

Original article

Awareness of dental students on the role of homeopathic remedies as a risk factor in the etiology of tooth decay

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Abstract:

Background: From the past , dentistry has come a long way in terms of delivering oral care to people. One thing that most of us don't realise is that dental disorders are linked to a variety of body systems that are constantly working to maintain an individual's dental health. Because homeopathy is a medical system with a long and rich history of scientific literature, as well as a reputation for safe and effective treatment, a study of the role of homeopathic application in dentistry was taken.

Methods : In a tertiary care teaching hospitals cross-sectional survey was conducted .An online questionnaire, and descriptive statistics were calculated using SPSS version 23 and a p-value <0.05 was found to be statistically significant .

Results: A total of 203 students took part, with 170 (83.74 percent) of them being females and 33(16.26 percent) of them being males. The findings revealed that female dental students had higher knowledge and a more positive attitude towards the role of homeopathic remedies as a risk factor in the aetiology of tooth decay than men. and that among all dental students ,fourth years had more knowledge compared to third years, interns and postgraduates .

Conclusion: Dental students are taught about homeopathic remedies as a risk factor in the aetiology of tooth decay and have a positive attitude toward them, according to the data. Many people believe it is advantageous and that it should be included in the dental arsenal. To provide additional knowledge to dental students, we conclude that continuing dental education and training programmes are essential.

Keywords: aetiology, awareness, homeopathy ,homeopathic medicines ,tooth decay.

INTRODUCTION:

Homeopathy is a life Science developed by Dr.Samuel Hahnemann [1755-1843]⁸, a German physician. It is based on the principle that "LIKE CURES LIKE"^{6,7}. In simple words, it means any substance ,which can produce symptoms in a healthy person ,can cure similar symptoms in a person who is sick. This is also known as "Law of Similars". There are other principles also which include the law of single remedy, the law of minimum dose and concept of vital force^{9,10,11,12}.

It is a treatment that advocates the use of highly diluted substances to help the body heal itself .During this process ,the chosen substance is repeatedly diluted until the final product is chemically indistinguishable from the diluent.

Homeopathic can contain a range wide of substances ,including ingredients derived from plants ,healthy or diseased animal or human sources ,minerals ,and chemicals.

These medicines are tinctures having a burning taste and can't be prescribed directly. so they are prescribed along with an appropriate vehicle like globules, saccharum lactose powder, pillules, cones, tablets etc....most commonly used vehicle is globules which are basically sweet to taste. Thus one feels that homeopathic medicines are sweet but it is the globules that provides a sweet taste and make up the burning taste.

The introduction of homeopathic medicine in dentistry field is especially useful from mild pain due to tooth cavity to chronic conditions that have historically been shown to be difficult to treat or manage they are as follows dental anxiety, atypical facial pain, glossopyrosis and post extraction osteitis. Many results showed that a healthy interaction between the Dental doctor and therefore the consulting Homeopath is significant for successful dental treatment of the patient.

As these medicines have specific rules for administration-repeatedly during the day they ought to stay under the tongue for an extended time, and their use along with fluoride containing toothpastes is contraindicated.

Dental caries is one among the foremost common chronic diseases. it is a process of localized destruction of hard dental structures, which occurs on the enamel surface under a biofilm by the reaction between it and therefore the surface and results in the formation of a caries lesion. They start with a change with in the ecology and metabolic activity of the complex bacterial biofilms and are suffering from salivary flow and composition, by the exposure to fluorides, by the consumption of sugars and by the preventive individual behaviour.

With the advancement of technology and therefore the ability to simply access information the knowledge of physicians about the impact and potential risk of frequent use of homeopathic remedies to oral health in childhood, should be maintained at a high level.

Homeopathy is the most important field of alternative medicine. In Dentistry homeopathy could be beneficial. This background says that the current study was conducted with an aim about the role of homeopathy medicine and its impact on dental health.

Aim: To assess the knowledge and attitude of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay.

Objectives were To determine knowledge of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay. To determine attitude of dental students about the role of homeopathic remedies as a risk factor in the aetiology of. To know the difference in knowledge and attitude according to gender and year of study.

Material and methods:

A Cross-sectional study was carried out at tertiary care teaching hospital, Khammam. The health care students included were dental students of third year, fourth year, interns, and post graduates.

A study questionnaire was designed with 21 questions, 14 questions based on knowledge and 7 questions related to attitude. The questionnaire also included demographic data like name, age, and year of study. The sampling method used is convenience sampling. Ethical clearance was obtained from Institutional ethical research committee.

The purpose of the study was explained to the students and an online questionnaire was distributed to them through link via social website. Students were given one week time to complete the questionnaire participants were asked to select one option from the answers provided against each question.

Statistical analysis: Data from the filled questionnaire was tabulated in excel worksheets and statistical analysis was performed using SPSS version 23. the level of significance was set as $P < 0.05$.

RESULTS

Questionnaires were sent to 350 students, and 203 completed them yielding a response rate of 58 percent .

Table 1 depicts that Out of 203 participants ,majority of them belonged to 22-23 years age group, with a mean age of 23.5+2.29 years. Most of the participants (83.74%) are females, in the present study most of the participants were fourth years (34.48%) followed by third years (33.99%), interns (24.63%) and post graduates (6.90%). (Table 1) Comparison of knowledge of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay across gender and year of study.

Table 2 depicts that, On comparison of knowledge of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay ,females (67.65%) think that it is necessary for a dentist to take history of Patient regarding intake of homeopathy medicine and correlate it with oral health than males (39.39%) and it is statistically significant (p-value = 0.002). Among all the dental students Interns (82%) have more knowledge than post graduates (71.43%), third years (63.77%) and fourth years (47.14%).

Table 3 depicts, On comparison of attitude of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay ,males (33.33%) think that the cost factor of homeopathic remedies which are considerably less than the allopathic drugs make them the ideal choice than females (30.59%) and it is statistically significant (p-value = 0.0160). Among all the dental students post graduates (57.14%) shows more attitude than third years (34.78%), interns (34.00%), fourth years (20.00%).

Table 1: Demographic profile of respondents

Demographic profile	No of students	% of students
Age in years		
20-21yrs	74	36.45
22-23yrs	105	51.72
>=24yrs	24	11.82
Gender		
Female	170	83.74
Male	33	16.26
Years of study		
III BDS	69	33.99
IV BDS	70	34.48
Interns	50	24.63
PG	14	6.90
Total	203	100.00

Table 2: Comparison of knowledge of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay .

	GENDER		p-value	YEAR OF STUDY				p-value
	Males	Females		III years	IV years	Interns	Post graduates	
Yes	13 (39.39%)	115 (67.65%)	0.002	44 (63.77%)	33 (47.14%)	41 (82%)	10 (71.43%)	0.005
No	3 (9.09%)	3 (1.76%)		3 (4.35%)	2 (2.86%)	0 (0%)	1 (7.14%)	
Not sure	17 (51.52%)	52 (30.59%)		22 (31.88%)	35 (50.00%)	9 (18%)	3 (21.43%)	

Table 3: Comparison of attitude of dental students about the role of homeopathic remedies as a risk factor in the aetiology of tooth decay.

	GENDER		p-value	YEAR OF STUDY				P-value
	Males	Females		III years	IV years	Interns	Postgraduates	
Yes	11 (33.33%)	52 (30.59%)	0.0160	24 (34.78%)	14 (20.00%)	17 (34.00%)	8 (57.14%)	0.1410
No	8 (24.24%)	14 (8.24%)		7 (10.14%)	10 (14.29%)	4 (8.00%)	1 (7.14%)	
May be	14 (42.42%)	104 (61.18%)		38 (55.07%)	46 (65.71%)	29 (58.00%)	5 (35.71%)	

DISCUSSION

In modern times, homoeopathy is one of the most popular kinds of complementary and alternative medicine, and many of the patients who use it are youngsters^{1,2}. Homeopathic remedies are typically in the form of sweet-tasting pellets, powders, or liquids, and they are well tolerated. It is administered by placing it in the mouth and allowing it to dissolve without chewing.¹ They are available in liquid form or as sugar pills.³ Sugar content in homeopathic remedies can impair dental health, according to Subramaniam et.al¹

They looked at how the pH of the saliva changed after taking several homeopathic remedies. The sugar level and acidity of these homeopathic treatments were both high. They noticed a reduction in pH after each of the medicine was administered

to the scientists, maintaining a low salivary pH of 5.5 by taking every single dose of a homeopathic remedy poses a risk to the dentition. The dental health of children receiving frequent homeopathic treatment should be examined depending on their composition, frequency of intake, and length of therapy³. Medical and dental practitioners must be aware of the risks connected with sugar-containing drugs and do everything possible to decrease their cariogenic potential².

According to the research, the majority of them are either unaware of the sugar content of drugs or do not see it as a danger factor for dental health. According to Farias and colleagues, 84.21 percent of paediatricians surveyed are unaware of the presence of sugar in paediatric medicines (both conventional and homeopathic)⁴.

Although the majority of dentistry students are aware with homeopathic medicine (83.25 percent), few use it as a therapeutic option (7.39 percent). Although the majority of them (62.56 percent) have used homeopathy medicine in their lives, 24.14 percent of students believe that both homeopathy and allopathy can be utilised simultaneously. The majority of dentistry students, 63.05 percent, believe that it is vital for a dentist to take a patient's history about homeopathic medicine and associate it with oral health (67.65 percent).

The majority of females (80.59 percent) believe that homeopathic medicine has a pleasant character, but only 39.39 percent of males believe that every dose of homeopathic medicine induces a reduction in salivary pH. 33.33 percent of men believe that homeopathic remedies are the best option because they are much less expensive than allopathic drugs. According to Antoniya Pomakova et al⁵, 29.56 percent of dentistry students agree that fluoride-containing tooth pastes are inappropriate when used with homeopathic medicine,

CONCLUSION:

Additional information about the likely significance of homeopathic remedies as a cause in increased caries development is needed among dentistry students. Patient compliance, without side effects, is possible with allopathic pharmaceuticals, and the cost of homeopathic remedies, which is significantly cheaper than that of allopathic drugs, makes them perfect for use. Homeopathic remedies may be an important part of a dentist's toolkit for the prevention and treatment of dental problems, but more evidence-based research is needed to firmly define the areas in which they can be used, as well as those where they aren't. As a result, to raise awareness, dental schools should establish homeopathy-related continuing dental education programmes and workshops.

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