# KNOWLEDGE, ATTITUDE AND AWARENESS TOWARDS BENEFITS OF LAVENDER OIL

G. Preethi<sup>1</sup>, R. Gayatri Devi<sup>2</sup>, A.Jothi Priya<sup>3</sup> Running Title: Awareness about the benefits of lavender oil Article type: Original Research <sup>1</sup>Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences (SIMATS) Saveetha University, Chennai, India. <sup>2</sup>Assistant Professor, Department of Physiology, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences (SIMATS) Saveetha University, Chennai, India. <sup>3</sup>Assistant Professor Department of Physiology Saveetha Dental College and Hospitals,

Saveetha Institute of Medical and Technical Sciences (SIMATS)

Saveetha University, Chennai, India.

**Corresponding author:** 

Dr. R. GAYATRI DEVI

**Assistant Professor** 

Department of Physiology

Saveetha Dental College and Hospitals

Saveetha Institute of Medical and Technical Sciences (SIMATS)

Saveetha University,

162, poonamallee high road

Chennai-600077

Tamilnadu, India.

**ABSTRACT:** 

Lavender essential oil is one of the famous essential oils which is used in aromatherapy. Lavender oil is known to relieve psychological problems and also helps in treating fungal infections, allergies, insomnia, etc. Lavender oil possesses certain properties like antibacterial, antifungal and antidepressant. Lavender oil is found to be useful in the treatment of acute as well as chronic pain. Thus the aim of this study is to assess the knowledge and awareness about the

benefits of the lavender oil among people. A questionnaire comprising 10 questions was posted

on an online survey platform. The data collection was done through Google forms and the

statistical software used for the analysis included the SPSS software. Descriptive analysis was

used. In this study, 69% of the people were aware that lavender oil helps in reducing anxiety and

78% of them believed that lavender oil is good for skin. From this survey, it is evident that the

majority of them were aware about uses and medicinal benefits of lavender oil. The present study

assessed the knowledge and awareness about the benefits of lavender oil among people, by using

a survey on one hundred persons. This survey may help the people to use lavender oil in day to

day life and thereby they can improve their mental health and relax themselves.

**Keywords**: Lavender oil, antidepressant, knowledge, aromatherapy.

**INTRODUCTION:** 

Lavender essential oil is one of the most popular and easily adaptable essential oils which is

used in aromatherapy. Lavender oil possesses certain properties like antibacterial, antifungal and

antidepressant. They are known to relieve psychological problems like stress, anxiety, depression

and have a sedative effect [1], [2]. Since the lavender oil is extracted from flowers and has a

relaxing fragrance, it is used in aromatherapy to relieve stress and anxiety [3]. But studies have

shown that lavender oil not only acts as an antidepressant but also treats insomnia, allergies,

gastrointestinal distress and menstrual cramps [4]. A number of studies report that linally acetate and beta - linalool are the major components which are involved in the sedative effects of lavender oil [5]. Since lavender oil has many curative properties with lower side effects, it is important for the people to have knowledge over these benefits. Usage of lavender oil not only plays a role in treating various problems but also has lower side effects. Lavender oil can be easily accessed by everyone at a reasonably low rate. Pharmaceutical drugs are comparatively more expensive than lavender oil [6]. Thus due to the lower cost, lower side effects and easy accessibility of these oils, it is important to spread awareness among people.

In a study where the lavender oil in a burner was used to conduct an experiment among the workers and staff in a hospital, a majority of workers in the hospital believed that it improved the work environment by reducing their stress and anxiety level [7]. The effects of lavender aromatherapy on depressed mood and anxiety in female patients being treated with chronic hemodialysis was observed and indicated that the rating scale of depression was decreased among these patients [8]. Lavender oil is found to be useful in the treatment of acute as well as chronic pain. Inhalation of lavender oil has been found to be safe and effective for the treatment and management of migraine headaches [9], [10]. Aromatherapy among pharmacy students with academic stress was experimented but no clinical effect was found as the stress among the students will be relieved only when the exams are over [11].

Our team has done many studies which are based on clinical reports, interventional studies [12], [13], [14], survey studies [15] and systematic reviews [16]. The evidence for lavender oil treatment is promising but when it comes to a long term follow up, it's still inconclusive.

Lavender oil aromatherapy has been proved to be a very effective treatment in anxiety and stress. Thus the main aim of this study is to assess the knowledge and awareness about the benefits of lavender oil among people.

#### **MATERIALS AND METHODS:**

This is a cross - sectional survey based study conducted through an online survey. The present study was conducted among the general population in a India, Tamilnadu. The usage of online surveys is time saving and also involves a varied number of people. There were a hundred participants involved in the survey. The study was approved by the Institutional Review Board, Saveetha Dental College. The sampling was done by a simple random sampling method. A self administered questionnaire as prepared which consisted of 12 closed type questions. These questions focused on gender, age and various long term effects of lavender oil which was posted on an online survey platform. The data collection was done through Google forms and data manipulation through MS Excel. The data obtained was plotted in the form of a bar graph. The statistical software used for the analysis included the SPSS V21.0 software. Descriptive analysis was used. Age, education, height, weight, gender were considered as independent variables and usage of lavender oil, type of population were considered as dependent variables.

#### **RESULTS AND DISCUSSION:**

Survey on knowledge and awareness on the benefits of lavender oil was conducted and through this survey, it showed that almost 70% of the people were aware of the benefits of lavender oil. Previously, no such surveys were conducted based on the awareness of people but many clinical trials were conducted. In the present study, 48% of them were male and 52% of

them were female (Figure 1). Out of 100 participants, 15% of the participants were between 18-25 years of age, 13% of the participants were between 25-30 years of age, 40% of the participants were between 30-40 years of age and 31% of the participants were above 40 years (Figure 2). In this study, 69% of the people were aware that lavender oil helps in reducing anxiety and 31% of the participants were not aware of it (Figure 3). 73.7% of the people felt that lavender oil helps in inducing sleep and 26.3% of the participants felt it does not help in inducing sleep (figure4). 78% of them believed that lavender oil is good for skin (Figure 5).

Out of 100 participants, 75% of the participants believed that lavender oil promotes hair growth and 25% of them didn't agree with it (Figure 6). 76.5 % of the people responded that lavender oil causes hormonal changes and 23.5% of the participants said it does not cause hormonal changes (Figure 7). 66.3% of the participants said it can cause cancer and 33.7% of the participants said it does not cause cancer (Figure 8). 87.6% of the participants feel that lavender oil can bring relaxation to our muscles and 12.4% of them feel it does not bring relaxation to our muscles (Figure 9). 64.2% of the participants feel that too much lavender oil can be harmful and 35.8% of the participants feel too much lavender oil is not harmful (Figure 10). 63.6% of the participants feel that lavender oil is good for the heart and 36.4% of the participants didn't agree with it (Figure 11). 72% of the participants feel that lavender oil is good for wrinkles and 28% of the participants did not agree with it (Figure 12).

The present study was not conducted on a particular work population. But previously, an experiment which was done among hospital staff using lavender oil in a burner showed that 85% of the participants were relieved from stress due to fragrance of lavender oil [7]. Another study demonstrated that people (40 adults) on exposure to lavender oil olfaction, had decreased anxiety and stress which was supporting the current study result [17]. Another study was done on

45 nurses working in a hospital. They were divided into 2 groups. The group which received the

lavender oil fragrance had comparatively lower stress which was similar to our study result [18].

Similarly in this study, 69% of the participants feel lavender oil could reduce anxiety. Thus it is

proved that lavender oil can benefit health in many ways and using lavender oil can bring a great

impact on the body and mind.

**CONCLUSION:** 

In the present study, 69% of the participants were aware of the antidepressant property of

lavender oil and believed that lavender oil can relieve psychological problems like stress,

anxiety, depression and insomnia. But various studies have shown that lavender oil not only acts

as an antidepressant but also treats allergies, infections, gastrointestinal distress and menstrual

cramps etc.. Even though there is comparatively lower (or none) side effects in lavender oil,

through this survey it is understood that 64.2% of the participants felt long term usage of

lavender oil can be harmful. Thus it is important to spread knowledge about the curative effects

of lavender oil. This survey may help the people to use lavender oil in day to day life and thereby

they can improve their mental health and physical health thus leading a healthy and happy life.

**Disclaimer regarding Consent and Ethical Approval:** 

As per university standard quideline, participant consent and ethical approval have been collected and

preserved by the authors

ACKNOWLEDGEMENT: The team extends our sincere gratitude to the Saveetha Dental

college and hospital for their constant support and successful completion of this work.

**CONFLICT OF INTEREST:** The authors declare no conflict of interest.

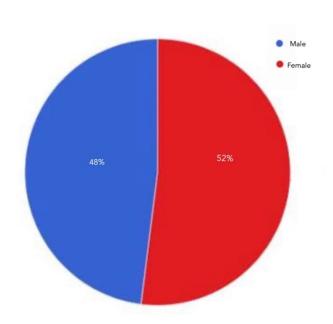
#### **REFERENCES:**

- [1] Sayorwan W, Siripornpanich V, Piriyapunyaporn T, Hongratanaworakit T, Kotchabhakdi N, Ruangrungsi N. The effects of lavender oil inhalation on emotional states, autonomic nervous system, and brain electrical activity. J Med Assoc Thai 2012;95:598–606.
- [2] Institute NC, National Cancer Institute. Lavender Oil. Definitions 2020. https://doi.org/10.32388/tx4ofz.
- [3] Malcolm BJ, Tallian K. Essential oil of lavender in anxiety disorders: Ready for prime time? Ment Health Clin 2017;7:147–55.
- [4] Appleton J. Lavender oil for anxiety and depression. Natural Medicine Journal 2012;4:2157–6769.
- [5] Cavanagh HMA, Wilkinson JM. Biological activities of lavender essential oil. Phytother Res 2002;16:301–8.
- [6] Bhat IUH, Khanam Z. Lavender Oil. Green Pesticides Handbook 2017:231–44. https://doi.org/10.1201/9781315153131-12.
- [7] Tysoe P. The effect on staff of essential oil burners in extended care settings. Int J Nurs Pract 2000;6:110–2.

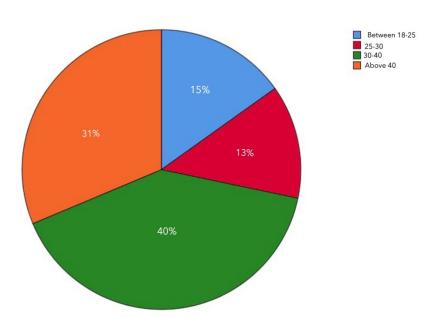
- [8] Lewith GT, Godfrey AD, Prescott P. A single-blinded, randomized pilot study evaluating the aroma of Lavandula augustifolia as a treatment for mild insomnia. J Altern Complement Med 2005;11:631–7.
- [9] Koulivand PH, Ghadiri MK, Gorji A. Lavender and the Nervous System. Evidence-Based Complementary and Alternative Medicine 2013;2013:1–10. https://doi.org/10.1155/2013/681304.
- [10] Joyson A. Lavender Essential Oil: Everything You Need to Know About This Wonderful Essential Oil. CreateSpace Independent Publishing Platform; 2015.
- [11] Ahmad R, Naqvi AA, Al-Bukhaytan HM, Al-Nasser AH, Baqer Al-Ebrahim AH.
  Evaluation of aromatherapy with lavender oil on academic stress: A randomized placebo controlled clinical trial. Contemp Clin Trials Commun 2019;14:100346.
- [12] Shruthi M, Preetha S. Effect of Simple Tongue Exercises in Habitual Snorers. Research Journal of Pharmacy and Technology 2018;11:3614. https://doi.org/10.5958/0974-360x.2018.00665.0.
- [13] Abigail, Abigail, Priya J, Devi G. Evaluation of Muscular Endurance among Dentists. Indian Journal of Public Health Research & Development 2019;10:258. https://doi.org/10.5958/0976-5506.2019.02808.0.
- [14] David, David, Jothi Priya A, Devi G. Physical Fitness among the Dental Physician, Dental Undergraduates and Postgraduates Students. Indian Journal of Public Health Research & Development 2019;10:223. https://doi.org/10.5958/0976-5506.2019.02801.8.
- [15] Rj I, R GD. Role of environmental factors on sleep patterns of different age groups. Asian Journal of Pharmaceutical and Clinical Research 2016;9:124. https://doi.org/10.22159/ajpcr.2016.v9i6.13832.

- [16] Dave PH, Preetha. Pathogenesis and Novel Drug for Treatment of Asthma-A Review.
  Research Journal of Pharmacy and Technology 2016;9:1519. https://doi.org/10.5958/0974-360x.2016.00297.3.
- [17] Diego MA, Jones NA, Field T, Hernandez-Reif M, Schanberg S, Kuhn C, et al. Aromatherapy positively affects mood, EEG patterns of alertness and math computations. Int J Neurosci 1998;96:217–24.
- [18] Sung SN, Eun Y. The Effect of Aromatherapy on Stress of Nurses Working in Operating Room. Korean Journal of Adult Nursing 2007;19:1–11.

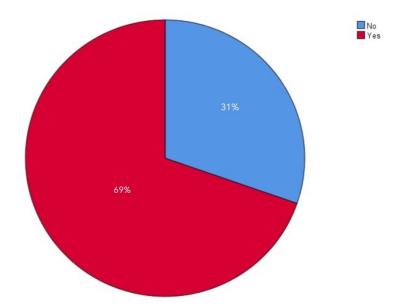
### **GRAPHS:**



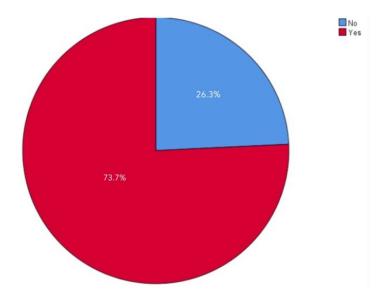
**Figure 1 :** This pie chart represents the frequency distribution of the gender of the participants where 48% of them were male (blue) and 52% of them were female (red).



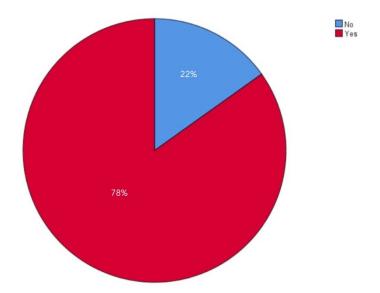
**Figure 2:** This pie chart represents the frequency distribution of the age of participants where 15% of the participants were between 18-25 years of age (blue), 13% of the participants were between 25-30 years of age (red), 40% of the participants were between 30-40 years of age (green) and 31% of the participants were above 40 years (orange).



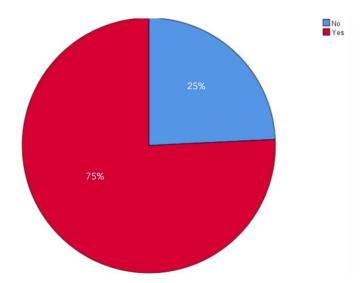
**Figure 3 :** This pie chart represents the frequency distribution of the awareness of lavender oil. 69% of the people were aware that lavender oil helps in reducing anxiety (red) and 31% of the participants were not aware of it (blue).



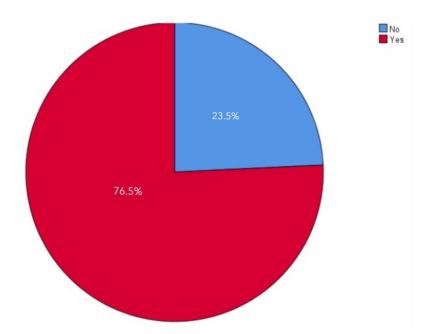
**Figure 4 :** This bar chart represents the frequency distribution of awareness of the sleep inducing property of lavender oil. 73.7% of the people feel that lavender oil helps in inducing sleep (red) and 26.3% of the participants felt it does not help in inducing sleep (blue).



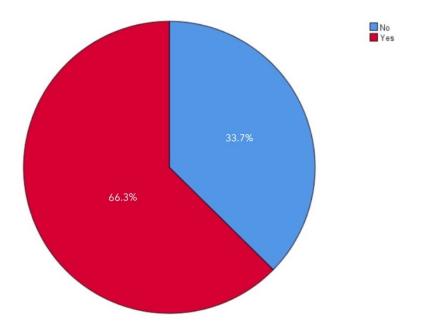
**Figure 5 :** This bar chart represents the frequency distribution of awareness of lavender oil being good for skin. 78% of them believed that lavender oil is good for skin (red) and 22% answered no (blue).



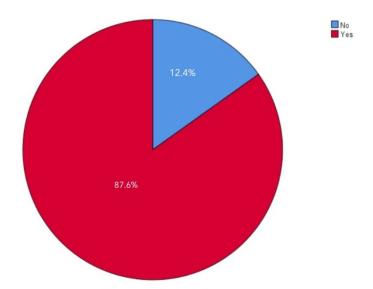
**Figure 6:** This bar chart represents the frequency distribution of awareness of the growth promoting property of lavender oil. 75% of the participants believed that lavender oil promotes hair growth (red) and 25% of them didn't agree with it (blue).



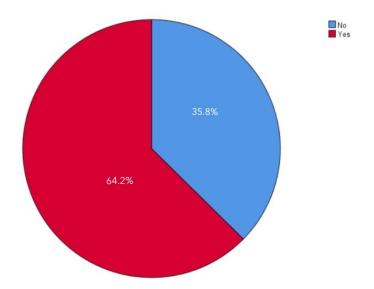
**Figure 7:** This pie chart represents the frequency distribution of awareness of hormonal changes caused by lavender oil. 76.5 % of the people said lavender oil causes hormonal changes (red) and 23.5% of the participants said it does not cause hormonal changes (blue).



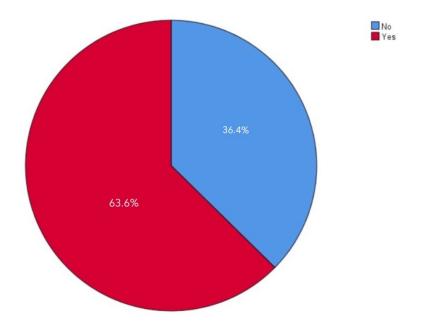
**Figure 8 :** This pie chart represents the frequency distribution of responses if over usage of lavender oil can cause cancer. 66.3% of the participants said it can cause cancer (red) and 33.7% of the participants said it does not cause cancer (blue).



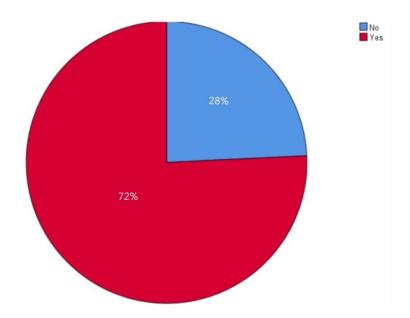
**Figure 9 :** This pie chart represents the frequency distribution of the awareness of relaxation of the muscles caused by lavender oil. 87.6% of the participants feel that lavender oil can bring relaxation to our muscles (red) and 12.4% of them feel it does not bring relaxation to our muscles (blue).



**Figure 10:** This pie chart represents the frequency distribution of responses if too much lavender oil can be harmful. 64.2% of the participants feel that too much lavender oil can be harmful (red) and 35.8% of the participants feel too much lavender oil is not harmful (blue).



**Figure 11:** This pie chart represents the frequency distribution of awareness of lavender oil being good for the heart. The X axis represents the responses, Y axis represents the percentage of responses. 63.6% of the participants feel that lavender oil is good for the heart (red) and 36.4% of the participants didn't agree with it (blue).



**Figure 12:** This pie chart represents the frequency distribution of awareness of lavender oil being good for wrinkles. 72% of the participants feel that lavender oil is good for wrinkles (red) and 28% of the participants did not agree with it (blue).

## List of graphs:

- Figure 1 : Gender.
- Figure 2 : Participants age groups.
- Figure 3 : Awareness of lavender oil.
- Figure 4: Awareness of the sleep inducing property of lavender oil
- Figure 5: Awareness of lavender oil being good for skin
- Figure 6: Awareness of growth promoting property of lavender oil
- Figure 7: Awareness of hormonal changes caused by lavender oil
- Figure 8 : Can over usage of lavender oil cause cancer?
- Figure 9: Awareness of relaxation of muscles caused by lavender oil
- Figure 10: Can too much lavender oil be harmful?
- Figure 11: Awareness of lavender oil being good for heart
- Figure 12: Awareness of lavender oil being good for wrinkles