Abstract: Homeopathy is a system of alternative medicine, which has been in widespread use. It is popularized as safe and cost effective alternative to allopathy. Additionally, practitioners of homeopathy claim the medication as non-toxic and non-addictive. In dentistry, as an adjunct to conventional treatment, usage of homeopathy to treat dental problems has been reported since 18th century. However, the scope of this medicine in the field of Paediatric dentistry has not been highlighted till now. Hence, the purpose of the present review is to introduce the basics of homeopathy and to discuss its possible applications in Paediatric dental practice.

Keywords: Children, Dentistry, Homeopathy

Body of the article

Homeopathy is a system of medical practice that has originated with the work of an orthodox German physician, Samuel Hahnemann (1755-1843). [1] Later, it was popularised by Dr. John Martin Honigberger, Samuel Brooking, and Dr. Robert T Cooper, Dr. J. Ruther ford Russel, Mr. H. Ryper and Dr. C. J. Tonnerre. [2]As the philosophy and principles of homeopathy reflected the beliefs and cultures of many countries it continued to spread worldwide.

Principles of homeopathy

Law of similars [1,3]

The first principle of homeopathy is the law of Similars. Samuel Hahnemann discovered that patients with certain diseases could be cured with substances that produce similar toxic effects. This principle was termed 'similia similibus curentur' – 'let likes be cured by likes', otherwise known as the 'similia principle' or 'law of similars'. Although the ancient Greek physician Hippocrates – the founder of western medicine – was the first one to moot the idea of curing 'like with like' more than 2,000 years ago, it was Hahnemann who made this principle into a system of treatment. Thus, homeopathy is a natural pharmaceutical science in which the practitioner seeks to find a substance that would cause, in overdose, symptoms similar to those a sick person is experiencing. When the match is made, that substance is given in very small, safe doses, often with dramatic effects. In the Bhagwat Purana also, written hundreds of years ago, a Sanskrit couplet says ‘Vishaya Vishmoshashi’, which means the same.

This law is also applied in allopathic medicine. Immunisations are based on the law of similars. Modern pharmacology has rephrased this principle into the Arndt-Schulz Law, 'every drug has a stimulating effect in small doses, while larger doses inhibit, and much larger doses kill.' It must be recognised that symptoms are, in reality, manifestations of the organism's attempt to heal itself - to regain homeostasis. When a person has a systemic infection, he will develop a fever. The fever is not the disease, but the body's attempt to rid itself of the infection. The homeopathic approach is to respect the body's attempts to heal.

Minimum dose [1,3]

The second principle is the minimum dose. Hahnemann, in order to minimise undesirable effects, serially diluted the medicine to determine the minimum dose which would work. These dilutions are called potencies.

Single remedy [3]
The last tenet of classical homeopathy is the use of the single remedy.

**Homeopathic prescribing** [3-6]

Pathological or specific symptom homeopathic prescribing is a treatment specifically for the disease or ailment.

 Constitutional homeopathic prescribing does not treat the disease entity, but rather the symptom complex of the individual who has the disease, as opposed to pathologic or specific symptom prescribing. The purpose of constitutional prescribing is not to seek to change a patient’s character, but by modifying its tone that balances it, thereby giving support to the self-healing effort of the organism. By encompassing the sum total of the individual’s physical, emotional, and mental picture, constitutional analysis and prescribing performs psychotherapy, in addition to working on the physical level. Thus, it involves analysing a person’s body type, temperament, disposition and behavioural tendencies, important among which are the vitality and emotional condition of the patient. In general, the higher their vitality, the higher the potency you can use. When the treatment is prescribed on the basis of local signs and symptoms, prescribe low potencies, below 12X. When the treatment is prescribed on the basis of a mixture of local, general, mental and emotional signs and symptoms, prescribe higher potencies, 30X - 200X. The factor to consider is whether the symptoms are more emotionally or physically based. Homeopaths rank the emotional and spiritual levels at the highest plane of pathology, followed by mental and physical. The higher the plane of pathology, the higher the potency you may use.

**Substances used for deriving homeopathic remedies** [6]

Homeopathic remedies are not solely derived from the vegetable kingdom. Many are prepared from minerals, and some are from animal products, such as snake venoms. Between the animals and the vegetable kingdom, bacteria, viruses, protozoa, and micro fungi are transformed into remedies of great therapeutic importance, termed nosodes, a designation which also includes any remedy made from diseased, but uninfected tissue. Later, the substances are subjected to homeopathic pharmaceutical technique the objectives of which are attenuation of chemical toxicity and preservation, enhancement or development of medicinal action. The stages of pharmaceutical technique include initial preparation, potentisation and impregnation.

**Potency of homeopathic drugs** [3, 6]

Three potency scales are of regular use in homeopathy. Hahnemann created the centesimal or C scale, which implies diluting a substance by a factor of 100 at each stage. Later, a decimal scale (D or X), by diluting the substance to ten times its original volume at each stage was developed. This potency scale appears to have been introduced in the 1830s by the American homeopath, Constantine Hering. Another specialised scale in homeopathy is LM scale, which is of little concern. The degree of dilution in this scale at each stage is 1 in 50,000.

The selection of potency depends on the acuteness of the problem and certainty of the right remedy. Usually, acute ailments with intense symptoms and more certain the remedy, higher the potency. The lower the potency, the shorter its duration of action and higher the potency, the longer its duration of action. [6]

The choice of potency also depends on signs and symptoms considered for prescribing. When the treatment is based on the local signs and symptoms, low potencies i.e. under 12X are prescribed and when based on the mixture of local, general, mental and emotional signs and symptoms higher potencies i.e. 30X - 200X are prescribed.

**Frequency of remedies** [3, 6]

This depends on the potency of the remedy chosen. As the condition shows improvement, we need to reduce the frequency. Low potency remedies (under 12X) are prescribed as first aid every 5-30 minutes and for acute conditions every 30 minutes to hourly, decreasing to 3-4 times a day. Medium potency remedies (12X - 30X) are prescribed one to three times a day, whereas high potency remedies (30X - 200X) once a day.

**Homeopathic preparations** [3, 6]

Homeopathic remedies are available in pellet (pilule), tablet, fine sugar granules and liquid form. Pilule and fine granules are composed of sucrose, whereas tablets are composed of lactose. Hence, these are excellent for children. Lactase deficiency and sucrose intolerance should be considered while prescribing the form. Creams, ointments, or salves can be prepared by mixing the liquid with a cream or gel base. The creams and ointments are useful for sore muscles of the face and neck associated with temporomandibular joint disorders or long dental treatments.

**General guidelines to increase the effectiveness of homeopathic remedies** [3, 6, 7]

- Homeopathic remedies should not be touched. They must be taken directly from the container into the mouth.
- They should be placed under the tongue and allowed to dissolve.
- No food should be taken 10 minutes before or after the remedies are taken.
- Avoid taking coffee, tea or mint during use of homeopathic remedies. These substances have the potential of neutralizing the effects of the remedies.
Do not store the homeopathic remedies in areas that contain such products as ether, camphor, perfumes or other highly volatile substances. These types product will neutralize the homeopathic remedies.

- When the symptoms start to abate or resolve, discontinue the homeopathic remedy.
- Mint flavoured tooth pastes may interfere with the action of the remedy, hence brushing should be avoided 10 minutes before or after the taking the remedy.
- Unconscious, semiconscious patients and young children should only be given finely crushed pilules or fine granules.
- Coffee is best avoided during treatment, whereas tea in moderation is harmless. Hot spices, such as chilli and ginger should be avoided 10 minutes before and after.

Scope of homeopathy in paediatric dentistry

Paediatric dentistry is the speciality of dentistry with main objective of instilling a positive attitude and behaviour in children. Recently, dental health care approach has been directed towards holistic methods like Ayurveda, acupuncture, naturopathy or homeopathy. [7, 8] The advantages of homeopathic medicines are cost effectiveness, quick recovery period, reduced risk of adverse side effects and non-invasiveness [3]. Thus, homeopathy as a part of holistic dentistry might provide effective treatment to children while minimising side effects.

Homeopathic medicine is suggested to be useful for a wide range of treatments, for example, dental anxiety, dental caries and tooth pain. [5, 7] Homeopathy cannot replace the system of dentistry, but it might make the procedure much more relaxed and pleasant for both the child and the dentist. Oral hygiene and diet are still of the utmost importance.

Applications in the field of paediatric dentistry

The scope for homeopathy in paediatric dentistry is broad. The common conditions in routine practice and the proposed solutions are represented in Table 1. [1, 3-7, 11-29] Along with those conditions mentioned in the table, homeopathic medicines can be used in lip creams and tooth pastes. [3,9,10] It can also be employed as a complementary therapy in uncommon paediatric problems related to temporomandibular joint, saliva, mouth opening (trismus) and oral cancerous lesions. [1, 4, 5, 11]

<table>
<thead>
<tr>
<th>Condition</th>
<th>Suggested medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental anxiety</td>
<td>Gelsium, Aconite, Coffe cruda, Chamomilla, Argnit</td>
</tr>
<tr>
<td>Dental caries</td>
<td>Kreosotum</td>
</tr>
<tr>
<td>Tooth pain</td>
<td>Antimonium crudm, Belladonna, Aranea diadema, Chamomilla, Calcarea carbonica, Aconitum napellus, Staphysagria, Plantago major, Magnesia carbonica, Magnesia phosphorica, Pulsatilla, Coffea cruda, Ferrummetallcum.</td>
</tr>
<tr>
<td>Dental abscess</td>
<td>Calendula, Belladonna, Silicea, Hepar sulphuris calcareum, Myristica sebifera, Merc sol</td>
</tr>
<tr>
<td>Diseases related to gingiva and periodontium</td>
<td>Arsencium album, Hypericum, Nux vomica, Phosphoros, China, Ferrum Phosphoricum, Naturcumumuritium, Kali chloricum, Silicea, Heparsulphurus, Staphysagria, Symphytum, Rutagrangeoalens, Mercurius solubilis, Tooth paste with calendula officinalis reduces plaque and calculus</td>
</tr>
<tr>
<td>Bleeding</td>
<td>Arnica, Ferrum phosphorucm, Lachesis, Phosphorous</td>
</tr>
<tr>
<td>Delayed tooth eruption</td>
<td>Chamomilla, Calcareacarbonica, Zincummetallicum, Hypericum</td>
</tr>
<tr>
<td>Bruxism</td>
<td>Podophyllum, Belladonna, Tuberculinum, Cina, Nux vomica</td>
</tr>
<tr>
<td>Halitosis</td>
<td>Calendula mouth tincture, Mixture of Carbo veg and Merc sol</td>
</tr>
<tr>
<td>Oral ulcerations</td>
<td>Nitriscum acidum, Natrum muriaticum</td>
</tr>
<tr>
<td>Oral herpetic lesions</td>
<td>Petroleum 9c, Graphites 7c, Arsencium album 7c, Rhus toxicodendron 7c</td>
</tr>
<tr>
<td>Post-operative complications</td>
<td>Chamomilla, Hypericum, Apismellifica, Magnesia phosphorica, Staphysagria</td>
</tr>
<tr>
<td>Teething</td>
<td>Chamomilla</td>
</tr>
</tbody>
</table>

CONCLUSION

Homeopathy claims to play a vital role and appears to be a viable complementary therapy. Though, it is projected for its advantages and having a wide scope, there is lack of higher level of evidence to support its usage in Paediatric dentistry. Hence, appropriate attention should be paid while prescribing these medicines and randomised clinical trials should be conducted to evaluate their efficacy in children.

REFERENCES