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Research Spotlight

Jennifer Langsdale, MS C-IAYT

History

On the second Monday of each month, power and wisdom radiate from the AIA Zoom meeting room. The brains of around a dozen individuals of all different ages, knowledge backgrounds, and career practices voluntarily get together to work as AIA's research committee. The research committee is a busy committee, often involved with most of the other AIA committees, and in 2021, it has grown to its biggest number of contributors in AIA history! It was a tiny group that began in 2006. Linda Anne-Kahn has been on the committee since its inception, when Robert Tisserand was a member. Now a dozen members strong, the individuals on the research committee share in the work to synthesize "free" and "open-access" research into our database for all AIA members to enjoy.

Responsibility

Committee members read current research and compile the article information into short ab-

stracts for our members to skim or follow the link to the full article. Each article is read by a committee member and selected for the study's validity or the ability to add value to our pool of research for aromatherapy. The goal of the research committee's once-a-month meeting is to coordinate and collaborate on committee tasks and other AIA committees' needs. We are here to support the aromatherapy community with solid evidence-based research.

The research database is available to AIA members-only; our committee is here to serve you! Our challenge during the pandemic is getting valuable original research. The research we dig for paints the whole aromatherapy picture: science, energetics, and intuition that aromatherapy provides to the soft sciences.

The committee is always looking for poster presentations during conference years and keeping to our new mission statement. The research committee is responsible for monitoring AIA re-

search grant requests. The committee is also tasked with approving the grant money for a chosen party and for following up on where it goes for research.

From a personal standpoint, I love getting together each month with our group. There is always something to learn from one another, and I hope that our members find our contributions supportive to their professional endeavors.

Current committee membership

- ◆ Marian “Marni” Reven, Chair/Liaison to AIA Board
- ◆ Amanda May-Fitzgerald (Co-Chair)
- ◆ Jennifer Kovalchik-Langsdale (Secretary, Liaison to Journal)
- ◆ Jan Tomaino (Liaison to Clinical Committee)
- ◆ Jerelyn Resnick (Liaison to Education Committee)
- ◆ Barb Kurkas-Lee
- ◆ Marilyn Peppers-Citizen
- ◆ Linda Anne Kahn
- ◆ Kelly Emery
- ◆ Bethany Unger
- ◆ Shannon Becker

At a glance

The research committee was created to contribute and compile evidence-based research on aromatherapy practice.

Member benefit

Your AIA membership provides you with access to our database of abstracts that are hand-selected by our committee members.

We love to hear from YOU

Contact the research committee to ask questions or send us an article you think we might want to add to our database!

Research Committee email:

research@alliance-aromatherapists.org

Public AIA Journal & Research group on Facebook:

www.facebook.com/groups/453930748346721

AIA Research Committee Mission, Vision, & Goals

Mission: Support use of credible scientific research and foster evidence-based practice in all aspects of aromatherapy for the growing professional essential oil community on a global scale.

Vision: We see aromatherapy as a dynamic option to enhance holistic healing and improve well-being.

Goals: Provide aromatherapy and essential oil resources to the global community including up-to-date research and traditional-use information. Serve as a trusted resource for the general public as well as the scientific, healthcare, and wellness communities.

What the AIA Research Committee does:

- ◆ Collects and reviews up-to-date published research articles that are then regularly posted on the Members-Only Research Database page of the AIA website.
- ◆ Pre-screens and recommends recipients who are APAIA and Professional members to the board for AIA-sponsored research grants.
- ◆ Maintains records and follows approved research studies through their course for approved recipients.
- ◆ Holds scheduled monthly meetings and maintains minutes.
- ◆ Organizes efforts for outreach via social media and communicates this and all other activities to the AIA Board of Directors through a designated liaison.



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Effects of Aromatherapy Combined with Music Therapy on Anxiety, Stress, and Fundamental Nursing Skills in Nursing Students: A Randomized Control Trial

Summarized by Jennifer Langsdale

Reprinted from *Aromatics in Action*, Volume 3, Issue 4.

Son H K, So W Y, Kim M. (2019). Effects of aromatherapy combined with music therapy on anxiety, stress, and fundamental nursing skills in nursing students: a randomized controlled trial. *International Journal of Environmental Research and Public Health*. 16 (21), 4185. DOI:10.3390/ijerph16214185.

Abstract

Content

A Korean study using 98 sophomore nursing students experience 20 minutes of: music therapy, aromatherapy, and music therapy with aromatherapy.

Aims

The researchers conducted a double-blinded randomized control trial (DBRCT) with women at a Korean nursing college who were scheduled to undergo a fundamental nursing test. Participants were enrolled to compare the effects of music therapy and aromatherapy as singular interventions and then combined for a synergistic

effect, as possible interventions for those to experience anxiety and stress.

Method

DBRCT design was used on sophomore students. Students were screened and removed for the following: allergies to essential oils, hearing impairments, already using interventions, taking medications, or diagnosed with psychiatric disorder. Participants were enrolled through survey methods testing anxiety using the Korean version of revised test anxiety scale by Benson and the Likert scale. State anxiety was measured using the Korean version of the Spielberger State Anxiety Inventory, and stress was measured using a numeric rating score.

The participants were randomly assigned to one of the three groups. Aromatherapy was selected with a licensed aromatherapy expert. Marjoram

(*Origanum majorana*) and Orange (*Citrus sinensis*) essential oils were selected due to their effectiveness in relieving stress. Aromatherapy was administered via an aromatherapy lamp (unspecified). The music therapy selection was Beethoven's Moonlight Sonata. Prior to intervention, each subject received a 10-minute pretest to assess anxiety and stress. Each intervention was conducted for 20 minutes, using the same temperature in the intervention rooms, as well as lighting. After the intervention time, subjects received a post-test fundamental nursing test to determine anxiety and stress.

Results

There were no substantial differences in the participants' general characteristics during their assessments (age, race, gender). There was a significant difference among all three groups for anxiety and fundamental nursing skill performance. Aromatherapy combined with music therapy was observed to have the most effect to decrease anxiety and stress. There was only a small difference in the singular test groups: music therapy or aromatherapy.

PRO-TIP:

DBRCT- Double Blind Randomized Control means that neither the study participants nor the researchers will know what intervention is being administered. They may be using a placebo or an actual treatment. Usually, participants are assigned their treatment by computer randomization. DBRCTs are considered gold star in research design (Misra, 2012).

Discussion

The study confirms the effects of aromatherapy and music therapy combined create a beneficial synergistic effect, decreasing test anxiety, state anxiety, and stress. Increased skill performance compared to the other intervention groups was also found. The essential oil was diffused through a lamp diffuser, and Moonlight Sonata was chosen based on positive results in previous studies. Limitations of this study were listed as only using test subjects who did not vary much in age, race, and gender.

See full article: www.ncbi.nlm.nih.gov/pmc/articles/PMC6861884/

Commentary from the AIA Research Committee

This study was listed as a DBRCT, or a double-blind randomized control study. Strengths of this study in regards to aromatherapy include:

- ◆ The study itself consulted with an experienced aromatherapist, showing us some nice research relating to Orange (*Citrus sinensis*) and Sweet Marjoram (*Origanum majorana*) being used for stress and anxiety relief with effective results. Not all studies involving essential oils, even human subject studies, consult with an aromatherapist.

- ◆ The study discussed the synergy of music therapy and aromatherapy and how the best results were achieved when they were used together. In another study, we see the same synergistic effect for aromatherapy and massage which tells us that aromatherapy “paired” with another CAM therapy can be very powerful.

Weaknesses of the study:

- ◆ The study uses 20-minute increments to test their subjects with interventions, but they do not indicate what the participants are doing while receiving treatment. Are they lying down, sitting up in desks, allowed to do homework?
- ◆ There is also the question of whether or not this a true DBRCT design. Out of necessity, researchers providing the music therapy knew that the music intervention was being employed as they needed to turn the music on.
- ◆ If they were providing both aromatherapy and music, they would also know what they were providing, but is the blind part of the study perhaps that they did not know what essential oils were being used?
- ◆ As an aromatherapist, I would want to know what the dosage in the aroma lamp was, essential oil brand, and GC/MS report, as well as what aroma lamp they are using. Without this information, we cannot replicate the study.
- ◆ Can you be a licensed aromatherapist in Korea? The study refers to licensure twice.

References

Misra S. (2012). Randomized double blind placebo control studies, the "Gold Standard" in intervention based studies. Indian Journal of Sexually Transmitted Diseases and AIDS. 33 (2), p131-134. DOI:10.4103/0253-7184.102130.

Our Mission

AIA unites aromatherapists from around the world to advance research and professionalism within the aromatherapy community. As a result the public has the option for a safe, natural and complementary form of health care.





PHOTO: Shelly Busby on Unsplash

The Use of Lavender Aromatherapy to Relieve Stress in Trailered Horses

Summarized by Jennifer Langsdale

Reprinted from *Aromatics in Action*, Volume 4, Issue 1.

Heitman K, Rabquer B, Heitman E, Streu C, & Anderson P. (2018). The use of lavender aromatherapy to relieve stress in trailered horses. *Journal of Equine Veterinary Science*. 63, pp8-12.

Abstract

Content

Researchers used a crossover study method to observe a variety of eight horses during a short trailer ride using Lavender essential oil (Latin binomial unknown) via diffusion.

Aims

Competition horses are susceptible to high stress levels. Trailering horses has been shown to increase stress levels in the animals including increased heart rate and cortisol levels. The test involved taking two horses at a time for a 15-minute, 5 mile ride via trailer. The horses' heart rates (HR) and cortisol levels were taken via blood

samples were collected by a licensed veterinarian. The researchers hypothesized that Lavender essential oil will have positive effects on helping horses cope with stress. No other studies up to the point of this research had been done on horses' cortisol levels and aromatherapy.

Methods

Seven male horses and one female horse were used in the crossover study, and each horse was exposed to both control and experimental treatments. The horses ranged in age and species. HR & blood samples were taken before loading each horse. The trailer ride was the stressor. The experiment used Lavender essential oil and a Spa Room diffuser at a 20% dilution ratio of Lavender to 118ml of water. The trailer windows were kept closed during the 5 mile/15-minute trip. The control group received just water.

PRO TIP: This is a crossover study. Understanding the different types of studies is a great first step in learning to read research papers!

The crossover experiment was set up as follows: the same eight horses were trailered in the same pairs, and took the same route in the same trailer: once with the control treatment, then

4 weeks later with the aromatherapy diffusion. It would seem that the treatments the horses received were swapped between the two trailer rides. Blood samples and HR measurements were taken immediately after the rides.

Results

Both the control and treatment horses showed significant increases in average HR and serum cortisol levels when trailered. Lavender essential oil diffusion did not cause a significant difference in heart rate, but the cortisol levels suggested

that the aromatherapy helped with the horses' stress.

Discussion

The researchers concluded that a better heart rate monitoring protocol should be done, and that their hypothesis was partially validated. There is still limited research in the field of animals and aromatherapy research. The researchers also state that different species of animals may respond differently to the use of Lavender essential oil for managing stress.

Retrieved from: https://www.researchgate.net/publication/322261635_The_Use_of_Lavender_Aromatherapy_to_Relieve_Stress_in_Trailerred_Horses

Commentary from the AIA Research Committee

What was the weight of the horses?

The animal's weight will play a large role in determining the dilution ratio for aromatherapy. We know the researchers used a 20% dilution ratio for their diffusion, or around 3.76ml (about 90-100 drops of oil). The average weight of a light horse, such as an Arabian is 1,000 pounds, or 67 times greater than an average human (150lbs).

How do you feel about the trailer windows being closed?

Qualified aromatherapists advocate using essential oils in well-ventilated areas. Do you think that factors like horses being kept outside in their lives, and the shortness of the trailered ride factors into the effect? Do you think if they left the windows opened they would have seen different results with the horses heart rates?

Learning research tip

A good article on crossover studies can be found at: Sibbald B & Roberts C. (1998). Understanding controlled trials. Crossover trials. *BMJ* (Clinical research ed.), 316(7146), p1719. DOI:[10.1136/bmj.316.7146.1719](https://doi.org/10.1136/bmj.316.7146.1719)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1113275/>



Jennifer is an AIA volunteer member of the Research Committee and contributes quarterly to *Aromatics in Action's* research column on behalf of the AIA research committee. Her love of research and science comes from her studies in her Master of Science in Aromatherapy from the American College of Healthcare Sciences. She currently resides in NE Ohio with her two children. She is a small business owner of two holistic businesses, Heaven & Earth Aromatherapy and Women, Yoga & The Moon. Her passion is teaching holistic and yoga education, writing, and creating well-researched and gorgeous smelling aromatherapy products. Learn more at www.heavenandeartharomatherapy.com & www.womenyogamoon.com