ISSN: 3069-0641

International Journal of Nursing & Healthcare

Research Article

Body Dysmorphic Disorder & Binaural Sound: A Case Report

George Lindenfeld, Ph. D., A.B.P.P *

Diplomate in Clinical Psychology, North Carolina, USA.

ABSTRACT

Body Dysmorphic Disorder (BDD) is an increasing public health concern, particularly with an upsurge in social media influencers, like those found on websites like Instagram and TikTok. Self-disgust and shame appear to be primary elements of BDD. Photo editing apps, including those with beauty filters, contribute to altered perceptions of the self, which are now being described as 'Delusion Amplification by Social Media.' Scientific studies of BDD have found that many of the participants have previously engaged in self-harming activities, ranging from piercing and scarring to suicide. Furthermore, the relationship between BDD and adverse childhood experiences (ACEs) has been found to be highly associated.

Globally, from 2020 to 2021, the US ranked first in cosmetic procedures, with 4.5 million Americans undergoing this intervention. In 2023, the United States registered 6.2 million procedures, the highest number worldwide. Between 2000 and 2023, private equity investors experienced a 7,630% increase in their capital investment, primarily in general, facial, and oculoplastic surgery practices. Five years after cosmetic surgery, Brazilian researchers concluded that the procedure was ineffective for BDD patients.

Gold-standard treatments have produced modest results. New procedures are necessary to alter ingrained patterns of thinking, feeling, and behavior in individuals with BDD. One such nonverbal intervention, RESET Therapy (RT), focuses on resetting aberrant trauma or stress-induced cortical networks through the use of binaural sound. Central to this telehealth-based intervention is the alteration of long-term memory through the reconsolidation process. A RESET Therapy case report describes an iPhone and Android application called Resolve-It! designed to provide patients with a non-verbal, readily available sound-based treatment.

KEYWORDS

Body Dysmorphic Disorder, Memory Reconsolidation, Reset Therapy, Resolve-It!.

Corresponding Author Information

George Lindenfeld, Ph. D., A.B.P.P
Diplomate in Clinical Psychology, North Carolina, USA, E-mail: glindy123@gmail.com.

Received: August 09, 2025; **Accepted:** September 18, 2025; **Published:** September 28, 2025

Citation: George Lindenfeld. Body Dysmorphic Disorder & Binaural Sound: A Case Report. Int J Nurs Health Care. 2025; 1(3):1-4.

Prelude

Dysmorphophobia, a Greek word meaning "ugliness" or "misshapen," was initially described by Enrico Morselli, an Italian psychiatrist, in 1891 [1]. The term 'Body Dysmorphic Disorder' (BDD) was finally reclassified in the DSM-III, in 1987, as an atypical somatoform disorder [2]. Sigmund Freud and his protégé, Ruth Brunswick (an American psychiatrist), engaged in a celebrated case of BDD known as the "Wolf Man." Brunswick treated the patient from 1926 to 1927, following the emergence of new symptoms that involved childhood trauma and parental attachment issues. The patient, Sergei Pankejeff, a Russian aristocrat, experienced persistent dreams of white wolves sitting and staring at him from the branches of a tree outside his bedroom window. The patient sought analysis from Dr Brunswick, who consequently reported that:

"He neglected his daily life and work because he was engrossed, to the exclusion of all else, in the state of his nose. On the street

he looked at himself in every shop window; he carried a pocket mirror, which he took out every few minutes. First, he would powder his nose; a moment later he would inspect it and remove the powder. He would then examine the pores, to see if they were enlarging, to catch the hole, as it were, in its moment of growth and development. Then he would again powder his nose, put away the mirror, and a moment later begin the process anew. His life was centred on the little mirror in his pocket, and his fate depended on what it revealed or was about to reveal" [3].

"Unfortunately, the number of people who are dissatisfied with their appearance and seek surgery is increasing. This issue persists as we transition into 2024, with a surgeon sharing his observations on rhinoplasty outcomes. "... questions have bothered me since 1995, when I operated on 3 such individuals who had good results but were devastated postoperatively. One gave up her job as a university professor and moved to a distant town. She thought her nose pointed toward the ceiling. One was a radiologist's wife who stayed in her bedroom because of a small graft irregularity in her left alar wall. The third was a man who tried to amputate his nose with a razor because he thought his dorsum was too high" [4].

Discussion

The DSM-5 distinguishes BDD by the following criteria: A. fixation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others. Preoccupation is operationalized as the individual dwelling on the observed defects for at least one hour daily. B. Repetitive behaviors, such as excessive grooming, mirror-checking, skin-picking, seeking reassurance, or mentally comparing one's appearance to that of others, are clinically significant and cause distress or impairment in social, occupational, or other important areas of functioning due to the preoccupation with appearance. C. The following criterion requires that the condition may be better accounted for by an alternative mental disorder, such as that found in the diagnosis of anorexia nervosa. The final specifier is related to the degree of insight present, ranging from good or fair to poor or absent. For example, when understanding is lacking, the individual fully believes that the dysmorphic beliefs are accurate [5].

In the United States, typically beginning in adolescence, about 2% of the population is prone to suffer from BDD. In comparison, an investigation of British adolescents revealed that 10.4% had BDD, with the prevalence higher in women (14.8%) than men (6.8%) [6]. Another group of researchers investigated the impact of ACEs on the perpetuation of BDD. They examined the following aspects: abuse, bullying, neglect, teasing, and total ACE scores. The results revealed a positive relationship between the two variables [7].

Researchers have found that childhood verbal abuse can alter the developing brain, resulting in long-term emotional and cognitive consequences. "Harsh, demeaning language from adults activates the brain's threat system, making children more likely to interpret neutral cues as threatening. At the same time, the brain's reward system becomes blunted, reducing responsiveness to praise, affection, and positive experiences" [8]. Other investigators inquired into the relationship between BDD and adverse childhood experiences (ACEs) between groups of BDD adolescents and those with obsessive-compulsive disorder (OCD). Higher victimization rates (74% vs. 38%) were found in the BDD group, as does child maltreatment (44% vs. 24%). Sexual abuse was found at a rate of 28% among BDD adolescents, as was parent-reported exposure to traumatic events (40% vs. 18%)" [9].

A European-based study involved young people with BDD from two outpatient clinics in Sweden and England. The participants included 172 individuals, consisting of 136 girls and 32 boys, as well as 4 transgender persons, ranging in age from 10 to 19. All of the contributors were diagnosed with BDD, with one out of three presenting with severe symptoms. Additionally, over half evidenced poor or absent insight as well as delusional beliefs. "We observed high rates of current psychiatric comorbidity (71.5%), past or current self-harm (52.1%), suicide attempts (11.0%), current desire for cosmetic procedures (53.7%), and complete school dropout (32.4%).

Compared to boys, girls had significantly more severe self-reported BDD symptoms, depression, suicidal thoughts, and self-harm. Compared to the younger participants (14 or younger), older participants had significantly more severe compulsions and were more likely to report a desire for conducting cosmetic procedures" [10].

Social Media & Networking

Websites like Instagram and TikTok often feature pictures of ideal body types, inadvertently or intentionally reinforcing the perceiver's self-assessment of poor self-worth and body dissatisfaction. Unfortunately, in extreme cases, this potentially leads to surgical interventions [11,12]. The topic of constant exposure to flawless images, idealized beauty standards, and excessive social media influence is correlated with negative emotional consequences among young people [13]. Another author described a reduced capacity to engage in long-term goals as well as the materialization of harmful addiction tendencies due to the overuse of social media [14].

A new conceptual model, primarily caused by media overuse, is called 'Delusion Amplification by Social Media,' which describes the formation of delusions linked with altered perceptions of the self. "In each case, the virtual nature of social media facilitates delusionality because the self is defined and bolstered in this highly mentalistic environment, where real-life exposure of the delusion can be largely avoided" [15]. A thematic synthesis aimed to identify common themes among patients with BDD. "A major theme that emerged from this effort was that self-disgust and shame were primary elements of BDD" [16].

The use of photo editing apps appears to be increasing, with females being greater users of social media platforms [17]. Augmented Reality (AR) beauty filters are now plentiful, easily accessible, and increasingly realistic due to advancements in technology. A study

was conducted on individuals who compared themselves with filtered and real self-images. Results comparing a slimming filter versus real self-images revealed that self-comparison processing was strongest when comparing one's self-image with the filtered one [18]. Videoconferencing was the focus of interest in a recent study with participants aged 18 to 39. Close to 90% had completed college or graduate school. 88.6% used video conferencing more than three times a week. 68.1 percent using 'touch-up my appearance' filters more than half the time [19].

Trauma, Self-Harm & Suicidality

Researchers have investigated the relationship between childhood traumatic experiences and the later emergence of body dysmorphic symptoms. They noted that "traumatic experiences during childhood can contribute to the development of negative self-perceptions and distorted beliefs regarding one's appearance, fueling the obsessive focus on perceived flaws characteristic of body dysmorphia" [20]. Norwegian investigators monitored 759 children from birth to adolescence. Their findings revealed that children who perceived their parents as hostile and harmful were more likely to engage in non-suicidal self-injury by the time they attained adolescence. They found that among the participants, "Almost 1 in 4 adolescents engage in deliberate self-harm without wanting to die from it" [21].

Approximately half of the youngsters with BDD in the reported study have reported engagement in self-harm activities. Investigators speculated that this may be due to emotional dysregulation or concerns about appearance. "For example, young people may apply bleach to their skin in an effort to remove freckles or skin-pick in an attempt to remove blemishes, leading to lesions" [22]. Investigators compared participants with BDD to unexposed matched individuals for the incidence of intentional self-harm and suicide within the context of the study period. They found a threefold risk of self-harm and death by suicide in the BDD group [23]. Researchers investigated the causes of BDD in individuals and explored methods to prevent and manage it. They found the condition to be more frequent in adolescents than in children, and more prevalent in females than in males. High rates of psychosocial impairment and psychiatric comorbidity were evident [24].

British investigators utilized anonymous health records from 2007 to 2019, revealing 298 patients diagnosed with BDD, with ages ranging from 12 to 65 years. "Within this group, 69% had experienced lifetime suicidal ideation. 149 (50 %) had recorded lifetime acts of self-harm or suicide attempts, most commonly involving cutting and self-poisoning… The presence of two or more psychiatric comorbidities was associated with a significantly elevated likelihood of suicidal ideation and self-harm/suicide attempts" [25].

Non-suicidal self-injury (NSSI) and eating disorders (EDs) share psychopathological traits and plateau in adolescence. A recent study focused on concerns about body image as a shared factor between the two conditions. Standardized assessments provided to a group with ED + NSSI uncovered higher concerns regarding body image. "Moreover, the ED + NSSI group presented higher scores on psychopathological traits associated with a more severe ED, namely Ineffectiveness, Social Insecurity, and Asceticism… These findings highlight significant associations between body image concerns and NSSI in patients with an ED, also showing a higher risk of psychiatric comorbidities and a more severe ED profile in these patients" [26].

Self-esteem levels were assessed in 206 participants aged 15 to 48 who engaged in piercing activities. According to the screening instruments, 25.7% to 29.1% screened positive for BDD symptoms. The investigators suggested that "... individuals with piercings should be regarded as a group with an increased risk for BDD symptoms [27].

Surgery

The number of aesthetic surgical procedures provided in the United States from 2020 to 2021 increased by 54%, while non-surgical cosmetic procedures rose by 44%. Globally, during the same period, the US ranked first in cosmetic procedures, with 4.5 million Americans undergoing this intervention [28]. In 2023, the United States registered 6.2 million procedures, the highest number worldwide. Women prioritized the following surgical cosmetic procedures: liposuction, breast augmentation, and tummy tuck. Men selected: breast reduction for gynecomastia, liposuction, and eyelid surgery. A tummy tuck is the third most expensive cosmetic surgery, with a price tag of $8,200 U.S. dollars for the surgeon's fee alone [29].

U.S. citizens in the Dominican Republic who received cosmetic surgery experienced a mean increase in the death rate from 4.1 each year from 2009-2018 to a level of 13.0 from 2019-2022, attaining a peak of 17 in 2020 [30]. Globally, a 2024 survey noted an increase of … "3.4%, including 34.9 million surgical and nonsurgical aesthetic procedures performed by plastic surgeons in 2023. More than 15.8 million surgical procedures and more than 19.1 million nonsurgical procedures were performed worldwide… In the last 4 years, the overall increase in procedures was 40%" [31].

An inquiry was conducted five years after receiving cosmetic surgery, with the researchers concluding that the intervention was ineffective for BDD patients. "Most studies show that performing cosmetic surgery rarely improves BDD symptoms, indicating that patients report a low degree of satisfaction and present deterioration of the symptoms of the disease, leading surgeons to promptly refer those screened for BDD to a psychiatrist familiar with the disorder" [32].

Due to rising demand for aesthetic procedures, plastic surgery has seen a notable increase in private equity (PE) investment. A cross-sectional study investigated PE acquisitions from January 1, 2000, to July 1, 2024. "Between 2000 and 2023, PE-backed acquisitions

in plastic surgery grew by 4,300% in practice volume and 7,630% in capital investment… PE investment was prominent in general, facial, and oculoplastic surgery practices, with a preference for cash-only models, particularly in specialized fields. Many practices employed few plastic surgeons, relying instead on aesthetic clinicians [33].

Gender-affirming surgeries have increased by 400% over the last five years, "from 299 per million to 1029 per million cases performed in the United States" [34]. The treatment of age-related issues is a self-pay service that includes surgical and non-surgical procedures. "The Japan Society of Aesthetic Plastic Surgery (JSAPS) estimates that nearly two million age-related procedures were performed in 2019. Also, in our country, the face is the main treatment area, which is also a characteristic. In aesthetic medicine, unlike general medical treatment, there are situations where many unapproved drugs, medical materials, and medical devices are used. These are used by individual doctors for patients through import, and some are used without understanding their effectiveness and safety. Many adverse events, such as granulomas after filler injection, have occurred, and have been a concern for professional societies and administrative agencies" [35].

Treatment

Current treatments for body dysmorphic disorder display modest results. "With the reduced quality of life and increased risks of suicide among individuals with body dysmorphic disorder, there is a need for new and easily accessible therapeutic approaches specific to body dysmorphic disorder" [36]. Following group therapy, 40% of adolescents who underwent CBT were classified as treatment responders, meaning that their scores on a screening instrument were reduced by 30% [37].

A consecutive case series examined metacognitive therapy (MCT) as a treatment for BDD. Among the eleven initial participants, two declined, one dropped out, and eight completed the treatments; the latter group was perceived as treatment responders. (>30% improvement). [38]. Researchers investigated Acceptance and Commitment Therapy (ACT) among 36 BDD students, with 18 assigned to the experimental group and 18 to the control group. Those in the experimental group received eight 90-minute ACT sessions. The results revealed that participants in the experimental group experienced the following: increased tolerance, attraction, assessment, and regulation, as well as reduced interpersonal sensitivity and depression [39].

Schema therapy aims to alter deeply ingrained early life experiences that are considered to be persistent patterns of thinking, feeling, and behaving. It is derived from diverse therapeutic models, including CBT, Gestalt Therapy, and attachment theory. A recent study investigated the use of schema therapy in women seeking cosmetic surgery. Ten 90-minute sessions were provided to 30 participants randomly assigned to either the experimental or control group. Varied measures were provided both before and following the treatment experience. The schema therapy group evidenced a significant reduction in measures of perfectionism, and body shame [40].

Ten adults living in Australia underwent an 8-week telehealth CBT intervention for Muscle dysmorphia (MD). MD is defined by an obsessive belief that one has excess body fat and lacks muscularity. A questionnaire battery was administered before treatment, after treatment, and at a three-month follow-up. All participants completed the treatment program. Significant reductions in MD symptoms were reported and maintained at three-month follow-up [41].

Fifty-seven participants received a smartphone-based, coach-supported cognitive-behavioral therapy (CBT) intervention for BDD over 12 weeks. The clinician-rated Yale-Brown Obsessive-Compulsive Scale Modified for BDD (BDD-YBOCS) was used. Secondary outcomes were evaluated, including BDD-related insight, depression, functioning, and overall quality of life. Significant attrition was reported with "The proportion of participants responding to treatment and in remission remained relatively unchanged as well (63% responders and 46% remitters at posttreatment, 54% and 35% at 3-month follow-up, and 61% and 37% at 12-month follow-up, respectively)." The investigators concluded, "Improvements after coach-supported smartphone-based CBT for BDD are maintained one year after treatment" [42].

Investigators utilized an internet-based cognitive behavioral therapy (CBT) and a stand-alone mindfulness meditation intervention to assess the efficacy of a treatment for body dysmorphic disorder. Twenty-eight adults were randomly assigned to an 8-week experimental (web-based therapist-guided CBT-M) or control group (web-based therapist-guided CBT). While significant improvements were found on all outcome measures for both groups, no significant differences were identified between them [43].

Eye movement desensitization and reprocessing (EMDR) was utilized to examine the efficacy of this approach in treating BDD symptoms. Four female patients who met the criteria for the diagnosis of BDD participated in 10 90-minute sessions with two follow-up sessions at 1 and 3 months. A significant reduction in BDD symptoms was noted, including the following: appearance-based rejection sensitivity; body shame; increased self-compassion [44].

The author believes that a binaural sound-based intervention called Resolve-It!, now available on both iPhone and Android, may be the first app to clinically remediate the BDD condition. This development has followed the emergence of Reset Therapy (RT), which has been found to swiftly unlock the emotional aspects of long-term memories of trauma among combat veterans with PTSD [45]. With BDD, the clinical focus is to alter the delusional belief system that has developed throughout a lifetime by focusing on the sensory aspects of the experience.

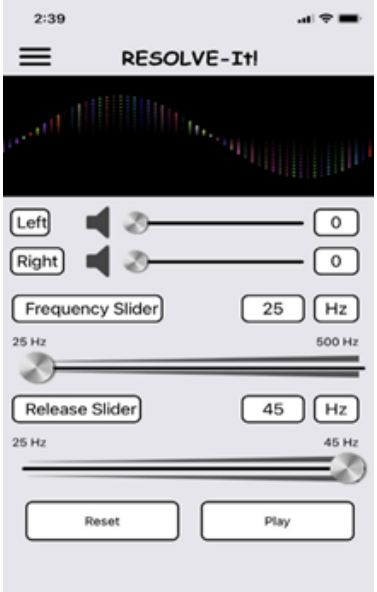

Figure 1: Resolve-It! Image.

Nadar et al. [46] found, around the year 2000, that every time an emotionally charged memory is re-energized, it is restored (reconsolidated) within the brain's memory region. One might perceive these regions as being comparable to a locked storage vault for long-term, emotionally charged, traumatic memories. The author found that binaural sound, uniquely tuned to resonate with an elicited emotion such as shame, can effectively 'erase' the associated sensory-based feelings from stored memory. The content aspect of the memory remains, but the intense emotional aspect drops out once the memory is reconsolidated. This process is illustrated in the provided case report.

Instrument Utilized

Adverse Childhood Experiences (ACEs) Data Inventory: The ACE Inventory measures ten adverse childhood experiences, with results ranging from 0 to 10. Scores ranging from 0 to 3 are considered low risk, while scores exceeding 4 or higher are associated with an increased risk of adverse health outcomes. Higher ACE scores have been associated with a range of health problems, including mental health, physical health, and enhanced risk-taking behaviors [47].

Cosmetic Procedure Screening Scale (COPS): The COPS items are scored from 0 (least impaired) to 8 (most impaired). Total scores range from 0 to 72. Higher scores reflect more significant impairment levels and symptoms of BDD. The cutoff score for the COPS is 40 or more, indicating a likely diagnosis of BDD [48].

Case Report

Prolog

I want to feel free; to live in my body, without judging it, without avoiding looking at it, without knowing that it is wrong, without wanting to change it. I want the freedom to walk with my shoulders back and face towards the sun, without the strong urge to shrink and hide away from the air and people, and to live life freely. I want to appreciate my body for the miracle that it is and the miracle it created. My strong desire for freedom and my goal to provide my son with an environment conducive to healthy development and confidence have prompted my healing journey. As I began this process, I realized that my childhood would be crucial to explore. This, of course, has given me even more of a drive to heal, knowing that my behavior and my beliefs are impacting my son.

As a 37-year-old woman, I am aware that I have distorted thinking, likely due to various factors; therefore, to avoid falling victim to these distortions, concrete data serves as a necessary anchor for my healing. Taking the Adverse Childhood Experience Questionnaire (ACE) gave me some concrete material to work with. I scored a 6 out of 10 on the inventory, and seeing those factors has given me a good place to start to identify what caused this manifestation of a myriad of symptoms/disorders, including anxiety, Depression, and Body Dysmorphic Disorder.

My mother was one of ten children. She endured much trauma and suffering inflicted by her family throughout her childhood, during which she never received any support. I have never been aware of any self-reflection on her part. Needless to say, she was not the ideal person to become a mother. The environment in my home as a child was tense, fragile, scary, and hostile. My mother set a fearful tone. If she was having a bad day, then our day was bad too. If she had a good day, we would walk on eggshells until the inevitable happened.

My father was the son of an alcoholic father and an enabling, co-dependent mother. He was overweight most of his life, which led to his being bullied in school. At 19, he left his childhood home to marry my pregnant 19-year-old mother and start a family. He was a Union electrician and was an alcoholic who drank beer daily. I liked my dad when he was drunk because he was silly and engaged with us, but overall, he was completely absent as a parent.

When I was 8, my father started attending AA and became sober. At that time, my mother insisted that we stop seeing my grandma. That was really sad for me (becomes emotional). Around the time I was 9 years old, my mom started calling my grandma 'evil.' That was my mom's narrative, so we couldn't speak to or visit her. I loved her so very much, and now my dad's deceased, I miss them so very much (cries). With her, we could do no wrong for being ourselves; my dad was the same way. I hated that my mom took our grandma away from us.

My mother cared very much about my appearance. I could not wear anything with a stain or a rip. My hair was very long, and she spent much of her morning styling it before school. It had to be 'just right' before leaving. Many things I did made her say, 'Eww' as though she was disgusted by me. She was a petite woman, standing at 5 feet 3 inches and weighing 100 pounds. By the time I was in 3rd grade, I was 100 pounds. This left a massive impression on me

because being a child with the same weight as an adult felt wrong. My mother would often comment on people we saw in stores: 'Ugh, how are they so fat? They look so trashy.'

Until I was 8, Mom made dinner every night, but rarely sat down to eat with us. When I ate dinner, I was often corrected on my eating habits, such as eating too fast or too slowly. She would frequently point out at dinner how my dad ate. She would ask him, 'Why do you eat like someone will steal your food?' She would often explain to me how she thought it was disgusting how my dad ate, with his elbows on the table and 'hovering' over his food and 'inhaling' it. I recall feeling disgusted when I saw people eating in this manner.

Once my three younger siblings were born, I was fully aware of the financial stress that my parents were experiencing. This led me to feel guilt and shame for eating or for needing anything, like shoes or a winter jacket. Around the age of 12, I started to feel disgusting. I started getting pimples around this age, and my mom would pop the pimples and the next day put makeup over them before I went to school. My dad would beg her to stop. He would say, 'Stop, you'll leave her with scars like mine!' She would respond, "I cannot let her out of the house with this on her face!' I became highly aware of my "flaws." I spent a lot of time in front of the mirror, trying to figure out how to avoid criticism, and I didn't realize it at the time, but I was becoming very insecure.

From the age of 12, many indicators emerged to protect me from criticism about my appearance. When it did happen, it felt like a gut punch. Negative or any remarks about my looks caused my stomach to hurt, my heart rate to increase, my head to begin to feel dizzy, my ears to get hot, and they would start to ring. I then could feel a chill of cold, damp sweat. I would smell and taste a sweet, nauseating scent. In these moments, my life stood still. It felt as though I was choking, trying to shove back down what was coming up. Each moment and movement felt so heavy, so pointless. I struggled to rationalize or think with any clarity in the hours afterwards. I found it extremely challenging to stay present for the remainder of the day. I am sure that I can easily recall every negative or perceived negative comment ever made about my appearance. A quick, fleeting thought of any one of these remarks can kindle those feelings all over again with the same intensity.

Now, I don't leave my house without wearing a full face of makeup. I plan strategically to be awake before my husband every day to put on makeup before he wakes up and go to bed after him, so I can take it off after he falls asleep. I keep my hair long to hide myself. I wear loose clothes so no one can see the shape or size of my body. I haven't worn shorts or a bathing suit since I was 15. I measure my waist and thighs, contemplating cosmetic surgery daily. I don't smile fully to hide my teeth, and I avoid family pictures. I cannot look at my body, any part of it, without varying levels of disgust.

I was 29 when my son was born. At that point, I made a conscious effort not to let my self-hatred interfere with his life. I don't criticize my body out loud, only in my head. I wore full-body swimsuits that covered my entire body, including my legs and arms, when I went swimming with him or when we went to the beach. While I pretend to love my appearance in hopes of setting a good example for my son, I have recently realized that pretending is not good enough. My son started refusing to wear shorts at age seven due to feelings of embarrassment. This was a huge slap in the face and a wake-up call for me. This has motivated me to begin my self-acceptance journey by reaching out to an experienced therapist.

Main Narrative

1/20/2025: Vanessa initiated therapy via telehealth, stating that her primary motivation was her realization that her emotional issues were affecting her son's development. "Pauley is 8 years old and still sleeps in bed with me. My husband sleeps on the couch. I know this is unhealthy, and I want to make it right." Vanessa was also concerned about her son's emotional attachment to a couch that was to be removed. "I just don't know how to handle it when he is upset."

2/03/2025: Vanessa reported feeling overwhelmed by parenting obligations, particularly regarding her son's school avoidance tendencies. She has difficulty asserting herself with her son, stating, "I think he sees weakness in me, and he keeps pushing the limits." The therapist recommended that Vanessa and her husband form an executive team to discuss matters about their son. He further suggested a nonverbal positive reward system for age-appropriate assigned chores, like setting the eating utensils on the table. He also recommended that Vanessa obtain an instructional book to help her develop assertiveness.

2/13/2025: Vanessa reported her husband is on board with their joint parenting involvement. They have implemented a reward system for their son, which is tied to his completion of household chores. Therapeutic inquiry revealed that the patient is primarily a chest breather. She was consequently provided with instruction in diaphragmatic breathing to begin modifying her underlying anxiety issues. She has ordered the recommended assertiveness training book.

2/20/2025: Vanessa reported improvement in her son's behavior at home after implementing a reward system. She then described the issues related to her son's resistance to attending school. The therapist advised that she discuss appropriate consequences for their son's refusal to go to school with her husband. A nonverbal suggestion was provided, such as putting out her hand to her son when he resists, with him placing a specified amount of his previously earned coins into it.

2/27/2025: Vanessa acknowledged that her mind races, and she has limited means of altering this difficulty. Meditation training was provided based on her modified breathing style. After practicing this a few times, she noticed her racing mind slowed down. Vanessa reported progress in changing her son's behavioral pattern. He was now sleeping in his own bed and no longer protesting about attending school. The therapist complimented her on achieving

so much change in such a short time. She then added, "I noticed something interesting about my breathing. When I breathe into my stomach, it immediately makes me feel fat, and it gives me a feeling in my pants that I almost can't tolerate."

3/13/2025: "I'm concerned about my son's body image, as he has been upset about his weight. I don't want him to develop an eating disorder." Therapeutic inquiry into this matter revealed that Vanessa experienced shame and guilt concerning her own body image. Further inquiry revealed that she evidenced Body Dysmorphic Disorder (BDD), which had been present since early adolescence. Specifically, Vanessa described her fear of wearing shorts or exposing her legs in public due to body image concerns. For example, her anxiety over her body appearance resulted in her avoidance of interactions with neighbors as well as a generalized discomfort in social situations.

3/20/2025: Vanessa was asked if she would like to try an experimental treatment called Reset Therapy to remediate her BDD condition. She immediately agreed to proceed and was introduced to an iPhone app called Resolve-It! Next, she received training on using the app, with specific instructions on how to adjust the sound volume and frequencies independently. Vanessa was told that this treatment would depend solely on her sensory perceptions (feelings) rather than her thinking processes. She was given the maxim, "You have to feel it to heal it." After setting the Volume Sliders, her initial task was to adjust a Frequency Slider to a point where it resonated with the sensations of a targeted emotion, such as a reactive matter concerning her body. Next, she adjusted the Release Slider to the point where the uncomfortable body sensation diminished. She was advised to begin with a five-minute application of this process, gradually extending it up to around 15 minutes as she became skilled in utilizing the procedure.

4/10/2025: "My husband was home when I tried on shorts for the first time. He said, 'Oh my god, I didn't realize how hard it was for you to put them on.' After using the app several times on different days, four days later, I got out of the shower and put on shorts, which I wore for the rest of the day. It was like normal. I was wearing compression stockings, so I still had the lower part of my legs covered, but I dabbled with pulling the compression socks down a little bit to see how I felt. By the end of the day, I had pulled the compression socks all the way down, exposing my full legs, which made me a little anxious, but not nearly as anxious as I had been before.

4/21/2025: Vanessa has now fully engaged with the issue of body dysmorphia. She completed an assessment using the Cosmetic Procedure Screening Scale (COPS), scoring 49, which supported the diagnosis of BDD. Thereafter, Vanessa revealed her preoccupation with her body appearance, particularly her nose, face, breasts, legs, and overall weight. Vanessa also discussed her history of self-harming behaviors, indicating that these issues began around age 13 and have since evolved into a fixation on her body image.

"I have considered cosmetic surgery and had wanted a nose job as well as breast augmentation. I tried to have my face changed through the use of Botox, and I made an appointment for filler injection for my lips. In elementary school, at the age of 11, I was taller and bigger than the others, and it felt wrong. I began self-harming at around age 13 and continued till around age 16. I used a razor to cut on my upper thighs, and I would also bang my head. It would calm me down for a day.

The therapist asked Vanessa to develop a list of troublesome body aspects or sensations, from the least to the worst, that trigger her emotionally. She planned to utilize the triggering material sequentially within the context of the Resolve-It! procedure. She was also to discover if one set of frequencies unlocked the emotional aspects of her condition. Alternatively, she was instructed to be open to using varied frequencies if she found this necessary.

4/28/2025: Vanessa provided the following list of disturbing aspects of her body.

1. Upper arms; fat hanging from upper arms.
2. Teeth/mouth; small lips, lip color, small teeth.
3. Nose: large size, scars on the tip and side, shape, and a large bump on the nose.
4. Stomach: Circumference of waist and hips, feeling of fat rolls while sitting, feeling fat on the hips that hang over pants.
5. Breasts: small size, shape, overall appearance, and the sensation of not wearing a bra.
6. Butt, under butt area; Shape, cellulite, large, wide size.
7. Skin on face: color, freckles, pimples, scars, large pores, wrinkles,
8. Feet; shape, vast size, redness, feeling when they are hot, shape of toes.
9. Legs; size; thigh and calf circumference, shape of knees, pale skin, varicose veins.
10. Body weight, feeling fat.

5/12/2025: Vanessa reports significant difficulty in proceeding with her treatment assignment due to breathing issues, which she describes as leading to feelings of fatness. This has resulted in heightened anxiety that escalated to a level where she becomes nonfunctional. The therapist suggested that Vanessa visualize being pregnant to alleviate anxiety related to her perceived stomach fatness, a reframing technique aimed at reducing negative sensations.

5/19/2025: "I wore the shorts out with my son. I picked him up at school, wearing them. We went to Starbucks and used a gift card I had. When he got in the car, he said, 'Why are you wearing shorts? Something is up. What's going on?' I told him that I am changing things now that I'm in therapy. It went really well. I feel great wearing them."

5/29/2025: "The therapist advised me to use the Resolve-It! App to meet with my grandma and father in my mind. It was challenging to get a clear picture of him, so I drew on my memories of the times

we spent together, and then I was able to see him. He was to the left of me in his truck, driving me to work. I told him, 'I feel so ugly. ' He looked at me and said, 'What are you crazy?' He then said, 'You're gorgeous!' Then, in a much lower, calm voice, he said, 'You need to cut that crap out; it doesn't matter what anybody thinks of you, but you better know you're gorgeous.'

My mind went to my grandma at this point. I was riding on her back in her pool in her backyard. I started screaming, 'Grandma, I am just so ugly. Look at this, pointing to my fat face, then to the scars on the right side of my mouth, grabbing my stomach fat and shaking it, then grabbing at my butt and thigh area, then grabbing my upper arms, trying to make her look at all these areas. I screamed over and over I am just so ugly.' She just stayed calm and eventually said, 'Vanessa girl, you are so beautiful, there is nothing wrong with you. God made you just right. Look how beautiful you are, you are perfect.'

Afterthoughts: "I believe my dad and grandma, but I don't think it's true. I want to believe them, and it felt good to hear them say those things, but I'm not there yet. I have a clear picture in my mind of what I should look like to be considered beautiful, and no matter how much anyone tells me I am attractive, if my appearance is not changing, I don't think I will believe them. I know that people are classified as beautiful based on some factors like the degree of symmetry of both sides of the face, the size of their body, the shape of their body, the color of their skin, the color of their eyes, the color of their hair, the appearance of their teeth, the texture of their skin, and so on. I know I fall short in all those areas, which is why I struggle to believe what someone who loves me tells me.

Someone who loves me is likely blind to my flaws. When I know what beauty is and I am not, what is the point of even contemplating it, let alone coming to believe that it is true. The approach, I think, will have to be okay with not being beautiful. However, these questions come to mind: I can improve my appearance, so why wouldn't I? Why would I settle for not being beautiful when I can strive to be even more beautiful? I can get Botox. I can get lip fillers, I can get breast implants, I can get a nose job, I can lose weight, and I can get laser treatment for my varicose veins. After all this, I genuinely believe I will feel close to beautiful. I know society would respond similarly, which would prove that changing my previous appearance was a good thing. This is where I genuinely am at right now."

6/05/2025 – "Posed with the task of trying to understand why I may be so resistant to letting go of the beliefs I have about my appearance, I have done my best to dig deep. I almost feel this set of beliefs I hold has become my religion. The feelings to me are so real that pushing against them feels like trying to tell me the color blue is actually red. It feels false. With that knowledge, I think the reason I have been pushing back and trying to hold on to these beliefs all comes down to fear, of course. But fear of what? Fear, that I have nothing else if I am not something pleasing to look at. Also, if I live by my new (health) belief set, I will have to hold people accountable (mom) for their actions. I am so uncomfortable with doing this that I would like to avoid it."

6/23/2025: "My motivation for self-acceptance continues to grow. Things that were once hidden in my unconscious are now within my awareness. I was confirming harmful beliefs about myself through an unconscious acceptance of what reality seemed to be. My mother, for example, has a habit of talking about others' weight negatively. Once unnoticed, I am now aware of her words and their destructive impact. In the past, I was inspired by before-and-after pictures of women who had undergone cosmetic surgery, which served as motivation for me to achieve my appearance goals.

I would often glance at these pictures without much thought, assuming they were generally good because they motivated me. I now recognize this is an extremely harmful practice. I am becoming very uninterested in the idea that spending time and money on trying to look younger is rational. Although I recognize that this desire to look younger may be somewhat inherent and perhaps even built into my DNA, it is irrational. What I want so badly is to live my life in complete truth. If that is my goal, rejecting the aging process or rejecting myself as I was meant to be, does not hold up."

7/02/2025: "My therapist suggested that I begin to have 'Freedom Days' during which I focus on experiencing a lifestyle based on openness, thereby allowing me to become the person I wish to be. I have found that this concept has allowed me to experiment with the feeling of independence, which has propelled me into wanting that to be my everyday experience. Each day has become significantly easier, as my routine has become substantially shorter. My days are filled, but I'm no longer completely preoccupied with looks and negative self-talk about my physical appearance. I'm gradually substituting the delusional material for reality. I feel so relieved to think that I don't have to worry about Botox anymore."

7/27/25: "I left the house today with almost no makeup on, wearing shorts, and flip flops. For whatever reason, I felt so good about myself this day. Initially, I was wearing shorts around the house and washed my hair that morning (washing my hair and having wet hair usually makes me feel unattractive). I had no plans to go anywhere on this day. If I thought about being in shorts, with damp hair, almost no makeup, and shoes that showed my feet just a few months ago, it would have caused a great deal of stress, and I would have never thought I would ever feel comfortable like this. Ultimately, I went to the store to pick up Pauley's school supplies.

Once I decided to go, I told myself that I would put on pants and then go. Then, I thought, why would I change into pants? It is hot out. I can stay in these shorts. In that moment, I thought about how much more comfortable I would be if I were in pants and with socks on. Quickly, I rationalized this feeling: I am going to the store, and it's hot out, so it will take longer if I go and change my clothes. I can go to the store as is. Pauley and I went to the store, and my legs, having been exposed first to the sun outside and then to the cool air inside the store, felt so good. The rest of the day, my

legs didn't feel as heavy as they usually do. They felt so free and without pain. I stayed in shorts and bare feet for the rest of the day."

This delusion of being the perfect person with the right nose and the right lips and the right boobs and the right ass. Yep, that's what we're altering, so the goal is to have a normalized range. I have been working on developing a relationship with someone I can trust outside of my family. I have been developing a friendship with one of Pauley's friends' moms, and I really enjoy her company. Yesterday, we hung out with the boys and each other. She asked me if I had a workout routine. I apparently got excited and responded immediately, stating, 'No! And I have gained 15 pounds! Her response was 'Well, congratulations! Because you look freakin' great!' I thought that was a fantastic response. No one's ever spontaneously said that to me before. She was the first person outside of the family that I've worn shorts in front of. I've been looking at it in the mirror as you requested, and that's been fine. I've been enjoying looking at my body, and I don't know why, but it is looking fine to me."

8/12/2025 - Having progressed significantly in her assignments, Vanessa was advised to utilize a procedure called 'Reversal Day' to solidify the progress she had made. Over 24 hours, she was to revert to pretreatment behavior regarding her focus on body issues. "Overall, I found Reversal Day to be just plain annoying. I now realize that a lot of time was wasted before. I tried for the whole week to think about my prior rituals. Each morning presently, I go for a walk before everyone else wakes up. Before treatment, I would feel that I had to get ready for the day and put on makeup before going outside. Because I had to do that again, I ran out of time and couldn't take my walk. Then I actually wanted to wear shorts today. Following the old pattern, I had on sweatpants, and I was uncomfortable and hot in them. I was trying to absorb how annoying that was, especially since I had gone food shopping in the morning and my car was parked a fair distance from the house.

At any rate, it took me a full forty-five minutes to do my hair because I had to blow-dry it and then curl it. I then applied white strips to my teeth, which was more time-consuming, and I found the increased attention to my appearance to be very time-consuming. I had plans to meet with a friend later that afternoon, so I spent forty-five minutes doing my makeup. Then I had to do my body check, which took forever, like I used to do. I realized over all that time that I wanna be doing other things. At that point, I realized that I no longer liked how I looked with tons of makeup on, which was refreshing. I was now annoyed by doing things I didn't want to do, but had to do compulsively before. I view these changes in myself as significant accomplishments, and I'm giving myself positive recognition for them.

Discussion

As provided in the above material, Vanessa presented with a fixed delusional belief system that had existed over the entire self-awareness course of her lifetime. The patient evidenced self-disgust and shame of her body features, primary aspects of the BDD condition. This was further magnified by 'Delusion Amplification by Social Media', leading her to desire cosmetic and surgical alteration of her perceived flaws. A period of self-harm ensued within the context of this patient's adolescent experience. Furthermore, social anxiety features emerged that stifled interpersonal peer-level engagement. Vanessa kept these aspects of her being well hidden initially within the context of her therapeutic interaction. As noted earlier, her original purpose for engagement in therapy was related to parenting issues with her son.

It was expected that the therapeutic flow and progress of BDD would be more akin to that of complex PTSD cases as opposed to a more focused and specified PTSD incident. In the former, awareness emerges layer by layer as though peeling off the skin of the onion, ultimately freeing the patient from the emotional burden accumulated over a lengthy period. In the latter incident-specific cases, remediation can occur quite rapidly. As indicated in the flow of her progress notes, the layered aspect appeared to be the case for Vanessa.

Her discomfort in implementing foundational diaphragmatic breathing procedures designed to diminish her anxiety exposed her underlying BDD state. Recall that she felt herself to be fat when she breathed in this manner. The therapist attempted to utilize key caring figures in her life to alter her fixed perception, such as her deceased father and grandmother, to little avail. Fortunately, her desire to establish a relationship with her son based on honesty proved to be a pivotal factor, ultimately leading to a gradual and then a progressive shift in her belief system. Within this context, a primary factor enabling this change process was the addition of sensory information that contrasted with her existing belief system, obtained through the use of Resolve-It!, a binaural sound-based app.

In essence, over time, Vanessa came to realize that the emotional aspects of her being were not in alignment with her delusional belief system. A rigidified process was involved in her condition, with this conflict generating ongoing anxiety within her. Furthermore, to avoid criticism regarding her appearance, she adopted a people-pleasing interpersonal style. A consequence of these dynamics was an inability to establish adequate boundaries between herself and others. Examples of this were noted earlier in her comments, such as her allowing her 8-year-old son to sleep with her, rather than her sleeping with her husband. An additional example was her mother's frequent discussions about ugliness, which Vanessa abhorred but was unable to alter in any way.

As Vanessa developed mastery with the sound-based app, her rigidified belief in the status quo began to shift. She became able to implement therapeutic assignments such as wearing shorts for a day and a two-piece bathing suit when going to the beach. Her communication and intimacy level with her husband increased, as did her 'Freedom Day' experiences. She was able to begin setting limits with her mother, developing friendships, and reducing her mother's tendency to engage in ugly talk. As her 'Freedom Day'

experiences increased, her fixed ideation regarding her body flaws began to shift. Simultaneously, her assertiveness training permitted her to understand the necessity of establishing boundaries between herself and others.

With the successful completion of her varied challenges, a Reversal Day challenge was advised. During that day, she was to reintroduce all of her prior BDD behaviors, including checking her face in a mirror for at least an hour on that given day. The rationale for this rather drastic step was to ensure that she did not gradually slide back into her prior state. Vanessa found that using Resolve-It! was essential in facilitating her transformational process. Recall that in the treatment section of this article, responsive patients were those who evidenced a significant reduction (undefined) in their BDD assessment results. In some of the reported studies, treatment responders obtained a 30% reduction in inventory scores. None of the included articles referred to a remediation effect where the patient no longer participated in prior self-focused behaviors. In contrast, evidence of a substantial behavioral shift is captured in comparing Vanessa's pre- and post-treatment results on the Cosmetic Procedure Screening Scale (COPS). Her initial score was 49, with a post-treatment score of 2, representing a 95.9% change. The results suggest the need for further inquiry into binaural sound treatment for Body Dysmorphic Disorder, as well as other eating disorder conditions.

References

1. França K, Roccia MG, Castillo D, Harbi ALM, Tchernev G, et al. Body Dysmorphic Disorder: History and Curiosities. Wien Med Wochenschr. 2017; 167: 5-7.
2. Nicewicz HR, Torrico TJ, Boutrouille JF. Body Dysmorphic Disorder. Stat Pearls Publishing. 2025.
3. Veale D. Body dysmorphic disorder. Postgraduate Medical Journal. 2004; 80: 67-71.
4. Constantian MB. Commentary on: Rhinoplasty Outcomes in Patients with Symptoms of Body Dysmorphia. Aesthet Surg J. 2024; 44: 805-808.
5. Nicewicz HR, Torrico TJ, Boutrouille JF. Body Dysmorphic Disorder. StatPearls Publishing. 2025.
6. Trichas M, Janniger CK, Schwartz RA. Body Dysmorphic Disorder: 21st Century Challenges. International Journal of Dermatology. 2025; 64: 1342-1348.
7. Longobardi C, Badenes-Ribera L, Fabris MA. Adverse childhood experiences and body dysmorphic symptoms: A meta-analysis. Body image. 2022; 40: 267-284.
8. https://neurosciencenews.com/verbal-abuse-child-brain-28886/
9. Monzani B, Luxton R, Jassi A, Krebs G. Adverse Childhood Experiences among Adolescents With Body Dysmorphic Disorder: Frequency and Clinical Correlates. Clin Psychol Psychother. 2024; 31: e3028.
10. Rautio D, Jassi A, Krebs G, Per Andrén P, Monzani B, et al. Clinical characteristics of 172 children and adolescents with body dysmorphic disorder. Eur Child Adolesc Psychiatry. 2022; 31: 133-144.
11. Suhag K, Rauniyar S. Social Media Effects Regarding Eating Disorders and Body Image in Young Adolescents. Cureus. 2024; 16: e58674.
12. Rahmani B, Shokrian N, Mahmoud AA, Rajkumar S, Park J, et al. The Quality of Information about Body Dysmorphia on TikTok. Annals of Plastic Surgery. 2025; 94: 395-400.
13. Krzymowski J. The Link between Social Media and Body Image Issues among Youth in the United States. Ballard Brief. 2024.
14. Pugno M. Does social media harm young people's well-being? A suggestion from economic research. Academia Mental Health and Well-Being. 2025; 2: 1-11.
15. Yang N, Crespi B. I Tweet, therefore I am: a systematic review on social media use and disorders of the social brain. BMC Psychiatry. 2025; 25: 95.
16. Thomson K, Thompson AR. The experiences of individuals with body dysmorphic disorder: A systematic review and thematic synthesis of qualitative research. Body Image. 2024; 50: 101727.
17. Zafar Z, Khan MK, Hayat U, Idrees S, Khan ZK, et al. Impact of Social Media and Body Dysmorphic Disorder. Bulletin of Business and Economics. 2025; 14: 6-10.
18. Schroeder M, Behm-Morawitz E. Digitally curated beauty: The impact of slimming beauty filters on body image, weight loss desire, self-objectification, and anti-fat attitudes. Computers in Human Behavior. 2025; 165: 108519.
19. Patel PM, Szeto MD, Connor OK, De La Garza H, Kennedy KF, et al. Videoconferencing Dysmorphia: The Impact on Self-perception and Desire for Cosmetic Procedures. J Clin Aesthet Dermatol. 2025; 18: 46-51.
20. Ahmed SH. To Explore the Relationship Between Childhood Trauma and Body Dysmorphic Symptoms in Young Adulthood. IJRASET. 2024; 12: 312-321.
21. Wichstrøm T, Wichstrøm L. Childhood Predictors of Nonsuicidal Self-Injury in Adolescence: A Birth Cohort Study. J Am Acad Child Adolesc Psychiatry. 2024; 63: 1114-1122.
22. Krebs G, Rautio D, Fernández de la Cruz L, Hartmann AS, Jassi A, et al. Practitioner Review: Assessment and treatment of body dysmorphic disorder in young people. J Child Psychol Psychiatr. 2024; 65: 1119-1131.
23. Rautio D, Isomura K, Bjureberg J, Rück C, Lichtenstein P, et al. Intentional Self-Harm and Death by Suicide in Body Dysmorphic Disorder: A Nationwide Cohort Study. Biological Psychiatry. 2024; 96: 868-875.
24. Krebs G, Clark BR, Ford TJ, Stringaris A. Epidemiology of Body Dysmorphic Disorder and Appearance Preoccupation in Youth: Prevalence, Comorbidity and Psychosocial Impairment. J Am Acad Child Adolesc Psychiatry. 2025; 64: 30-40.
25. Addison M, James A, Borschmann R, Costa M, Jassi A, et al. Suicidal thoughts and behaviours in body dysmorphic

disorder: Prevalence and correlates in a sample of mental health service users in the UK. Journal of Affective Disorders. 2024; 361: 515-521.

26. Piarulli FM, Margari A, Margari F, Matera E, Viola G, et al. Cutting into the Mirror: Association of Body Image Concerns with Non-Suicidal Self-Injury in Adolescents and Young Adults with Eating Disorders. Eur. J. Investig. Health Psychol. Educ 2025; 15: 23.
27. Putek J, Szepietowski JC. Clinical and Psychological Aspects of Piercing: A Cross-Sectional Study with Special Attention to Body Dysmorphic Disorder Symptoms, Appearance Anxiety, Body Image Perception, and Self-Esteem. Cosmetics. 2024; 11: 207.
28. Eilers J, Kasten E. When the desire for beauty becomes pathological: the body dysmorphic disorder-an overview. Int J Psychiatr. 2024; 7: 1-12.
29. https://www.statista.com/topics/3734/cosmetic-surgery/#topicOverview.
30. Hudson M, Matos JA, Alvarez B, Jacqueline S, Francisco T, et al. Deaths of U.S. Citizens Undergoing Cosmetic Surgery-Dominican Republic, 2009-2022. MMWR. 2024; 73: 62-65.
31. Triana L, Palacios Huatuco RM, Campilgio G, Esteban L. Trends in Surgical and Nonsurgical Aesthetic Procedures: A 14-Year Analysis of the International Society of Aesthetic Plastic Surgery-ISAPS. Aesth Plast Surg. 2024; 48: 4217-4227.
32. Stachechem SK, Mazzaro FR, Lunardi ME, Margraf JG, Bettes JB, et al. Aesthetic Surgical Procedures in Patients Diagnosed with Body Dysmorphic Disorder. Rev Bras Cir Plást. 2024; 39: s00451801879.
33. Dhawan R, Brooks K, Shauly O, Shay D, Anjali Om A, et al. Increasing Private Equity Investments in Plastic Surgery Practices in the United States: Analysis of Trends and Consolidation, Aesthetic Surgery Journal. 2025; 45: 715-722.
34. Kalmar CL, Nemani SV, Assi PE, Kassis S. Epidemiology and disparities of gender-affirming surgery in the United States. JPRAS. 2025; 103: 256-262.
35. Ohjimi H. Antiaging Interventions: Aesthetic Medicine. Anti-Aging Medicine. 2025; 617-619.
36. Gaillard A, Rossell S. Addressing body dysmorphic disorder through mindfulness: A new therapeutic frontier. Aust N Z J Psychiatry. 2025; 59: 405-412.
37. Krebs G, Rautio D, Fernández de la Cruz L, Hartmann AS, Jassi A, et al. Practitioner Review: Assessment and treatment of body dysmorphic disorder in young people. J Child Psychol Psychiatr. 2024; 65: 1119-1131.
38. Svein Haseth, Torun Grøtte, Erlend Hunstad, Ismail Cuneyt Güzey, Stian Solem. Metacognitive Therapy for Body Dysmorphic Disorder: A Consecutive Case Series. J Cogn Psychother. 2024; 39.
39. Rezaeinasab F, Haghighat-Bayan N, Nouri E, Savabi-Niri V, Kouhi Z. The Efficacy of Acceptance and Commitment Therapy on Distress Tolerance, Interpersonal Sensitivity, and Depression in Students with Body Dysmorphic Disorder. IJBS. 2025; 18: 177-184.
40. Mashkouri M, Bagherzadeh Gholmakani Z, Mansouri A, Khodabakhsh M. The efficacy of schema therapy on perfectionism, body shame, and symptoms of body dysmorphic disorder in women seeking cosmetic surgery. Journal of Psychological Science. 2024; 23: 197-216.
41. Martenstyn JA, Russell J, Tran C, Griffiths S, Maguire S. Evaluation of an 8-week telehealth cognitive-behavioural therapy (CBT) program for adults with muscle dysmorphia: A pilot and feasibility study. Body Image. 2025; 52: 101842.
42. Snorrason I, Hoeppner SS, Klare D, Weingarden H, Greenberg JL, et al. Long-term outcomes of smartphone-delivered cognitive behavior therapy for body dysmorphic disorder: A one-year naturalistic follow-up. Internet Interventions. 2025; 39: 100803.
43. Kerry C, Mann P, Babaei N, Katz J, Pirbaglou M, et al. Web-Based Therapist-Guided Mindfulness-Based Cognitive Behavioral Therapy for Body Dysmorphic Disorder: Pilot Randomized Controlled Trial. JMIR Ment Health. 2024; 11: e55283.
44. Pouladi H, Rajabi S, Jamshidi F, Pakizeh A, Talbot D. Efficacy of EMDR in Body Dysmorphic Disorder and Associated Cognitive-Emotional Features. J EMDR Pract and Res. 2024; 18.
45. Lindenfeld G, Rozelle G, Soutar R, Hummer J, Michael Sutherland R. Post-traumatic stress remediated: A study of eight combat veterans. New Mind Journal. 2019.
46. Nader K, Schafe GE, Doux JE. Fear memories require protein synthesis in the amygdala for reconsolidation after retrieval. Nature. 2000; 406: 722-726.
47. Oláh B, Fekete Z, Kuritárné Szabó I, Kovács-Tóth B. Validity and reliability of the 10-Item Adverse Childhood Experiences Questionnaire (ACE-10) among adolescents in the child welfare system. Frontiers in public health. 2023; 11: 1258798.
48. Veale D, Eshkevari E, Kanakam N, Ellison N, Costa A, et al. The Appearance Anxiety Inventory: Validation of a process measure in the treatment of body dysmorphic disorder. Behavioural and Cognitive Psychotherapy. 2013; 42: 605-616.