



United Behavioral Health

Behavioral Clinical Policy: Complementary And Alternative Medicine (CAM) Treatments For Behavioral And Substance Use Disorders

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INTRODUCTION

Behavioral Clinical Policies are a set of objective and evidence-based behavioral health criteria used by medical necessity plans to standardize coverage determinations, promote evidence-based practices, and support members' recovery, resiliency, and wellbeing for behavioral health benefit plans that are managed by Optum®¹.

INSTRUCTIONS FOR USE

This guideline is used to make coverage determinations as well as to inform discussions about evidence-based practices and discharge planning for behavioral health benefit plans managed by Optum. When deciding coverage, the member's specific benefits must be referenced.

All reviewers must first identify member eligibility, the member-specific benefit plan coverage, and any federal or state regulatory requirements that supersede the member's benefits prior to using this guideline. In the event that the requested service or procedure is limited or excluded from the benefit, is defined differently or there is otherwise a conflict between this guideline and the member's specific benefit, the member's specific benefit supersedes this guideline. Other clinical criteria may apply. Optum reserves the right, in its sole discretion, to modify its clinical criteria as necessary using the process described in *Clinical Criteria*.

This guideline is provided for informational purposes. It does not constitute medical advice.

Optum may also use tools developed by third parties that are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Optum may develop clinical criteria or adopt externally-developed clinical criteria that supersede this guideline when required to do so by contract or regulation.

¹ Optum is a brand used by United Behavioral Health and its affiliates.

BENEFIT CONSIDERATIONS

Before using this policy, please check the member-specific benefit plan document and any federal or state mandates, if applicable. This Clinical Policy is provided for informational purposes. It does not constitute medical advice.

Pre-Service Notification

Admissions to an inpatient, residential treatment center, intensive outpatient, or a partial hospital/day treatment program require pre-service notification. Notification of a scheduled admission must occur at least five (5) business days before admission. Notification of an unscheduled admission (including emergency admissions) should occur as soon as is reasonably possible. Benefits may be reduced if Optum is not notified of an admission to these levels of care. Check the member's specific benefit plan document for the applicable penalty and provision of a grace period before applying a penalty for failure to notify Optum as required.

DESCRIPTION OF SERVICES

According to the National Center for Complementary and Integrative Health (NCCIH, 2018a), 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

According to the NCCIH (2018b), acupuncture describes varying procedures and techniques that involve the stimulation of points on the body. The most studied technique comprises penetrating the skin with thin, solid, metallic needles that are manipulated by either hands or electrical stimulation. Most commonly, acupuncture is used for back and neck pain, osteoarthritis, and headache. Research has also been conducted on the use of acupuncture to treat behavioral health conditions, such as depression and substance use disorder.

Art Therapy

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 improve psychological health, cognitive abilities, and sensory-motor functions.

According to the American Art Therapy Association (AATA, 2017), art therapy is used to improve cognitive and sensorimotor functions, foster self-esteem and self-awareness, cultivate emotional resilience, promote insight, enhance social skills, reduce and resolve conflicts, and advance societal and ecological change.

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], 2015). 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, 2019). 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 achieve 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, music therapy allows exploration of personal feelings and promotes positive changes in mood and emotional states (AMTA, 2019).

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 need of the patient
- Approximately 10-15 IV infusions in addition to oral therapy – the content of the infusions and oral therapies is unknown (Miller et al., 2012).

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 (Lennox & Cecchini-Sternquist, 2018).

COVERAGE RATIONALE

The following complementary and alternative medicine treatments are unproven and not medically necessary for treating behavioral and substance use disorders due to insufficient evidence of efficacy:

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

Summary of Clinical Evidence

Acupuncture

Smith et al. (2018) conducted a Cochrane Review to examine the effectiveness and adverse effects of acupuncture in the treatment of depression. The review was part of an update to a previous Cochrane Review, and now contains data from 64 studies (7104 participants). Studies were included if they were randomized controlled trials comparing acupuncture versus control acupuncture, no treatment, medication, other structured psychotherapies (cognitive-behavioral therapy, psychotherapy, or counselling), or standard care. Treatment modalities included acupuncture, electro-acupuncture, and laser acupuncture. Most studies were at high risk of performance bias, at high or unclear risk of detection bias, and at low or unclear risk of selection bias, attrition bias, reporting bias, and other bias. The authors concluded that the reduction in severity of depression was less when acupuncture was compared with control acupuncture than when acupuncture was compared with no treatment control, although in both cases, results were rated as providing low-quality evidence. The decrease in severity of depression with acupuncture given alone or in conjunction with medication versus medication alone is uncertain owing to the very low quality of evidence. Few studies included follow-up periods or assessed important outcomes such as quality of life. According to the authors, high-quality randomized controlled trials are needed to examine the clinical efficacy and suitability of acupuncture, as well as its effectiveness, compared with acupuncture controls, medication, or psychological therapies.

van den Noort et al. (2018) conducted a systematic review to evaluate the use of acupuncture as an add-on treatment for patients with schizophrenia with a special focus on the treatment of accompanying sleep disorders. A total of 26 eligible studies with 1181 patients with schizophrenia who received acupuncture treatment were included in the review. The authors found that there is inadequate evidence for the use of acupuncture as add-on therapy in the treatment of patients with schizophrenia; however, positive results were found in the treatment of concomitant sleep disorders. This result needs to be confirmed in large, randomized, controlled trials.

Chen et al. (2018) conducted a systematic review and meta-analysis to assess the efficacy of acupuncture in treating opioid use disorder (OUD). A total of 9 studies with 1063 participants were included in the review. The results showed that acupuncture could be more beneficial than no treatment/sham acupuncture in terms of changes in craving for opioid, insomnia, and depression. There was insufficient evidence to support better outcomes with acupuncture compared to medication. In addition, these findings revealed that, compared to sham electroacupuncture (EA), EA had differences in alleviating symptoms of craving and depression. The authors concluded that acupuncture could be effective in treating OUD. Moreover, EA could effectively alleviate symptoms of craving for opioid and depression. Nevertheless, the conclusions were limited due to the low-quality and small number of included studies.

Amorim et al. (2018) reviewed the literature on the effectiveness of acupuncture and electroacupuncture for the treatment of patients with anxiety disorders in order to assess the scientific evidence for its use. The systematic review of the clinical research was focused on published clinical trials (controlled, randomized and non-randomized) involving the treatment of anxiety with acupuncture. Only clinical trials where anxiety was treated as the therapeutic target, and not as a secondary measurement or being associated with other health condition or disease, were considered. Thirteen studies were identified to match exclusion and inclusion criteria and were selected for the analysis. Methodology, design, and quality of the research were highly variable. The authors concluded that there is good scientific evidence encouraging acupuncture therapy to treat anxiety disorders, however, additional research with robust study design and methodology is required confirm efficacy.

Grant and colleagues (2016) conducted a systematic review to estimate the effects of acupuncture for adults with substance use disorders (SUDs). The review included 41 studies (total n = 5,227), with quality of evidence assessed using the GRADE approach. Results found no significant differences observed between acupuncture and comparators (e.g., passive controls, sham acupuncture, treatment as usual, active interventions) at post-intervention for outcomes of relapse, frequency of substance

use, quantity of substance use, and treatment dropout. The authors did identify a significant difference in favor of acupuncture versus comparators for withdrawal/craving at post-interventions, but also evidence of publication bias. These results were not significant at longer follow-up. Safety data from 12 trials suggests little risk of serious adverse events. The authors conclude that the available evidence suggests no consistent differences between acupuncture and comparators for substance use.

Hayes, Inc. (2019) completed a comparative analysis of 43 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.

Art Therapy

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 a 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.

Abbing et al. (2018) conducted a systematic review to evaluate the effects of art therapy (AT) on anxiety symptom severity in adults. Three randomized controlled trials with 162 participants in total met the inclusion criteria. Participants were diagnosed with PTSD, students with exam anxiety, or prisoners with anxiety. All studies had a high risk of bias and small sample sizes. The authors concluded that there is limited high quality evidence assessing the effectiveness of AT on anxiety; further high quality studies are required.

Deshmukh et al. (2018) assessed the effects of art therapy as an adjunctive treatment for dementia compared with standard care and other non-pharmacological interventions in a systematic review. Two randomized controlled trials (n = 60) met the inclusion criteria and were included in the review. In both studies there were no distinct changes reported between the intervention group and the control group in the important outcome measures. According to GRADE ratings, the authors reported the quality of evidence for these outcome measures to be 'very low'. The authors concluded that there is insufficient evidence regarding the efficacy of art therapy for people with dementia.

Uttley and colleagues (2015a) conducted a study to systematically appraise the clinical and cost-effective evidence for art therapy for people with non-psychotic mental health disorders (e.g., depression, anxiety, and phobias). The authors conducted a comprehensive literature search, identifying 11 randomized controlled trials (RCTs) that included 533 total patients. The authors were unable to conduct a meta-analysis due to clinical heterogeneity and insufficient comparable data on outcome measures across studies. While control groups varied, studies included a no treatment/wait-list, attention placebo control and/or psychological therapy comparator. The authors found art therapy to be associated with substantial positive changes in mental health symptoms relative to the control group in the majority of studies (7 of the 11). Art therapy also appeared to be cost-effective compared to wait-list, however, evidence was lacking on the cost-effectiveness of art therapy compared to group verbal therapy. The authors conclude that from the limited available evidence, art therapy was associated with positive effects compared to control in a number of studies; however, the included trials were generally of poor quality and likely a high risk of bias. For this reason, the authors report that there is no definitive conclusion regarding the efficacy of art therapy.

Uttley and colleagues (2015b), as part of a larger Health Technology Assessment, conducted a quantitative systematic review on the clinical effectiveness of art therapy in people with non-psychotic mental health disorders. A comprehensive literature search identified reviews, randomized controlled trials (RCTs), economic evaluations, qualitative research and all other study types relating to art therapy. Included in the quantitative review were a total of fifteen RCTs (11 studies conducted in adults, and four conducted in children), representing a total of 777 participants. Nine studies compared art therapy with an active control group, and six studies compared art therapy with a wait-list control or treatment as usual. The majority of the studies were conducted in community/outpatient settings. Study duration ranged from 1 session to 40 sessions, with a mean number of 9 sessions. In 14 of the 15 studies, there were improvements from baseline in some outcomes in the art therapy groups. Both the intervention and control groups improved from baseline in 4 studies, and in 8 studies, art therapy was notably better than control for only some of the outcome measures. Randomization methodology was not described in 7 of the studies, prompting the authors to note that there is an unclear/high risk that randomization was not adequately performed in these particular studies. Additionally, allocation concealment was not reported in any of the included studies. The authors conclude that the small evidence base, consisting of low-quality RCTs, indicated that art therapy was associated with an improvement from baseline and was a more effective treatment for at least one outcome than control in the majority of reviewed studies. The authors report that further studies are required to substantiate this finding, including evidence to inform future cost-effective analyses of art therapy versus other treatments.

Dance/Movement Therapy

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.

In a randomized controlled trial, Mastrominico et al. (2018) examined the effects of dance movement therapy (DMT) on empathy for adults with autism spectrum disorder (ASD). The study was conducted as a multicenter study within the context of the EU-funded research project TESIS (Toward an Embodied Science of Intersubjectivity), and employed a two-factorial between-subject design. The treatment group (n = 35) participated in a 10-week manualized DMT intervention, whereas the control group (n = 22) received treatment only after a waiting period. Empathy, measured with the Cognitive and Emotional Empathy Questionnaire (CEEQ), was the main variable of interest, analyzed by a repeated measures analysis of variance. In order to also include incomplete data cases, the authors used the expectation-maximization algorithm for missing data estimation. Findings of the study suggest no significant changes in overall empathy between groups. The authors recommend that future studies focus more attention to the role of relationship and should test settings in which either the therapist or a co-therapist is doing the mirroring with the participant.

Meekums and Karkou (2017) performed a systematic review with the objective of examining the effects of dance movement therapy on behavioral, social, cognitive, and emotional symptoms of people with dementia when compared to no treatment or standard treatment. Electronic searches and personal communication were utilized to identify 102 studies. Nineteen full papers were reviewed with zero meeting the inclusion criteria of RCTs, including cross-over design and cluster RCTs. The authors concluded that there was no evidence for or against dance movement therapy as a viable intervention for dementia. The authors recommend future well-designed studies with a large number of participants are needed to assess dance movement therapy efficacy for dementia treatment.

Priebe and colleagues (2016) conducted a randomized controlled trial (RCT) to assess body psychotherapy as a treatment for negative symptoms of schizophrenia when compared to an active control group. Both body psychotherapy and control condition (Pilates) were delivered in 20 sessions of 90 minutes each, over a 10-week period. Primary outcome was negative symptoms at the end of treatment, measured by the Positive and Negative Syndrome Scale (PANSS). Secondary outcomes included psychopathology, functional, social, and treatment satisfaction outcomes at both treatment end and 6-month follow-up. A total of 275 participants were randomized (140 to body psychotherapy and 135 to Pilates), with 255 completing a 6-month follow-up. Results found no significant differences between body psychotherapy and Pilates in the PANSS negative symptom subscale. The authors did find minor improvements in expressive deficits and movement disorder symptoms in favor of body psychotherapy. No additional outcomes were notably different. The authors conclude that body psychotherapy is not clinically efficacious in the treatment of patients with negative symptoms of schizophrenia. The authors note that it remains unclear whether more prolonged exposure to therapy may result in changes to negative symptoms.

Martin and colleagues (2016) conducted a randomized controlled trial (RCT) to examine the effectiveness of manualized dance/movement therapy (BPT/DMT) on negative symptoms of patients with schizophrenia. A total of 68 outpatients with a diagnosis of schizophrenia were randomly assigned to either 20 sessions of dance/movement therapy ($n = 44$) or treatment as usual ($n = 24$), comprised of medical treatment only. Patients were aged 14-65 (mean age of 40 years), and on stable medication - all patients additionally received treatment with a single antipsychotic. Primary outcome was changes in negative symptoms scores on the Scale for the Assessment of Negative Symptoms (SANS). Power calculations revealed that 90 participants would be required to detect moderate to large treatment effects. Additionally, there was a large amount of missing data, mostly due to drop-outs of participants (drop-out rate of 30.9%). After 20 sessions of treatment, patients receiving movement therapy had significantly decreased negative symptom scores (mean symptom reduction of 20.65%), with moderate effect sizes noted. The authors conclude that movement therapy was effective in the treatment of patients with schizophrenia, but acknowledge limitations of a high dropout rate, baseline differences in major study variables, and use of a waiting control group. The authors suggest that further research studies should focus on the specific features of BPT/DMT, that are distinctly different from other group or physical exercise therapies.

Meekums and colleagues (2015) examined the effects of dance movement therapy (DMT) for depression with or without standard care, compared to no treatment or standard care alone, psychological therapies, drug treatment, or other physical interventions. As part of this systematic review, inclusion criteria were randomized controlled trials (RCTs) studying outcomes for people of any age with depression with at least one group receiving DMT. A total of 3 studies with 147 participants (107 adults and 40 adolescents) met inclusion criteria. Of these individuals, 74 received DMT treatment, and 73 comprised the control groups. All included studies collected continuous data using two different depression measures: the clinician-completed HAM-D, and the SCL-90-R. There was no reliable effect of DMT on depression (very low quality evidence). A planned subgroup analysis indicated a positive effect in adults, across two studies (107 participants), but failed to meet clinical significance. One adult study reported drop-out rates, which were found to be non-significant and low quality evidence. The authors conclude that the low-quality evidence from 3 small trials does not allow any firm conclusions to be drawn regarding the effectiveness of DMT for depression. They note that larger trials of high methodological quality are needed to examine DMT for depression, with economic analyses and acceptability measures and for all age groups.

Ren and Xia (2013) evaluated the effects of dance therapy for people with schizophrenia or schizophrenia-like illnesses compared with standard care and other interventions. The search methods for this Cochrane Collaboration were to update the original search for the Cochrane Schizophrenia Group register. Chinese main medical databases were also searched. After initial identification of 1020 citations, one study met inclusion criteria. This study was a randomized, single-blind study ($n = 45$), which lasted for 10 weeks with a follow-up after four months, and compared dance therapy plus routine care with routine care alone. Most people tolerated the treatment package, but nearly 40% were lost to follow-up in both groups by four months. At the end of treatment, significantly more people in the dance therapy had a greater than 20% reduction in Positive and Negative Syndrome Scale (PANSS) negative symptom score (moderate quality evidence), and overall, average negative

endpoint scores were lower (moderate quality evidence). There was no difference in satisfaction score and quality of life data were also equivocal. The authors conclude that, based on primarily moderate quality data, there is no evidence to support or refute the use of dance therapy in this group of people; this therapy remains unproven. The authors suggest that those with schizophrenia, their caregivers, trialists, and funders of research may wish to encourage future work to increase high quality evidence in this area.

Equine Therapy

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.

Trzmiel et al. (2019) conducted a systematic review and meta-analysis to examine the effectiveness of Equine-Assisted Activities and Therapies (EAAT) in Autism Spectrum Disorder (ASD) patients. A total of 15 studies with 390 participants (aged: 3-16 years) were included. The interaction between psychosocial functioning and EAAT was investigated in most studies. Improvement was reported in the following areas: socialization, engagement, maladaptive behaviors, and shorter reaction time in problem-solving circumstances after EAAT. The authors indicated that the majority of the available reports demonstrated high effectiveness of EAAT, especially with regard to improved social functioning. The authors address that it is impossible to draw universal conclusions due to the considerable discrepancies in therapeutic protocols and measurement instruments of the above mentioned studies. According to the authors, the two main limitations of the review are the following: a relatively small sample size, which increases the risk of a calculation error, and differences in research methodology, which greatly hinders the comparison of the results. The authors suggest that further longitudinal research studies with standard protocols and large sample groups are needed to confirm efficacy.

Hawkins et al. (2019) performed a systematic review to assess animal-assisted therapy (AAT) in the treatment of schizophrenia. Eligible studies were randomized controlled trials that had compared animal-assisted therapy, or other animal-assisted intervention, to a control group using any participants with a clinical diagnosis of schizophrenia or related disorder, including schizophreniform or schizoaffective disorders and regardless of age, gender, setting, or severity and duration of illness. There were 6 full text articles that met inclusion criteria with the total number of participants as 390. The mean ages ranged from 34 to 79 years. Primary outcomes were mental state and behavior, clinical global response, and quality of life and wellbeing. Five out of seven studies included symptoms as an outcome measure, with one reporting improvements in negative symptoms and one study reporting improvements in positive and emotional symptoms. The remaining studies reported no significant effects of AAT. Three studies included quality of life as an outcome measure but did not find any noteworthy effects. Two studies revealed improvements in various measures of self-view. The authors denote that rigorous, large-scale randomized controlled trials with long-term follow-up are needed to determine the significance of AAT for schizophrenia. There is potential for the treatment of negative symptoms and negative self-view, however, currently results remain inconclusive.

Lai et al. (2019) conducted a systematic review regarding the efficacy of animal-assisted therapy (AAT) for people with dementia. Inclusion criteria was randomized controlled trials (RCTs), cluster-randomized trials, and randomized cross-over trials that compared AAT versus no AAT, AAT using live animals versus alternatives such as robots or toys, or AAT versus any other active intervention. There were 9 RCTs with 305 participants reviewed. Results from 2 studies with 83 participants revealed that people with dementia who had AAT were perhaps slightly less depressed at treatment conclusion than people who had standard care or other interventions not related to animals. Evidence from 3 studies with 164 participants showed that people who received AAT had no clear difference in their quality of

life compared to those who did not. The authors report there was no evidence of an effect on social functioning (interactions with their environment and families), behavior, agitation, activities of daily living, self-care ability or balance. There were no clear variances when AAT was compared with the use of a robotic animal in 2 studies with 156 participants (in social functioning, behavior, and quality of life), or with the use of a soft toy cat in 1 study with 64 participants (in social functioning). The authors report that AAT may potentially decrease depressive symptoms, however, there is no clear evidence on whether AAT is beneficial or safe for people with dementia. Further studies with robust design are required to determine benefits of AAT for dementia.

Srinivasan et al. (2018) conducted a focused systematic review to evaluate the effects of equine therapy in individuals with autism spectrum disorder. Inclusion criteria for studies peer-reviewed articles and/or studies reporting data on treatment effects of "equine" therapy using experimental or quasi-experimental study designs. This review included 15 studies with 428 participants. The review suggested that equine therapy has beneficial effects on behavioral skills and to some extent on social communication in ASD. According to the authors, the evidence for positive effects of equine therapy on perceptuo-motor, cognitive, and functional skills is currently limited. Future studies are required, using rigorous study designs with large sample sizes to analyze the role of equine therapies as a treatment option for individuals with ASD.

Music Therapy

In an updated Cochrane review, Geretsegger et al. (2017) evaluated the effects of music therapy, or music therapy added to standard care, compared with placebo therapy, standard care or no treatment for people with serious mental disorders such as schizophrenia. Ten new studies were added to this update; 18 studies with a total 1215 participants are now included in the review. These studies examined effects of music therapy over the short, medium, and long-term, with treatment dosage varying from 7 to 240 sessions. Generally, most information is from studies at low or unclear risk of bias. The authors concluded that moderate to low-quality evidence suggests that music therapy as an addition to standard care improves the global state, mental state (including negative and general symptoms), social functioning, and quality of life of people with schizophrenia or schizophrenia-like diagnoses. However, effects were inconsistent across studies and depended on the number of music therapy sessions as well as the quality of the music therapy provided. The authors state that further research should focus on the long-term effects of music therapy, dose-response relationships, in addition to the relevance of outcome measures in relation to music therapy.

van der Steen et al. (2018) assessed the effects of music-based therapeutic interventions for people with dementia on emotional well-being including quality of life, mood disturbance or negative affect, behavioral problems, social behavior and cognition at the end of therapy and 4 or greater weeks after the treatment conclusion. Twenty-two studies with 1097 randomized participants were included. Twenty-one studies with 890 participants contributed data to meta-analyses. Participants in the studies had dementia of varying degrees of severity, and all were resident in institutions. Seven studies delivered an individual music intervention; the other studies delivered the intervention to groups of participants. The methodological quality of the studies varied. All were at high risk of performance bias and some were at high risk of detection or other bias. The authors concluded that providing people with dementia who are in institutional care with a minimum of 5 sessions of a music-based therapeutic intervention probably reduces depressive symptoms and improves overall behavioral problems at the end of treatment. It potentially improves emotional well-being, quality of life, and decreased anxiety, however, may have little or no effect on agitation, aggression, or cognition. There is uncertainty about effects on social behavior and durability of this approach. According to the authors, future studies are needed to examine the duration of effects in relation to the overall duration of treatment and the number of sessions.

Geipel et al. (2018) systematically reviewed and quantified the effects of music-based interventions in reducing internalizing symptoms (i.e., depression and anxiety) in children and adolescents using a meta-analytical approach. Five studies were included and focused on the treatment of children and adolescents with either pathological depressive symptoms or pathological anxious symptoms. The participant ages ranged from 8-18 years. Analysis of data from randomized controlled trials, showed a significant main effect, indicating a greater reduction of internalizing symptoms in youth receiving music-based interventions (n = 100) compared to different control group interventions (n = 95). The

existing evidence is limited to studies of low power and methodological quality. Included studies were highly heterogeneous with regards to the nature of the intervention, the measurements applied, the samples studied, and the study design. The authors concluded that study findings identify that music-based interventions may be efficient in reducing the severity of internalizing symptoms in children and adolescents. While these results are promising with the application of music-based intervention, more research adopting well controlled study designs of high methodological quality is needed.

A Cochrane review by Aalbers et al. (2017) analyzed the effects of music therapy for patients who were experiencing depression. Nine studies involving 421 subjects met the authors' inclusion criteria. Music therapy was found to provide positive short-term effects for depressive symptoms. However, no eligible evidence on functioning, adverse events or anxiety was identified. Future trials with larger participant sample sizes and robust study designs are necessary to confirm these findings.

Zhao and colleagues (2016) conducted a systematic review and meta-analysis of randomized controlled trials to determine the efficacy of music therapy in the management of depression among elderly individuals (aged 60 or older). The primary outcome measure throughout the included studies was change in depressive symptoms, measured using a range of scales (either self-rated or score by independent rater). A total of 19 articles met inclusion criteria and were included in the synthesis. Studies included those where music therapy was added to standard therapies vs. standard therapy alone, and music therapy vs. no treatment. Nine studies showed to have used adequate random allocation sequences, with the randomization methods of the other studies unclear. Six studies blinded the participants or outcome assessments, and two studies did not use correct blinding methods. Two studies reported attrition bias. The results of the meta-analysis suggested that music therapy plus standard treatment had a statistical significance in decreasing depressive symptoms; music therapy alone did not have a statistically significant effect in reducing depressive symptoms when compared to standard treatments. The authors note that further research that reports the method of blinding and allocation concealment and uses an accurate method of randomization is needed.

Zhang and colleagues (2017) analyzed the efficacy of music therapy in elderly people diagnosed with dementia and whether music therapy can be used as first-line non-pharmacological treatment. A total of 34 studies were included with the publication dates from 1999 to 2015. The inclusion criteria were clinical trials with elderly people with dementia that compared any form and intervention method of music therapy with no music care. The authors excluded studies that did not provide comparative or missing outcomes. There were 16 studies identified as RCTs, 10 were controlled clinical trials (CCTs), and the other 8 were RCT/crossover trials. The primary outcomes were disruptive behavior and cognitive function; the secondary outcomes were depressive score, anxiety score, and quality of life. This meta-analysis indicated that music therapy had positive results for disruptive behavior and anxiety, with a positive trend for cognitive function, depression and quality of life. Most trials revealed that music therapy was associated with an improvement in disruptive behavior and cognitive function outcomes. However, a majority of these associations did not reach statistical significance, and heterogeneity existed in most of the outcomes. The authors conclude that further clinical trials of music therapy should focus on large size samples, well-designed and randomized to confirm the effects of music therapy on disease specific outcomes, particularly in elderly people with dementia.

Bidabadi and Mehryar (2015) conducted a single-center, parallel-group, randomized clinical trial to investigate the role of music therapy as an adjunct to standard treatment for obsessive-compulsive disorder (OCD) and co-morbid anxiety and depression. A total of 30 patients with OCD were randomly assigned to either standard treatment (pharmacotherapy and cognitive-behavior therapy) plus 12 sessions of individual music therapy (n = 15), or to standard treatment only (n = 15) for a period of 1 month. Primary outcome was change in the obsessional symptoms as measured by the Maudsley Obsessive-Compulsive Inventory (MOCI). Anxiety and depression measures, as measured by the Beck Anxiety Inventory (BAI) and Beck Depression Inventory-Short Form (BDI-SF) were measured as well. Forms were administered at baseline and after the one month treatment period. Results found that adjunctive music therapy resulted in a greater decrease in total obsessive score (checking and slowness, but not washing or responsibility) when compared to standard treatment only. Music therapy was also found to be significantly more effective in reducing co-morbid anxiety and depressive symptoms compared to standard treatment. The authors acknowledge the relatively small sample of

included participants as a limitation. The authors suggest further study of whether the demonstrated short-term benefits can be sustained over longer periods of time.

Geretsegger and colleagues (2014) assessed the effects of music therapy for individuals with autism spectrum disorders (ASD). This Cochrane Systematic Review included all randomized controlled trials (RCTs) or controlled clinical trials that compared music therapy or music therapy added to standard care to placebo therapy, no treatment, or standard care for individuals (age 2-9 years) with ASDs. Primary outcomes included social interaction, communicative skills, initiating behavior, social-emotional reciprocity, and adverse effects. A total of 10 studies (n = 165) were identified; these examined short- and medium-term effect of interventions (1 week – 7 months). Nine of the studies were RCTs, and half of the trials examined therapy for 1-2 weeks (applied on a daily basis). No long-term follow-up assessments were included in any of the studies. Six of the studies had sample sizes varying from 4-10 participants, and the largest study had a sample size of 30. Results found that music therapy was superior to placebo therapy or standard care on all primary outcome measures except for non-verbal communicative skills outside of the therapy context.

None of the included studies reported any adverse effects. The authors note that the small sample sizes of the studies limit the methodological strength of these findings. The authors advocate for more research, using larger samples and generalized outcome measures to corroborate these findings and determine whether the effects of music therapy are enduring.

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.

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, a very 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 (2016) 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 either as monotherapy or 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 either as monotherapy or as an adjunctive treatment to pharmacotherapy.

American College of Physicians (ACP)

In clinical guidelines on the nonpharmacologic versus pharmacologic treatment of adult patients with major depressive disorder, the ACP evaluated the use of complementary and alternative medicines (including acupuncture) and did not recommend their use (Qaseem et al., 2016).

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>.

Some niacin products are FDA-approved prescription products for treating high cholesterol; these prescription niacin products are typically available in high strengths. Both niacin and niacinamide are approved by the FDA for treatment and prevention of niacin deficiency, and certain conditions related to niacin deficiency. Niacin and other naturopathic therapy combinations have not been reviewed by the FDA for substance use detoxification.

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:

- Art therapy
- Dance/movement therapy (DMT)
- Equine therapy
- Music therapy
- Naturopathic detoxification
- Sauna/niacin detoxification (also known as "New Life Detoxification", "sauna detoxification", "Purification Rundown/Program", "Purif", "Effective Purification Program", etc)

Medicare does not cover acupuncture as an anesthetic or as an analgesic or for other therapeutic purposes. 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)*

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.)
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	Action/Description
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.