

A single case study on the effectiveness of aromatherapy and counseling in adolescents with ayurvedic Vata constitution

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Abstract: This single-case qualitative study investigated the therapeutic effects of aromatherapy and counseling on a 14-year-old female adolescent with a Vata constitution, as defined by Ayurvedic principles. Following approval from the Institutional Review Board (IRB No. 8223-202403-HR-004-01), the intervention was conducted from January 1 to May 30, 2024, in H City. The participant (165 cm, 46 kg) experienced irregular menstruation, menstrual pain, academic stress, poor blood circulation, and irritable bowel syndrome. Twelve sessions took place over eight weeks, with each session comprising 25 minutes of counseling and 20 minutes of aromatherapy. Qualitative data were gathered through session summaries and analyses of the participant's behavioral changes. The results showed significant improvements in both physical and psychological symptoms: menstrual irregularities and pain subsided, blood circulation and gastrointestinal comfort improved, and academic stress was notably reduced. The participant also demonstrated enhanced social engagement and a more positive outlook. Notably, Neroli and Lavender essential oils contributed to reducing anxiety and tension, and the continued use of aromatherapy yielded sustained benefits in daily life. These findings suggest that an integrative approach combining aromatherapy and counseling can be an effective complementary strategy for addressing stress and health-related issues in adolescents with a Vata constitution.

Keywords: *Aromatherapy, Ayurveda, Case study, Counseling, Vata constitution, Youth.*

1. Introduction

Adolescence is a period of transition from childhood to adulthood. It is known as a turbulent time when adolescents, not quite children but not yet adults, experience intense tension and confusion due to instability and imbalance. This is why adolescence is often referred to as a stormy period.

In particular, today's adolescents face greater demands, expectations, temptations, and risks than previous generations. However, contrary to the common belief that adolescence is stressful and confusing, most adolescents transition from childhood to adulthood smoothly. Many adolescents view this transition period as a challenge and opportunity for physical, cognitive, and social development. Rapid physical changes, sexual maturation, and cognitive and emotional changes mark adolescence. It is when individuals must undergo developmental tasks such as establishing self-identity, acquiring appropriate gender roles, and making career choices. In addition to physical and psychological development during adolescence, intellectual and cognitive development also see remarkable progress. Cognitive development not only increases quantitatively but also qualitatively. Adolescence, characterized by changes in endocrine glands and accelerated maturation, is a period of intense stress, leading to significant physical and psychological changes.

Various therapy programs to address youth issues are trending to resolve such problems. However, finding a meticulous, sophisticated, and systematically perfect treatment as Ayurveda's aroma therapy seems rare. This is because Ayurveda delves into personalized healing tailored to individual constitution as a holistic medicine.

Ayurveda believes that the cause of the disease is due to the accumulation of toxins in the body. Imbalances in the body, mind, and spirit lead to the buildup of toxins, which then travel along the bloodstream and accumulate in the weakest parts of the body, resulting in the onset of disease. Therefore, the primary focus in healing is the removal of toxins from the body. Ayurveda is a traditional Indian medicine that focuses on constitutional medicine, recognizing three body types - Vata, pitta, and kapha. Practitioners must understand the individual's imbalances (vikṛti) and constitution (prakṛti) to restore balance. Understanding Ayurvedic body types forms the foundation of all Ayurvedic consultations and is useful for understanding interactions between different types of individuals and potential outcomes.

Aromatherapy in Ayurveda uses aromatic oils to enhance healing incorporating fragrances, flower essences, and essential oils [1]. Aromatherapy is a significant Ayurvedic therapy primarily utilized for emotional healing. It aids in concentration and meditation, helps to calm emotions, soothes nerves, and promotes inner peace [2]. Ayurvedic aroma therapy is unique as it focuses on healing based on individual body types and specific aromas chosen.

Aroma is a sensory trait belonging to the earth element, composed of subtle earth elements in. Using aroma, we can help ourselves forget the heavy entanglements of worldly attachments by purifying the earth's elements and revealing their higher potential. As a subtle food, the fragrance of subtle earth elements associated with aroma can provide nourishment and a stable foundation for the subtle body (or the body of impressions). Although predominantly from the earth, aroma encompasses facets of all elements, stimulating all subtle senses. The suitable aroma oils bring beneficial astral influences, akin to the influences of gods and angels, into the psychological field, thereby improving the psychological environment [3].

Aroma can bring harmony to the mind and assist in balancing the three humors and three life essences (Prana, Tejas, Ojas). Aromatherapy strengthens the immune system, helps combat negative bacteria and viruses, and eliminates stagnant air. It also aids in purifying negative emotions and astral pathogens, increasing positive emotions such as love, joy, and happiness, and enhancing passion, determination, and creativity. Furthermore, it enhances the capacities of receptivity, perception, and discrimination [4, 5].

Regarding Vata, warm and refreshing oils are the best, while overly stimulating ones are not preferred. Sweet and calming oils, such as sandalwood, lotus, patchouli, frangipani, cinnamon, and basil, are recommended to balance Vata. These oils benefit conditions like fear, anxiety, insomnia, and restlessness [6, 7]. Pitta benefits from cool and bitter aromas, with refreshing and invigorating oils, especially floral essences, being the most suitable. The top oils for Pitta include sandalwood, rose, vetiver, lemongrass, ylang-ylang, lavender, lily, saffron, chamomile, agarwood, sandalwood, jasmine, and iris, which are helpful for conditions like irritability, anger, and mental conflicts [8]. For Kapha, pungent aromatic oils are recommended, such as jasmine, cinnamon, myrrh, frankincense, sage, thyme, cedarwood, patchouli, and vetiver, which are beneficial for conditions like attachment, depression, and mental stagnation. It is important to avoid excessive use of oils like sandalwood, rose, or jasmine, as their sweet fragrances can increase Kapha [8].

When combined with aromatherapy, psychological counseling can greatly enhance its effectiveness. Therefore, counseling is a professional process that resolves the issues faced by individuals experiencing difficulties [9]. Ayurvedic counseling aims to achieve physical, psychological, and spiritual healing and growth. The counseling process is divided into self-awareness, self-practice, and transformation [9]. A case study is a qualitative research method involving detailed and in-depth data collection encompassing rich and varied sources of information within a specific context, exploring a bounded system or a single case (or multiple cases over time) [10].

In a review of previous studies on aromatherapy, Kim [11] stated that the classification and application methods of aromatherapy oils based on the constitution types are beneficial. Furthermore, Choi [12] found that Thyme, Geranium, Lavender, Tea tree, Cedarwood, Patchouli, and Peppermint have antimicrobial effects based on a study regarding the antibacterial properties of Ayurveda oils. A meta-analysis was conducted on the physiological, physical, and psychological healing effects of

aromatherapy regarding Jeon [13] study, revealing that the average effect size of aromatherapy across 20 variables exceeded a moderate effect size. Kim [14] conducted a systematic literature review on the effects of aromatherapy on sleep, revealing that massaging a blend of various oils, including lavender, effectively improves sleep quality. Choi [15] conducted a study on using aromatherapy based on the theory of Yin and Yang Five Elements, evaluating that simultaneous mental and physical healing achieving harmony and balance between McGuire [16] is more effective than individual healing of the body and mind. Hong [17] conducted a study on the health effects of aromatherapy in adolescents, focusing on menstrual pain in high school students. The research revealed that aromatherapy can provide direct assistance in relieving menstrual pain and bringing about mental transformation in high school students. Jang [18] stated through her research on the awakening mechanism of chakras in aromatherapy that aromatherapy could be a more accessible and convenient therapy for modern individuals who experience mental fatigue or emotional wounds. Yun [19] conducted research on the effects of an aromatherapy education and experience program on depression and stress among female middle school students from a natural healing perspective. The study found that the program was effective in reducing depression and stress in emotionally sensitive female middle school students. Paik [20] analyzed 30 studies on the use of aromatherapy for primary dysmenorrhea and found that aromatherapy effectively reduced the intensity of primary menstrual pain. Arsyad, et al. [21].

aimed to verify the effects of aroma-blending essential oil inhalation on nurses' fatigue, stress, depression, and happiness. The study showed that it reduced fatigue and depression while increasing happiness. There have been numerous studies utilizing aromatherapy; however, the only study that has differentiated body constitutions for a more detailed and systematic approach is the research by Kim Young-Soon based on the Sasang Constitution. Therefore, it was necessary to differentiate body types and conduct a more detailed and systematic qualitative assessment. The aim of this study was to validate the effects that occur when aromatherapy is applied in conjunction with counseling for individuals of different Ayurvedic constitutions and to provide assistance to those with Vata constitutions experiencing anxiety based on the validated effects.

2. Study Methods

2.1. Study Design

This study began on December 15, 2023, and was conducted until May 30, 2024, after receiving IRB approval (8223-202403-HR-004-01). This study's literature review and data collection were conducted and organized starting December 15, 2023. The counseling session took place at the researcher's research laboratory. The counseling period consisted of 12 sessions, held twice weekly, from April 5 to May 30, 2024. Each session consisted of a 20-minute counseling followed by a 25-minute aromatherapy, totaling 45 minutes. As for the aroma oil selection, Vata oil was mainly used to balance the symptoms caused by an imbalance in the Vata constitution. However, pitta oil was used as an auxiliary for vikriti I organized the data from June 16 to June 26, 2024.

2.2. Study Participant

The research participant was a female middle school student (14 years old) living in H City with a Vata constitution. He is 165cm tall and weighs 46kg. Current problems include menstrual irregularities, menstrual pain, academic stress, circulatory disorders, and irritable bowel syndrome.

2.3. Data Analysis

The analysis of this study involves a case study approach, firstly organizing the basic information of participants, secondly analyzing case conceptualization, and summarizing counseling sessions chronologically. Additionally, behavior changes of participants were qualitatively documented.

3. Results

3.1. Participant's Basic Information

The study participant is a middle school female (14 years old) with a Vata constitution, 165 cm tall, and 46 kg in weight.

The participant is experiencing symptoms such as irregular menstruation, menstrual pain, academic stress, circulatory disorders, and irritable bowel syndrome. Her usual personality is sincere, sticks to principles, and is inflexible. She is sensitive and easily stressed. She is not good at saying nasty things to others and tends to endure it herself. She dislikes causing harm and finding it difficult to ask for help. Although appearing timid, they have strong determination and resilience, immersing themselves in their pursuits and exhibiting strong driving force. She has a strong need for achievement and tends to be perfectionistic. Her family has grandparents, parents, and a younger sister.

The participant's grandfather and grandmother had a good relationship, but there was conflict because they were obsessed with their eldest son. The grandmother actively cares for her husband and two sons and has a dedicated, sensitive, and meticulous personality. My uncle always had excellent grades and was the object of praise and envy from those around him. After graduating from college, I got a job at a large company. He met a foreign wife, married despite his parents' opposition, and has been living abroad. This disappointed his grandparents, and they became estranged from each other.

My father grew up in a typical and stable home environment when he was young and is the youngest child. He has a cheerful and personality, is diligent, takes responsibility for his tasks, is respected in his workplace, and maintains good relationships with his colleagues. He is very family-oriented, working as a diligent and family-oriented employee in a typical job, and his family relationships are harmonious. My mother grew up in an environment where there was not much economic stability during her childhood, and her parents' relationship was not harmonious, causing her to grow up in anxiety and deprivation. With a strong sense of independence, she became economically independent early on. Split the sentence to "She managed her school and social life with a strong sense of responsibility and diligence within the family After getting married, she sought stability. After giving birth to two children, she is trying to provide the stability and peace she did not experience during her childhood. Her father ran a personal business and had an autocratic and patriarchal personality, influencing the family atmosphere according to his mood. My mother has a strong maternal love for her children and has a gentle personality.

My 11-year-old younger sister is lively and tends to act or speak impulsively without considering others' reactions. She needs more patience and finds it difficult to stay in one place or engage in the same activity for a long time. She strongly needs affection and always seeks attention, sometimes viewing her older sister as a competitor. She is very interested in sports, has many friends, and is energetic.

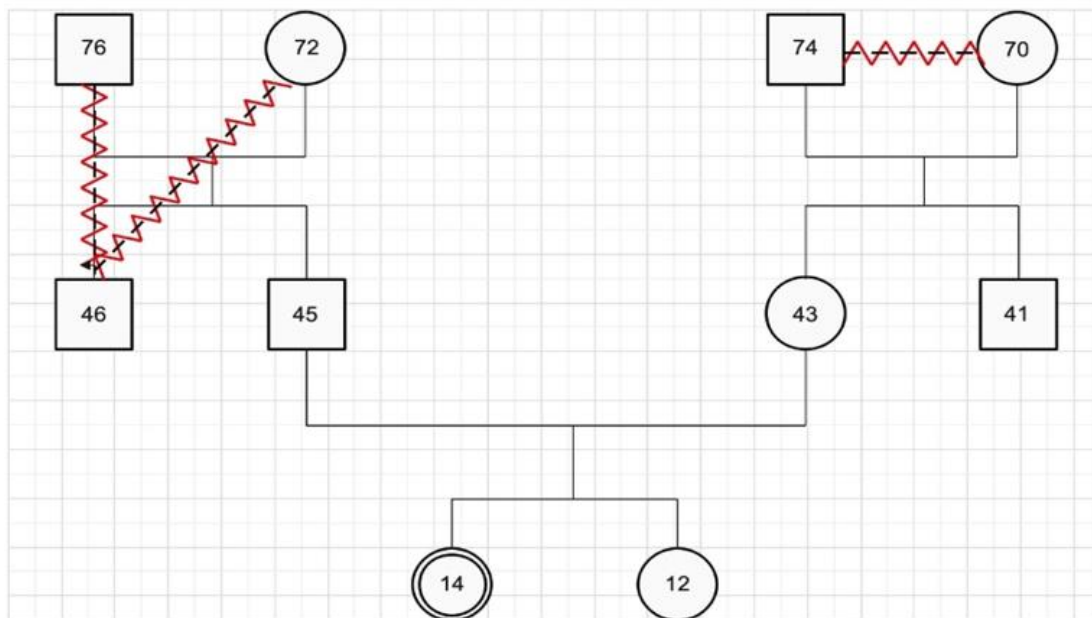


Figure 1.
Family tree.

3.2. Participant Case Conceptualization

Table 1.
Case Conceptualization.

Nomadic Name	Contents of Case Conceptualization Elements
Participants problem and Symptom	1. Consultation process I have stress, depression, and helplessness due to school, and I have premenstrual syndrome, menstrual pain, and migraines.
	2. state appeal issues When I'm nervous, my stomach hurts, I feel nauseous, I get tired easily, and I feel lethargic.
	3. Core Issues and Core Emotions I am usually tense and sensitive, and I suffer from a lot of academic stress.
	4. psychological state lethargy, depression
	5. Interpersonal characteristics They want to appear perfect to others, and when this is not met, they feel extreme stress and low self-esteem. They become bright when interacting with others, but feel anxious when alone.
	6. Self-concept and insight level Self-concept is intermediate, and self-insight needs to be improved.
Problem development history	1. Problem development history Since entering middle school, I have been a class president and active in club activities. I started to feel obsessed with not being able to show myself as weak or a failure to anyone. I have academic stress from having to maintain my position at the top.
	2. Factors that cause and sustain problems Have a lot of will and passion to achieve but lack physical strength and are extremely sensitive
Resources and Vulnerabilities	1. resource Actively accepting advice from those around you. A sense of responsibility to see it through to the end.
	2. Vulnerability It isn't easy to control your emotions. It helps you improve your lifestyle habits."
Comprehensive Understanding	The research participant is a 14-year-old female middle school student. She is diligent, and takes responsibility for her work, and does her best to complete it. Recently, her academic stress has increased due to her high school entrance exam preparation, and she easily gets tired and becomes lethargic due to her lack of physical strength and sensitivity. She does not show her difficulties when she is around other people, but he has difficulty controlling her emotions when alone.
Consulting Goals and Strategies	1. objective First, use aromatic oils that relieve stress and help circulation. Second, lower tension and help express your emotional state.
	2. Counseling Strategy Apply aromatherapy oils that are suitable for your constitution and apply them lightly. Counseling is about listening, empathy, self-expression, and self-understanding.

3.3. Changes in Participant Behavior

In the early stages of the research, participants walked heavily and spoke few words when entering the lab due to fatigue and stress, often letting their mothers speak on their behalf. However, as the counseling sessions using aromatherapy oils continued, participants showed an increase in their level of activity and verbal expression. Initially appearing tired and expressing a state of tension, participants gradually found their minds at ease and experienced warmth in their hands, feet, and body through the scent of the essential oils. This led to a softening of their expressions and the emergence of smiles. Through the counseling sessions, participants began to open up about their own stories, becoming comfortable expressing their emotions while talking about incidents at school and stressful situations.

In particular, the participant expressed that using neroli oil significantly reduced their tension and anxiety, and they were seen using roll-on oil for self-management at home. Whenever feelings of anxiety arose, the participant could calm their mind by using the oil, leading to a noticeable change in their school life. Their relationships with friends improved, and they exhibited a proactive attitude by initiating conversations themselves. As the counseling session progressed, the participants were willing to share more about their school life and home situation without responding to the researcher's questions. She could see that her stress was reduced as she naturally expressed her emotions well. The menstrual syndrome also disappeared.

By learning to find psychological stability by inhaling the oil's aroma, they could now manage their emotions using it when feeling tense or anxious. By the final session, the participant entered the lab with a bright expression and a light step,

expressing that they felt psychological stability and flexibility in their life through using the oil. They expressed the determination to continue managing themselves and maintaining positive lifestyle habits. At the conclusion, they spoke of the disappearance of anxiety and the increased flexibility in their life, resulting in a positive outlook on the counseling.

3.4. Summary of Participant Consultations by Session

Table 2.

Case summary by session.

Session	Summary of case study
1 st session	<p>The participants looked tired as they entered the lab. They came in with heavy, steps carrying a heavy school bag after finishing their classes. On the other hand, the mother entered with a light outfit and a smile. The participant tended to be quiet while the mother did all the talking. They mentioned being under a lot of stress and conflict due to high school entrance exams. With a smile and a twinkle in their eye, they agreed to participate along with their mother and expressed their willingness to take part. To help the participants relax, they were laid on the bed and given a light massage on the abdomen, back, and feet using a blend of lavender, bergamot, neroli, and frankincense carrier oils for 20 minutes.</p> <p>When asked about their feelings after 20 minutes, they mentioned feeling their body warming up and their mind more relaxed. They also felt a sense of ease and improved digestion. When the researcher touched the participant's hands and feet, they noticed the cold sensation in the hands, and soles didn't easily disappear. These symptoms are characteristic of a Vata constitution, including tendencies such as coldness in the hands and feet, anxiety, and easy fatigue.</p> <p>The participant appeared fatigued upon entering the lab, having just finished their school day with a heavy backpack and slow steps. In contrast, the mother arrived clad in light attire with a smile. The participant was taciturn, letting the mother do all the talking. They shared being stressed due to the ongoing conflict surrounding their high school entrance exams. With a glint in their eye and a smile, they gave consent, along with their mother, and expressed readiness to participate. Aiming to create a sense of comfort for the participant, they were laid on the bed and gently massaged with a blend of lavender, bergamot, neroli, and frankincense carrier oils on their abdomen, back, and feet for 20 minutes.</p> <p>Upon inquiry after the 20 minutes, they described feeling their body warming up and their mind settling into a state of tranquility. They reported a soothing sensation and an improvement in digestion. When the researcher touched the participant's hands and feet, they observed that the coldness in their hands and soles wasn't easily dispelled. These symptoms are indicative of the characteristics associated with a Vata constitution, such as cold extremities, feelings of unease, and a tendency towards fatigue.</p>
2 nd session	<p>Upon entering the research lab, the individual expressed, "Teacher, I'm exhausted~," and complained about a particularly sore back from sitting in school chairs for a long time that day. I suggested starting by alleviating the back pain. I mixed peppermint, marjoram, and frankincense oils and gently massaged from the tailbone to the back of the neck, instructing them to lie down comfortably and relax for 20 minutes. About 5 minutes into the session, they experienced gas release and some relief. The gluteal area felt unusually cold, while the back of the neck was warmer than the lower back. They seemed to prefer a gentle, light massage over a firmer one. After applying the oil clockwise around the navel area, they felt a warm energy rising from the lower abdomen. Lastly, when applying the oil to the soles of the feet, they noted that it was the coldest part and didn't warm up easily.</p> <p>I allowed them to rest peacefully during the oil application, and upon awakening, they reported feeling relaxed and warmer overall. They indicated significant pain in the back of the neck when applying the oil, and they enjoyed it the most when applied to the abdomen. They requested that the same oils be used for the next session. Their enthusiasm for the second session suggest expectations of positive results.</p>
3 rd session	<p>On that day, I vomited at school and left early due to a severe headache. After receiving medical treatment at the hospital, I visited the research lab. Their skin looked pale, and they seemed drained of energy. I offered them a cup of warm tea and asked what had happened. They shared, "I'm finding the upcoming final exams too difficult, making me very anxious." Showing empathy and words of comfort, I said, "That must have been really tough." As they teared up, they expressed, "I don't want to do it, but I have to, and it's making my body and mind very suffocated." I introduced them to peppermint for relief, frankincense for calmness and peace, and sandalwood for a soothing scent to alleviate their suffocation. They said, "It feels like a weight has been lifted off my chest. And my mind feels much more at ease." I applied essential oils to the back of the neck and shoulders to help with tension and stress and let them inhale the scents to relax, assisting them in lying down comfortably to rest. "I feel revived now." "Thank you." Holding their hand, I encouraged them by saying, "You've been through a lot!" They expressed that their mood significantly improved and felt much better after being acknowledged and supported in their efforts.</p>
4 th session	<p>With a weak greeting, she opened the research lab door and sat on the chair. Under her eyes, faint dark circles were visible, and her skin appeared rougher and darker than last time. When asked if her previous illness had improved, she replied, "The headaches and nausea have subsided, but I still feel like they might come back. With the exams coming up, I'm anxious about getting sick again during the exam period." She carefully smelled the scents of ylang-ylang, bergamot rose, and neroli oils, aiming to choose the most comforting one. "When I smelled the neroli scent, it felt like floating gently in the clouds, which relaxed me," she replied. Blending neroli oil with a carrier oil, she applied it to her neck, shoulders, and palms. Sitting comfortably in the chair, she closed her eyes and let the scent diffuse from the research lab diffuser humidifier for 20 minutes.</p> <p>I guided her to make a perfume by adding five drops of neroli to a 5ml roller bottle with carrier oil. I suggested she apply it to her neck and wrists when feeling tense and anxious to inhale the scent.</p>
5 th session	<p>She entered the lab with a more relaxed expression than during our previous consultation. Though she usually didn't smile much, she greeted me kindly with a slight smile that day, saying, "Hello, teacher." I asked him how he had been and inquired about his condition. She</p>

	<p>replied, "The Neroli roll-on you gave me last time was very helpful. Usually, when I feel anxious or stressed, I used to fidget with my phone, but as you suggested, when I applied the roll-on to my wrists and smelled the scent, I quickly felt better."</p> <p>"I'm relieved to hear that. Shall we find some scents today to help you smoothly through the week?" I suggested selecting oils that could help with tension and stress. I dropped a drop of lavender oil onto the palm of her hand and had her close her eyes to slowly inhale the scent. She mentioned that the scent seemed to reach deep into her chest, making her feel calm and at ease.</p>
6 th session	<p>The footsteps entering the lab were lighter than usual. After placing the bag down, I sat comfortably and began the conversation with stories from school. I asked, "What do you usually do when feeling anxious or stressed?" She mentioned zoning out, singing her favorite songs, and relaxing to calming music.</p> <p>When asked about moments when emotional regulation becomes difficult, she said, "When my sibling starts a fight, I must respond to my mother when mom gets angry or nags me. Especially when she asks about studying." "Why do you find those comments unpleasant?" "Even when I'm trying to study, hearing that just makes me not want to" she mentioned having good relationships with classmates, often discussing school events and preparing for exams. "Do you have a boyfriend?" "Yes." I inquired, "What kind of friend is he?" Describing him as a kind friend from the same school who listens well, she opened up more that day, sharing their thoughts comfortably. While still answering questions, her expression softened noticeably as we continued to meet and talk, inhaling the scents of lavender and frankincense oil they had selected for her. During the counseling session, I allowed them to savor the scent for 20 minutes, noticing a significant increase in relaxation as we conversed while inhaling.</p>
7 th session	<p>The footsteps entering the counseling room after the mid-term exam at school are heavy. The expression seems like they could cry at any moment. When asked why, she replied, "I thought I would get a perfect score since I had been preparing for the mid-term exam for a long time, but unexpected questions came up, and I ended up making mistakes." "I see, but you have worked so hard preparing for the exam, it's important to do your best. Even if the results are not as good as expected, try not to be too disappointed or blame yourself. It will surely be a stepping stone for progress," I comforted. As emotions were soothed, without regret for doing her best, they mentioned that she tends to get highly nervous when solving math problems, causing mistakes she doesn't usually make. The counselor pointed out that she tends to have high tension and easily gets shaken by unexpected situations. That day, she discussed handling such situations by normalizing them and exploring coping methods. "First, closing your eyes and noticing your nervousness is important." Then, she guided them to sit in the most comfortable posture and focus only on her breath for a while. When asked what worries her the most these days, she mentioned that it is entering high school, as she has a desire to get a perfect score in all subjects, leading to accumulating more stress. To achieve her desired goal and reduce tension in daily life, she was guided to smell the scent of rosemary for 5 minutes with eyes closed for concentration. and During counseling sessions, she was exposed to the scent of lavender. She mentioned feeling particularly relaxed and calm when smelling lavender, finding it helpful in calming her mind.</p>
8 th session	<p>Entering the laboratory, she appeared very relaxed. She neatly placed her bag, walked calmly, and sat on the chair comfortably. She was much more at ease as she leaned back on the chair and started talking. During our previous conversation, she mentioned that her mother was very worried about her habit of skipping breakfast every morning. She explained that she doesn't eat in the morning because she feels uncomfortable and has stomachaches. She said applying a blend of ginger, fennel, and peppermint oil on her abdomen before sleeping helps alleviate her irritable bowel syndrome. As she lay down on the laboratory bed, I applied the blended oil to her abdomen and covered her with a warm blanket. She closed her eyes in a relaxed manner. After about 5 minutes of applying the oil, she briefly fell asleep. Upon waking up, she said her hands and feet felt warm, and her stomach felt comfortable. She drank a glass of warm water and concluded the consultation.</p>
9 th session	<p>The footsteps entering the laboratory today were light. With a slight smile on their face, they came in. "You seem to be in a good mood today?" "Yes, thanks to the oil you made for me, I applied it to my stomach, hands, and feet every night and slept much more comfortably in the morning. I slept well, too." "I'm so glad to hear that. How was the scent?" "It had a slightly sweet scent, which was comforting." "Perhaps you perceived the scent of orange," I said as I opened the lid of the orange oil among the displayed oils and let them smell it. With a happy smile, they said, "Yes, that's it. It was so uplifting and comforting." She talked much more brightly and joyfully than usual that day. I offered them the scent of orange oil for about 5 minutes when she needed tension relief and vitality and used it during the counseling session.</p>
10 th session	<p>As she entered the lab and sat on the chair, she began sharing her stories before asking any questions. She talked about her time with friends at school, her condition before falling asleep at home in the evening, and so on. In the early stages of counseling, she only responded to questions asked, but today, she started sharing her own stories, albeit not at length. She mentioned that smelling scents had greatly helped to calm her mind. She used to struggle when feeling anxious or upset, not knowing how to express or relieve himself, but following the counselor's advice to take deep breaths and smell comforting scents, she felt much better quickly. She expressed how coming to this place and following the counselor's guidance had been helpful. When asked about the most soothing scents, she said, "The most comforting scents were lavender and frankincense, and when tired, the orange scent was nice too. Applying them on the abdomen was also very pleasant." "I see. Let's continue to use these scents in the future to seek further assistance." After dropping lavender oil into her palm, inhaling the scent for 5 minutes, and diffusing orange oil in the lab for the counseling session, the counseling session concluded.</p>
11 th session	<p>With a cheerful voice, she entered the lab and greeted, "It looks like 00 is in good condition today." "Yes, I feel good because I slept well." "Are you sleeping well these days? That's good to hear." "Actually, I used to have a lot of worries before going to bed, thinking about this and that and had trouble falling asleep at night, but these days, my mind has become more at ease, so I fall asleep quickly once I lie down, and the essential oils seem to be helping as well." "I see, it's good that your mind has become more at ease, and that essential oils have been helpful." "How is school life?" "Actually, I'm not the type to talk a lot with friends during breaks, but these days, I find myself initiating conversations and approaching friends I want to get closer with." "Ah, well done, you've shown a lot of courage, and with continued effort, your school life will become more comfortable." "Yes, talking with the teacher here has helped ease my anxious and uncomfortable feelings a lot. As a result, things that used to bother me about the children's behavior at school are not as noticeable to me anymore." "That's right. As your mind becomes more at ease and your sensitivity improves, you can accept such situations and behaviors more easily." "You're making great progress. I'm glad." "Thank you, teacher," she said. On that day also she enjoyed the scent of lavender and frankincense oils, taking 5 minutes</p>

	to deeply inhale, and during the counseling session, orange oil was diffused.
12 th session	She opened the door to the lab and walked in with a neat school uniform, smiling brightly. She sat down on the chair, feeling comfortable as she shared about her daily life and school life. She dropped Frankincense and Lavender oil onto her palm from the oils on the table, inhaling the scent and breathing calmly. She diffused Orange and Bergamot oils in the aroma diffuser, creating a pleasant fragrance. She guided her on how to continue using oils daily to reduce stress and tension, aiming to help her achieve peace of mind consistently. She shared that she, too, would continue to manage stress on her own and use scents that had helped her find mental stability when needed. As the final counseling session ended, she asked the participants about the outcomes they experienced. The participant mentioned that their anxiety had disappeared, and life had become more flexible. When asked about any regrets or shortcomings, the participant expressed a desire to continue receiving sessions as they felt the 12 sessions had ended too soon. However, she mentioned that there was nothing unresolved. The participant and the researcher agreed that things were in order as they concluded the session.

3.5. Changes in Vata Adolescents Before and After Counseling

The following is a table showing before and after the counseling.

Table 3.

Change comparison chart of participants before and after counseling.

Title	Before counseling	After counseling
Changes	<ul style="list-style-type: none"> Stress due to schoolwork Depression, lethargy Premenstrual syndrome and menstrual cramps, migraines Tension and anxiety 	<ul style="list-style-type: none"> She could see that her stress was reduced as she naturally expressed her emotions well. Menstrual syndrome disappeared. Using neroli oil has reduced my tension and anxiety.

4. Conclusion

This study investigated the effects of aroma therapy and counseling on adolescents in a single case of Ayurvedic Vata constitution. Many studies use aromatherapy, but more studies need to be done on different constitutions. Therefore, it was deemed necessary to classify constitutions and conduct qualitative evaluations using a more detailed and systematic approach. The purpose of this study was to validate the effects of applying aromatherapy alongside counseling for Ayurvedic body types, aiming to provide assistance to Vata body types experiencing anxiety. The participant experienced gradual relief from menstrual irregularities and menstrual pain through aromatherapy and counseling. Academic stress symptoms disappeared as participants gained more psychological stability compared to the initial counseling stage. Physically, the circulatory disorder and irritable bowel syndrome have disappeared, reducing physical discomfort. Positive changes were observed in interpersonal relationships. In particular, neroli oil and lavender oil have been found to significantly help in reducing anxiety and tension, and the consistent use of aromatherapy has had a positive impact on the daily lives of adolescents. At first, there was coldness in the hands and feet, accompanied by fatigue and tension. However, the hands and feet gradually warmed up, and the fatigue and tension disappeared. A smile is on their face, and their behavior changes, such as when they speak first. In conclusion, this study demonstrates the effectiveness of Ayurveda constitution-specific aromatherapy and confirms its potential as an alternative treatment method for improving adolescents' psychological and physical health. In future research, it is necessary to verify the effectiveness of aromatherapy for different body types through more cases and to further develop a systematic approach. The results of this study suggest the potential utility of aromatherapy in counseling and therapy for adolescents, indicating the need for a personalized approach based on individual constitutions.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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