

STUDY DESIGNS

Delivery Modalities for ADHD Coaching: An Exploratory Mixed Methods Design

Background: ADHD coaching, a client-centered complementary approach, demonstrates positive outcomes across multiple studies, in assisting individuals having ADHD to develop awareness, skills, and strategies that promote increased ease in varied facets of life. A number of studies examining the effectiveness of coaching delivery modalities (i.e. in-person, telephone, video-conference, or a combination) have not included ADHD coaching. However, as in coaching in other populations, delivery modality is an important consideration in coaching for ADHD.

Research Objectives: To better understand delivery modalities used in ADHD coaching, this study will examine: (1) the frequency of coaches' use of varied delivery modalities, and (2) coaches' perceived effectiveness of each.

Methods: This mixed methods exploratory study has three components. First, we will review the extant literature on ADHD coaching, as reported in the Ahmann, Tuttle, Saviet & Wright (2018) literature review, to identify the coaching delivery modality used in each study. Then, a convenience sample of self-identified ADHD coaches, contacted via the several social media platforms of the ADHD Coaches Organization, will be invited to participate in an anonymous online survey exploring their use of coaching delivery modalities. The survey will obtain descriptive data, such as participants' number of years coaching, average number of clients coached in a week, and credentials. Primarily, the survey seeks to investigate coaches' reports regarding: frequency of, reasons for, perceived benefits of, concerns related to, and perceived effectiveness of using various ADHD coaching delivery modalities. As the second study component, categorical questions and Likert scales will provide quantitative data, analyzed using SPSS statistical software. Third, open-response questions will provide qualitative data, examined using an inductive approach based in Grounded Theory, a widely used analytic approach employing an emergent analysis strategy to examine the patterns and themes identified in data.

Discussion: As the first study exploring the use of in-person, telephone, video-conferencing, and combined delivery modalities in ADHD coaching, this study will yield direct insight into this key aspect of the coaching process. Further, data on coaches' perceived effectiveness of, as well as benefits and drawbacks regarding, each delivery modality will provide a preliminary understanding of the effectiveness of these coaching modalities that can be explored in future research.

Allura Red and Impact on Task Focus of Preteens: Interventional Study Design

Knowles R.

Background: Studies have shown that the common food dye, Allura Red, increases hyperactivity of children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), a population of 6.4 million. There are few studies conducted on the behavioral effects of Allura Red consumption amongst children in the general population. Of the studies that have been conducted thus far, the results have shown that Artificial Food Coloring (AFCs) affect children with even minute behavioral issues. Results of this study may impact the foods teachers distribute in their reward systems.

Research Objective: The aim of this study is to determine whether the consumption of Allura Red affects a child's ability to stay on task while in the classroom, when compared to children who do not consume artificial food coloring.

Methods: The study uses a teacher-children double-blind method to observe the behavior of sixty 6th grade children in the classroom of a public school willing to participate. Two groups of thirty children, excluding children pre-diagnosed with ADHD and food allergies or food sensitivities, will be observed with the signed permission of a parent. The two groups will be observed on their ability to stay on task using the Behavioral Observation of Students in School (BOSS) test administered during each observation by two teachers outside of the school district. On Day One, both groups will consume provided meals free of Allura Red, as well as two lollipops free of Allura Red distributed between classes and then observed using the BOSS test. On the second day both groups will consume the meal plan again however Group A will receive two lollipops that contain Allura Red between classes and Group B will receive the Allura Red-free lollipops again. Both groups will be observed using the BOSS test on the second day. The data will be analyzed by comparing the results of the BOSS test for Day One for Group A and B against Day Two.

Discussion: This integrative nutritional study will contribute to an understanding of the impact of Allura Red on the ability of children to stay on task in the classroom. Studies show that an inability to focus on tasks results in decreased academic performance. Some school teachers offer candy to incentivize students to enhance their academic performance. The results of this study may influence schools to adopt a different reward system for students that is more in line with healthy practices.

Interventional Research Design: Use of Yoga Therapy to Reduce Anxiety in Competitive Dancers

Crane, P.

BACKGROUND: Many dancers perform well in the classroom but suffer when trying to transfer their skills to the stage for performances due to anxiety. A study found that almost one-third of dancers experienced performance anxiety, also known as stage fright; and another study found that stage fright indeed affects the physical aspect of performance. While one study suggests that stage fright arises through physiological activation and is related to negative thoughts, current research is lacking on ways to alleviate stage fright for dancers through the use of yoga therapy.

RESEARCH OBJECTIVES: This study will examine the effects of therapeutic yoga on the pre-performance anxiety levels of dancers. The goal of this study is to determine if using breathwork, meditation, and visualization to reduce anxiety will help dancers regulate their thoughts, emotions, and behaviors in a positive way, thereby causing a reduction of pre-performance stage fright.

METHODS: This pilot study will include 10-20 (ballet, jazz, modern or contemporary) competition dancers from 13-19 years of age, recruited through dance studios in the Washington, DC metro area. Recreational dance students who do not compete in at least three competitions per season will be excluded. Included dancers may have self-reported or diagnosed anxiety in relationship to performing, but those on anti-anxiety medication will be evaluated separately. Interventions will include: three-part breath for relaxation and body awareness, loving kindness meditation, and Yoga Nidra with visualization. Outcome measures will include PROMIS- anxiety form and post-competition questionnaire to determine feelings about the success of their performance. Statistical analysis will be completed to look for trends in change. Delivery of the intervention will be live or via Zoom video in the dance studio within seven days before their competition performance for a total of three pre-competition intervention sessions.

DISCUSSION: While there are many studies addressing performance anxiety for athletes, there are few that address the needs of dancers, and none that propose the use of yoga therapy as an intervention. Self-regulation and management of the nervous system through yoga therapy could be a valuable tool for dancers who suffer from performance anxiety.

Pranayama, Somatic Awareness, and Yoga Postures for Dancer Hip Injury Rehabilitation: An Interventional Study Design

Crane, P

Background: Overuse injuries are common in recreational and professional dancers with hip injuries such as snapping hip syndrome, impingement, bursitis, sacroiliac joint dysfunction, and labral tears. Studies show overuse injuries in some ballet companies account for 60%-70% of all musculoskeletal injuries, with 90% of those occurring in the lower extremities. There are also studies showing psychological correlates of injuries in dancers. While these studies exist, there are none regarding the feasibility of yoga therapy as an intervention. Many dancers have incredible flexibility and strength yet still succumb to injuries. Some possible reasons may be deficits in muscle strength as well as bone and joint integrity because they limit their training to dance only. Research is needed to determine if mindfulness and somatic awareness of the supporting muscles of the hips could improve the physical well-being of dancers who suffer from these injuries. Positive results could help bring about more longevity for dancers through yoga therapy.

Research Objectives: To investigate the use of yoga therapy to alleviate pain, by release and strengthening of the hip girdle supporting musculature in dancers who experience, or are at risk for, overuse injuries.

Methods: In this pilot study, 10-20 dancers between the ages of 18-35 will be recruited from local dance studios or companies in the Metropolitan Washington, DC area. Assessments and interventions will be delivered in person at the studios. Dancers must currently be experiencing an overuse injury in the lower extremity to be included. Dancers who rehearse less than 10 hours per week will be excluded as well as those who are currently practicing yoga. Outcome measures will include pain scale ratings and muscle testing. Statistical analysis will be utilized to look for trends in change of outcomes. Interventions will include nadhi shodhana breath, constructive rest, reclined butterfly, clam shells, transverse abdominal activation for core stabilization, somatic lifting of one hip-quadratus lumborum stretch, tree, dancer, and savasana with body scan. This randomized control study will use a control group that will continue with their current training instead of receiving the yoga intervention.

Discussion: This study design addresses the mind and body connection in an attempt to bring about homeostasis in the dancer. Breathwork, relaxation techniques, strengthening, and body awareness in the yoga therapy intervention have the possibility of bringing about holistic change for dancers suffering from hip and lower extremity pain.

Survey of Yoga Therapists in Clinical Healthcare Settings: Research Design

McCuiston M, Searl K, Sullivan M

Background: There is limited data on the characteristics and career patterns of yoga therapists (YTs) working in clinical healthcare settings (CHSs). CHSs may include any environment that has personnel with healthcare licensure. With the interest and push for non-pharmaceuticals, yoga therapy may serve as an important complementary health practice for various patient populations as it has seen increased utilization by the public and has been recognized for its effectiveness. However, there is limited data on how yoga therapy can be integrated into CHSs. The significance and purpose of this research study is to bring clarity to this.

Research Objectives: Describe the characteristics and career patterns of YTs (job title, job department, type of employment, compensation, how services are provided, how services are charged, methods included/excluded) and educational background of YTs (IAYT status, degrees, licenses). Explore YT perspectives on challenges and successes, development in the field, and compare this with future national norm, when available.

Methods: Cross-sectional descriptive survey of YTs working in CHSs. Inclusion criteria: those who work or have worked in CHSs and have internet access with the ability to take a survey. Convenience sample of approximately 6,000 individuals recruited from the International Association of Yoga Therapists (IAYT), Kripalu Center for Yoga & Health, and Maryland University of Integrative Health with no maximum enrollment. Eligible participants will receive the survey via email from SurveyMonkey™ and they will have 3 weeks to respond to a 50-question survey. These questions will be peer-reviewed to ensure clarity and validity. Information collected including demographics, career patterns, educational background and job description will be analyzed through descriptive statistics.

Discussion: Yoga therapy in CHSs is a common ground for substantial health reform and there is limited data on how the practice has been integrated into these settings. The development and implementation of this survey may be useful to help understand the occurrence and career patterns of YTs working in CHSs. It may also support yoga therapy training programs and help to develop rigor within the profession. There may be a subset of YTs working in CHSs that are not affiliated with the organizations listed above and we have yet to determine a cost-effective acceptable methodology in locating these YTs.

Research Design for Reproduction and Expansion Upon: Use of Herbs Among Adults Based on Evidence-Based Indications

Nault D.

Background: During the January 2017 MUIH Journal Club, attendees reviewed and discussed the publication, *Use of Herbs Among Adults Based on Evidence-Based Indications: Findings from the National Health Interview Survey*. At this time, the group decided that this would be an interesting study to reproduce with the current data. This study was produced in 2007 and used the 2002 National Health Interview Survey (NHIS) data, and since then an additional two surveys have been conducted. Our current evidence for herbal supplement use has also expanded since 2002, along with the proportion (23.6%) of herbal supplement users in the U.S. population. With this growing population of herbal supplement users, it would be valuable to better understand whether their decision to use herbal supplements is supported by current evidence.

Research Objectives: The primary objective of this study will be to reproduce the original study aim: "To examine the extent to which US adults use herbs (herbal supplements) in accordance with evidence-based indications," using the most current data available. Secondary to this objective, we will also examine whether exposure to different informational resources and health care provider interaction are associated with increased evidence-based herbal supplement use.

Methods: In accordance with the original study design, current information from the Natural Standard database will be applied to relevant NHIS data to identify groups who use herbs for various health reasons. Relevant data will be extracted from the 2002, 2007, and 2012 NHIS Alternative Health supplements. Every five years, the Alternative Health supplement is part of the annual, nationally representative, cross-sectional NHIS survey design. Three years of data will be extracted to make temporal comparisons. Other than this addition of data, the methodology used here (inclusion/exclusion, variables selected, statistical analyses, etc.) will match the study being replicated.

Discussion: This cross-sectional study replication will expand upon the current knowledge base for evidence-based indications for herbal supplement use in the U.S. population. In accordance with the principles of Integrative Health and the original study author's suggestions for further research, this study will also examine whether interaction with a health care professional (physician or integrative health clinician) or various resources regarding herbal supplement use is associated with evidence-based use indications.