrows, where first arrow shows the collection of items which need to be recycled, second arrow shows re-manufacturing i.e. making a brand new out of recycle items, third arrow shows offering for sale items created from recycle material⁵. In the era of green dentistry or eco friendly dentistry we must rethink the choice what we make and we should reduce the consumption of our resources and then utilize again our resources.

Conclusion

Environment - friendly dental professionals are not environmentalists, they are persons who rethink. Dental professionals can choose eco friendly products and they

can perform environment friendly dental practice. An environment friendly dental professional plays an important role in conserving paper, water, material, and energy as possible. In dental profession our efforts should be for betterment of the society. In developing countries like India, one should realize the importance of becoming environment-friendly and to praise the efforts of each and every human being. To promote eco friendly dental practice there should be more research with sufficient amount of funds to regulate and promote eco-friendly practices. Dental professionals should come forward as dental environmentalists to save the globe. Dental practitioners should be trained in Workplace Hazardous Materials Information System.

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