Complementary and Alternative Medicine (CAM) Treatments for Behavioral and Substance Use Disorders

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Instructions for Use

Instructions for Use

This Behavioral Health Policy is used to make coverage determinations for behavioral health services in accordance with the member-specific health benefit plan document (e.g., Evidence of Coverage) and applicable federal and state laws.

All reviewers must first confirm member eligibility, and identify the member-specific benefit plan document, and any applicable federal or state law(s) governing benefit coverage prior to using this Policy. In the event of a conflict between this Policy and the member-specific benefit document, the member-specific benefit document governs. In the event of conflict between the member-specific health benefit plan document and applicable law, the applicable law governs.

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Coverage Rationale

The following complementary and alternative medicine services are investigational for treating mental health and substance use disorders due to insufficient evidence supporting their safety and efficacy in treating mental health and substance use disorders:

- Acupuncture
- Animal-Assisted Therapy
- Art therapy
- Brainspotting Therapy
- Dance/movement Therapy
- Equine Therapy
- Music Therapy
- Naturopathic detoxification
- Reiki Therapy
- Sauna/niacin detoxification (e.g., New Life Detox)

Description of Services

Complementary and Alternative Medicine (CAM) Treatments for Behavioral and Substance Use Disorders

According to the National Center for Complementary and Integrative Health (NCCIH, 2021), treatments that are "complementary" or "alternative" represent approaches developed outside of mainstream Western, or conventional, medicine. These terms are often used interchangeably, but refer to different concepts:

- If a non-mainstream practice is used together with conventional medicine, it is considered "complementary;"
- If a non-mainstream practice is used in place of conventional medicine, it is considered "alternative."

Acupuncture

Acupuncture describes varying procedures and techniques that involve the stimulation of points on the body. The most studied technique is insertion into the skin with thin, solid, metallic needles that are manipulated by either hands or electrical stimulation. A routine treatment may require 15 to 30 needles with follow-up treatments at 2-week intervals. Most commonly, acupuncture is used for back and neck pain, osteoarthritis, and headaches. Research has also been conducted on the use of acupuncture to treat behavioral health conditions, such as depression and substance use disorder.

Animal-Assisted Therapy

According to the Association of Animal-Assisted Intervention Professionals (AAAIP, 2022), Animal-assisted interventions consist of objective goals with structured interventions that integrate animals in health, education, and human service for a therapeutic role in improved health and wellness. While dogs are the most common animal utilized, a variety of animals and species can provide animal-assisted interventions.

Art Therapy

According to the American Art Therapy Association (AATA, 2023), art therapy combines the knowledge and understanding of human development and psychological theories/techniques with visual arts and the creative process. Art therapists incorporate the use of art media and verbal processing of produced imagery to help clients communicate beyond verbal expression.

Brainspotting Therapy

Brainspotting (BSP) is a type of therapy that is purported to assist individuals in coping with emotional pain, trauma, anxiety, and depression. During a session, the therapist helps the person find a specific eye position, called a "brainspot," that is connected to a troubling memory or feeling. By focusing on that spot while staying aware of their current thoughts and body sensations, people can begin to process deep emotional stress.

Dance/Movement Therapy (DMT)

DMT is defined as the psychotherapeutic use of movement to further the emotional, cognitive, physical, and social integration of the individual (American Dance Therapy Association [ADTA], 2020). Dance/movement therapy interventions apply affective, behavioral, motoric, cognitive, and systemic strategies, including the principles of development, wellness, and pathology. The use of specific methods, techniques, modalities, and verbal interventions within the practice of professional dance/movement therapy is restricted to professional dance/movement therapists appropriately trained in the use of such methods, techniques, or modalities. Dance/movement therapy may be identified by other terms in the research literature, including "dance movement psychotherapy," "dance therapy," "body psychotherapy," or "therapeutic movement."

Equine Therapy

Equine therapy uses the purposeful manipulation of equine movement to engage sensory, neuromotor, and cognitive systems in achieving functional outcomes (American Hippotherapy Association, 2022). Equine therapy can be conducted by physical therapists or occupational therapists as part of a larger plan of care involving other neuro/sensorimotor techniques. Individual riding centers may also employ "certified path instructors" or "horsemanship instructors." Equine therapy is identified by other terms in the research literature, including "hippotherapy," "therapeutic horseback riding," "horse therapy," "therapeutic horsemanship," and "equine-assisted therapy." Behavioral health conditions for which riding centers promote their services include autism spectrum disorders, attention deficit hyperactivity disorder, post-traumatic stress disorder, and learning disability.

Music Therapy

Music therapy is the clinical use of music interventions to accomplish individualized goals within a therapeutic relationship and is typically conducted by an individual completing an approved music therapy program. Therapists may assess emotional well-being and social functioning through musical responses and develop music sessions based on specific client needs. According to the American Music Therapy Association (AMTA, 2025), music therapy allows exploration of personal feelings and promotes positive changes in mood and emotional states.

Naturopathic Detoxification

Naturopathic detoxification therapy (also known as "All-Natural Detox Therapy," "Natural IV Therapy," "Nicotinamide Adenine Dinucleotide (NAD) IV Therapy," "Amino Acid Therapy," "Neurotransmitter Restoration Therapy," "Brain Restoration+," "Gentle Detox," "Easy Detox," etc.) is part of a holistic approach to alcohol and drug addiction treatment. It involves an unknown and non-FDA-approved combination of vitamins, minerals, amino acids, and/or NAD coenzymes, administered intravenously and/or orally. This therapy claims to eliminate cravings from a drug or alcohol addiction and promote recovery. While the actual treatment regimen may vary by site, the following have been identified as common components of a naturopathic detoxification for substance abuse:

- Preadmission assessments, including a medical evaluation
- Laboratory testing to help determine individual needs of the patient
- Approximately 10-15 IV infusions in addition to oral therapy – the content of the infusions and oral therapies is unknown

Reiki Therapy

Reiki originates from ancient Japanese healing practices. The theory is that it involves channeling energy to promote balance and well-being across physical, emotional, and psychological levels. It is believed to activate the parasympathetic nervous system, fostering harmony between the body, mind, and spirit. Reiki can be performed in person or remotely, often focusing on the body's seven main chakras, such as those in the head, chest, and abdomen, through either light touch or non-contact methods, typically dedicating a few minutes to each area.

Sauna/Niacin Detoxification

Sauna/niacin detoxification for substance use disorders (also known as "New Life Detoxification," "sauna detoxification," "Purification Rundown/Program," "Purif," "Effective Purification Program," etc.) typically follows a protocol where the following components are delivered on a daily basis):

- Physical exercise
- Sauna, done in 30-minute sessions for up to 5 hours daily

- A multivitamin cocktail, the main ingredient of which is niacin
- Mineral supplements, including calcium, magnesium, iron, zinc, manganese, copper, iodine, and potassium

Treatment programs may be delivered at varying levels of care, depending on the individual patient. The purpose of sauna/niacin detoxification is to eliminate from the body any drug residues and other toxic substances that remain locked in fatty tissues and may be present in the blood stream.

Clinical Evidence

Summary of Clinical Evidence

Acupuncture

Hollifield et al. (2024) conducted a two-arm, parallel-group, prospective, blinded randomized clinical trial to evaluate the efficacy of acupuncture for combat-related Posttraumatic Stress Disorder (PTSD). The study enrolled 93 participants (85 men, 8 women), aged 18–55, all diagnosed with combat-related PTSD. Participants were randomized to receive either verum acupuncture or placebo minimal needling. Treatments consisted of 1-hour sessions, administered twice weekly, with up to 24 sessions allowed over 15 weeks. PTSD symptoms were assessed using the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5). Safety monitoring recorded 64 adverse events, 54 of which were deemed unrelated to the intervention. Ten participants withdrew from the study, none due to suicidal or homicidal ideation.
In the intention-to-treat analysis, verum acupuncture demonstrated a large treatment effect (Cohen's d = 1.17), compared to a moderate effect for sham acupuncture (d = 0.67). The between-group difference favored verum acupuncture (mean difference = 7.1, SD = 11.8; t (90) = 2.87; d = 0.63; P = .005). Comparable results were observed in the treatment-completer analysis, with verum showing a large effect size (d = 1.53) versus sham (d = 0.86), and a between-group difference of 7.4 (SD = 11.7); t (69) = 2.64; d = 0.63; P = .01. Verum acupuncture also significantly reduced fear-potentiated startle during the extinction phase, indicating enhanced fear extinction. A modest but significant correlation (r = 0.31) was found between symptom reduction and improved fear extinction. Limitations included the lack of blinding for acupuncturists, the focus on combat veterans, and insufficient data on treatment durability. Further research is needed to enhance generalizability and assess sustained long-term clinical benefits.

Sun et al. (2023) conducted a systematic review and network meta-analysis to examine safer and nonpharmacological treatments to improve the sleep quality in depressed patients and the depression severity. This study included 26 randomized controlled trials, involving 11 interventions and 3458 depressed participants with a mean age of 49.24. Female participants comprised 60.41% across the studies. The primary outcome was sleep quality with the secondary outcome of depression severity. The sleep scoring tools used for most studies were the Pittsburgh Sleep Quality Index (PSQI) in 13 studies and Insomnia Severity Index (ISI) in 9 studies. The majority of studies used the HAM-D to assess depressive symptoms. The 11 interventions had a minimum intervention duration of 10 days, a maximum duration of 12 weeks, and a mean duration of 6.75 weeks. Results for sleep quality when compared to education only were significant for Cognitive-behavioral therapy (CBT) (SMD: 2.80; 95% CI: 1.63,3.96), aromatherapy (SMD: 3.95; 95% CI: 0.71,7.19), and acupuncture (SMD:3.49; 95% CI: 0.88,6.10). Depression severity results revealed that acupuncture and CBT were more effective than education. Limitations noted among the studies include various scoring tools utilized, a majority of studies lacking allocation blinding, and generalizability. The authors of this study report that future multisite rigorous trial design with large participant sizes are needed to determine efficacy of non-pharmacological interventions for sleep quality, for all severity types of depression.

Liao et al. (2023) performed a double-blinded, randomized controlled crossover study regarding acupuncture efficacy and immune effects for comorbid chronic pain and major depressive disorder. The study comprised 47 adult participants diagnosed with MDD and experiencing persistent pain for more than 3 months. The participants were randomly assigned to two groups: (1) the depression–pain group (23 participants who were treated with depression-specific acupoints and then the pain-specific acupoints after the washout period) and (2) pain–depression group (24 participants with the reverse order). Depressive and pain symptoms were measured with assessment tools Hamilton Depression Rating Scale (HAM-D), Beck Depression Inventory-Second Edition (BDI-II), Brief Pain Inventory (BPI), Neurotoxicity Rating Scale (NRS), Clinical Global Impression (CGI) scale, and World Health Organization Quality of Life Scale Brief Version (WHOQOL-BREF). Participants were assessed at baseline and for weeks 2, 4, 6 (after the first 6-week intervention), 8 (before the second 6-week intervention), 10, 12, and 14 (after the second 6-week intervention). The results show that, after 14-week acupuncture sessions, the pain-specific acupoints did not reduce pain scores per the BPI to a significantly greater degree (-0.97 ± 1.69) than the depression-specific acupoints (-0.28 ± 1.88); likewise, the depression specific acupoints did not significantly improve via the HAM-D (-4.59 ±6.02) compared to

the pain-specific acupoints (-6.69 ± 6.61). The pain specific acupoints improved BDI-II (-6.74 ± 9.76) even better than the depression-specific acupoints (-1.92 ± 10.74). The authors acknowledge that the study results failed to prove their hypothesis that pain-specific acupoints could potentially yield superior analgesic effects than the depression-specific acupoints. Future studies are needed with larger samples sizes to replicate these findings.

Xu et al. (2022) conducted a meta-analysis of randomized controlled trials that compared acupuncture with sham acupuncture, or anti-depressants. Sixty-two studies were reviewed with a total of 2269 adult individuals diagnosed with MDD. Sample sizes ranged from 16–176, with the number of acupuncture sessions ranging from 8-60 and session duration from 2 weeks to 12 weeks. The primary outcome was scoring with the Hamilton Depression Rating Scale for Depression (HAMD17/24). Prior to acupuncture treatment and after treatment HAMD scores were measured. The efficacy of the acupuncture sessions was based upon the improvement rate as calculated by the percentage change in HAMD scores when compared to the baseline HAMD measurements. Results showed that after 8 acupuncture sessions, the HAMD score decreased from 17.68 (95% CI: -11.81, -4.80) to 8.30 (95% CI: 14.23–21.13). After 24 acupuncture sessions, a decrease in HAMD scores was observed in 51% of cases (95% CI:48% to 54%). After 36 acupuncture sessions, the effect of improvement in HAMD scores peaked at 66% of cases (95% CI: 59% to 72%). These results imply that the greater number of acupuncture sessions leads to greater clinical outcomes. These findings also suggest that clinical efficacy is not reached until at least 18 acupuncture sessions are completed with 36 sessions showing the optimal symptom improvement for individuals diagnosed with MDD. The majority of limitations among the studies are associated with treatment methodologies such as needle placement, number of needles, duration, and frequency of sessions. The authors note that future large, well-designed studies are needed to determine the efficacy of acupuncture, clarify protocols, and establish follow-up data.

Hayes, Inc. (2021) completed a comparative analysis of 47 randomized controlled trials (RCTs) regarding acupuncture for the treatment of substance use disorder. The overall quality of evidence was identified as low. Current research shows a potential but unproven benefit. Certain published evidence suggests that safety and impact on health outcomes are at least comparable to standard treatment/testing. However, it remains unclear about safety and/or impact on health outcomes due to poor-quality studies, sparse data, conflicting study results, and applicability in general practice.

Gol et al. (2021) performed a double-blind, three-arm, randomized clinical trial to examine the additive effects of acupuncture to oral selective serotonin reuptake inhibitors (SSRIs) in decreasing anxiety symptoms. Participants (n=105) were divided into 3 groups; SSRIs alone (drug group, n=35), SSRIs with sham acupuncture (control group, n=35) and SSRI with acupuncture (acupuncture group, n=35) and treated for 4 weeks. Among the notable inclusion criteria was a confirmed anxiety disorder, adults aged 18-60 years, and no history of extensive SSRI use. The oral SSRIs prescribed were sertraline, citalopram, and escitalopram. Acupuncture was administered for 20-minute sessions, 3 times per week for 4 weeks. The participants and the psychiatrist were blinded and without knowledge of groupings. Participants were administered the State-Trait Anxiety Inventory (STAI) questionnaire at study start and at day 28. Serum cortisol levels were also monitored before the study and at day 28. STAI total score findings at day 28 indicated significant differences across all 3 groups ($p < 0.001$). The results revealed that SSRIs with acupuncture (acupuncture group) showed the largest improvement in anxiety symptoms per the STAI scores, when compared to the drug group and the control group. Serum cortisol levels were not significantly modified across the 3 groups at baseline and day 28. Although the results show promise, the authors concluded that future research is needed to establish durability beyond 4 weeks with larger sample sizes to enhance generalizability.

Krause et al. (2020) conducted a randomized controlled three-arm study to evaluate the efficacy of National Acupuncture Detoxification Association (NADA) acupuncture in treating alcohol addiction. Seventy-two adult participants were randomized into one of three groups: (1) NADA acupuncture (20 sessions, 30 minutes each), (2) sham acupuncture, and (3) no intervention. Outcomes assessed included alcohol craving, depression, anxiety, and cardiac autonomic function. Standardized instruments were used, including the Beck Depression Inventory, Obsessive Compulsive Drinking Scale, and State-Trait Anxiety Inventory. Assessments were conducted at baseline, immediately post-intervention, and at a 4-week follow-up. Abstinence was also evaluated one-year post-study. Findings showed no significant changes in craving, depression, or anxiety across any of the groups (p = n.s.). One-year abstinence rates were also comparable. However, a notable improvement in cardiac autonomic function was observed in the NADA group, which persisted at the 4-week follow-up. Limitations included a small sample size,

limited generalizability, and single-blind design (participants only). The authors recommend further research with larger samples to evaluate the efficacy and long-term impact of acupuncture protocols for psychiatric conditions.

Animal-Assisted Therapy

Pandey et al. (2024) conducted a review of qualitative and quantitative evidence examining the impact of animal-assisted therapy (AAT) on individuals with psychiatric and neurological disorders. The review included 16 studies, with sample sizes ranging from 6 to 150 participants, aged 7 to 75 years. All interventions involved dog-assisted therapy. Outcomes measured included mental health, social functioning, and overall quality of life. Four comparative studies found AAT to be as effective or more effective than established interventions. Some studies observed consistent psychological improvements for children, young adults, and older adults. However, some outcome measures showed no significant effects, particularly in relation to psychiatric symptoms, stress, anxiety, and neurological disorders. Key limitations included small sample sizes, short intervention durations, lack of rigorous study designs, absence of follow-up assessments, and inadequate outcome measures. The authors concluded that while preliminary findings are promising, further research is needed to establish the efficacy and clinical utility of AAT.

Rehn and colleagues (2023) completed systematic review on the efficacy of animal-assisted therapy for children and adolescents with autism spectrum disorder (ASD). Seven randomized controlled trials with moderate quality were included in this review. Participants were children and adolescents ages 2–16 years, of all genders and with a formal diagnosis of ASD, including Asperger's Syndrome or Pervasive Developmental Disorder. The sample sizes of the studies ranged from 8 to 37 with more male participants than females. The study interventions included equine-based therapy, dolphin-assisted therapy, and canine-assisted therapy. Intervention details include mounted and unmounted activities for equine-based therapy, swimming with dolphins, and caring for a dog. Frequency and duration of the interventions varied from once or twice per week for 7 weeks up to 4 months. The results across the studies show positive outcomes in the domains of cognitive (3 studies), social (5 studies), emotional (2 studies), behavioural (3 studies), and physical domains (2 studies). Limitations of the studies include variation in the delivery of AAT with heterogeneity detected regarding the variability of the trainers, intervention periods, frequency, and intervention intensity. Additional limitations include small sample sizes with a majority of male participants. The authors of this review recommend future research to include more female participants, larger sample sizes, and details regarding ASD severity.

Chen and colleagues (2022) completed a systematic review and meta-analysis to investigate the efficacy of animal-assisted therapy (AAT) for individuals diagnosed with dementia. Included in the review are 11 randomized controlled trials (RCTs) with 825 participants; sample sizes ranged from 16 - 334. The most common therapeutic animals utilized in the studies were dogs. Intervention details widely varied from petting a dog, playing fetch with a dog, to grooming a horse. Intervention frequency ranged from once weekly to twice weekly for 9 months. The primary outcomes identified were the behavioral and psychological symptoms of dementia (BPSD) and depression scores. The analysis results showed that AAT can ameliorate the neuropsychiatric state of individuals diagnosed with Alzheimer's, SMD= -0.43, 95% CI (-0.62, -0.23), $p < 0.00$. The analysis regarding effects on agitation did not show statistical significance, SMD= -0.28, 95% CI (-0.58, 0.02), $p = 0.06$. No statistical significance was noted for secondary outcomes of improving cognitive function, activities of daily living, or quality of life. The limitations discussed were the sparse number of trials available, small sample sizes in a majority of the studies, and unclear intervention details. The authors of this review recommend further research addressing limitations such as RCTs with larger sample sizes and clear descriptions of the AAT interventions.

Hediger et al. (2021) conducted a systematic review and meta-analysis regarding animal-assisted interventions (AAI) for children and adults with post-traumatic stress disorder (PTSD) symptoms. There are 41 studies in this systematic review with a total of 1111 participants. Twenty-eight studies had a pre-post one-group design, 8 studies had a control group and 2 were randomized controlled studies. Participants were diagnosed with PTSD per the DSM-5 criteria with ages ranging from 4 - 86 years old. Animal assistance throughout the studies were primarily horses and dogs. Intervention duration ranged from 4 days and up to 15 months with one study that merged 3 weeks of therapy with placement of dogs for up to 4 years. Specific details of the interventions are not provided; however, various sites were utilized such as a horse-riding center, a ranch, and an aquarium. The primary outcome was a reduction in PTSD or depression symptom severity quantified using a validated observer-rating or self-rating scale. Results revealed a small effect size for AAI when compared to PTSD psychotherapy in decreasing PTSD symptom severity, SMD = −0.26, 95% CI: −0.56 to 0.04. AAI was statistically better than waitlist, SMD = −0.82, 95% CI: −1.56 to 0.08. Acquiring a service dog reduced PTSD symptoms to between −0.43 and −1.10 and depression with medium effect size of −0.74. Limitations noted that 28 studies rated poor, 13 studies rated fair while no study was rated with good quality. Most of the

studies lacked durability data and lacked detailed information on study design, methodology, or the intervention. The authors of this review suggest future studies with empirical study designs and large participant samples to fully establish the efficacy of animal-assisted interventions.

Art Therapy

Vogel et al. (2024) conducted a systematic review of seven studies on the beneficial effects of art therapy for children and adolescents with autism spectrum disorder (ASD). Study designs included three pre-test–post-test and four quasi-experimental studies, two of which had control groups. Sample sizes ranged from 2 to 44 participants, aged 4 to 12 years. Art therapy interventions involved were painting, drawing, clay, color therapy, and sensory art, delivered individually or in groups. Duration ranged from 6 weeks to 9 months, with session frequency from one to three times weekly, lasting 40 to 120 minutes. A variety of tools were used to measure outcomes such as the Behavior Rating Inventory of Executive Functioning (BRIEF); Vineland Adaptive Behavior Scale (VABS); Social Skills Improvement System Rating Scales; Childhood Autism Rating Scale (CARS); Children's Social Behavior Questionnaire (CSBQ); and Observation in Art Therapy of a child diagnosed with ASD (OAT-A). Results indicated improvements in social, behavioral, and motor symptoms associated with ASD. However, limitations included inconsistent intervention delivery, small sample sizes, limited long-term data, lack of reporting on co-occurring diagnoses, and lack of empirical study designs. The authors of this study recommend future robust research design to address these limitations and establish the clinical utility of art therapy.

Bosman et al. (2021) conducted a systematic review of seven studies examining the efficacy of art therapy on anxiety, depression, and quality of life (QoL) in adults diagnosed with cancer. The review included three non-randomized intervention studies and four randomized controlled trials, with sample sizes ranging from 24 to 183 participants. Intervention durations varied from six weeks to four months. All included studies involved interventions led by an artist or art therapist, with participants actively engaged in the therapeutic process. Outcome measures focused on anxiety, depression, and/or QoL. Among the seven studies reviewed, four assessed anxiety, with two reporting significant reductions in intervention groups (e.g., from 44.3 to 37.1; $p = 0.002$), though no significant between-group differences were found. Three studies evaluated depression; two showed significant improvements in intervention groups compared to controls ($p < 0.001$ and $p = 0.001$). Six studies examined quality of life (QoL), with four reporting improvements. Two demonstrated statistically significant outcomes—one showing a difference between groups ($p = 0.001$), and another reporting a substantial increase in global health status/QoL scores (from 26.4 to 81.3; $p < 0.001$). Limitations of the review include the lack of randomization in three studies, exclusion of male participants in three studies, variability in intervention methods and durations, varying cultural settings, all contributing to heterogeneity. The authors of this review recommend further randomized controlled trials with larger sample sizes to better establish efficacy and support protocol standardization.

Dunphy et al. (2019) conducted a systematic review of studies on creative arts interventions for older adults experiencing depression that examined outcomes of four creative arts modalities (art, dance movement, drama, and music); with particular attention paid to processes documented as influencing change in each modality; and mechanisms considered to result from these processes. An analysis of 75 articles (17 art, 13 dance, 4 drama, and 41 music) indicated mostly significant quantitative or positive qualitative findings, particularly for interventions led by creative arts therapists. Art therapy studies were found to be of medium quality. The primary concerns in the quantitative studies include small sample sizes that were not randomized or blinded, a general lack of generalizability, and a lack of rigorous efforts to ensure validity in the results. Very few of the studies included follow-up. Issues in qualitative studies in art therapy also relate to a lack of rigor to ensure creditable data analysis and insufficient reporting in data collection. The authors recommend further research to assess the use of creative art modalities for depression.

Brainspotting

Horton et al. (2023) conducted a non-randomized controlled study examining Brainspotting (BSP) as a treatment for posttraumatic stress disorder (PTSD). The study included 63 participants (8 men, 52 women, 3 unspecified), with a mean age of 35.15 among those who completed the treatment. Participants were assigned to either Treatment as Usual (TAU; n = 13) or BSP (n = 14) groups. Assessments included the PTSD Diagnostic Scale for DSM-5 (PDS-5), Beck Depression Inventory-II (BDI-II), and Beck Anxiety Inventory (BAI), administered at pre-treatment, post-treatment, and follow-up. Results showed that, compared to the TAU group, the BSP group experienced significant decreases in depression and anxiety symptoms over time ($p < .001$ for both). Limitations included a small sample size and variability in clinician technique training. The researchers endorse further research comparing BSP to cognitive-behavioral therapies (CBT) for treating PTSD.

Dance/Movement Therapy

Christopher and colleagues (2025) conducted a systematic review and meta-analysis on the effectiveness of dance therapy for reducing stress and depression. The review included five studies (n = 613), with 91.2% female participants. Four studies were randomized controlled trials (RCTs), and one was a non-randomized controlled study. Sample sizes ranged from 25 to 166. Participants were adults from any clinical population experiencing symptoms of stress and depression. Dance interventions included improvisation, shared rhythm, and structured movement. Session frequency ranged from 10–12 sessions over 3 months (90 minutes each) to twice-weekly 60-minute sessions over 12 weeks. Assessment tools included the Brief Symptom Inventory, Clinical Outcomes in Routine Evaluation (CORE), Beck Depression Inventory, Hospital Anxiety and Depression Scale, Symptom Checklist-90, and Perceived Stress Scale. Two studies assessed follow-up effects at 6 weeks and 3 months, with one study assessing at 1 year. Results showed no statistically significant effects on stress ($p = 0.12$) or depression ($p = 0.49$). Key limitations included variability in intervention types, session frequency and duration, limited follow-up data, small sample sizes, and limited generalizability due to the predominantly female sample. Future research is needed to address these limitations and determine clinical efficacy.

Karkou et al. (2023) conducted a Cochrane Review examining the effects of dance movement therapy (DMT) on individuals with dementia. Only one study met inclusion criteria, a three-arm, parallel-group randomized controlled trial involving 204 adults with mild neurocognitive disorder or dementia. Participants were assigned to one of three groups: DMT, exercise, or a waitlist control. The DMT intervention lasted 12 weeks, with assessments conducted post-intervention and at 3- and 9-month follow-ups. Outcomes included behavioral, social, cognitive, and emotional symptoms, measured using the 12-item Neuropsychiatric Inventory, cognitive assessments, and the 4-item Geriatric Depression Scale. DMT showed minimal to no effect on neuropsychiatric symptoms or cognitive function compared to waitlist or exercise groups. However, a small but statistically significant reduction in depressive symptoms was observed at the end of the intervention (MD -0.60), with a modest, sustained effect at 3 and 9 months compared to exercise (MD -0.40); all findings were based on low-certainty evidence. The authors of this review concluded that while DMT may offer modest benefits for depressive symptoms, further high-quality randomized controlled trials are needed to determine efficacy and clinical utility for symptoms of dementia.

Salihu and colleagues (2021) completed a meta-analysis investigating dance interventions on depression symptoms, anxiety, and stress in adults with and without musculoskeletal disorders. Articles for the final selection were 28 randomized controlled trials with a total of 2249 participants. The majority of participants were females, aged 18-85, some with underlying health conditions such as Parkinson's disease (17.9%). Dance movement therapy was the most studied technique. Most of the control groups among the studies used normal daily activities as the usual care with some using music, physical or other activities. Frequency of the dance interventions were from once per week to twice per week, 60-minute sessions, for a duration of 12 weeks. Communities and care facilities were the most utilized locations for the interventions. Depression, anxiety, and stress levels were recorded using a variety of standardized instruments such as Depression-Anxiety-Stress Scale, the Beck Depression Inventory, and the Zung Self-Rating Scale. The quality of the studies was described as fair (n=12) and good (n=16), while the quality of evidence ranged from very low to low. The yielded results were statistically significant for reducing depressive symptoms (SMD = -0.69, 95% CI -0.91 to -0.35, $p < 0.001$), for anxiety (SMD = -0.99, 95% CI = -1.92 to -0.05, $p < 0.05$), and for stress (SMD = -1.0, 95% CI = -1.83 to -0.17, $p < 0.05$). Statistical significance was found implementing at least 150 minutes per week of dance therapy to decrease depressive symptoms (SMD = -0.72, 95% CI -0.20 to -0.25, $p < 0.01$). Although the meta-analysis found statistical significance, the authors note that results should be considered with caution due to various limitations across the trials. A remarkable limitation is that none of the included trials were described as high quality. Additionally, there were design issues such as small sample sizes, lack of blinding, several types of dance with varied protocols, and heterogeneity within the characteristics of the participants. Further high-quality studies are recommended and needed to establish effective dance therapy protocols and outcomes.

Dunphy et al. (2019) conducted a systematic review of studies on creative arts interventions for older adults experiencing depression that examined outcomes of four creative arts modalities (art, dance movement, drama, and music); with particular attention paid to processes documented as contributing to change in each modality; and mechanisms considered to result from these processes. An analysis of 75 articles (17 art, 13 dance, 4 drama, and 41 music) indicated mostly significant quantitative or positive qualitative findings, particularly for interventions led by creative arts therapists. Dance movement studies were largely randomized controlled trials (RCTs). The quality of dance studies varied, with ratings evenly distributed from the lowest to highest using the PEDro tool scores. Very few of the studies included follow-up. Quality issues for this treatment

approach relate to the lack of actual dance movement therapy (DMT) interventions. The authors recommend further research to examine the use of creative art modalities for depression.

Equine Therapy

Xiao et al. (2023) conducted a systematic review and meta-analysis examining the effects of equine-assisted activities and therapies (EAAT) on individuals with autism spectrum disorder (ASD). The review included 25 studies, 10 of which were randomized controlled trials (RCTs), involving participants aged 3 to 16 years diagnosed with ASD. In eight studies, participants also had co-occurring conditions such as ADHD, intellectual disability (ID), hypersensitivity and sensory integration disorder (HSID), learning disabilities (LD), and seizure disorders (SD). Sample sizes ranged from 3 to 116 participants, with a total of 623 individuals and an average sample size of 25. Examples of interventions are preparation and warm-up such as greetings and health/safety briefings, stretching exercises, and parental assessments and interviews. Ground-based interventions such as grooming, feeding, leading horses, and horsemanship skills. Mounted intervention activities such as therapeutic horseback riding (THR) exercises and riding instruction. Closure interventions such as thanking horses and staff, drawing or reflection activities, and parent/caregiver debriefing. Intervention durations ranged from 4 to 24 weeks, with sessions lasting 45 to 180 minutes, totaling 240 to 1,920 minutes. Multiple assessment tools were used, including the Autism Diagnostic Observation Schedule (ADOS, n=6), Social Communication Questionnaire (SCQ, n=5), Leiter International Performance Scale (n=5), and DSM criteria (n=5). Other tools included the Aberrant Behavior Checklist—Community (ABC-C), Adaptive Behavior Assessment System (ABAS), Clinical Assessment Battery Teacher Rating Form (CAB-T), Vineland Adaptive Behavior Scale (VABS), Childhood Autism Rating Scale (CARS), and Stone's Social Skills Scale (SSSS). Findings suggest that EAAT can improve social and behavioral functioning, with additional benefits in language development, motor skills, and sensory processing. However, only 11 of the 25 studies met high-quality research standards. Common limitations included small sample sizes, lack of control groups, and limited blinding (only 10 studies were blinded or partially blinded). Additionally, only 14 studies assessed the durability of outcomes, none beyond six months. The authors emphasize the need for rigorously designed future research to validate findings and establish standardized intervention protocols.

A systematic review was conducted by Li and Garcia (2023) regarding the effects of equine-assisted therapy (EAT) for veterans with PTSD. Ten studies were selected for the review with a total of 345 participant veterans diagnosed with PTSD. Sample sizes ranged from 7 to 106 participants. There were 4 types of equine interventions: EAT, equine-assisted services (EAS), equine assisted activities and therapies (EAAT), and equine-assisted psychotherapy (EAP). Interventions were weekly in 7 of the articles, 2 articles provided no details on duration of treatment, and 1 study administered treatment daily. Various assessment instruments were use in the studies such as The Short Post-Traumatic Stress Disorder Rating Interview (SPRINT), the Patient Health Questionnaire (PHQ-9), the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) and the PCL-5 (DSM-5 symptom checklist). Results indicated that significant improvement was identified regarding the ability to work and complete daily tasks per the SPRINT scale. Symptom reduction was noted in the PHQ-9, PCL-5, and CAPS-5 scores. The authors suggest beneficial elements of EAT while recognizing numerous limitations in the 10 studies. Among the limitations noted are small sample sizes with little to no statistical power, lack of control groups, lack of randomization and blinding, and lack of durability data. Future research is warranted to address these limitations and to determine the overall efficacy of EAT.

Diaz and associates (2022) conducted a review of 6 qualitative studies and 3 quantitative studies regarding the effects of equine-assisted services (EAS) for individuals diagnosed with substance use disorders (SUD). Most participants were 26 years-old or younger with 4 studies including only the adolescent age group. Sample sizes ranged from 8 to 108. The intervention is described as horse-assisted therapy (HAT) with a session duration ranging from 6 weeks to 20 weeks. Quantitative results for 2 studies on HAT showed that the HAT participants when compared to treatment as usual (TAU) group, the HAT group was more likely to complete treatment ($p < 0.001$), remain in treatment for a longer period ($p < 0.001$), and remain in treatment for 90 days or more ($p = 0.001$). The second quantitative study results reported no significant association between participants receiving HAT versus TAU and dropout rates comparative to treatment completion ($p = 0.553$) or transferring to another treatment facility relative to treatment completion ($p = 0.335$). Qualitative themes among the studies included perceived improvement in affect, a pleasant variation from TAU, and increased motivation for treatment. The overall results indicate the potential beneficial aspects of EAS for the treatment of SUD. Due to the numerous limitations among the studies, results should be interpreted with caution. Additional, future research with robust design and larger sample sizes are needed to support the efficacy of HAT for the treatment of SUD.

Helmer et al. (2021) performed a systematic review of equine-assisted services (EAS) for children and youth (ages 6-18 years) diagnosed with attention-deficit/hyperactivity disorder. Twelve articles were reviewed, 8 noncontrolled prospective studies and

4 randomized controlled trials (RCTs). Six of the studies had no control group. Sample sizes ranged from 6 to 64. Intervention lengths ranged from 4 weeks to 20 weeks. Evidence was established for the effectiveness of various forms of EAS, including equine-assisted physical therapy (EAPT) and therapeutic riding (TR). Improvements in body functions and structures (n = 10) were identified for mental and neuromusculoskeletal functions, as well as functions of the cardiovascular system using EAPT (n = 6). Quality of life (QoL) was improved in both TR and EAPT (n = 4). Limited evidence was yielded regarding the positive effect on activity and participation (n = 4) after TR interventions. This review shows that potentially EAS may be beneficial in supporting the physiological functions of body systems for children diagnosed with ADHD. Future studies are needed to determine quality of life benefits along with understanding the unique mechanisms of change within each different EAS. Larger RCTs to replicate significant findings are required to confirm efficacy, outcomes, and protocols for children diagnosed with ADHD.

White et al. (2020) completed a systematic review regarding the effect of equine-assisted therapies (EAT) for children with attention deficit/hyperactivity disorder (ADHD). Inclusion criteria were studies with primary quantitative study designs, children with a formal diagnosis of ADHD, and EAT interventions. Ten studies met the inclusion criteria, with ages ranging from 6-14 years, and 118 subjects. Overall positive developments were identified in behavioral, psychological, and physical outcome measures following the participation in an EAT. However, due to methodological limitations, caution is advised when interpreting these findings. The authors concluded that while EAT may offer some positive benefits for children with ADHD, further well-designed robust research is required to confirm efficacy.

Music Therapy

In a 2025 Cochrane Database systematic review, van der Steen et al. evaluated the effectiveness of music-based therapeutic interventions for individuals with dementia. The review included 30 randomized controlled trials involving 1,720 participants with differing levels of symptom severity, primarily residing in care facilities across 15 countries. Interventions were provided individually or in groups and incorporated both active and passive musical components. Results of music interventions compared to usual care indicated that for depressive symptoms there was a small, beneficial effect, SMD = -0.23; behavioral symptoms found a small to moderate, beneficial effect, SMD = −0.31; agitation found little to no effect, SMD = −0.05; cognition found a small, possibly beneficial effect, however, not statistically significant, SMD = 0.19. Results for music interventions compared to other interventions indicate for social behavior a moderate improvement, SMD = +0.52; anxiety symptoms were largely decreased, SMD = −0.75; emotional well-being had a small effect, SMD = +0.20, depressive symptoms (SMD = -0.14) and agitation (SMD = +0.01) were not improved. The authors concluded that involving individuals with dementia in at least five sessions of music-based therapy likely improves depressive symptoms and may reduce behavioral symptoms by the end of treatment. However, there is limited evidence of benefits for other outcomes, and no sustained effects were observed beyond the treatment period. Adverse effects were rarely reported and inconsistently documented. Future research should explore how treatment duration and session frequency impact long-term outcomes.

Wang et al. (2024) conducted a systematic review evaluating the effectiveness of music interventions for posttraumatic stress disorder (PTSD). The review included 14 studies: five single-arm trials, two randomized pilot trials, two non-randomized pilot trials, and five randomized controlled trials (RCTs). Sample sizes ranged from 6 to 330 adults with PTSD symptoms, including soldiers, veterans, prisoners, flood survivors, and other diagnosed individuals. Some participants were also receiving concurrent psychotherapy. Multiple music interventions were employed such as self-directed versus therapist-led interventions, Individual versus group interventions, Active music creation versus passive music listening interventions, and patient-preferred music. Intervention durations ranged from 4 to 30 hours, delivered over 3 to 16 weeks with session frequencies from daily to weekly. PTSD symptom assessments were conducted pre- and post-intervention using tools such as the Posttraumatic Stress Disorder Checklist (PCL), Impact of Event Scale (IES-R), Harvard Trauma Questionnaire (HTQ), International Trauma Questionnaire (ITQ), Clinician Administered PTSD Scale (CAPS) and the PTSD-8. Follow-up assessments occurred from 3 to 9 weeks post-intervention. Findings indicated that passive music listening yielded the most consistent benefits, with one study reporting a large effect size (d = 1.02). However, the authors noted limitations, including small sample sizes, lack of control groups, and limited long-term data beyond 16 weeks. They underscored the need for further research to better understand the therapeutic potential of music interventions for PTSD.

Wang and colleagues (2023) performed a systematic review and meta-analysis on the effect of music therapy on older adults with depression. Twenty-one randomized controlled trials with 1777 participants were included. Participants were age 60 years or older, diagnosed with depression. Interventions were distinct types of music therapy with the supervision of a licensed therapist. The primary outcome identified was reduction in depression severity, utilizing validated depression instruments.

Results for the primary outcome of the music therapy group showed a statistically significant reduction in depression symptoms when compared to the control group (SMD = -1.40, 95 % CI = -1.68, -1.13, P < 0.00001), with high heterogeneity (I^2 = 88 %, P < 0.00001). The GRADE certainty of evidence was rated as low – moderate. Limitations of the included studies were unclear allocation and blinding, no evidence was designated as high quality, and only a small number of studies addressed adverse events. Although the authors report positive results, they acknowledge the need for more empirically designed RCTs with larger sample sizes to establish the efficacy of music therapy as a treatment for depression.

In a Cochrane Database systematic review, Ghetti et al. (2022) examined the direct effects of music therapy (MT) in relieving symptoms associated with substance use disorders. Comparisons for MT were completed with 2 categories of MT; in addition to standard care versus standard care alone or to standard care plus an active control intervention. There were 21 trials reviewed with a total of 1984 participants diagnosed with substance use disorder; 52% identified alcohol as their substance of choice. Results for 3 studies, 269 participants indicate moderate-certainty evidence with medium effect for MT plus standard care over standard care alone for substance craving (standardized mean difference (SMD) −0.66, 95% confidence interval (CI) −1.23 to −0.10. In 5 studies, 408 participants there was a greater reduction in craving for MT intervention lasting 1 to 3 months; and small-to-medium effect supporting MT for motivation for treatment/change (SMD 0.41, 95% CI 0.21 to 0.61). There was no definitive evidence of a positive effect on depression in 3 of the studies, 100 participants (SMD −0.33, 95% CI −0.72 to 0.07). In 5 studies, 411 participants, a moderate effect was detected in motivation for treatment/change when comparing MT plus standard care to another active intervention plus standard care (SMD 0.46, 95% CI −0.00 to 0.93). No definitive evidence was found for effect of MT on motivation to stay sober when compared to active intervention, effect on substance craving, effect on depression, effect on substance use, or effect at 1-month follow-up. The authors conclude that MT as 'add on' treatment to standard care can produce moderate reductions in substance craving and enhance motivation for change for people diagnosed with SUDs receiving treatment in various settings. The authors rate findings as low-to-moderate confidence due to limitations present within the studies.

Dhippayom and associates (2022) conducted a systematic review and network meta-analysis on the effects of music intervention on depression in older adults. Fifteen RCTs were reviewed with 1144 adult participants (mean age 67.9-86.6 years), diagnosed with depression. Six trials included individuals diagnosed with dementia, while the remaining trials did not measure and report dementia conditions among their participants. Most of the studies (10 out of 15) were investigating older adults with mild depression (527 participants). Three trials were studied in 423 older adults with an average to normal level of depression; and one trial each were studied in older adults with major depression, without a measured baseline level of depression among participants. Music interventions were categorized into 3 methods: active music therapy (ACT), receptive music therapy (Recep), music medicine (MM). Duration of the music interventions were described per week, i.e., high (>60 minutes/week), and low (≤60 minutes/week) intensity. Results indicate when compared with usual care, the most effective music intervention was active music therapy >60 minutes/week by music therapist (Act/High/MT) (SMD -3.00; 95%CI, -3.64,-2.35), followed by music medicine >60 minutes/week by non-music therapist (MM/High/NonMT) (SMD -2.06; 95%CI, -2.78,-1.35) with moderate and high certainty of evidence, respectively. Depression scores in adults > 60 years old treated with ACT/High/MT were also notably lower than all other interventions, except MM/High/NonMT. Low intensity music interventions other than ACT/Low/MT had no impact on depression. No follow-up data was reported. More high-quality, randomized controlled trials are needed to assess the effects and durability of music intervention on depressive symptoms among adults > 60 years old.

Icel and Basogul (2021) completed an experimental study to investigate the effects of progressive muscle relaxation training and music therapy on anger and sleep quality. Participants (n=66) were chronic psychiatric patients, aged 18-59, attending the Community Mental Health Center (CMHC). Participants were divided into a control group (n=32) and an intervention group (n=34). Progressive muscle relaxation training with music therapy was implemented in the intervention group for 2 sessions per week, 1-hour sessions, for 3 months. The Pittsburgh Sleep Quality Index (PSQI) and the Trait Anger/Anger Expression Inventory were used for the pre and post-test measures. The overall findings showed statistical significance difference between the pre-test and post-test mean scores of the intervention group (p ≤ .001). After the intervention, a statistically significant difference was indicated between the PSQI, anger-in, anger-out, anger-out, anger-control, and trait anger scale scores of the two groups (p ≤ .001). An additional notable result was a statistically significant relationship between sleep quality and anger scores in both the pre-test and post-test (P< .05); the post-test result reveals that the intervention-controlled anger expression while sleep quality increased. According to the researchers, the results of this study support relaxation training and music therapy combined with pharmacology as beneficial to chronic psychiatric patients. Limitations of the study include small sample size,

limited to CMHC participants with lack of generalizability, and lack of durability follow-up data. Future research with robust study design is recommended to further establish and support efficacy.

Rabeyron and colleagues (2020) compared music therapy and music listening for children and autism spectrum disorder in a randomized controlled trial. Thirty-seven participants aged 4 to 7 years old were recruited for this study from psychiatric facilities in France. The 37 participants were randomly assigned to either the Music Therapy (MT) group or the Music Listening (ML) group using a generated randomization list for each group at t0 (start point of study). The MT consisted of 25 sessions that lasted 30 minutes with a qualified music therapist; 19 participants completed all sessions. The ML consisted of 25 sessions that lasted 30 minutes with no specific therapeutic intervention; 17 participants completed all ML sessions. All sessions occurred between October 2014 and June 2015 at the same room in each facility on the same schedule every week, except during holidays. Outcomes were measured by The Clinical Global Impression (CGI) a 7-point scale, The Childhood Autism Rating Scale (CARS), a 15 -item scale, and The Aberrant Behavior Checklist (ABC), a 57-item checklist. The results showed CGI scores improved to a better extent in the MT (d=2.16) than in the ML condition (d=1.33) with a large effect size at t1 (the endpoint of the study), (d=0.80). This improvement was clinically significant as 63.2% of the children scored a decrease of at least 2 points on the CGI in the music therapy group compared to 29.4% in the music listening group. The ABC subscales noted significant improvement regarding lethargy and stereotypy symptoms. There were no clinically meaningful results for t0 and t1 and the CARS. The authors report a variety of limitations such as not relying on gold standard evaluation tools for autism spectrum disorder and no follow-up to test the durability of the music interventions. Future studies are encouraged to address these limitations and to include larger sample sizes.

Naturopathic Detoxification

Miller and colleagues (2012) evaluated a natural dopaminergic agonist to improve dopaminergic function in substance use disorders. Participants were administered either oral-only treatment or IV treatment with Neuroadaptagen Amino Acid Therapy (NAAT) variant [KB220] along with other (oral) vitamin and mineral nutrients. The participants were polydrug abusers and in all cases drank alcohol to excess. The participants were detoxified from drugs within the last two months and had symptoms of craving behavior associated with protracted abstinence. The basic patented formula for NAAT Variant [KB220] included amino acid precursors such as L-phenylalanine, l-tyrosine, L-tryptophan, 5- hydroxytryptophan, L-glutamine, a serotonin concentrating substance chromium, an enkephalinase inhibitor D- phenylalanine, a neurotransmitter synthesis promoter vitamin B6, as well as both methionine and leucine. The amounts of these ingredients varied according to individualized assessment. The IV administration was a 4-hour infusion once a day, over seven days. For the oral therapy protocol, everyone received nutrients including thiamine, riboflavin, niacin, B6, folate, B12, pantothenic acid, magnesium, choline, para-aminobenzoic acid, lecithin, and inositol. In addition, those who met the criteria for being serotonin deficient also received vitamins A, C, E, K, and D, glycine, leucine, DLPA, tyrosine, boron, calcium, biotin, zinc, potassium, methionine, selenium, copper, iodine, and manganese. Those who met the criteria for being dopamine deficient also received iodine, zinc, copper, selenium, manganese, chromium, potassium, boron, calcium, biotin, and 5-HTP. In the first phase of the study (n = 49) The authors determined that the IV and oral group did significantly better than the oral-only group over the first week and 30- day follow-up period on chronic symptoms, as measured by the Chronic Abstinence Symptom Severity (CASS) Scale. In the second phase of the study (n = 129), the combination of IV and oral treatment was provided to all subjects, and three factors (emotion, somatic, and impaired cognition) were extracted for baseline CASS-Revised variables. All three scales showed significant declines from pre- to post-treatment. In the third phase of the study, a total of 23 subjects were followed-up at six months, one year, and two years post-IV treatment via phone interview to determine both sobriety and relapse rates. A total of 21 (91%) reported being sober at six months with 19 (82%) having no relapse; 19 (82%) reported being sober at one year with 18 (78%) having no relapse; and 21 (91%) reporting being sober at two years post-treatment with 16 (70%) having no relapse. It is noted that the major limitation of the experiment was the small sample size. The authors recommend further research to confirm these results in a larger population and with the use of an accurate method of randomization.

Reiki Therapy

Guo et al. (2024) conducted a meta-analysis to evaluate the efficacy of Reiki therapy in treating anxiety. The review encompassed 13 randomized controlled trials (RCTs) involving a total of 824 adult participants (aged 18 years and older) diagnosed with various forms of anxiety. Of these studies, ten focused on individuals with chronic illnesses, cancer, or those undergoing surgical procedures, while three included healthy adults. Sample sizes across studies ranged from 7 to 105 participants. Reiki therapy was administered at varying frequencies—ranging from once to six times per week—with session durations between 25 and 60 minutes. A range of validated assessment tools were employed to measure anxiety outcomes,

including the State Anxiety Inventory (SAI), Hamilton Anxiety Scale (HAM-A), State-Trait Anxiety Inventory (STAI), Hospital Anxiety and Depression Scale (HADS), and Quality of Life and Neurotoxicity (QLN) measures. The meta-analysis revealed a statistically significant reduction in anxiety following Reiki therapy (SMD = -0.82, 95% CI: -1.28 to -0.36, p = 0.001). Subgroup analysis indicated that short-term interventions (fewer than three sessions) and moderate interventions (six to eight sessions) were particularly effective in reducing anxiety related to medical procedures among chronically ill individuals. The authors noted several limitations, including variability in intervention protocols, small sample sizes, and a lack of long-term follow-up data. They concluded that further research is warranted to better understand the effectiveness of Reiki therapy across different diagnoses and individual patient contexts.

Sauna/Niacin Detoxification

Hussain et al. (2018) examined the role of saunas, or whole-body thermotherapy as potential treatment for various health issues. Information was obtained using a voluntary online 71-item questionnaire on the individual characteristics, sauna-related habits, and perceived health and wellness experiences of regular sauna bathers. The study was conducted from October 2016 to October 2017. The validated 'SF-12' quality of life scoring tool was integrated into the questionnaire to measure physical and mental indicators of well-being. There were 482 valid responses recorded from around the world, with the age range of 17-80 years. Respondents' sauna bathed approximately of 4–12 times each month (median of 6 times, n=443), which extrapolates to a frequency of approximately 1–2 occasions per week. Respondents reported one or more medically-diagnosed health conditions (32.1%, n=135/420). This study identified that sauna use has perceived health benefits that vary from relaxation, stress, relief, invigoration, and socializing to more specific health advantages such as aiding circulation, improving sleep, improving mental health, enhancing 'detoxification,' and relieving back/musculoskeletal pain. The few reported incidences of adverse reactions to sauna bathing were mild. This study demonstrates that the use of a sauna for health purposes is not well established in the scientific community. The authors acknowledge numerous limitations of this study and recommend further research surrounding the use of saunas for improving health.

Lennox and Cecchini-Sternquist (2018) completed a prospective chart review of 109 individuals sequentially enrolled into the Hubbard sauna regimen as part of a multi-modal, long-term residential substance abuse treatment facility. The Hubbard regimen is based on exercise, sauna, and therapeutic nutrients. Data from medical charts, client self-reports and Short Form Health Survey (SF-36) responses indicated that the Hubbard sauna detoxification method was well tolerated, with a 99% completion rate, including 1 human immunodeficiency virus and 9 hepatitis C positive subjects. Statistically significant improvements were identified in both mental and physical SF-36 scores at regimen completion, in addition to the Addiction Severity Index and Global Appraisal of Individual Needs Short Screener change scores at rehabilitation program discharge, compared with enrollment. There were no serious medical complications, an extremely low discontinuation rate, and high participant satisfaction. The SF-36 results indicated improved physical and emotional symptoms. The authors recommend further research into this sauna-based treatment regimen. Future research should focus on additional outcomes measurements of physical and mental health changes with analysis of whether these are improved via toxic elimination, nutrient and systems restoration, or a combination of these methods.

Guidelines & Consensus Statements

Department of Veterans Affairs and Department of Defense (VA/DoD)

- The Department of Veterans Affairs and Department of Defense (VA/DoD) Clinical Practice Guidelines for the Management of Major Depressive Disorder (2022) indicates the following for complementary and alternative treatments:
  - For patients with major depressive disorder (MDD), there is insufficient evidence to recommend for or against acupuncture as an adjunctive treatment to pharmacotherapy.
  - For patients with MDD, there is insufficient evidence to recommend for or against yoga, tai chi, or qi gong as an adjunctive treatment to pharmacotherapy.
- The Department of Veterans Affairs and Department of Defense (VA/DoD) Clinical Practice Guidelines for the Management Posttraumatic Stress Disorder And Acute Stress Disorder (2023):
  - There is insufficient evidence to recommend for or against acupuncture, music art or dance interventions for the treatment of PTSD.

Other Reports

According to an UpToDate review (2025), while auricular acupuncture shows promise as an adjunctive treatment for major depressive disorder (Rush, 2025), and acupuncture may be beneficial for PTSD (Stein, 2025), both areas require further research to confirm effectiveness, understand mechanisms, and assess long-term outcomes through larger randomized trials.

According to an UpToDate review (2025), further empirical investigation is warranted before animal-assisted therapy or hippotherapy can be formally endorsed as a recommended intervention autism spectrum disorder (Hale & Harris, 2025).

U.S. Food and Drug Administration

As the practice of CAM has increased in the United States, the Food and Drug Administration (FDA) has seen increased confusion as to whether certain products used in CAM are subject to regulation under the Federal Food, Drug, and Cosmetic Act. See the following FDA website for more information: http://www.fda.gov/RegulatoryInformation/Guidances/ucm144657.htm.

Centers for Medicare and Medicaid Services

Medicare does not have a National Coverage Determinations (NCDs) for the following complementary and alternative medicine modalities used in treating behavioral disorders and/or substance use:

- Animal-Assisted Therapy
- Art therapy
- Brainspotting Therapy
- Dance/movement therapy (DMT)
- Equine therapy
- Music therapy
- Naturopathic detoxification
- Reiki Therapy
- Sauna/niacin detoxification (e.g., New Life Detox)

Medicare does address acupuncture and is only covered for chronic low back pain. Refer to the following NCDs (www.CMS.gov):

- NCD for Acupuncture (30.3)
- NCD for Acupuncture for Fibromyalgia (30.3.1)
- NCD for Acupuncture for Osteoarthritis (30.3.2)
- NCD for Acupuncture for Chronic Lower Back Pain (30.3.3)

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member-specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other clinical criteria may apply.

Procedure Codes	Description
97810	Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97811	Acupuncture, 1 or more needles; without electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needles(s). (List separately in addition to code for primary procedure.)

Procedure Codes	Description
97813	Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97814	Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needles(s). (List separately in addition to code for primary procedure.)
90899	Unlisted psychiatric service or procedure
G0176	Activity therapy, such as music, dance, art or play therapies not for recreation, related to the care and treatment of patient's disabling mental health problems, per session (45 minutes or more)
H2032	Activity therapy, per 15 minutes
S8940	Equestrian/hippotherapy, per session

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Revision History

Date	Summary of Changes
12/16/2016	Version 1 (Approved by UMC)
12/16/2017	Annual review performed. Formatting and references updated.
07/15/2019	Annual review performed. Formatting and references updated.
06/15/2020	Annual review: updated references/sourcing.
06/21/2021	Annual review: updated references/sourcing.
06/21/2022	Annual review: updated references/sourcing.
07/18/2023	Annual review: updated references/sourcing.
12/12/2023	Reinstated the following topics per CTAC: • Naturopathic detoxification • Sauna/niacin detoxification (e.g., New Life Detox)
06/18/2024	Annual review: added Animal-Assisted Therapy information; updated references/sourcing.
06/16/2025	Annual review: Approved by Optum committees on 6/16/2025 and 07/22/2025 • Added Brainspotting Therapy • Added Reiki Therapy • Updated references/sourcing

Appendix

Additional resources considered in support of this policy:

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