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AWARENESS OF THE MEDICINAL PROPERTIES OF ESSENTIAL OIL IN STUDENTS AMONG PRIVATE DENTAL COLLEGE

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Abstract

Aim: The aim of this study is to assess the knowledge, awareness and understanding of the medicinal properties of essential oils.

Objective: This study was conducted in order to determine the extent of knowledge and awareness of essential oils among dental undergraduates.

Background: Essential oils have been used for thousands of years in various cultures for medicinal and health purposes. The uses range from aromatherapy, household cleaning products, personal beauty care and natural medicine treatments. The particles in essential oils come from distilling or extracting the different parts of plants, including the flowers, leaves, bark, roots, resin and peels. In ancient times essential oils were made by soaking the plants in oil and then filtering it. They have antioxidant, antimicrobial and anti-inflammatory properties.

Materials and Methods: A quantitative cross sectional study was conducted by preparing a questionnaire which was distributed among 108 dental students.

Conclusion: The results showed that there was a significant difference in knowledge and awareness of essential oils within the dental students.

Key Words: medicinal, essential oils, properties, health, aromatherapy.

Introduction

Essential oils are natural oils which are typically obtained by the process of distillation and they have the characteristic smell or odour of the plant or another source from which it has been extracted. Essential oils are a good source of several bioactive compounds and they possess antioxidant as well as antimicrobial properties. In addition to this some essential oils have also been used for its medicinal properties (1). Essential oils can be found in many

different plants, normally in aromatic plants. They also vary in odour and flavour, which are determined by the types and the number of constituents present in the oils. It has been reported that certain plant essential oils contain antimicrobial properties (2,3,4). Certain compounds in essential oils have a structure that resembles the well-known plant phenols which possess antioxidant activity. Thymol and carvacrol were found to possess the greatest antioxidant activity (5). It has been reported (6) that the fruit extracts of *Barringtonia racemosa* and *Hibiscus sabdariffa* have been used for the treatment of abscess, ulcer, cough, asthma, and diarrhoea as traditional remedy and also for breast cancer cells due to its antioxidant property. In (7) the conventional and indigenous formula of chamomile excerpt of sesame oil was used as a popular treatment for migraine headaches. The study (8) evaluated the the Aroma of *Lavandula augustifolia* as a Treatment for Mild Insomnia. Along with these properties certain other essential oils were also used for diarrhea, oral candidiasis, fever, cold, snake bites etc.

Materials and Methods

This study is a cross sectional study, which was based on a questionnaire. A questionnaire which contained 21 questions, was used in order to assess the knowledge and awareness of essential oils amongst undergraduate students of private dental college. This questionnaire consisted of the following questions.

1. Gender
 - a) Male b)Female
2. Have you ever heard about essential oils
 - a) Yes b)No
3. Are you aware about the uses of essential oils
 - a) Yes b)No
4. Have you come across any of the following essential oils
 - a) Lavender oil
 - b) Eucalyptus oil
 - c) Peppermint oil
 - d) Tea tree oil
 - e) Cinnamon oil
 - f) Lemon oil
5. Did you know that essential oils can be used for

- a) Depression/anxiety/grief
- b) Headaches
- c) Insomnia
- d) Diarrhoea
- e) Fever/cold
- f) Snake bites
- g) Acne

6) Did you know that lavender oil can be used as anti-anxiety drug and reduce pain during needle insertion

- a) Yes
- b) No

7) Did you know that eucalyptus oil has anti cariogenic properties

- a) Yes
- b) No

8) Did you know that peppermint oil is used in oral hygiene products

- a) Yes
- b) No

9) Did you know that cinnamon oil is used in oral candidiasis

- a) Yes
- b) No

10) Did you know that tea tree oil is used in prophylactic oral hygiene products

- a) Yes
- b) No

11) Do you think essential oils can be used instead of allopathic medicine

- a) Yes
- b) No

12) Do you think essential oils have side effects

- a) Yes
- b) No

13) Did you know that some essential oils can cause itching and skin irritation

- a) Yes
- b) No

14) Do you think essential oils are pure

- a) Yes
- b) No

15) Do you think essential oils are toxic

- a) Yes
- b) No

16) Did you know that peppermint oil cannot be used for children under the age of 6

a) Yes b) No

17) Did you know that essential oils on application on skin can cause photo toxicity

a) Yes b) No

18) Did you know that rosemary should never be used by pregnant women

a) Yes b) No

19) How did you get to know about essential oils

a) Family/friends/relatives

b) Internet

c) Social media

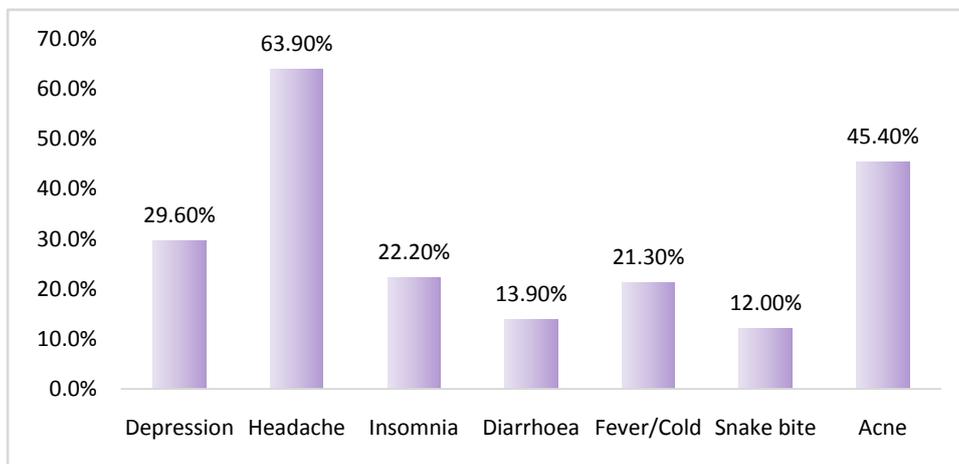
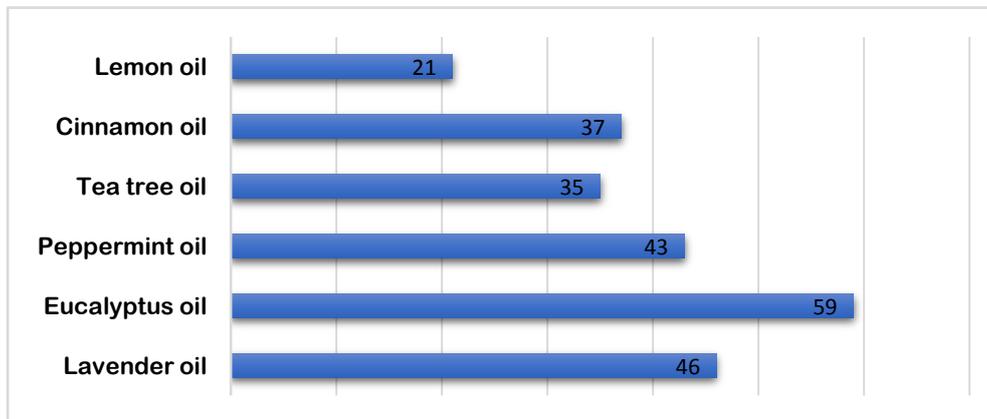
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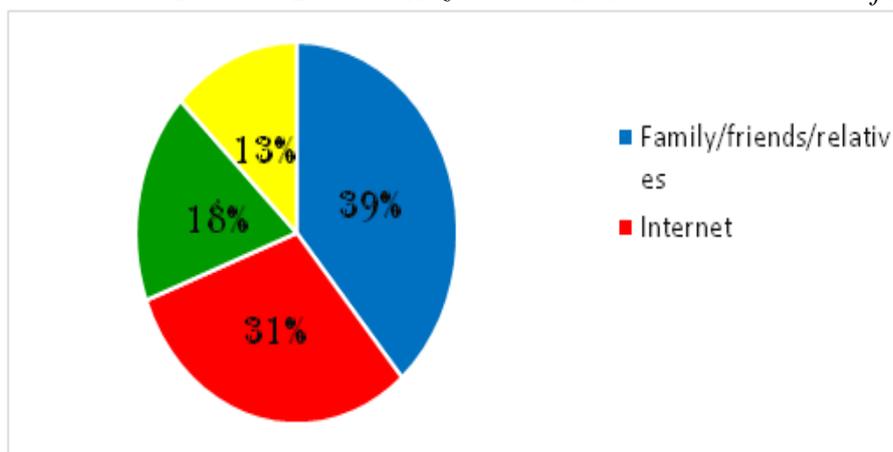
20) Do you think essential oils are safe

a) Yes b) No

21) On a scale of 1-10 how beneficial do you think essential oils are

Results





Discussion

The study was conducted among 108 dental students and out of which 78.7% were aware about essential oils but only 71.3% of them were aware about the uses of essential oils. A list of essential oils was given and the students were told to mark the ones known to them. Almost 55% of them were aware of eucalyptus oil, while only a small percentage, 19% of them were aware about lemon oil. Almost 64% of them have administered or were aware about essential oils being used as a remedy for headaches, whereas almost 45% are aware about its uses for acne treatment. Very few of the students were aware of the fact that certain essential oils were also have been used the treatment of snake bites, insomnia, diarrhoea and fever. Majority of them were aware of eucalyptus oil containing anti cariogenic properties, while almost 75% were unaware about lavender oil being used as an antianxiety drug.

Most of the student population were not aware of the use of cinnamon oil in oral candidiasis treatment and the use of tea tree oil in prophylactic oral hygiene products. But almost 67% of them were aware about the use of peppermint oil in oral hygiene products. More than 50% thought that essential oils can be administered instead of allopathic medicine, while almost 64% of them thought that essential oils have side effects when they are being administered. They also thought that it can cause itching and skin irritation. One third of the students thought that essential oils can also be toxic. Majority of them were not aware of the fact that peppermint oil should not be given to children under the under the age of 6 and that rosemary should never be given to pregnant women.

When they were questioned about the sources as to how they gained knowledge about essential oils, 39% of them stated that it was through family, friends and relatives which was followed by internet, social media and articles.

When questioned about the safety of essential oils 73% of them thought they were safe to be administered. The final question inquired the students about how beneficial essential oils are, where the students were told to assess them on a scale of 1-10. Majority of them gave a 7 out of 10 indicating that essential oils are moderately beneficial when their side effects were also taken into consideration, while only less than 1% thought that they were not beneficial.

Conclusion

This study shows an important insight about the knowledge and awareness of the medicinal properties of essential oils amongst students of private dental college.

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