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.
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 involves 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

**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.

**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. Modes of treatment 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 reduction 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 acceptability 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 limited 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 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 nine studies involving 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. In addition, these findings showed 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) regarding 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. These results should be interpreted with caution since more research in this area is needed.

In a systematic review and meta-analysis, Grant et al. (2018) evaluated the effects of acupuncture on posttraumatic stress disorder (PTSD) symptoms, depressive symptoms, anxiety symptoms, and sleep quality for adults with PTSD. Seven RCTs with 709 participants were included in the analysis. The authors identified very low quality of the body of evidence (QoE) indicating significant differences favoring acupuncture (versus any comparator) at post-intervention on PTSD symptoms and low QoE at longer follow-up on PTSD and depressive symptoms. According to the authors, sufficiently powered
trials are needed that measure all relevant clinical outcomes to establish the efficacy of acupuncture for PTSD.

Asher et al. (2017) performed a systematic review and meta-analysis comparing the benefits and detriments of CAM to second-generation antidepressants in individuals with major depressive disorder (MDD). Studies utilizing acupuncture were identified in the 22 randomized controlled trials that were included in the authors’ analysis. Most of the treatments in this comparison demonstrated no differences in response or remission. The authors acknowledged the strength of evidence in these findings was either low or insufficient due the risk of bias in the studies. The performance of larger trials is needed in order to decrease the sampling bias.

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.

**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 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. Art therapy studies were found to be of medium quality with the main issues in quantitative studies having a small sample size, a general lack of generalizability and a lack of rigorous efforts to ensure validity in the findings. 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 inadequate reporting in data collection. The authors recommend further research to assess the use of creative art modalities for depression.

Baker et al. (2018) performed a systematic review to examine the efficacy of creative arts therapy including music therapy, art therapy, dance/movement therapy, and drama therapy, in the treatment of posttraumatic stress disorder (PTSD). Seven studies met the inclusion criteria for review, with four studies investigating art therapy, two studies investigating music therapy, and a final study investigating drama therapy. The evidence for music therapy, art therapy, and drama therapy was ranked as low to very low, with no studies found for dance/movement therapy. The quality of the trials was generally very poor.

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 patients in total met the inclusion criteria. All studies had a high risk of bias. The authors concluded that there is limited evidence evaluating the effectiveness of AT on anxiety, so no strong conclusions can be drawn.

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 Cochrane review. Two randomized controlled trials (n = 60) met the inclusion criteria and were included in the review. In both studies there were no clear changes reported between the intervention group and the control group in the important outcome measures. According to GRADE ratings, the authors judged the quality of evidence for these outcome measures to be ‘very low’. The authors concluded that there is insufficient evidence about 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 eleven 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 significant 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, but there was insufficient evidence 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, they note that the results should be interpreted with caution.

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 patients. 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 four studies, and in eight studies, art therapy was significantly better than control for only some of the outcome measures. Randomization methodology was not described in seven of the studies, leading 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.

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 PEDro scores. Very few of the studies included follow up. Quality issues for this modality relate to the lack of actual dance movement therapy (DMT) interventions. The authors recommend further research to assess 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 framework 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. Results of the study suggest no significant changes in overall empathy between groups.
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 small improvements in expressive deficits and movement disorder symptoms in favor of body psychotherapy. No other outcomes were significantly different. The authors conclude that body psychotherapy does not have a clinically relevant beneficial effect 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 lower 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.

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 Cochrane 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 three studies with 147 participants (107 adults and 40 adolescents) met inclusion criteria. Of these individuals, 74 took part in 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 (low quality evidence). The authors conclude that the low-quality evidence from three 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 assess DMT for depression, with economic analyses and acceptability measures and for all age groups.

Koch and colleagues (2014) conducted a meta-analysis to evaluate the effectiveness of dance movement therapy (DMT) and the therapeutic use of dance for the treatment of health-related psychological problems. A total of 23 studies were included in the analysis; 16 investigated the effect of DMT on psychological variables, and 7 investigated the effects of dance on different clinical outcomes. In 15 studies, the control group received no intervention or formed a wait-list control group. The other studies differed in their control group activity (leisure time program; home trainer group; music listening group; etc.) or did not specify the control intervention. A total of three studies researched the effects of dance or DMT on patients with depression, two studies focused on patients with somatization problems, and the effects of DMT on patients with autism, schizophrenia, and dementia were also investigated. Overall, the authors determined that the included studies offered a satisfactory degree of methodological quality; however, there were differences in the quality of the included studies, especially with regard to randomization, blinding strategy, and the analysis of baseline differences. A moderate effect size was found for clinical outcomes, and sub-analyses
resulted in a moderate pooled effect size of DMT and dance interventions in the reduction of depression and anxiety. The authors caution that methodological shortcomings of many primary studies limit these encouraging results and, therefore, further investigations to strengthen and expand upon evidence-based research in DMT are necessary.

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, all but 12 were removed as being duplicate and irrelevant references. The remaining 12 references were considered as potentially relevant and retrieved for further assessment; 11 were ultimately excluded, leaving only one study to include in this Cochrane Review. 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 predominantly moderate quality data – there is no evidence to support or refute the use of dance therapy in this group of people, and that 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

Trzmiel et al. (2019) conducted a systematic review and a meta-analysis to assess 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 domains: socialization, engagement, maladaptive behaviors, and shorter reaction time in problem-solving situations after EAAT. The authors indicated that the majority of the available reports demonstrated high effectiveness of EAAT, especially with regard to improved social functioning. Nevertheless, the authors stated that it is impossible to draw universal conclusions due to the considerable discrepancies in therapeutic protocols and measurement instruments of the abovementioned studies. Further, longitudinal trials, with standardized EAAT protocols and representative large sample groups are necessary. According to the authors, the two main limitations of the review are as follows: 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.

Srinivasan et al. (2018) conducted a focused systematic review to evaluate the effects of equine therapy in individuals with autism spectrum disorder. 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.

Oh et al. (2018) conducted a randomized clinical trial to investigate the effects of Hippotherapy versus pharmacotherapy for children with ADHD. Thirty-four participants with ADHD were randomly assigned at a 1:1 ratio to either 24 sessions of a twice-weekly hippotherapy or pharmacotherapy. To assess therapeutic effects, the ADHD Rating Scale (ARS) was used pretreatment and posttreatment as the primary outcome measure. Secondary outcomes included the Child Behavior Checklist (CBCL), Self-Esteem Scale (SES), Pediatric Quality of Life Inventory (PedsQL) child and parent report version, Developmental Coordination Disorder Questionnaire (DCDQ), Clinical Global Impressions-Severity (CGI-S), and quantitative electroencephalography. Both groups showed marked improvements in ADHD symptoms, CGI-S. No significant differences between groups were detected regarding treatment outcome except thought problem subscales of CBCL. Twelve weeks of hippotherapy improved attention, impulsivity/hyperactivity, and quality of life. The authors concluded that this trial is promising, but further studies are required to evaluate the long-term clinical effectiveness of hippotherapy.
Maber-Aleksandrowicz and colleagues (2016) reviewed the literature on animal assisted therapy (AAT) in people with intellectual disabilities. A search identified studies using AAT that measured psychosocial outcomes (behavioral, cognitive, emotional, and social). Quality of studies was assessed using a standardized tool and rated as strong, moderate, or weak. A total of 10 studies were included in the final review – two rated as moderate quality and eight rated as weak quality. Results found a positive improvement reported from studies for all psychosocial outcomes. The authors conclude that AAT may be a potentially useful supportive intervention, and future research should better address the methodological limitations of existing work.

Lentini and Knox (2015) summarized and tabulated literature on the various forms of equine-focused psychotherapy to better describe what is being done and determine best practices. Selected articles were classified according to whether the study was predominantly quantitative or qualitative, with 47 studies selected for review. Although variability between studies was identified, the modal intervention was one 60-minute session per week for 12 weeks. The majority of reviewed papers found benefits for a variety of presenting problems and disorders, mostly in at-risk youth and children with an autism spectrum disorder diagnosis. The authors note that despite the results, several challenges remain. These included a need for more randomized, controlled studies with large samples using non-subjective outcome measures.

Davis and colleagues (2015) conducted a systematic review to evaluate the results of animal-assisted interventions on symptoms associated with autism spectrum disorders (ASDs). Studies were included for the review if they evaluated the effects of animal interaction with at least one child, under the age of 18, with ASD. A total of 20 studies met the criteria for inclusion in the review, representing a total of 330 participants (sample size ranging from 1-64). In addition to ASD, 15 participants were reported to have an additional diagnosis (most frequently included an intellectual disability). Six of the studies taught the child a specific skill with the animal, such as mounting and riding a horse. Eight of the 20 studies found positive results, with the remaining 12 studies finding mixed results. The authors assigned a certainty of evidence to the reviewed studies, with the majority of the studies (90%) classified as insufficient, the lowest level of certainty. All of the studies reporting positive results were classified as having an insufficient certainty of evidence. Among many of the studies, threats to internal validity compromised the methodological rigor of the study. The authors conclude that caregivers and practitioners should exercise caution in selecting animal-assisted interventions as part of an intervention package for children with ASD.

Anestis and colleagues (2013) examined the quality of and results from peer-reviewed research on equine-related treatments (ERT) for mental disorders and related outcomes. A total of 14 peer-reviewed studies that examined treatment for mental disorders or closely related outcomes were identified from databases. To be included, studies needed to involve the use of an intervention in which an equine plays a pivotal role either as a standalone or adjunctive treatment of a specific mental illness or conditions closely related to mental illness. Additionally, studies needed to employ an experimental protocol and report how efficacy and effectiveness was assessed. Of the 14 studies, 10 used child participants. Results found that all studies were compromised by a substantial number of threats to validity, calling into question the meaning and clinical significance of their findings. Additionally, the authors note that the studies failed to provide consistent evidence that ERT is superior to the mere passage of time in the treatment of any mental disorder. The authors conclude that the current evidence base does not justify the marketing and utilization of ERT for mental disorders, and that such services should not be offered to the public unless and until well-designed studies provide evidence that justify different conclusions.

**Music Therapy**

Baker et al. (2018) performed a systematic review to examine the efficacy of creative arts therapy including music therapy, art therapy, dance/movement therapy, and drama therapy, in the treatment of posttraumatic stress disorder (PTSD). Seven studies met the inclusion criteria for review, with four studies investigating art therapy, two studies investigating music therapy, and a final study investigating drama therapy. The evidence for music therapy, art therapy, and drama therapy was ranked as low to very low. Generally, the quality of the trials was very poor. The authors stated that future directions for this field of research are to improve the scientific quality of the research trials in this area.
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 seven to 240 sessions. Overall, 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 disorders. 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 address the long-term effects of music therapy, dose-response relationships, as well as 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 four or more weeks after the end of treatment. 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 at least five sessions of a music-based therapeutic intervention probably reduces depressive symptoms and improves overall behavioral problems at the end of treatment. It may also improve emotional well-being and quality of life and reduce anxiety, but may have little or no effect on agitation or aggression or on cognition. There is uncertainty about effects on social behavior and about long-term effects. According to the authors, future studies should 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. Analysis of data from randomized controlled trials, yielded 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 respect to the nature of the intervention, the measurements applied, the samples studied, and the study design. The authors concluded that study findings indicate that music-based interventions may be efficient in reducing the severity of internalizing symptoms in children and adolescents. While these results are encouraging with respect to 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 patients 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 patient samples and suitable 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 were found 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 findings of the meta-analysis suggested that music therapy plus
standard treatment had a statistical significance in reducing depressive symptoms, but music therapy alone did not have a statistically significant effect in reducing depressive symptoms when compared with standard treatments. The authors note that further research that reports the method of blinding and allocation concealment and uses the correct method of randomization is needed.

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 recommend 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 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. They recommend 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. Subjects 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 subjects were polydrug abusers and in all cases drank alcohol to excess. The subjects 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 DA 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 found 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 present experiment was the small number of subjects. The authors encourage others to further confirm these results in a larger population and stringently controlled studies.

Behere and colleagues (2009) conducted a review of the evidence around complementary and alternative medicine (CAM) in the treatment of substance use disorders. The authors acknowledge that established medications include disulfiram, acamprosate, naltrexone, opioid maintenance and nicotine replacement therapies. They define CAM interventions as those that by definition are not accepted by conventional practitioners, because they have not yet been shown to be effective clinically. The review identified a number of trials that were categorized as “biological supplementation”. These approaches included amino acid supplementations, magnesium supplementation, and use of melatonin. The authors conclude that although a few preliminary studies show encouraging results, none of the alternative therapies have significant evidence; of those reviewed, acupuncture, EEG biofeedback and herbal therapies hold promise for the future. In general, the authors note that studies of CAM face methodological difficulties relating to standardization of procedures, provision of a control arm and blinding, and a paucity of research, most notably a lack of rigorous human trials.

Sauna/Niacin Detoxification
Ross and Sternquist (2012) conducted an uncontrolled, retrospective medical chart evaluation of Utah police officers treated with a sauna detoxification protocol for employment-related methamphetamine exposures. The nonprofit American Detoxification Foundation (ADF) established and administered The Utah Meth Cops Project (UMCP), which used the Hubbard detoxification protocol and monitored health and quality of life among Utah police officers to address symptoms consistent with (and appearing after) line-of-duty exposures to methamphetamine and related chemicals. The chart evaluation was for the first 69 police officers sequentially entering the UMCP, each of who had documented contact with methamphetamine and related chemicals through law enforcement activities, and subsequent development of persistent medical symptoms or chronic ill health. Treatment components included 20-30 minutes of aerobic exercise; comprehensive nutritional supplementation including increasing doses of niacin; and moderate-temperature sauna therapy, with breaks every 30 min for fluid and electrolyte restoration, totaling about 4 hours daily. Treatment was given each day until “maximum gains were achieved” (typically 4-6 weeks). Symptom changes and quality of life were assessed using a baseline history and physical examination, follow-up interviews, and a series of pre- and post- treatment assessments (RAND 36-item Short Form Health Survey; 50-item pre- and post- treatment survey of symptoms, sick days, and sleep patterns; 13-item pre- and post-treatment neurotoxicity questionnaire; Mini-Mental State Examination; daily report forms). A total of 66 men and 3 women, averaging 44.6 years of age enrolled with a 92.8% completion rate. Mean treatment length was 33 days (range: 15-56). Results found that statistically significant health improvements were seen in the SF-36 evaluations, symptom scores, and neurotoxicity scores. It is noted by the authors that the ‘Hawthorne effect’ should be considered, given that many of the officers were told their health was ‘normal’. The authors conclude that despite the obvious limitations of this preliminary study, including the lack of matched controls, the clinical outcomes make a case for continued investigation of the sauna-based Hubbard detoxification protocol.

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 website for more information:


Some niacin products are FDA-approved prescription products for treating high cholesterol; these prescription niacin products typically come 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:

- NCD for Acupuncture (30.3)
- NCD for Acupuncture for Fibromyalgia (30.3.1)
- NCD for Acupuncture for Osteoarthritis (30.3.2)

(Accessed April 3, 2019)

**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.

<table>
<thead>
<tr>
<th>Procedure Codes</th>
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<td>Activity therapy, such as music, dance, art or play therapies not for recreation,</td>
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<td>related to the care and treatment of patient’s disabling mental health problems, per session (45 minutes or more)</td>
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<td>Equestrian/hippotherapy, per session</td>
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**REFERENCES**


Koch, Sabine; Kunz, Teresa; Lykou, Sissy; et al. 2013. Effects of dance movement therapy and dance on health-related psychological outcomes: A meta-analysis. The Arts in Psychotherapy. 41. 10.1016/j.aip.2013.10.004.


Qaseem A, Barry MJ, Kansagara D; Clinical Guidelines Committee of the American College of Physicians. Nonpharmacologic Versus Pharmacologic Treatment of Adult Patients With Major


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**REVISION HISTORY**

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