

# The Effect of Scent on Emotionally Disturbed Children

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*The information in this paper is purely anecdotal and in no way provides scientific study or conclusions. The names of individuals included within this text have also been changed for purposes of confidentiality.*

As a Mental Health Therapist in a residential treatment facility I had the opportunity to make several observations regarding the effect of scent on children. The residential treatment facility treats children between the ages of six and eighteen years of age. It is a facility that helps the children of neglect and abuse, and their families, learn new methods of responding to their environment and situations. The children are often diagnosed with such conditions as Attention Deficit Hyperactivity Disorder (ADHD); Depressive disorders; Borderline Personality Disorder/Traits; Oppositional Defiant Disorder (ODD); Anxiety Disorders; Post-traumatic Stress Disorder (PTSD); eating disorders; and anger. It was work I loved, and learned from daily. I worked in the facility for a total of fifteen years.

One of the observations that continually struck me was the effect scent has on children. Scent is something we don't consider when treating children. We focus on the emotional and behavioral reactions children have to tones of voice, facial expression, environment, sound, and situation, not scent. However, scent is the one sense that creates the strongest and most enduring memories, so why do we overlook this significant factor?

When teaching new on-line staff members, those individuals working on the living unit with the children on a daily basis, I often cautioned them on the amount of cologne or perfume they chose to wear. It was strongly suggested they wear no cologne or perfume. This caution was often met with questioning looks. I would explain that certain aromas trigger specific memories. I would demonstrate this by asking them to close their eyes and think of how their grandmother's home smelled. Several people would smile, nod their heads, and have a look of pleasure on their faces. When questioned about the experience, many individuals would state they actually had the scents or aromas of their grandmother's home in their nostrils! This exercise would emphasize the strength of olfactory memory, and how children can be affected by a particular scent.

Once staff members understood the power of scent on memory their understanding of how scent can trigger negative memories for children was easily grasped. I would explain that some children may respond to the scent of cologne or perfume in a negative manner. To further illustrate, I told the following story:

“Johnny” was a bright, energetic eight year old that came from a home where he was continually physically, sexually, mentally, and emotionally abused by his father. Johnny lived in continual anxiety and fear, not knowing what each minute would bring. His father wore a specific cologne in an overabundance, or he reeked of stale body odor. It was these aromas Johnny began to associate with his father, and with abuse and fear, causing a “fight, flight, or freeze” response.

When Johnny came to the treatment facility he gradually began to trust adults and learned how to live with much less fear. It was magic to watch this once terrified little boy begin to smile, laugh, and discover a life without abuse. Initially Johnny would only work with the women, but

as time elapsed he began to tentatively work with the men. It was when Johnny began working with the men, who worked on his living unit and school, that the problems began.

Johnny began having periods of time when he would completely shut down, not talk, not follow simple instructions, and refuse to come out of his bedroom and interact with others. Gradually the problems grew to catastrophic proportions. Johnny began having severe temper outbursts where he would hit, kick, bite, scream, and head butt others. These episodes always resulted in Johnny requiring a physical hold to prevent him from hurting himself and others, and sometimes the need for a locked seclusion room was required to prevent Johnny from destroying property.

This change in Johnny was baffling at first, until one day during a staffing, where each child's progress is discussed with the on line staff, supervisors, and therapist. As the discussion was going on it became evident to me that one of the male staff members was wearing cologne, and it was applied quite heavily. It then dawned on me that Johnny's behavior may be linked to the scent of the cologne, which was the same cologne Johnny's father wore. Records and logs were reviewed and it became clear that nearly every time Johnny had an episode this particular male staff member, who always wore the cologne, was working. It was suggested that for the next two weeks the staff member not wear cologne and observe how Johnny responded. During the first few days of this experiment Johnny refrained from going near the staff member, but slowly he began to work with the man, and no episodes of temper occurred. It seems so very simple that by asking the staff member to not wear cologne a child could function without fear and anger; however, in this case it was that simple. Over the years I accumulated numerous stories just like this one, and it hit home how strong the effect of scent affects children.

Science has shown the amygdala, a small gland in the brain, "plays a major role in storing and releasing emotional trauma. The most effective way to stimulate this gland is with fragrance or scent in order to awaken and release these memories for healing."<sup>1</sup> Johnny's story illustrates how the fragrance of a specific cologne "awakened" Johnny's traumatic memories, and how by removing that particular fragrance from his environment healing was allowed to occur.

As my interest in aromatherapy grew I began to notice how other scents and aromas affected not only me, but the children. Often the administrative assistants would burn strongly scented waxes in their candle warmers or use room sprays, both of which could be easily detected in the hallways of the facility. Often the scents were pleasing, but sometimes they would be overwhelming. The most powerful was the aroma of cinnamon (*Cinnamomum zeylanicum*). When too much cinnamon is used it burns my nasal passages, makes my eyes water, and can trigger an asthma attack. These physiological sensations lead to an emotional response of heightened anxiety in me. I observed a similar response in the children as well, although very few of the children responded with the same physical responses I had they did become more agitated, less able to focus, and more physically active when confronted with the scent of cinnamon. This may be due to the stimulating effects of cinnamon, and given that many of the children are diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) it makes sense that cinnamon would result in the behavior observed. It appears the children were over stimulated by the aroma of cinnamon.

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<sup>1</sup> Deschen, Shanti; Clinical Aromatherapy, Level I; Crestone, CO; Aroma Apothecary; p. 26; 2010.

During a period of academic testing in the on-grounds school of the facility one of the elementary school teachers began diffusing peppermint (*Mentha Piperita*) oil in her classroom. The teacher read an article about the effects of peppermint on the mind, and was eager to see if peppermint would help her classroom full of very young children with Attention Deficit Hyperactivity Disorder. It was this teacher's hopes that by diffusing peppermint oil in her classroom she would be aiding her students to focus, learn, retain, and apply the skills she was teaching. Valerie Gennari Cooksley, RN, mentions in her book, *Aromatherapy Soothing Remedies to Restore, Rejuvenate, and Heal*<sup>2</sup> that peppermint is an essential oil that improves alertness and one's ability to concentrate.

Prior to the academic testing the teacher noted that the children were having difficulty retaining much of the information she was teaching. She noted that after she began diffusing peppermint oil in the classroom the children's ability to remember vital information showed improvement. As an additional benefit the teacher noticed the children were less physically hyperactive, more willing and eager to learn, and much better students. Although this was not a scientific study the positive effects peppermint had on the learning and attention of this particular group of children bore out Patricia Davis's assertion in her book, *Aromatherapy An A-Z*:<sup>3</sup>

“Peppermint is one of the oils described as ‘cephalic’, that is, it stimulates the brain and aids clear thinking (Rosemary and Basil are others.) Any of these oils will physically clear the head, leaving the user feeling fresh and bright and ready for mental effort.”

Although Vanilla (*Vanilla planifolia*) is not typically used in aromatherapy, the aroma of vanilla proved to have a positive effect on the younger children as well. When six to ten boys, all diagnosed with ADHD, between the ages of six and ten years old live in the same living unit it can be quite chaotic to say the least. Bed time can be problematic with this population due to several factors; ADHD, Post-traumatic Stress Disorder (PTSD), defiance, or simply just because the child is not sleepy. Occasionally there are periods of time when getting the boys to bed can become a struggle, and during one such period an astute staff person thought of using vanilla scented room spray to help calm the boys down prior to bed time. As the allotted bed time approached the staff person would enter each child's room and spray the room once with the vanilla scented room spray. Also, one half-hour prior to bed time the vanilla room spray would be dispersed in the living room area of the living unit. Additional measures were also utilized to help calm the boys, such as dimming the lights, reading a bed time story, and tucking them into bed. After these measures were employed for approximately one week the boys began asking for the room spray over the dimming of the lights and the bed time story. When questioned about their preference for the vanilla room spray over the other options all the boys stated they liked the smell, it helped them relax, and they thought they slept better.

Many of the children on my caseload were young girls in their teenaged years, many diagnosed with a depressive disorder, and/or Borderline Personality Disorder/Traits. These girls were usually highly emotional and volatile. Extreme displays of emotion, usually tears accompanied by loud sobs or screaming, were commonplace during a therapy session, and throughout the

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<sup>2</sup> Gennari Cooksley, Valerie, RN; *Aromatherapy Soothing Remedies to Restore, Rejuvenate, and Heal*; New York, NY; Prentice Hall Press; 2002; p. 249.

<sup>3</sup> Davis, Patricia; *Aromatherapy An A-Z*; London, UK; Vermillion; 2005; p. 234.

entire day. These episodes are draining, emotionally, mentally, and physically, on the girls and on the staff members, teachers, and therapists.

It was by pure accident I discovered the effects of Sandalwood (*Santalum Album*) oil in combating the extreme emotional volatility of therapy sessions with this population of girls. I have used sandalwood oil as a personal perfume for years because of its calming effects. Even a mental health therapist needs assistance in remaining calm in the face of so much emotional and behavioral upheaval. During a period of extreme stress at work I began diffusing sandalwood in my office as an added boost to the sandalwood oil I applied each morning. I soon discovered that the stressors of work did not affect me as profoundly as they had before I started using sandalwood in the diffuser. I also noted the girls on my caseload began having more productive, less emotionally charged therapy sessions. Not only was the sandalwood oil having a positive effect on my emotional state it was assisting the girls in their emotional regulation. I found that therapy sessions that focused on past abuse or past negative behavior were met with less demonstrative displays of fear, anxiety, and depressive emotion. These difficult therapy sessions became less so because the calming, sedative effects of the sandalwood were at work. Gennari Cooksley<sup>4</sup> noted that Sandalwood in a blend assists in helping relieve feelings of anxiety, depression, and tearfulness. This proved to be true with the girls on my caseload when sandalwood was diffused in my office during their therapy sessions. It was amazing to note the progress the girls made in therapy because they were able to focus and address difficult issues without high levels of emotion hindering them.

It was at this time in my career I began to diligently explore the arena of aromatherapy. My initial exploration into aromatherapy was to help with my own physical symptoms of Fibromyalgia compounded by a bout with West Nile Virus; however, I quickly began to note the emotional benefits of essential oils, and how those benefits could assist me in my professional work. Bergamot (*Citrus Aurantium*) oil was one that intrigued me because of its analgesic, anti-inflammatory, antidepressant, antiseptic, and expectorant properties, not to mention the aroma is divine.

At this same time I had one young woman on my caseload, “Tess”, who was a victim of sexual abuse perpetrated by a close family friend. Tess suffered from Post-traumatic stress disorder, depression, and anxiety. Prior to her admission to the treatment facility Tess was refusing to attend school because she was so debilitated by her symptoms. Tess entered each therapy session with trepidation and extreme tearfulness. Tess was very willing to discuss her abuse, her feelings toward her abuser and her family, but she would quickly become so overwhelmed with feelings of sadness, self-blame, and hopelessness she would dissolve into gut wrenching bouts of sobbing. Tess’s progress in therapy was at a standstill for several weeks because she could not regulate her negative emotions enough to process them. A solution to the impasse had to be found. Bergamot essential oil proved to be very emotionally uplifting for me, so I thought I would try it with Tess during her upcoming therapy sessions.

During Tess’s next therapy session she began it as she had in the past, with anxiety, fear, and tearfulness; but, before the session began in earnest I told Tess, that with her permission, I wanted to try something new. I simply told Tess I wanted to diffuse Bergamot oil in the office

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<sup>4</sup> Gennari Cooksley, Valerie, RN; *Aromatherapy Soothing Remedies to Restore, Rejuvenate, and Heal*; New York, NY; Prentice Hall Press; 2002; pp. 235, 243, 265.

during her sessions because I thought she might like the aroma. I didn't want to create an expectation for Tess that the oil would "cure" her anxiety and depression. Immediately Tess commented on the wonderful smell and how much she enjoyed it. For the next few therapy sessions Tess's emotional reactions were similar to what they had been prior to the use of Bergamot; however, I began to notice a marked decrease in Tess's level of anxiety and tearfulness during her sessions. Tess noted her improvement as well, and when asked what it was she thought contributed to her ability to be less emotionally charged during therapy Tess said she felt relaxed, more "smiley," and less sad whenever she entered my office. Tess was told that my request to use the Bergamot oil during her therapy sessions was in order to use aromatherapy to assist her therapeutic process. At this time aromatherapy was explained, as were the benefits of Bergamot. The following passage from Patricia Davis's book was read: "In helping with mental and psychological states, Bergamot is almost the most valuable oil at the aromatherapist's disposal."<sup>5</sup> Tess was pleasantly surprised by the information, but she made one request. Tess asked if she could attempt her next few therapy sessions without the use of Bergamot oil to see if she had progressed through her issues enough to not need the additional benefits of the oil. Tess's next therapy sessions were difficult, and she did demonstrate her emotions through tearfulness, but she was able to work through the issues. Occasionally Tess would request the Bergamot be diffused in the office, especially if she wanted to tackle a particularly difficult issue, but eventually Tess no longer needed the additional assistance of Bergamot oil.

Eight months after Tess entered the treatment facility, and my office, she was successfully discharged to her parent's home. At the time of her discharge Tess approached me and said, "Haly, thank you. I will always remember Bergamot. I am going to try and get some of my own, and whenever I am feeling sad or afraid I will open it up and smell it. And know what else? I'll think of you too."

Hundreds of studies, as indicated by a search on PubMed, provide information regarding the amygdala's role in the formation of memory, especially memories associated with fear; however, not one study cites the potential for aromatherapy in the process of healing, or effectively addressing traumatic memory. As illustrated in the stories about Johnny and Tess, aromatherapy can be an effective tool for a therapist to utilize in the awakening and processing past trauma for a client.

It is the hope of the author that aromatherapy with children, especially children with emotional and/or behavioral difficulties will be done in the future, because the benefits are limitless.

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<sup>5</sup> Davis, Patricia; *Aromatherapy An A-Z*; London, UK; Vermillion; 2005; p.56.