

A Literature Review on Holistic Dentistry

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ABSTRACT

The holistic dentistry is among the oldest practice of dentistry that is also called as biological dentistry, alternative dentistry or biocompatible dentistry. Traditional dentistry plainly deals with the head and neck region in general and oral cavity but the holistic dentistry deals with the unrecognized impact of oral health on the overall health of a person. This is an age old alternative approach that is based on the assertion that the whole body is one unit and any changes in one part of this unit can have an impact on the whole unit. This review paper will focus on the principles of holistic dentistry and different natural approaches like ayurveda, aromatherapy, nutritional therapy, acupuncture, neural therapy and many more. All the procedures and materials with do's and don'ts are abridged to make our dental practice to "holistic".

Keywords: Alternative dentistry, Ayurveda in dentistry, Biologic dentistry, Holistic dentistry

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INTRODUCTION

The "holistic dentistry" is a term used for presenting an innovative type of traditional dentistry. Traditional dentistry has been following an outdated, problem-oriented model mainly focusing on individual problems with individual teeth. In this type of care, the whole body of a patient has often been overlooked. For a holistic dentist, the patient's mouth is not just a receptacle and processing station for food, but as a mirror of an individual's health.¹ He understands the fact that structural integrity of the mouth influences as well as influenced by everything else going into the body from skeletal mechanism to nutritional biochemistry.²

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Holistic dentistry has been found to support to live a healthier and less toxic life with more natural elements in the body. This type of care bonds the conventional clinical dentistry and the natural healing modalities. All holistic healthcare models promote health and well-being of individual through healthy nourishment, toxin removal from the body along with balancing physical, mental and energy levels. This dentistry works on the principle that the mouth and body are interconnected with the reflection of the overall health of the body.³

Holistic dentistry is not a new concept but with an ancient past from the year 1800. In 1850, the National Dental Association recognized the harmful effects of amalgam used for restorative purposes. After that, the organization and many other countries banned the use of amalgam in clinical practice on the patients.⁴ Holistic dentistry aroused further from 1870 to 1948 with the establishment of the fact that many degenerative diseases including heart problems, lung, bladder and kidney disorders, arthritis and rheumatism and mental illness along with other bacterial infections arise from root canal therapy and endodontic treatments. Weston Prince gave the most widely accepted concept known as "focal infection theory." Furthermore, a dentist Melvin Page coined the phrase "balancing body chemistry" and considered tooth decay as an "outstanding example of systemic chemical imbalances." He concluded that mineral deficiencies in the body were an underlying cause of several wellbeing conditions like goiter, tuberculosis, heart problems and diabetes.⁵

The modern-day approach of dentistry is following holistic concept where oral health care considers patient's overall health. A holistic dentist follows a natural and biological-based dental care with six components including (1) Biocompatibility; (2) Biochemical balance; (3) Bioesthetics; (4) Bioenergetics; (5) Biomechanics and; (6) Bioethical care.⁶

The basic principles of holistic dentistry are as following:

A holistic dentist must follow these basic principles:

- Intake of proper nutrition to prevent and reverse degenerative dental disease
- Avoidance and elimination of toxins from various dental materials
- Prevention and treatment of dental malocclusion.
- Prevention and treatment of gum disease.⁷

Procedures in Holistic Dentistry

Ayurveda: Ayurveda is most effective alternatives in the oral care delivery with oldest history in ancient time. The Ayurvedic practice involves the use of specified formulations to produce herbal dental products like tooth powder and paste. These organic natural ingredients have been proved very effective and safe against a number of oral diseases like bleeding gums, halitosis, oral fibrosis, tooth pain and many other oral problems.⁷

Among natural ingredients, *Neem* is considered to be most effective. *Neem* is an extract from the bark and leaf of *Neem* tree. Other ingredients include grape seed, clove and fennel that plays crucial role in maintaining oral health. Propolis is mainly considered for curing oral ulcerations. All the organic products prevent the use of synthetic ingredients like saccharin, artificial colors, and artificial flavors.

Oral Probiotics

The probiotics are defined as live microorganisms mostly bacteria similar to the “friendly bacteria” or “good bacteria” inhabitant in the human gut. Traditionally, probiotic use was restricted for preventing or curing gastrointestinal infections, but now their use in promoting oral health has been proven worldwide.⁸

- *Homeopathy*: A holistic dentist uses homeopathy as a natural approach to an oral problem that focuses on ‘Like cures like’ principle. Homeopathy is used by holistic dentists as a natural approach to their practice. This is a naturally safe and non-addictive alternative which is effective for all age groups. Homeopathic remedies mainly improve the psychological and emotional status of the patients without any side effect such as drugging effect with the use of conventional tranquilizers.⁹

Aconite (foxglove), *selenium* (yellow jasmine) and *argentum nitricum* (silver nitrate) are three main homeopathic remedies considered by holistic dentists. Clinically it has been demonstrated that many dental diseases such as caries, abscess, oral lesions, and post-extraction bleeding can be effectively managed by homeopathic remedies. Even medications to treat the anxious and nervous child are also available in the homeopathic spectrum.¹⁰

- *Aromatherapy*: Aromatherapy uses pure oil essence extracted from the plants and flowers that act as hormone-like stimulants for improving patient’s health. Natural oils like lavender, bergamot, sandalwood, and basil are with powerful effect to soothe, relax, and calm.¹¹
- *Nutrition*: The stress and tension are often linked to dietary habits. Dietary excesses or deficiencies influence body’s needs for essential vitamins and minerals

that may produce the sense of fear or phobias in an individual.

- *Electronic methods*: Each body is characterized by its bio-energetic resonance patterns. An electronically steered apparatus that is a bio-resonance device can be used to tap pathological ‘disharmonious’ resonances from the body and convert them into ‘harmonious’ resonances.
- *Hypnosis*: With hypnosis, the patient can relax their body and mind by concentrating on suggestions of relaxation without the use of drugs. The patient is conscious during their treatment with no fear and apprehension.¹¹

Holistic Approach in Dental Clinic

A holistic dentist performs restorations, use anesthesia and also take X-rays but in a biological way. There are many steps involved to make the practice holistic with few of these modalities-

- *Water filters*: The water used for rinsing patient’s mouth during treatment is often full of harmful bacteria that stagnates in the waterlines. The water filter screens out all the bacteria and eliminates water toxins.
- *Biocompatible test*: About 60% of available dental materials may suppress the body’s immune system or may also cause toxicity. It is compulsory to perform biocompatibility test on a patient for evaluating any allergy to a particular dental material. The dentist may perform blood tests to find what dental materials suits the patient’s body.¹²
- *Use phase contrast microscopes*: Phase contrast microscopes have been proved as a vital tool for diagnosis and monitoring the periodontal health. The microscope collects the bacteria from the gum line to determine the periodontal health of a particular individual.
- *Use digital X-rays and cone-beam CT*: Digital exposes you to 90% less radiation than traditional X-ray machines.
- *Ozone layer and oxygen therapy*: Infected root canals, periodontal pockets, and other periodontal diseases can be effectively managed by utilizing ozone or oxygen. There are different application forms of ozone such as ozonated water, ozonated oils or placing oxygen/ ozone directly onto the infected site. Even the smallest canals, narrow pocket or tubules can be sterilized using the oxygen/ozone therapy allowing a complete biological root canal treatment.
- *Root canal treatment*: Most of the dentists recommend root canal therapy as a means to save a severely decayed tooth. The root canal therapy has been controversial for centuries though has been proven safe and effective as a means save a natural tooth.

Holistic dentists understand that a root canal therapy is effective only when the canal is 100% sterilized and free of bacteria, but it is impossible to completely sterilize the canal.¹³ One more controversy is that the chemicals used for sterilization are itself toxic such as formaldehyde. Moreover, the bacteria left in the canal after therapy may cause adverse effects including breast cancer, heart disease, and many other health problems. Holistic dentists ideally do not support root canals treatment.

- *Use of non-surgical, "biological" periodontal therapy:* More than 3/4th of the Indian population shows some signs of periodontal diseases ranging from mild inflammation to more advanced and destructive periodontal health. Periodontal infection is found to be linked as a high-risk factor for some types of heart diseases and a medium risk factor for some forms of ulcers, arthritis, premature low birth weight babies, and more. A variety of non-surgical approaches are now being used including laser treatment, gums irrigation with antibacterial products and supportive nutritional supplements.
- *Mercury-free dental practice:* Holistic dentistry considers mercury as a toxin where even a small amount can risk the patient's body and his overall health. Amalgam fillings are the restoration with the longest durability but exert extreme pressure on the tooth and often make tooth prone to fracture. A true holistic dentist does not restore a tooth with mercury, or they meet or exceed the safety guidelines for removal of an amalgam filling. The use of the full protocol for removing the old amalgam fillings should be advocated, or the dentist should be properly trained in the removal of mercury.¹⁴
- *No more "black dot" restorations:* Firstly, using amalgam as a restorative material, the biological concern is "oral galvanism," or the direct electrical currents generated by separated metals throughout fluids and tissues in the body. A comprehensive protocol for amalgam filling removal includes the use of rubber dam, oxygen supply to the patient, vitamin C supplement and an air filtration system placed near the patient mouth to suck up mercury vapors.¹⁴
- *Fluoride and water fluoridation:* Traditional dentistry favors the use of fluorides in both topical and ingested forms through water fluoridation and fluoride drops for infants. Research evidence showed a decrease in cavity rates in areas where the water is fluoridated.¹⁵ Holistic dentists typically believe that ingested fluoride taken in any form has a direct link with cancer and various bone problems and benefits teeth.
- *Biocompatibility of various dental materials:* In general practice, the dentist does not perform any biocompatibility test on the patient before using dental

material during treatment. However, Holistic dentists believe that what goes into your mouth can affect your entire body system. Thus, they follow the protocol to have an on-site test for biocompatibility of the materials. Even before starting the treatment, it is important to explain the differences between different dental materials that are available for treatment. Most dentists following biological dentistry, use a variety of different composite filling materials as well as different materials for other procedures.

- *Zirconia implants:* These are a natural, metal-free, versatile tooth implant material that is suitable for all tooth replacements such as individual teeth, bridges and complete denture fittings. These are made of high-tech zirconium oxide that offers maximum biocompatibility and immune-compatibility. Zirconium oxide is not electrically conductive, and it cannot sensitize the body and do not cause any allergy.
- *Develop a nutrition plan for patients:* Few are the changes and addition to be made in patient's diet to provide a healthy, more immune and internally strong body.
 - (a) Fermented foods, rich in probiotics, are a must as part of the daily diet.
 - (b) Fat-soluble vitamins K2 and D3 deficiency can alter the gut bacteria. K2 is carboxylation osteocalcin that transfers key minerals into the bones from the blood, which prevents the transformation of dental plaque into tartar by averting soft tissues calcification.
 - (c) Certain enzymes, such as Serratia proteolytic enzymes which clean up plaque and breakdown biofilm barriers.
 - (d) Supportive vitamins and minerals of magnesium, phosphorus, amino acids and vitamin C should be added to the daily diet.
 - (e) Add few of these botanical oils in daily plan for supporting optimal oral care. These oils are herbal extracted from various vegetables and tree leaves.¹⁴ Mainly following botanical oils are among the best at supporting optimal oral care:
- *Cayenne:* This is a critical extract with antibacterial, catalytic and antiseptic properties. The capsaicin ingredient is a topical vasodilator that stimulates the blood circulation.
- *Cardamom:* This has antiseptic properties that stimulate the digestive tract and phagocytic cellular action of the immune system. It also supports the nervous system with anti-infectious and antibacterial actions and along with the help to supplement healthy oral care.
- *Cinnamon:* An antiseptic and antibacterial which stimulates the blood circulation to gums promoting their regeneration ability and health. A high content

of eugenol and cineol which are potent antiseptic and anesthetic agents that increases the production of white blood cells.

- *Clove*: Since ancient time, clove is used as an analgesic that relieves toothaches and freshens up the breath. A potent antibacterial, antiviral, and antifungal action of clove help to boost the immune system and stimulates the circulation with its botanical constituents including eugenol, sesquiterpenes, and esters. It is also an anti-parasitic that help to cure gum infections, tonsillitis, and toothache.
- *Mastic*: It helps to maintain the health of oral connective tissue and also removes the tooth plaque. Mastic has antioxidants, antibacterial, antifungal and antiseptic properties that inhibit the growth of oral bacteria, including the *Helicobacter pylori* bacteria that causes stomach ulcers.

Mastic oil helps to support the blood's front line of defense including leukocytes or white blood cells and the multinucleated cells. It also aids in strengthening of tissue defense, mainly in the teeth and gums area where gingivitis and plaque may occur.

- *Neem*: *Neem* is known as 'arista' which means "perfect, complete, and imperishable". It has fungicidal and antibacterial properties that are ideal curing for periodontal and tooth infections. The vasodilator and anti-inflammatory compounds in neem, along with pain-relieving compounds can be used for a toothache. It also prevents tooth decay by interfering with cell adhesion that ultimately kills the bacteria. *Neem* alkalizes the saliva and gums by killing bacteria causing gingivitis and periodontitis. It also destroys the organisms that form calcium and leads to cavity formation.
- *Oregano*: It contains two phenol compounds mainly 65% carvacrol and 3.4% thymol that contribute to its therapeutic value. They contain efficient antiseptic, analgesic, and antibacterial properties that boost up the immune system of the body. It offers a wide range of antimicrobial activities against fungi, viruses and bacteria like *E. Coli*, *Staphylococcus aureus*, and *Pseudomonas aeruginosa*. Oral application of oregano oil improves oral hygiene by destroying plaque-forming bacteria and reduces the risks of gum diseases.
- *Peppermint*: Mint helps with digestion and has an analgesic and cooling, anti-inflammatory effect. There is the fact that peppermint flavoring toothpaste contains artificial menthol that offers no benefit in preventing or curing gingivitis. Real extract of peppermint is a potent antioxidant that inhibits the bacterium causing tooth decay.

- *Rose*: Rose is an elegant and medicinally valued extract adding resiliency and elasticity to the skin and gum tissue. An effective analgesic that speeds up the tissue healing with its efficient antiviral and antiseptic properties. Rose extracts used for curing cold sores and cankers. Rose otto allows the oral connective tissues to regenerate and tone up the gums.
- *Tea tree oil*: It is anti-viral, anti-fungal, and anti-bacterial. It acts as a therapeutic agent for a number of oral conditions involving both bacterial and inflammatory components such as gingivitis and periodontitis. Tea tree oil also used as an anti-inflammatory agent which decreases the severity of gingivitis by reducing dental plaque.

CONCLUSION

Holistic dentistry is the oldest but still emerging field of health care. It uses a natural, nontoxic and biocompatible approach of oral prevention or treatment. This type of treatment involves a combination of various modern as well as traditional alternatives in the curing of oral adverse health conditions. In today's practice, the use of probiotics is evolving as dental medicine that supports the life process. All holistic therapies believe in treating the root cause of disease rather than only curing the symptoms.

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