



Awareness of Aromatherapy in Healing Stress and Body Pain among Dental Students

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Authors' contributions

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

Article Information

DOI: 10.9734/JPRI/2020/v32i2030730

Editor(s):

- (1) Dr. Arun Singh, Rohilkhand Medical College and Hospital, India.
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Complete Peer review History: <http://www.sdiarticle4.com/review-history/59705>

Original Research Article

Received 10 June 2020
Accepted 15 August 2020
Published 27 August 2020

ABSTRACT

Aromatherapy is a style of practice in medicine where essential oils or other scents are used. These are either applied or directly inhaled to attain therapeutic benefit. Also they are used either by distillation with water or steam, or from the epicarp of citrus fruits by a mechanical process or by dry distillation. The mechanism of action in aromatherapy is unknown, but recent studies have shown that aromatherapy is also beneficial for a few health problems. A range of essential oils are found to possess various degrees of antimicrobial activity and are believed to own antiviral, nematocidal, antifungal, insecticidal, and antioxidant properties. Hence this treatment is also known as essential oil therapy. At the current situation of COVID -19 there is a prevalence of stress due to lockdown. This mental stress can adversely affect the physical and mental well-being of each and every individual. In order to overcome this stress this aroma therapy can be used. The main aim of the study is to assess the awareness of the use of aromatherapy in healing stress and body pain.

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This was a cross sectional study conducted among the dental students through a questionnaire. The questionnaire consisted of 10 questions and was circulated among the student population. The statistical analysis was done with the help of SPSS software version 2.0. The results concludes that most of the participants are aware of aromatherapy and the found it beneficial in healing stress and body pain.

Keywords: Aromatherapy; distillation; questionnaire; therapeutic benefit.

1. INTRODUCTION

Aromatherapy also known as essential oil therapy is a holistic healing treatment that uses natural plant extracts to promote health and well-being. This treatment involves the use of aromatic essential oils medicinally to improve the health of the body, mind, and spirit as it enhances both physical and emotional health. Aromatherapy is most commonly applied topically, or by making the person inhalant. More than 40 plant derivatives have been identified for therapeutic use, lavender, eucalyptus, rosemary, chamomile, and peppermint are the most frequently utilized extracts. Nowadays, use of other and complementary therapies with mainstream medicine has gained the momentum. Aromatherapy is one among the complementary therapies which use essential oils because the major therapeutic agents to treat several diseases. The essential or volatile oils are extracted from the flowers, barks, stem, leaves, roots, fruits and other parts of the plant by various methods. It came into existence after the scientists deciphered the antiseptic and skin permeability properties of essential oils [1]. Inhalation, local application and baths are the main methods utilized in aromatherapy that utilize these oils to penetrate the human skin surface with marked aura. Once the oils are within the system, they remodulate themselves and add a friendly manner at the location of malfunction or at the affected area. This sort of therapy utilizes various permutations and combinations to induce relief from numerous ailments like depression, indigestion, headache, insomnia, muscular pain, respiratory problems, skin ailments, swollen joints, urine associated complications etc. [2]. The essential oils are found to be more beneficial when other aspects of life and diet are given due consideration. Aromatherapy is obtained from the natural source so it is considered that Aromatherapy was not harmful to the human population. Aromatherapy is used in various forms for medicinal uses. The medical field has done research on the medicinal value. They are also other uses of Aromatherapy like fighting

infection. This most important factor is that blood pressure can be lowered because of Aromatherapy. This important factor is because of the presence of the antioxidant compound that can be linked to lower blood pressure [3]. These studies have also been proved, for the human that has been reducing blood pressure by using Aromatherapy. Aromatherapy applications include massage, topical applications, and inhalation. However, users should remember that "natural" products also are chemicals, and that they will be hazardous if utilized in the incorrect way [3,4]. It's important to follow the recommendation of a trained professional when using essential oils. The present pandemic condition, COVID-19 has left a great impact both physically and mentally. The prolonged lockdown condition creates a stress among the minds of the people. Previously our team had conducted numerous clinical trials [5–11] and lab animal studies [12–16] and in vitro studies [17–19] and reviews on upcoming topics. The idea for this survey stemmed from the current interest in our community. Hence the main aim of the survey is to create an awareness on the healing aromatherapy in reducing stress caused due to lockdown and also its therapeutic use in reducing body pain [1].

2. MATERIALS AND METHODS

This was a cross sectional study conducted among the common people through a questionnaire. The questionnaire consisted of 10 questions and was circulated among the first year students of saveetha dental college. The sample size of the study was 100 and the results were tabulated accordingly. The survey was conducted via google forms. Chi square analysis was done with the help of SPSS software version 20. The obtained results are tabulated and represented in the form of pie charts and bar graphs.

3. RESULTS AND DISCUSSION

Pie chart 1 representing the awareness of aromatherapy among participants. 81.82% were

aware about aroma therapy and 18.18% were not aware about it. In Pie chart 2 70.71% responded that they had previously gone for aromatherapy and 29.29% have not gone for aromatherapy. Similarly in Pie chart 3. 62.63% of the participants agree that aromatherapy can heal body pain and 37.37% of the participants do not agree that aromatherapy can heal body pain. From the pie chart it is evident that most of them agree that aromatherapy can heal body pain. Pie chart 4 represents the number of participants who agree on the fact that aromatherapy can relieve stress and headache. 74.75% of the participants agree that aromatherapy can release stress and headache and 25.26% of the participants do not agree that aromatherapy can release stress and headache. Pie chart 5 representing the knowledge of participants regarding the side effects of using aroma. 78.79% agree that direct use of intense aroma oils can cause side effects and 21.21% do not agree that direct use of intense aroma oils can cause side effects. In Pie chart 6 54.55% of the participants prefer to go for aromatherapy and 45.45% of the participants do not prefer to go for aromatherapy.

In the present study, 74.75% of the participants agree that aromatherapy can relieve stress and headache and 25.26% of the participants do not agree that aromatherapy can relieve stress and headache. According to the study in 2014 by American College Health Association National College Health Assessment II, 57.1% report a more than average level of stress , 30% of freshman females at the University of Montana report an average level of stress and 12.9%

report a tremendous level of stress in the last 12 months. In addition, 31.4% of UM freshman females reported that they earn lower grade in exam or project due to stress [20]. In previous studies that were conducted, it was found that 56% of the participants responded that aromatherapy gave quicker response and 44% of them through antidepressant pills [21]. According to studies conducted, it was found that there is an increased trend nowadays to use this therapy in the treatment of sleep disorder and cancer [22,23]. The essential oils have gained their importance in cosmetic, therapeutic, fragrant, aromatic and spiritual uses [24]. In the present study, it was found that 81.82% were aware about aroma therapy and 18.18% were not aware about aroma therapy. In the previous studies conducted, it was found that only 7.1% of medical students and 15.1% of nursing students reported having enough knowledge about aromatherapy, while 88.9% of medical students and 96.3% of nursing students considered it useful or were undecided [1]. In present study it was found that 62.63% agreed that aromatherapy is useful in healing body pain and 37.37% agreed that aromatherapy is not useful in healing body pain. In a study conducted in Swiss, it was estimated that 10.7% of patients with chronic low back pain used aromatherapy and rated it a 4.2 /10 for its usefulness [25]. In the present study 70.71% have previously gone for aromatherapy and 29.29% have not gone for aromatherapy. In a study conducted in the United States, it was estimated that 62% of adults have previously used some form of complementary or alternative therapy in the last 12 months [26].

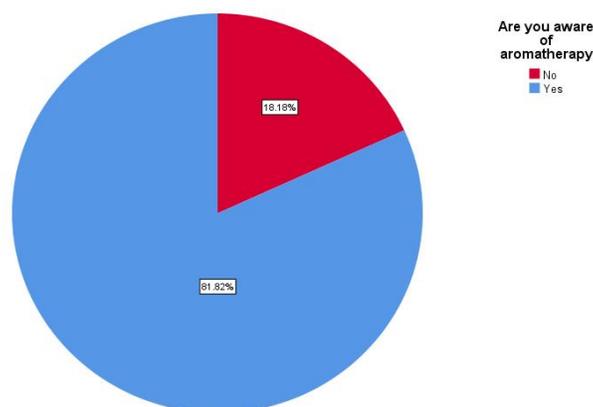


Fig. 1. Pie chart representing the awareness of aromatherapy among participants. 81.82% were aware about aroma therapy and 18.18% were not aware about aroma therapy. Majority of the participants are aware about aroma therapy. Blue denotes yes and red denotes no

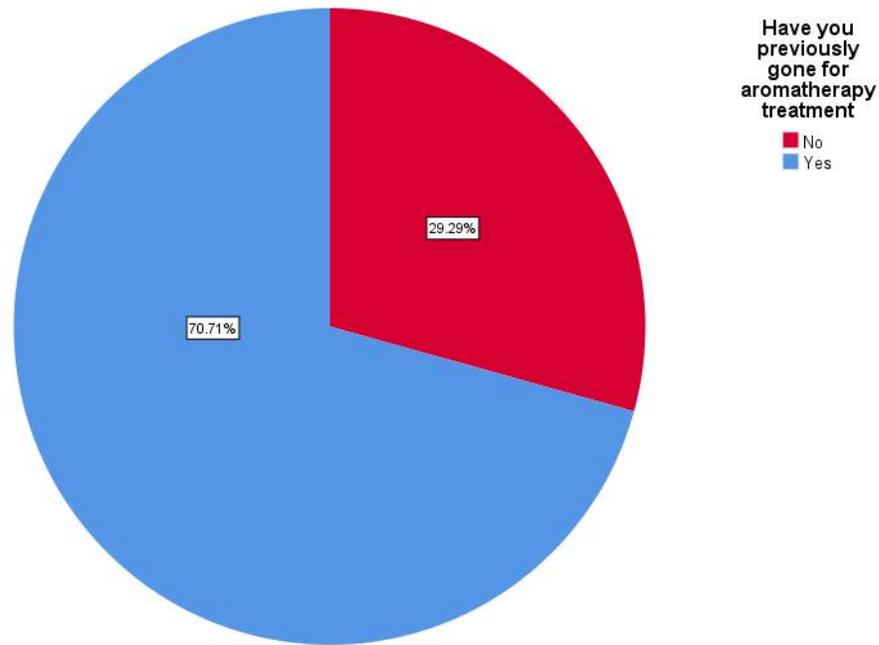


Fig. 2. Pie chart representing the number of participants who have gone for aromatherapy treatment. 70.71% have previously gone for aromatherapy and 29.29% have not gone for aromatherapy. Majority of the participants have gone for aromatherapy treatment. Blue denotes yes and red denotes no

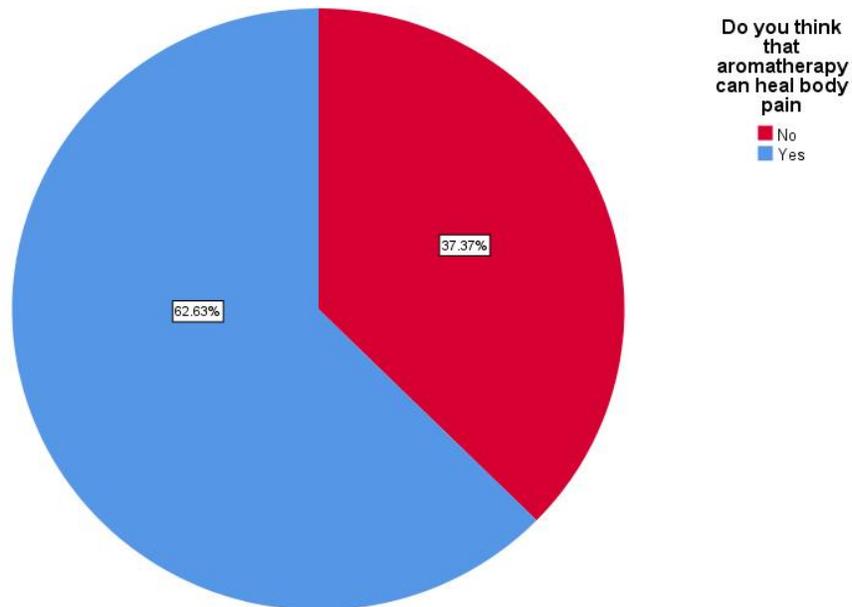


Fig. 3. Pie chart representing the awareness of the participants about the use of aromatherapy. 62.63% of the participants agree that aromatherapy can heal body pain and 37.37% of the participants do not agree that aromatherapy can heal body pain. Majority of the of the participants agree that aromatherapy can heal body pain. Blue denotes yes and red denotes no

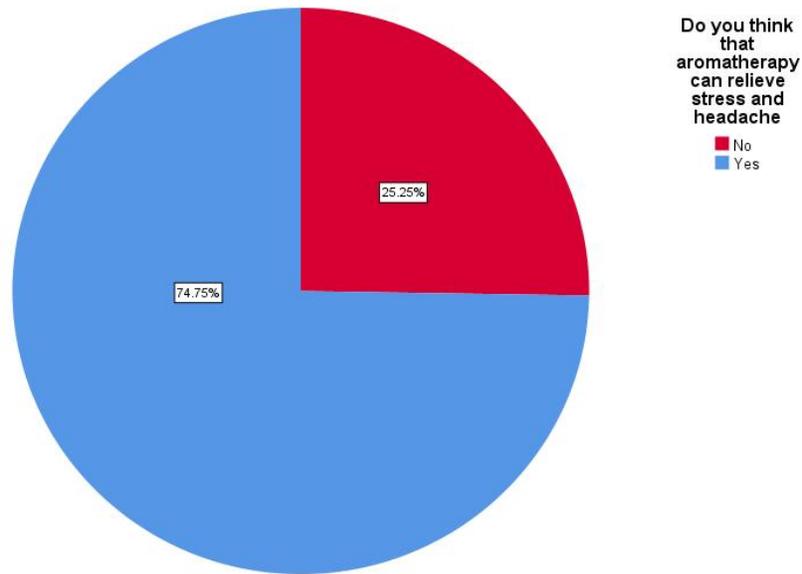


Fig. 4. Pie chart representing the number of participants who agree on the fact that aromatherapy can relieve stress and headache. 74.75% of the participants agree that aromatherapy can release stress and headache and 25.26% of the participants do not agree that aromatherapy can release stress and headache. Majority of the participants agree that aromatherapy can be used to relieve stress and headaches. Blue denotes yes and red denotes no

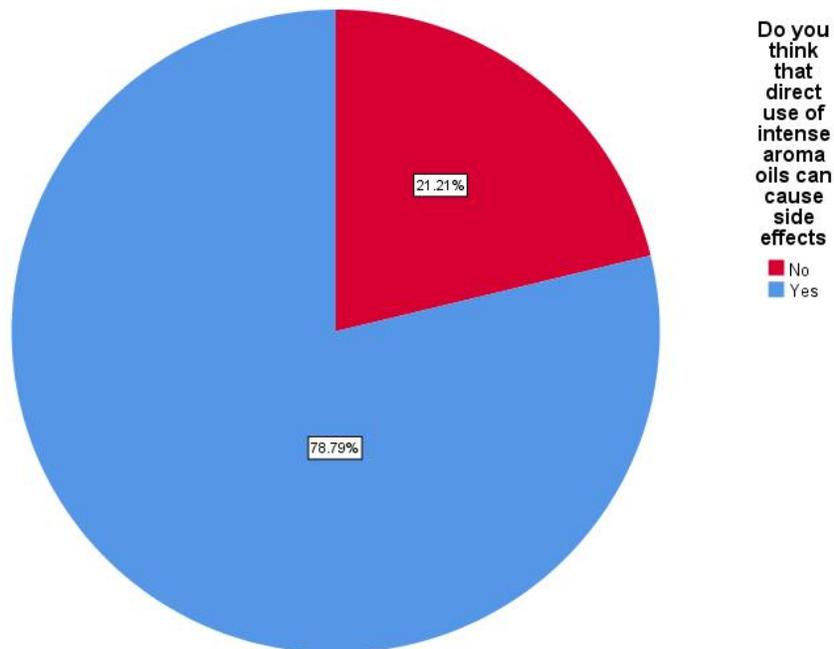


Fig. 5. Pie chart representing the knowledge of participants regarding the side effects of using aroma. 78.79% agree that direct use of intense aroma oils can cause side effects and 21.21% do not agree that direct use of intense aroma oils can cause side effects. Majority of the participants agree that direct use of intense aroma oils can cause side effects. Blue denotes yes and red denotes no

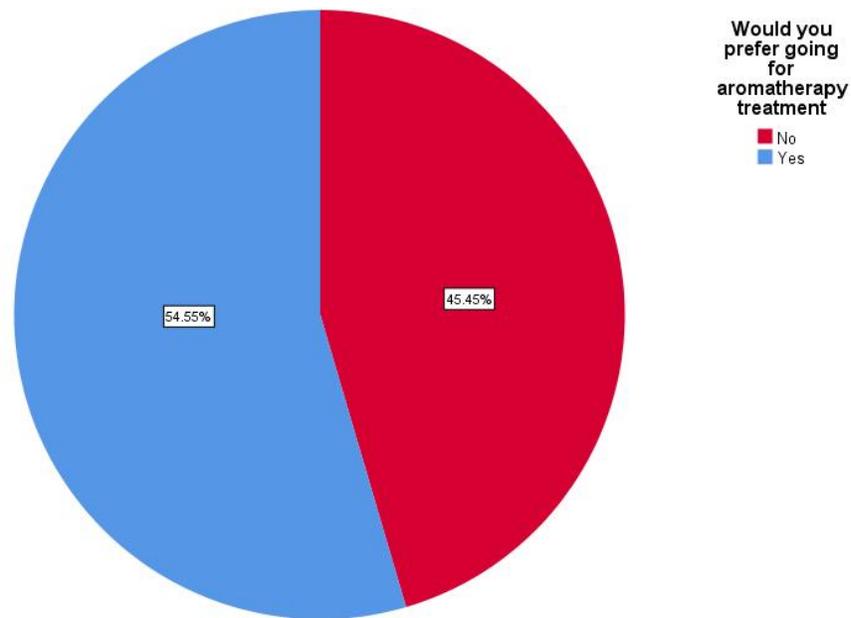


Fig. 6. Pie chart representing the number of participants who prefer to go for aromatherapy. 54.55% of the participants prefer to go for aromatherapy and 45.45% of the participants do not prefer to go for aromatherapy. Majority of the participants prefer to go for aromatherapy. Blue denotes yes and red denotes no

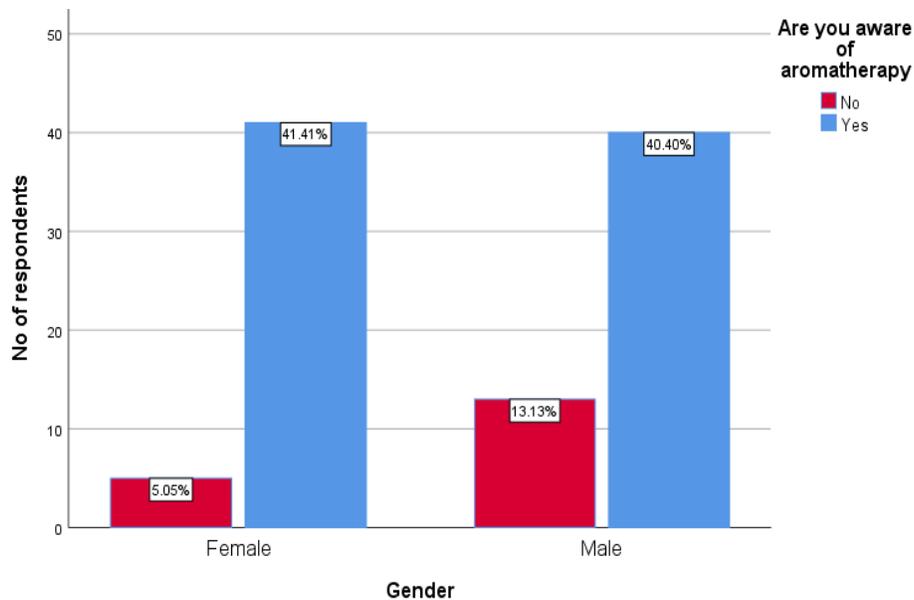


Fig. 7. Bar graph represents the association between gender and awareness of aromatherapy among participants. X axis represents gender and Y axis represents the number of participants. Majority of females (41.41%) are aware about aroma therapy. Blue denotes yes and red denotes no. Chi Square test was done and association was statistically significant. However, the difference is statistically significant (pearson chi square value 103.120, p=0 (>0.05), hence statistically significant

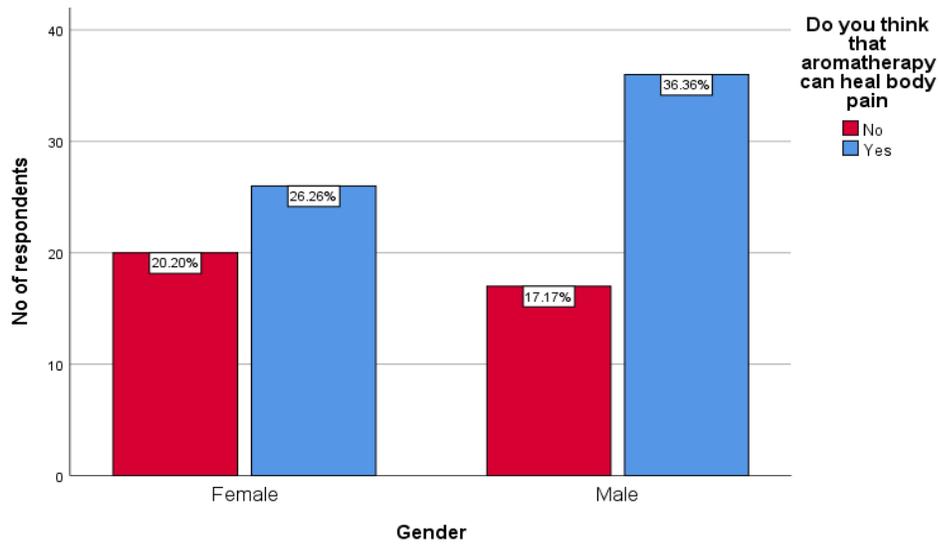


Fig. 8. Bar graph represents the association between gender and awareness of participants about the use of aromatherapy. X axis represents gender and Y axis represents the number of participants. Majority of males (36.36%) agree that aromatherapy can heal body pain. Blue denotes yes and red denotes no. Chi Square test was done and association was statistically insignificant. However, the difference is statistically significant (pearson chi square value 101.382, $p=0$) (>0.05), hence statistically significant

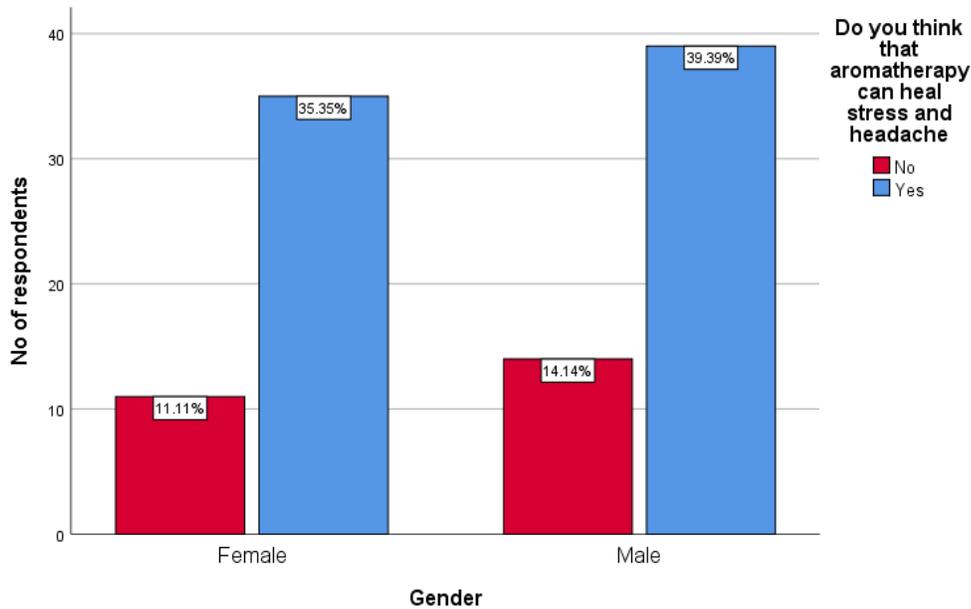


Fig. 9. Bar graph represents the association between gender and participants who agree on the fact that aromatherapy can relieve stress and headache. X axis represents gender and Y axis represents the number of participants. Majority of the males (39.39%) agree that aromatherapy can heal stress and headache. Blue denotes yes and red denotes no. Chi Square test was done and association was statistically insignificant. However, the difference is statistically significant (Pearson chi square value 100.083, $p=0$) (>0.05), hence statistically significant

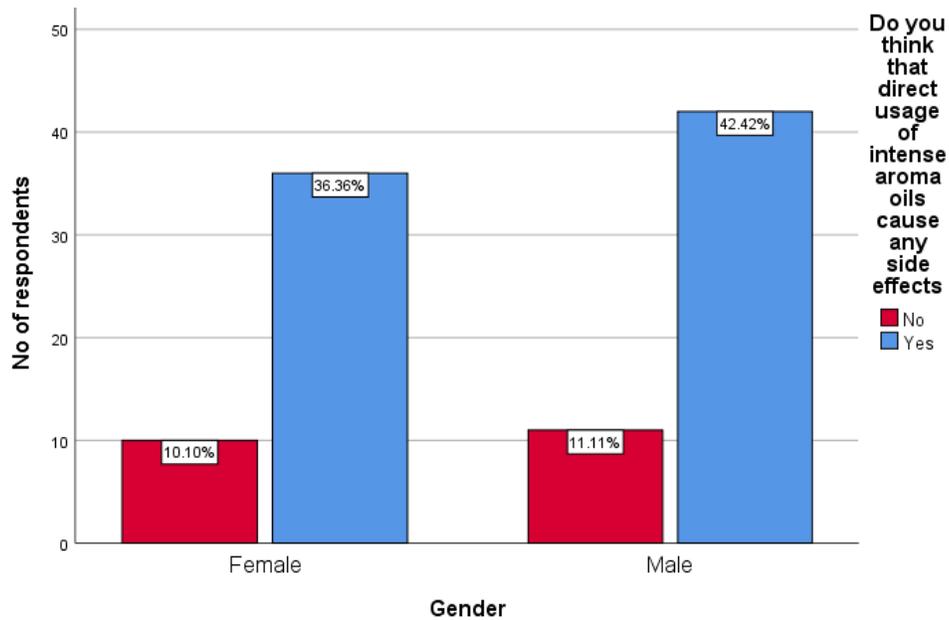


Fig. 10. Bar graph represents the association between gender and knowledge of participants regarding the side effects of using aroma. X axis represents gender and Y axis represents the number of participants. Majority of the males (42.42%) responded that direct usage of intense aroma oils can cause side effects. Blue denotes yes and red denotes no. Chi Square test was done and association was statistically significant. However, the difference is statistically significant (Pearson chi square value 100.014, $p=0$) (>0.05), hence statistically significant

4. CONCLUSION

The present study concludes that many of the participants were aware of this practice of aromatherapy. Hence, the use of aromatherapy should be practiced and it should be used effectively to overcome both physical and mental stress which is caused during this lockdown due to COVID 19 pandemic. Also this technique of aromatherapy must be known to all people who are suffering from mental stress as it can be substituted for other drugs and psychiatric therapies.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the authors.

ACKNOWLEDGEMENT

I sincerely thank Saveetha Dental College for their constant support to carry out this study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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