

## ASSESSMENT OF AWARENESS AND KNOWLEDGE OF OIL PULLING AMONG RURAL POPULATION OF UTTAR PRADESH

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Received date: 12 August 2021

Revised date: 03 September 2021

Accepted date: 24 September 2021

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### ABSTRACT

**Background:** Oil pulling is a traditional remedy for maintaining good oral hygiene that dates back to ancient India. Many people are drawn to this treatment because it is an ancient ayurvedic therapy with very few if any, side effects. Oil pulling, in addition to providing many oral health benefits, also aids in the maintenance of good health. **Aim:** The aim is to assess the awareness and knowledge about oil pulling among rural population. **Materials and Methods:** This survey on oil pulling was administered through a questionnaire given to 150 rural participants through pen and paper method. The questionnaire consisted of questions about their patterns of oil pulling, its benefits, and also its impact on oral hygiene. The results were tabulated and statistically analyzed. **Result:** In the present study total sample was of 150 rural participants, 23.3% participants were aware about oil pulling and basic source of knowledge was internet 64.6%. About 40.6% of the participants started oil pulling as they wanted to give it a try. Almost 51.3% of people will prefer coconut oil and 27.3% participants stated that oil pulling can reduce the risk of dental caries while 50% were not sure about the effect of it on oral cavity. **Conclusion:** This study revealed that rural people did not know about oil pulling. All participants must become aware of oil pulling as an adjunctive treatment to oral hygiene.

**KEYWORDS:** Dental caries, Detoxication, Emulsification, Oil pulling, Oral hygiene.

### INTRODUCTION

It's a widely held belief that good oral health leads to better overall health. This means that a person's oral health has a huge effect on his or her overall health and well-being.<sup>[1]</sup> The most common types of oral diseases in people are periodontal disease and dental caries.<sup>[2,3]</sup> Although compared to the general population, diabetic and coronary heart disease patients have the largest percentage of periodontal disease and dental caries.<sup>[4]</sup> The fields of medicine and dentistry have witnessed major technological advancements in recent years. Recently, due to antibiotics and so many other drug resistance searched for various forms of alternative or traditional medicinal treatments, such as Ayurveda have started to gain popularity, and due to their natural origin, cost-effectiveness, negligible side effects, and improved patient compliance.<sup>[5]</sup>

Oil pulling is claimed to improve oral health and it came into existence and popularity by Dr F Karach.<sup>[6]</sup> In oil pulling, a tablespoon full of oil is taken and swished around the mouth in the early morning before breakfast and in empty stomach for about twenty minute. The oil is swished between the teeth and gums. Mouth is thoroughly washed with saline water and tooth brushing is done.<sup>[7,8]</sup>

Oil pulling generates antioxidants which damage the cell wall of microorganisms and kill them.<sup>[9]</sup> These oils will attract the lipid layer of bacterial cell membranes and pulled to the oil helps teeth become whiter; breath becomes fresher, and oral cavity muscles and jaws become stronger with the excellent achievement of oral hygiene.<sup>[10,11]</sup> Oil pulling prevents dental caries, gingivitis, oral candidiasis, and periodontitis from occurring, helps to reduce tooth pain, fixes mobile teeth,

and achieves vigorous oral hygiene.<sup>[12,13]</sup> The aim of the study is to assess the awareness and knowledge of Oil pulling among rural population.

**MATERIAL AND METHODS**

The present study was carried out in a private tertiary dental health care center, at rural Kanpur, (Uttar Pradesh, India). This oil pulling cross-sectional study enrolled a total of 150 participants from the outpatient department from January to March 2021 by a simple random sampling method. The pretested questionnaire consisted of seven questions asking about their patterns of oil pulling, its benefits, and also its impact on oral hygiene. The language of the questionnaire was in Hindi for the convenience of the participants. The survey was conducted using paper and pen method. All participants provided written informed consent and ethical approval from the institutional ethics committee of the Private Dental College and Hospital, Kanpur, was taken.

The data were collected, compiled, arranged in a systematically manner and analyzed in terms of percentage, frequencies and using SPSS Version 17.0 (SPSS Inc., Chicago, IL, USA).

**RESULTS**

In the present study total sample was of 150 rural participants among those males were more in number 97 (64.6%) as compare to females 53 (35.3%).

**Characteristic related to awareness and knowledge**

In the current study only 23.3% participants were aware about oil pulling and basic source of knowledge was internet 64.6% followed by newspaper 20% and family 15.3%. [Figure 1,2]

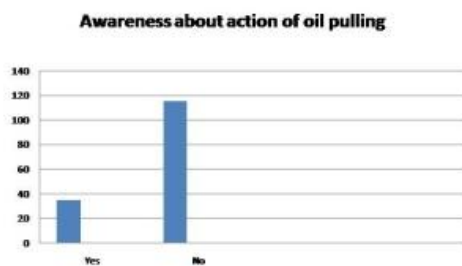


Fig. 1 Awareness of the participants.

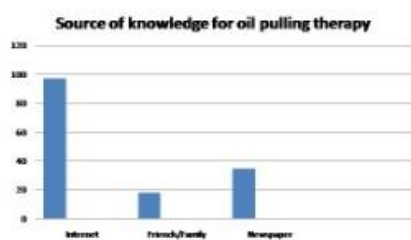


Fig. 2: Knowledge of the participants.

About 40.6% of the participants started oil pulling as they wanted to give it a try. [Figure -3]

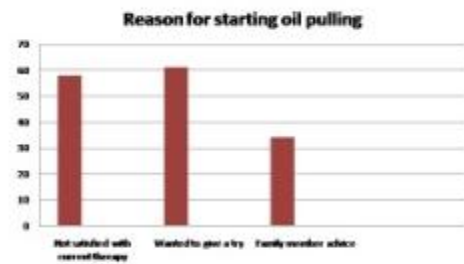


Fig. 3: Reasons for oil pulling.

Nearly 38.6% of people started oil pulling as they were not comfortable with their current medication. Almost 51.3% of people will prefer using coconut oil as it is the most commonly used oil and it is easily available and harmless. The second most commonly used oil was ginger oil 26.6%. [Figure -4]

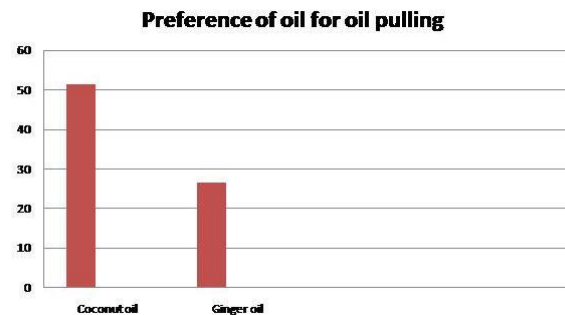


Fig. 4: Oil pulling can reduce caries.

27.3% participants stated that oil pulling can reduce the risk of dental caries while 50% were not sure about the effect of it on oral cavity. [Figure -5]

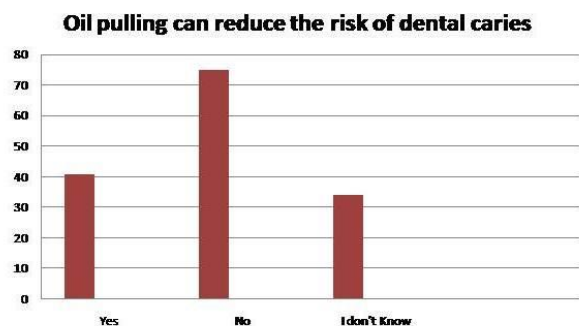
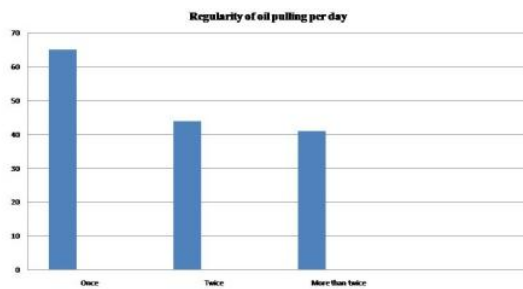
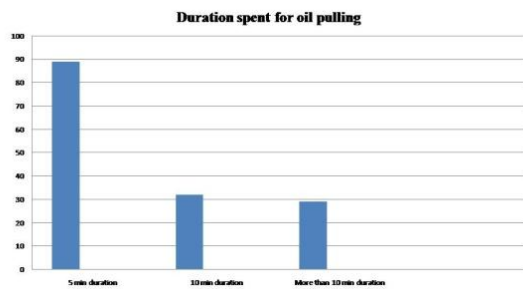


Fig. 5: Side effects of oil pulling.

43.3% participants wanted to try oil pulling once per day and only 59.3% agreed to continue it for 5min. [Figure-6,7]



**Fig. 6: Regularity of oil pulling.**



**Fig. 7: Duration of oil pulling.**

## DISCUSSION

Oil pulling, as the name implies, entails intense swishing of oil in the mouth to obtain local and systemic benefits, close to how mouthwashes and oral rinses are used today. Edible oils derived from sunflower, sesame, ginger, and coconut have been used for centuries to treat and prevent a variety of oral and systemic diseases.<sup>[14]</sup> Oil swishing is thought to cure or regulate more than 30 different forms of systemic diseases, including headaches, asthma, and diabetes mellitus.<sup>[15]</sup> The benefits of oil pulling on oral health as a supplement to traditional oral hygiene practices have been exceptional.<sup>[16]</sup>

Scientific evidence suggests that oil pulling therapy may reduce the total oral bacterial count and reduce plaque and gingival scores.<sup>[17,18]</sup> In the study done by R. Jagadheeswari and Bharathi S. found that about 59% and 47% respectively of the participants started oil pulling as they wanted to give it a try and nearly 27% of people started oil pulling as they were not comfortable with their current medication which was similar to the current study.<sup>[19,20]</sup> The majority of people prefer coconut oil, and it is the most widely used oil because it is readily available and healthy. The saponification index of coconut oil is high. It contains lauric acid, which reacts with alkalis in the saliva, such as sodium hydroxide and bicarbonates, to form sodium laureate, a soap-like material that decreases plaque adhesion and accumulation while also having cleaning properties.<sup>[19]</sup>

According to the available literature, the majority of people are unaware of the health benefits of oil pulling.

In R Jagadheeswari's report, about 40% of the participants were unaware of the benefits of oil pulling in preventing dental caries.<sup>[19]</sup> Bacteria living underneath the gums and in tubules inside the teeth are washed out of their hiding places and firmly encased in the milky solution, lowering the risk of plaque and caries.<sup>[17]</sup> R Jagadheeswari stated in their study that around 54% of people practice oil pulling only once a day found similar to the current study. Most of them preferred oil pulling early morning in an empty stomach. Around 65% of people found improvement in their oral hygiene after oil pulling.<sup>[19]</sup> Almost 61% of participants spend 5 minutes, 25% of them spend 10 min, and only 13% of them spend more than 10 min as found in study done by R Jagadheeswari similar to our study.<sup>[19]</sup>

Bharathi S. in their study 82% of participants were not aware about the oil pulling mechanism while only 18% were aware which was similar to results of the present study.<sup>[20]</sup> Anyone could do oil pulling, and it should be done after one brush in the morning and evening. Oil pulling has been recommended for migraines, shoulder pain, neck pain, headaches, greying hair, and cataracts in ancient Ayurvedic texts. In general, it is beneficial to all areas above the neck. The magic potion is made of a mixture of saliva and oil.

## CONCLUSION

Oil pulling therapy is an Ayurvedic treatment that incorporates the use of oil-based oral rinses into regular oral hygiene routines to encourage good oral and systemic health. According to the results of this study, people are less aware of oil pulling. The awareness of the rural population is influenced by age, gender, literacy level, and socioeconomic status. As an outcome, rural population counseling will improve knowledge regarding oil pulling.

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