



## **Knowledge, Attitude and Awareness towards Benefits of Lavender Oil**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Author GP designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors RGD and AJP managed the analyses of the study. Author AJP managed the literature searches. All authors read and approved the final manuscript.*

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### **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.*

## 1. 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 linalyl 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.

## 2. MATERIALS AND METHODS

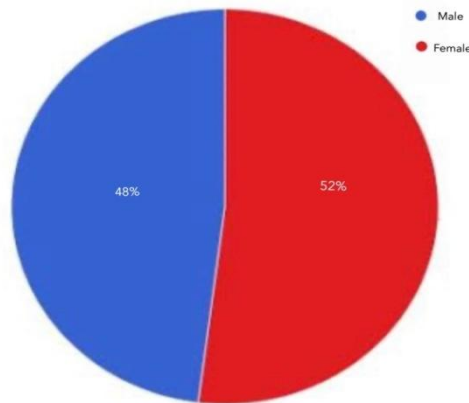
This is a cross - sectional survey based study conducted through an online survey. The present study was conducted among the general population in a India, Tamilnadu. The usage of online surveys is time saving and also involves a varied number of people. There were a hundred participants involved in 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.

## 3. RESULTS AND DISCUSSION

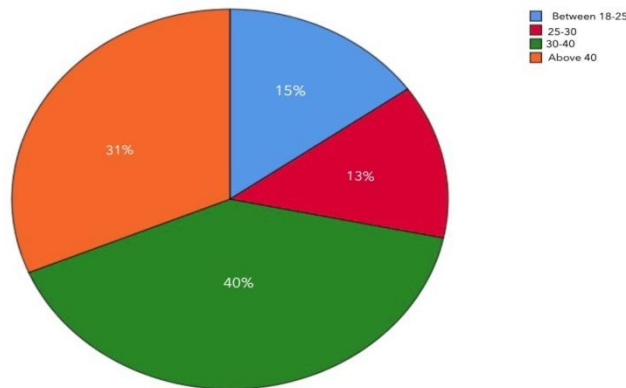
Survey on knowledge and awareness on the benefits of lavender oil was conducted and through this survey, it showed that almost 70% of the people were aware of the benefits of lavender oil. Previously, no such surveys were conducted based on the awareness of people but many clinical trials were conducted. In the present study, 48% of them were male and 52% of them were female (Fig. 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 (Fig. 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 (Fig. 3). 73.7% of the people felt that lavender oil helps in inducing sleep and

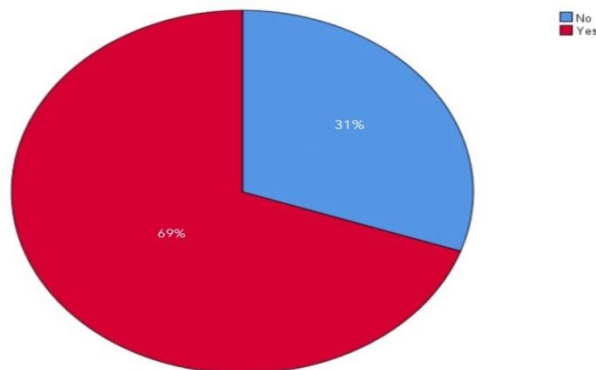
26.3% of the participants felt it does not help in inducing sleep (Fig. 4). 78% of them believed that lavender oil is good for skin (Fig. 5).



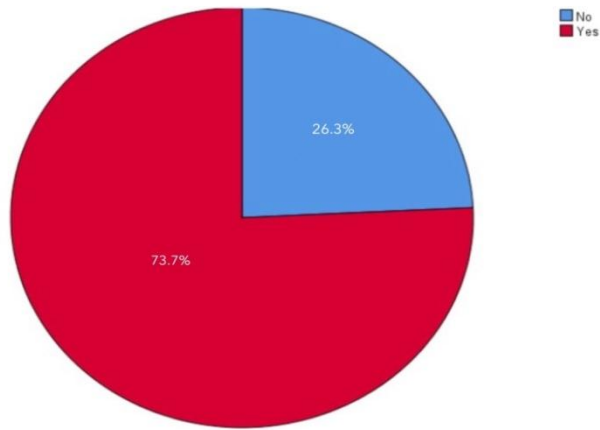
**Fig. 1.** This pie chart represents the frequency distribution of the gender of the participants Where 48% of them were male (blue) and 52% of them were female (red)



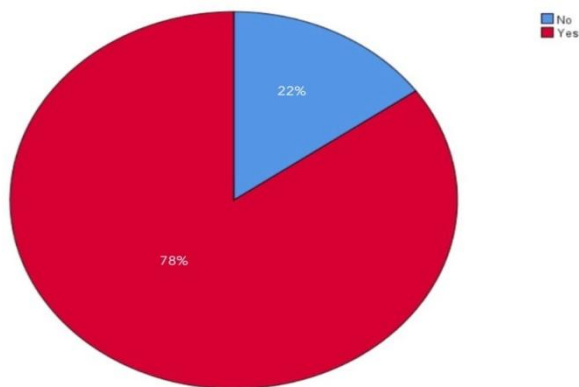
**Fig. 2.** This pie chart represents the frequency distribution of the age of participants where 15% of the participants were between 18-25 years of age (blue), 13% of the participants were between 25-30 years of age (red), 40% of the participants were between 30-40 years of age (green) and 31% of the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



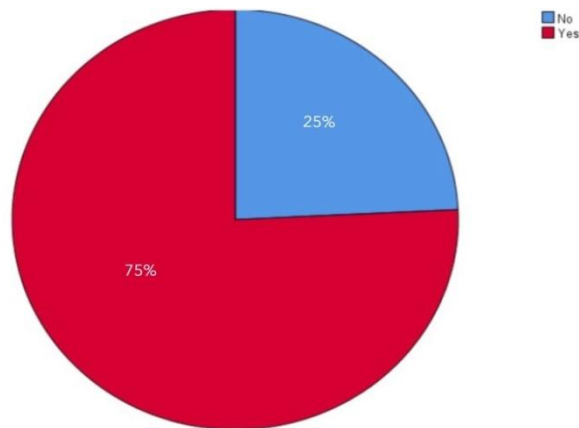
**Fig. 3.** This pie chart represents the frequency distribution of the awareness of lavender oil 69% of the people were aware that lavender oil helps in reducing anxiety (red) and 31% of the participants were not aware of it (blue)



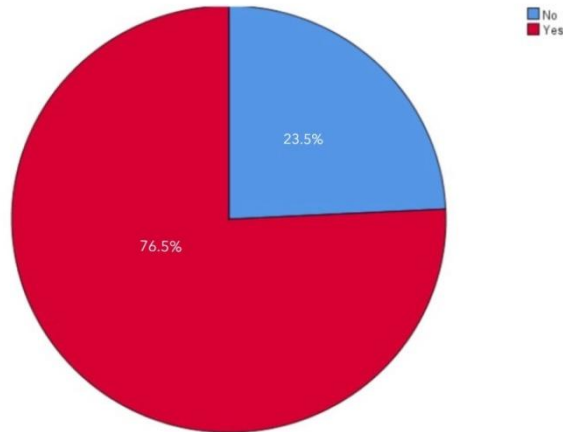
**Fig. 4. This bar chart represents the frequency distribution of awareness of the sleep inducing property of lavender oil**  
73.7% of the people feel that lavender oil helps in inducing sleep (red) and 26.3% of the participants felt it does not help in inducing sleep (blue)



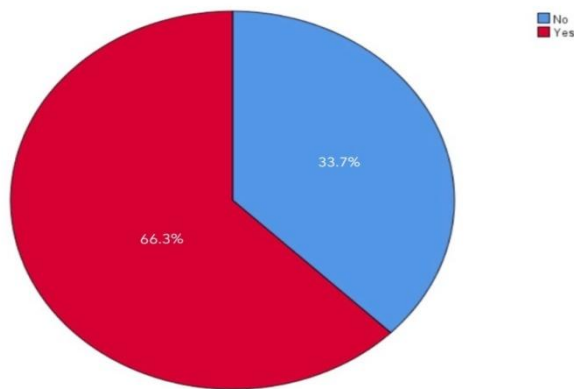
**Fig. 5. This bar chart represents the frequency distribution of awareness of lavender oil being good for skin**  
78% of them believed that lavender oil is good for skin (red) and 22% answered no (blue)



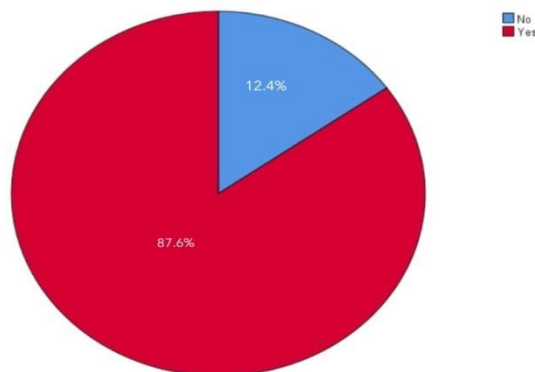
**Fig. 6. This bar chart represents the frequency distribution of awareness of the growth promoting property of lavender oil**  
75% of the participants believed that lavender oil promotes hair growth (red) and 25% of them didn't agree with it (blue)



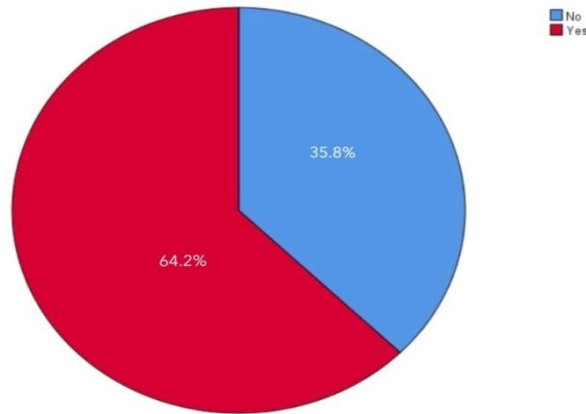
**Fig. 7. This pie chart represents the frequency distribution of awareness of hormonal changes caused by lavender oil**  
76.5 % of the people said lavender oil causes hormonal changes (red) and 23.5% of the participants said it does not cause hormonal changes (blue)



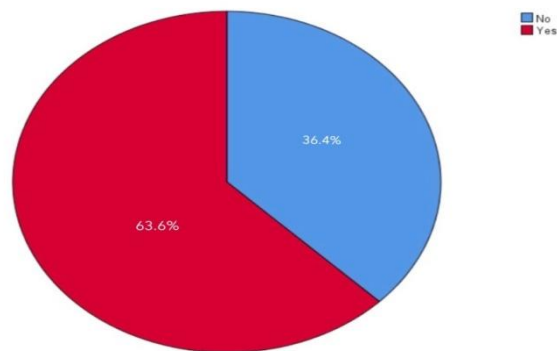
**Fig. 8. This pie chart represents the frequency distribution of responses if over usage of lavender oil can cause cancer.**  
66.3% of the participants said it can cause cancer (red) and 33.7% of the participants said it does not cause cancer (blue)



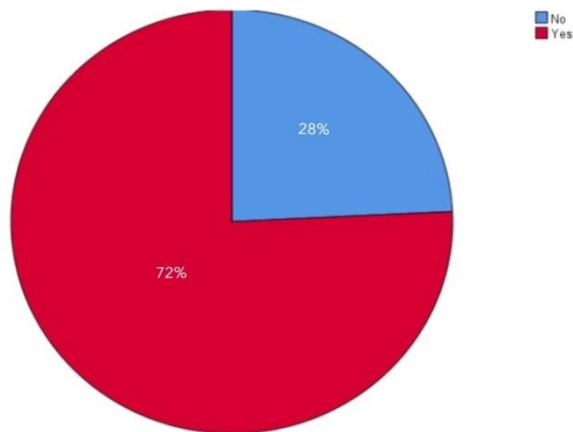
**Fig. 9. This pie chart represents the frequency distribution of the awareness of relaxation of the muscles caused by lavender oil**  
87.6% of the participants feel that lavender oil can bring relaxation to our muscles (red) and 12.4% of them feel it does not bring relaxation to our muscles (blue)



**Fig. 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)



**Fig. 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)



**Fig. 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)

Out of 100 participants, 75% of the participants believed that lavender oil promotes hair growth and 25% of them didn't agree with it (Fig. 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 (Fig. 7). 66.3% of the participants said it can cause cancer and 33.7% of the participants said it does not cause cancer (Fig. 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 (Fig. 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 (Fig. 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 (Fig. 11). 72% of the participants feel that lavender oil is good for wrinkles and 28% of the participants did not agree with it (Fig. 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.

#### 4. 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.

#### CONSENT AND ETHICAL APPROVAL

As per university standard guideline, participant consent and ethical approval have been collected and preserved by the authors

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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