Aromatherapy Studies For Stress, Anxiety and Depression

Anxiety and Stress

Nephrourol Mon. 2016 Jul 31;8(5):e38347. eCollection 2016.

The Effect of Aromatherapy on Anxiety in Patients.

Barati F[1], Nasiri A[2], Akbari N[3], Sharifzadeh G[4].

Abstract

BACKGROUND:

Anxiety is the most common mental disorder in end-stage renal disease patients. The use of aromatherapy as a treatment for anxiety has increased substantially in most countries.

OBJECTIVES:

This study aimed to investigate the effect of inhaling rose water aromatherapy on anxiety in hemodialysis patients.

METHODS:

This randomized controlled clinical trial was carried out in the hemodialysis ward of Birjand Vali-Asr hospital on 46 patients who were randomly divided into control and experimental groups. The standard state-trait anxiety inventory of Spielberger was used to investigate the anxiety level of the samples. The experimental group inhaled rose water for 4 weeks, but the control group did not undergo any intervention. At the end of week 2 and week 4, the participants' anxiety was measured, and the results were statistically analyzed.

RESULTS:

Mean scores of state and trait anxiety in the experimental group before intervention were 47/47 ± 7/6 and 49/56 ± 13/8, respectively; those after week 4 following the intervention were reduced to 37/1 ± 6/5 and 42/9 ± 10/1; inhalation of rose water fragrance in the experimental group caused a significant decrease ($P < 0.001$) in the state and trait anxiety levels compared with controls ($P = 0.43$).

CONCLUSIONS:

According to the present study, rose water noticeably reduces the anxiety of hemodialysis patients. Therefore, inhalation of rose water can improve the patient's emotional and spiritual condition during hemodialysis treatment.

Iran J Med Sci. 2016 May;41(3 Suppl):S13.

The Effect of Inhalation of Essential Oils of Polianthes Tuberosa on Test Anxiety in Students: A Clinical Trial.

Ghorat F[1], Shahrestani S[1], Tagabadi Z[1], Bazghandi M[2].

Abstract

BACKGROUND:

Based on Iranian traditional medicine, the root cause of anxiety is due to the heart and brain diseases. The use of aromatic substances is one of the basic treatments for the heart and brain diseases in Iranian traditional medicine. Concerning the prevalence of test anxiety among students, this study was conducted to determine the effect of inhalation of essential oils of Polianthes tuberosa on test anxiety among students of Farzanegan high school in Sabzevar during 2015.

METHODS:

This was a randomized clinical trial, in which 54 students with eligibility criteria were randomly divided into the intervention and control groups. In the pre-test stage, demographic data and Sarason anxiety questionnaires were filled by all students (7th grade). Then, in the intervention stage, students of the intervention group inhaled Tuberose oil using handkerchiefs smeared with Tuberose oil for 15-20 minutes during the exam. The control group received placebo with the same method. At the end of the exam, test anxiety questionnaire was filled by the two groups again. The collected data were analyzed by the statistical tests (i.e. $\chi 2$, paired t-test and independent sample t-test) using SPSS 18.

RESULTS:

Independent t-test showed a significant difference in the mean scores of test anxiety after intervention between the two groups of study and control ($P<0.05$), but this difference was not significant before the intervention ($P=0.58$). Additionally, in the study group, there was a significant difference in the mean scores of test anxiety before and after intervention ($P<0.05$), but this difference was not significant in the control group ($P=0.073$).

CONCLUSION:

The result showed that aromatherapy with essential oil of Polianthes tuberosa was effective in reducing test anxiety among students. It is recommended to conduct educational programs concerning this method in schools to decrease the test anxiety of students.

Complement Ther Med. 2015 Jun;23(3):331-8. doi: 10.1016/j.ctim.2014.12.001. Epub 2014 Dec 11.

Effect of inhalation aromatherapy with lavender essential oil on stress and vital signs in patients undergoing coronary artery bypass surgery: A single-blinded randomized clinical trial.

Bikmoradi A[1], Seifi Z[2], Poorolajal J[3], Araghchian M[4], Safiaryan R[5], Oshvandi K[6].

Abstract

OBJECTIVES:

At present, aromatherapy is used widely in medical research. This study aimed to investigate the effects of inhalation aromatherapy using lavender essential oil to reduce mental stress and improve the vital signs of patients after coronary artery bypass surgery (CABG).

DESIGN:

A single-blinded randomized controlled trial was conducted with 60 patients who had undergone CABG in a 2-day intervention that targeted stress reduction.

PARTICIPANTS:

Sixty subjects following coronary artery bypass surgery in two aromatherapy and control groups.

SETTING:

The study was conducted in Ekbatan Therapeutic and Educational Center, Hamadan, Iran, in 2013.

INTERVENTIONS:

On the second and third days after surgery, the aromatherapy group patients received two drops of 2% lavender essential oil for 20min and the control group received two drops of distilled water as a placebo.

MAIN OUTCOME MEASURES:

The primary outcome was mental stress, which was measured before and after the intervention using the DASS-21 questionnaire. The secondary outcomes were vital signs, including the heart rate, respiratory rate, and systolic and diastolic blood pressure, which were measured before and after the intervention.

RESULTS:

The individual characteristics of the aromatherapy and control groups were the same. There were no significant difference in the mean mental stress scores and vital signs of the aromatherapy and control groups on the second or third days after surgery.

CONCLUSION:

Inhalation aromatherapy with lavender essential oil had no significant effects on mental stress and vital signs in patients following CABG, except the systolic blood pressure.

J Altern Complement Med. 2011 Sep;17(9):823-6. doi: 10.1089/acm.2010.0644. Epub 2011 Aug 19.

The effect of lavender oil on stress, bispectral index values, and needle insertion pain in volunteers.

Kim S[1], Kim HJ, Yeo JS, Hong SJ, Lee JM, Jeon Y.

Author information

OBJECTIVES:

The purpose of this study was to investigate whether lavender oil aromatherapy can reduce the bispectral index (BIS) values and stress and decrease the pain of needle insertion in 30 volunteers.

SUBJECTS AND METHODS:

Thirty (30) healthy volunteers were randomly allocated to 2 groups: the experimental group received oxygen with a face mask coated with lavender oil for 5 minutes, and the control group received oxygen through a face mask with no lavender oil for 5 minutes. The stress level (0=no stress, 10=maximum stress), BIS value, and pain intensity of needle insertion (0=no pain, 10=worst pain imaginable) were measured.

RESULTS:

There were no significant differences in age, sex, height, and weight between the two groups. Stress level, BIS value, and pain intensity of needle insertion before aromatherapy were similar between the two groups. However, the stress values ($p<0.001$) and BIS value ($p<0.001$) after aromatherapy were significantly reduced compared with the control. In addition, the pain intensity of needle insertion was significantly decreased after aromatherapy compared with the control ($p<0.001$).

CONCLUSIONS:

Lavender aromatherapy in volunteers provided a significant decrease in the stress levels and in the BIS values. In addition, it significantly reduced the pain intensity of needle insertion.

Nat Prod Commun. 2009 Sep;4(9):1305-16.

Essential oils and anxiolytic aromatherapy.

Setzer WN[1].

Author information

A number of essential oils are currently in use as aromatherapy agents to relieve anxiety, stress, and depression. Popular anxiolytic oils include lavender (Lavandula angustifolia), rose (Rosa damascena), orange (Citrus sinensis), bergamot (Citrus aurantium), lemon (Citrus limon), sandalwood (Santalum album), clary sage (Salvia sclarea), Roman chamomile (Anthemis nobilis), and rose-scented geranium (Pelargonium spp.). This review discusses the chemical constituents and CNS effects of

these aromatherapeutic essential oils, as well as recent studies on additional essential oils with anxiolytic activities.

Community Dent Oral Epidemiol. 2010 Feb;38(1):83-7. doi: 10.1111/j.1600-0528.2009.00511.x. Epub 2009 Nov 23.

The effects of lavender scent on dental patient anxiety levels: a cluster randomised-controlled trial.

Kritsidima M[1], Newton T, Asimakopoulou K.

Abstract

OBJECTIVES:

To review the effect of lavender scent on anticipatory anxiety in dental participants.

METHODS:

In a cluster randomized-controlled trial, patients' (N = 340) anxiety was assessed while waiting for a scheduled dental appointment, either under the odor of lavender or with no odor. Current anxiety, assessed by the brief State Trait Anxiety Indicator (STAI-6), and generalized dental anxiety, assessed by the Modified Dental Anxiety Scale (MDAS) were examined.

RESULTS:

Analyses of variance (anovas) showed that although both groups showed similar, moderate levels of generalized dental anxiety (MDAS $F((1,338)) = 2.17$, $P > 0.05$) the lavender group reported significantly lower current anxiety (STAI: $F((1,338)) = 74.69$, $P < 0.001$) than the control group.

CONCLUSIONS:

Although anxiety about future dental visits seems to be unaffected, lavender scent reduces state anxiety in dental patients.

Iran J Nurs Midwifery Res. 2016 Jul-Aug;21(4):397-401. doi: 10.4103/1735-9066.185582.

Effect of lavender essence inhalation on the level of anxiety and blood cortisol in candidates for open-heart surgery.

Hosseini S[1], Heydari A[1], Vakili M[2], Moghadam S[3], Tazyky S

Abstract

BACKGROUND:

Surgery, as a treatment, is a stressful experience. The anxiety is more severe in open-heart surgery patients due to its risk and complications. The present study aimed to determine the effect of lavender essence on the levels of anxiety and blood cortisol in candidates for open-heart surgery.

MATERIALS AND METHODS:

This was a single-blind clinical trial, a random allocation study with a control group conducted on 90 candidates for open-heart surgery in two groups of study and control. The study and control groups inhaled two drops of lavender and distilled water for 20 min, respectively. Spielberger questionnaire was filled by the patients. A 2 ml blood sample was taken to measure the cortisol level and patients' vital signs were recorded before and after intervention. Data were analyzed by chi-square in the form of mean, SD, and frequency distribution, independent t-test, paired t-test, and analysis of covariance (ANCOVA), with a significance level of P = 0.05 to modify the pre-test scores.

RESULTS:

Results showed a significant reduction in mean anxiety score from 56.73 (5.67) to 54.73 (5.42) after intervention in the study group, compared to the control group [1.11 (1.17)] (P < 0.001). There was also a higher difference in cortisol level in the study group compared to the control group [1.88 (0.56) vs. 0.42 (0.45)]. ANCOVA test showed that the 10.8% variance in anxiety score and 69.6% decrease in blood cortisol resulted from inhalation of lavender.

CONCLUSIONS:

Results showed the positive effect of lavender essence on anxiety and blood cortisol level among the patients. Aromatherapy with lavender is suggested to be considered as a nursing intervention in clinical settings.

Burns. 2016 Aug 26. pii: S0305-4179(16)30186-3. doi: 10.1016/j.burns.2016.06.014. [Epub ahead of print]

Comparing the effects of aromatherapy massage and inhalation aromatherapy on anxiety and pain in burn patients: A single-blind randomized clinical trial.

Seyyed-Rasooli A[1], Salehi F[2], Mohammadpoorasl A[3], Goljaryan S[4], Seyyedi Z[5], Thomson B[6].

Abstract

BACKGROUND:

Anxiety and pain are recognized as major problems of burn patients; because pharmaceutical treatments for controlling anxiety and pain symptoms lead to complications and an increase in health costs, nonpharmacological nursing interventions were considered for this group of patients. This led to the present study aimed at comparing the effect of aromatherapy massage with inhalation aromatherapy for anxiety and pain in burn patients.

METHODS:

This single-blind clinical trial was carried out on 90 patients with burns <20%. Patients were randomly assigned to one of three groups, namely aromatherapy massage, inhalation aromatherapy, and control group. The patients assigned to the aromatherapy

massage group received a massage for half an hour using a blend of lavender and almond oils, while a blend of rose and lavender aroma was used for the inhalation aromatherapy group. Spielberger State Anxiety Inventory was used for measuring anxiety and the visual analog scale (VAS) scale was used for measuring pain.

RESULTS:

The results showed that three groups were equal in terms of demographics, disease characteristics, and scores of anxiety and pain at the baseline. The mean decreases of anxiety scores were -0.04±5.08, 6.33±12.55, and 6.43±10.60 in the control group, aromatherapy massage group, and inhalation group, respectively (p=0.007). The mean decrease of pain scores were -0.10±0.96, 1.70±1.84, and 0.97±1.56 in the control group, aromatherapy massage group, and inhalation group, respectively (p<0.001).

CONCLUSION:

The study results showed the positive effect of aromatherapy massage and inhalation aromatherapy compared with the control group in reducing both anxiety and pain of burn patients. Therefore, both interventions, which are inexpensive, and noninvasive nursing tasks can be proposed for alleviating anxiety and pain of burn patients.

Complement Ther Clin Pract. 2016 May;23:64-8. doi: 10.1016/j.ctcp.2016.03.008. Epub 2016 Mar 25.

Evaluating the efficacy of lavender aromatherapy on peripheral venous cannulation pain and anxiety: A prospective, randomized study.

Karaman T[1], Karaman S[2], Dogru S[2], Tapar H[2], Sahin A[2], Suren M[2], Arici S[2], Kaya Z[2].

Abstract

OBJECTIVE:

This study was designed to evaluate the effectiveness of lavender aromatherapy on pain, anxiety, and level of satisfaction associated with the peripheral venous cannulation (PVC) in patients undergoing surgery.

METHOD:

One hundred and six patients undergoing surgery were randomized to receive aromatherapy with lavender essential oil (the lavender group) or a placebo (the control group) during PVC. The patients' pain, anxiety, and satisfaction scores were measured.

RESULTS:

There was no statistically significantly difference between the groups in terms of demographic data. After cannulation, the pain and anxiety scores (anxiety 2) of the patients in the lavender group were significantly lower than the control group (for $p = 0.01$ for pain scores; $p < 0.001$ for anxiety 2 scores). In addition, patient satisfaction was significantly higher in the lavender group than in the control group ($p = 0.003$).

CONCLUSION:

Lavender aromatherapy had beneficial effects on PVC pain, anxiety, and satisfaction level of patients undergoing surgery.

J Altern Complement Med. 2015 Dec;21(12):766-73. doi: 10.1089/acm.2015.0099. Epub 2015 Sep 14.

Effect of Lemongrass Aroma on Experimental Anxiety in Humans.

Goes TC[1], Ursulino FR[1], Almeida-Souza TH[1], Alves PB[2], Teixeira-Silva F[1].

Abstract

OBJECTIVES:

The objective of this study was to evaluate the potential anxiolytic effect of lemongrass (Cymbopogon citratus) aroma in healthy volunteers submitted to an anxiogenic situation.

DESIGN:

Forty male volunteers were allocated to four different groups for the inhalation of lemongrass essential oil (test aroma: three or six drops), tea tree essential oil (control aroma: three drops), or distilled water (nonaromatic control: three drops). Immediately after inhalation, each volunteer was submitted to an experimental model of anxiety, the video-monitored version of the Stroop Color-Word Test (SCWT).

OUTCOME MEASURES:

Psychologic parameters (state anxiety, subjective tension, tranquilization, and sedation) and physiologic parameters (heart rate and gastrocnemius electromyogram activity) were evaluated before the inhalation period and before, during, and after the SCWT.

RESULTS:

Individuals exposed to the test aroma (three and six drops), unlike the control groups, presented a reduction in state anxiety and subjective tension, immediately after treatment administration. In addition, although they presented an anxious response to the task, they completely recovered from it in 5 min, unlike the control groups. Physiologic alterations along the test were not prevented by any treatment, in the same way as has previously been observed for diazepam.

CONCLUSIONS:

Although more investigations are necessary to clarify the clinical relevance of lemongrass essential oil as an anxiety treatment, this work shows that very brief exposure to this aroma has some perceived anxiolytic effects.

J Altern Complement Med. 2012 Aug;18(8):798-804. doi: 10.1089/acm.2011.0551. Epub 2012 Jul 31.

Effect of sweet orange aroma on experimental anxiety in humans.

Goes TC[1], Antunes FD, Alves PB, Teixeira-Silva F.

Abstract

OBJECTIVES:
The objective of this study was to evaluate the potential anxiolytic effect of sweet orange (Citrus sinensis) aroma in healthy volunteers submitted to an anxiogenic situation.
DESIGN:
Forty (40) male volunteers were allocated to five different groups for the inhalation of sweet orange essential oil (test aroma: 2.5, 5, or 10 drops), tea tree essential oil (control aroma: 2.5 drops), or water (nonaromatic control: 2.5 drops). Immediately after inhalation, each volunteer was submitted to a model of anxiety, the video-monitored version of the Stroop Color-Word Test (SCWT).
OUTCOME MEASURES:
Psychologic parameters (state-anxiety, subjective tension, tranquilization, and sedation) and physiologic parameters (heart rate and gastrocnemius electromyogram) were evaluated before the inhalation period and before, during, and after the SCWT.
RESULTS:
Unlike the control groups, the individuals exposed to the test aroma (2.5 and 10 drops) presented a lack of significant alterations ($p>0.05$) in state-anxiety, subjective tension and tranquillity levels throughout the anxiogenic situation, revealing an anxiolytic activity of sweet orange essential oil. Physiologic alterations along the test were not prevented in any treatment group, as has previously been observed for diazepam.
CONCLUSIONS:
Although more studies are needed to find out the clinical relevance of aromatherapy for anxiety disorders, the present results indicate an acute anxiolytic activity of sweet orange aroma, giving some scientific support to its use as a tranquilizer by aromatherapists.

Phytomedicine. 2010 Jul;17(8-9):679-83. doi: 10.1016/j.phymed.2009.10.002. Epub 2009 Dec 3.

Effects of inhaled Linalool in anxiety, social interaction and aggressive behavior in mice.

Linck VM[1], da Silva AL, Figueiró M, Caramão EB, Moreno PR, Elisabetsky E.

Abstract
Aromatherapy uses essential oils (EOs) for several medical purposes, including relaxation. The association between the use of aromas and a decrease in anxiety could be a valuable instrument in managing anxiety in an ever increasing anxiogenic daily life style. Linalool is a monoterpene commonly found as the major volatile component of EOs in several aromatic plant species. Adding to previously reported sedative effects of inhaled linalool, the aim of this study was to investigate the effects of inhaled linalool on anxiety, aggressiveness and social interaction in mice. Additionally, we investigated the

effects of inhaled linalool on the acquisition phase of a step-down memory task in mice. Inhaled linalool showed anxiolytic properties in the light/dark test, increased social interaction and decreased aggressive behavior; impaired memory was only seen the higher dose of linalool. These results strengthen the suggestion that inhaling linalool rich essential oils can be useful as a mean to attain relaxation and counteract anxiety.

Rev Esc Enferm USP. 2015 Jun;49(3):453-9. doi: 10.1590/S0080-623420150000300013. Epub 2015 Jun 1.

[Massage with aromatherapy: effectiveness on anxiety of users with personality disorders in psychiatric hospitalization].

Domingos Tda S[1], Braga EM[2].

Abstract

OBJECTIVE:

To investigate the effectiveness of aromatherapy massage using the essential oils (0.5%) of Lavandula angustifolia and Pelargonium graveolens for anxiety reduction in patients with personality disorders during psychiatric hospitalization.

METHOD:

Uncontrolled clinical trial with 50 subjects submitted to six massages with aromatherapy, performed on alternate days, on the cervical and the posterior thoracic regions. Vital data (heart and respiratory rate) were collected before and after each session and an anxiety scale (Trait Anxiety Inventory-State) was applied at the beginning and end of the intervention. The results were statistically analyzed with the chi square test and paired t test.

RESULTS:

There was a statistically significant decrease ($p < 0.001$) of the heart and respiratory mean rates after each intervention session, as well as in the inventory score.

CONCLUSION:

Aromatherapy has demonstrated effectiveness in anxiety relief, considering the decrease of heart and respiratory rates in patients diagnosed with personality disorders during psychiatric hospitalization.

Iran Red Crescent Med J. 2014 Aug;16(8):e15485. doi: 10.5812/ircmj.15485. Epub 2014 Aug 5.

The effects of inhalation aromatherapy on anxiety in patients with myocardial infarction: a randomized clinical trial.

Najafi Z[1], Taghadosi M[2], Sharifi K[1], Farrokhian A[3], Tagharrobi Z[1].

Abstract

BACKGROUND:

Anxiety is an important mental health problem in patients with cardiac disease. Anxiety reduces patients' quality of life and increases the risk of different cardiac complications.

OBJECTIVES:

The aim of this study was to investigate the effects of inhalation aromatherapy on anxiety in patients with myocardial infarction.

PATIENTS AND METHODS:

This was a randomized clinical trial conduced on 68 patients with myocardial infarction hospitalized in coronary care units of a large-scale teaching hospital affiliated to Kashan University of Medical Sciences, Kashan, Iran in 2013. By using the block randomization technique, patients were randomly assigned to experimental (33 patients receiving inhalation aromatherapy with lavender aroma twice a day for two subsequent days) and control (35 patients receiving routine care of study setting including no aromatherapy) groups. At the beginning of study and twenty minutes after each aromatherapy session, anxiety state of patients was assessed using the Spielberger's State Anxiety Inventory. Data was analyzed using SPSS v. 16.0. We used Chi-square, Fisher's exact, independent-samples T-test and repeated measures analysis of variance to analyze the study data.

RESULTS:

The study groups did not differ significantly regarding baseline anxiety mean and demographic characteristics. However, after the administration of aromatherapy, anxiety mean in the experimental group was significantly lower than the control group.

CONCLUSIONS:

Inhalation aromatherapy with lavender aroma can reduce anxiety in patients with myocardial infarction. Consequently, healthcare providers, particularly nurses, can use this strategy to improve postmyocardial infarction anxiety management.

Depression

J Ethnopharmacol. 2010 Jul 6;130(1):187-90. doi: 10.1016/j.jep.2010.04.035. Epub 2010 May 2.

Antidepressant-like effect of Salvia sclarea is explained by modulation of dopamine activities in rats.

Seol GH[1], Shim HS, Kim PJ, Moon HK, Lee KH, Shim I, Suh SH, Min SS.

Abstract

AIM OF THE STUDY:

The purpose of the present study was to screen aromatic essential oils that have antidepressant effects to identify the regulatory mechanisms of selected essential oils.

MATERIALS AND METHODS:

The antidepressant effects of essential oils of Anthemis nobilis (chamomile), Salvia sclarea (clary sage; clary), Rosmarinus officinalis (rosemary), and Lavandula angustifolia (lavender) were assessed using a forced swim test (FST) in rats. Rats were treated with essential oils by intraperitoneal injection or inhalation. Serum levels of corticosterone were assessed by enzyme-linked immunosorbent assay (ELISA).

RESULTS:

Among the essential oils tested, 5% (v/v) clary oil had the strongest anti-stressor effect in the FST. We further investigated the mechanism of clary oil antidepression by pretreatment with agonists or antagonists to serotonin (5-HT), dopamine (DA), adrenaline, and GABA receptors. The anti-stressor effect of clary oil was significantly blocked by pretreatment with buspirone (a 5-HT(1A) agonist), SCH-23390 (a D(1) receptor antagonist) and haloperidol (a D(2), D(3), and D(4) receptor antagonist).

CONCLUSIONS:

Our findings indicate that clary oil could be developed as a therapeutic agent for patients with depression and that the antidepressant-like effect of clary oil is closely associated with modulation of the DAnergic pathway.

Psychiatry Res. 2015 Feb 28;225(3):509-14. doi: 10.1016/j.psychres.2014.11.056. Epub 2014 Dec 9.

Vanillin-induced amelioration of depression-like behaviors in rats by modulating monoamine neurotransmitters in the brain.

Xu J[1], Xu H[2], Liu Y[3], He H[4], Li G[5].

Abstract

Olfaction plays an important role in emotions in our daily life. Pleasant odors are known to evoke positive emotions, inducing relaxation and calmness. The beneficial effects of vanillin on depressive model rats were investigated using a combination of behavioral assessments and neurotransmitter measurements. Before and after chronic stress condition (or olfactory bulbectomy), and at the end of vanillin or fluoxetine treatment, body weight, immobility time on the forced swimming test and sucrose consumption in the sucrose consumption test were measured. Changes in these assessments revealed the characteristic phenotypes of depression in rats. Neurotransmitters were measured using ultrahigh-performance liquid chromatography. Our results indicated that vanillin could alleviate depressive symptoms in the rat model of chronic depression via the olfactory pathway. Preliminary analysis of the monoamine neurotransmitters revealed that vanillin elevated both serotonin and dopamine levels in brain tissue. These results provide important mechanistic insights into the protective effect of vanillin against chronic depressive disorder via olfactory pathway. This suggests that vanillin may be a potential pharmacological agent for the treatment of major depressive disorder.

Prog Neuropsychopharmacol Biol Psychiatry. 2014 Oct 3;54:26-30. doi: 10.1016/j.pnpbp.2014.05.013. Epub 2014 May 29.

Roles of olfactory system dysfunction in depression.

Yuan TF[1], Slotnick BM[2].

Abstract

The olfactory system is involved in sensory functions, emotional regulation and memory formation. Olfactory bulbectomy in rat has been employed as an animal model of depression for antidepressant discovery studies for many years. Olfaction is impaired in animals suffering from chronic stress, and patients with clinical depression were reported to have decreased olfactory function. It is believed that the neurobiological bases of depression might include dysfunction in the olfactory system. Further, brain stimulation, including nasal based drug delivery could provide novel therapies for management of depression.

Biomed Res Int. 2014;2014:430195. doi: 10.1155/2014/430195. Epub 2014 Jul 13.

Aromatherapy: does it help to relieve pain, depression, anxiety, and stress in community-dwelling older persons?

Tang SK[1], Tse MY[2].

Abstract

To examine the effectiveness of an aromatherapy programme for older persons with chronic pain. The community-dwelling elderly people who participated in this study underwent a four-week aromatherapy programme or were assigned to the control group, which did not receive any interventions. Their levels of pain, depression, anxiety, and stress were collected at the baseline and at the postintervention assessment after the conclusion of the four-week programme. Eighty-two participants took part in the study. Forty-four participants (37 females, 7 males) were in the intervention group and 38 participants (30 females, 8 males) were in the control group. The pain scores were 4.75 (SD 2.32) on a 10-point scale for the intervention group and 5.24 (SD 2.14) for the control group before the programme. There was a slight reduction in the pain score of the intervention group. No significant differences were found in the same-group and between-group comparisons for the baseline and postintervention assessments. The depression, anxiety, and stress scores for the intervention group before the programme were 11.18 (SD 6.18), 9.64 (SD 7.05), and 12.91 (SD 7.70), respectively. A significant reduction in negative emotions was found in the intervention group ($P<0.05$). The aromatherapy programme can be an effective tool to reduce pain, depression, anxiety, and stress levels among community-dwelling older adults.

Iran J Public Health. 2012;41(11):44-53. Epub 2012 Nov 1.

The effects of sleep and touch therapy on symptoms of fibromyalgia and depression.

Demirbağ B[1], Erci B.

Author information

Abstract

BACKGROUND:

Many alternative interventions are practiced in an effort to reduce symptoms of fibromiyalgia. The aim of this study was to determine the effects of sleep and touch therapy accompanied by music and aromatherapy on the symptoms of fibromyalgia and depression.

METHODS:

The study was carried out between September 2009 and March 2011 in the Physical Medicine and Rehabilitation Polyclinic in Trabzon, Turkey. The sample consisted of 162 female patients and had been diagnosed with fibromyalgia at least 6 months prior to the study. Since the sample contains two intervention groups and one control group, each group was assigned 54 patients. Data were collected through a Personal Information Form, a Fibromyalgia Symptom Form and the Beck Depression Index. The study employed a pre-test/post-test control group design. A paired sample t-test was used in the comparisons of the in-group scale points; the chi-square in the intergroup comparisons, and the McNamer test in the in-group comparisons.

RESULTS:

After the interventions, it was observed that the depression levels in the touch-music-aroma therapy group showed a larger decrease (before: 22.01±5.3; after: 14.52±3.7) than in the sleep-music-aroma therapy group (before: 24.81±5.1; after: 20.16±4.9) and control groups (before: 23.73±4.4; after: 21.05±2.6). Symptoms such as restless sleep, headache, morning fatigue, exhaustion, feeling like crying and bowel complaints were also significantly reduced ($P<0.05$).

CONCLUSION:

It is suggested that nurses providing healthcare to FMS patients should also offer these patients aromatherapy, sleep, music and touch therapies.

Work Performance

J Altern Complement Med. 2016 Oct 20. [Epub ahead of print]

Aromatherapy Improves Work Performance Through Balancing the Autonomic Nervous System.

Huang L[1,2], Capdevila L

Abstract

OBJECTIVE:

This study analyzed the efficacy of aromatherapy in improving work performance and reducing workplace stress.

SUBJECTS:

The initial sample comprised 42 administrative university workers (M_{age} = 42.21 years, standard deviation = 7.12; 10 male).

INTERVENTION:

All sessions were performed in a university computer classroom. The participants were randomly assigned into an aromatherapy group (AG) and a control group (CG), and they were invited to participate in a specific session only once. They were seated in front of a computer. During the intervention period, some oil diffusers were switched on and were in operation throughout the session with petitgrain essential oil for AG sessions and a neutral oil (almond) for CG sessions. At the same time, participants completed a computer task on a specific Web site typing on their keyboard until they had finished it. The single times were different for all participants and were recorded on the Web site as "performance time."

OUTCOME MEASURES:

Before and after the intervention, participants completed anxiety and mood state questionnaires (the Stait-Trait Anxiety Inventory [STAI] and the Profile of Mood States [POMS]). Heart-rate variability (HRV) was measured before (PRE), during (20-25 min), and after (POS) the intervention to analyze autonomic nervous system regulation.

RESULTS:

The AG performed the Web site task 2.28 min faster than the CG ($p = 0.05$). The two groups showed differences in the following HRV parameters: low frequency ($p = 0.05$), high frequency ($p = 0.02$), standard deviation of all RR intervals ($p = 0.05$), and root mean square of differences ($p = 0.02$). All participants in all groups showed a decrease from PRE to POST for STAI ($p < 0.001$), Tension-POMS ($p < 0.001$), and Vigour-POMS ($p = 0.01$) scales.

CONCLUSIONS:

Aromatherapy (inhaling petitgrain essential oil) can improve performance in the workplace. These results could be explained by an autonomic balance on the sympathetic/parasympathetic system through a combined action of the petitgrain main components (linalyl acetate, linalool, and myrcene). The final effect could be an improvement of the mental and emotional condition by a combination of reducing the stress level and increasing the arousal level of the participants in terms of attentiveness and alertness.