Spring 5-2-2024

Art Therapy Treatment for Adult Women with Comorbid or Co-occurring Anxiety: A Literature Review

Gabrielle Russo
grusso4@lesley.edu

Art Therapy Treatment for Adult Women with Comorbid or Co-occurring Anxiety: A Literature Review

Lesley University

May 2nd, 2024

Gabrielle Russo

Master's in Clinical Mental Health Counseling, Art Therapy

Thesis Instructor: Madoka Urhausen, Ph.D., LMFT, ATR-BC

Abstract

Anxiety disorders are prevalent across the globe and are more often diagnosed in women. Anxiety disorders are highly comorbid and can worsen the outcomes of other mental and medical health diagnoses. Research on treatment for anxiety disorders has spanned decades; however, the gold standard treatment, cognitive behavioral therapy and medication, leave many individuals without significant results. Art therapy has shown, in small scale studies, the ability to be applied with success to several populations but could benefit from further research. It is the hypothesis of this literature review that art therapy can be an appropriate alternative treatment for comorbid anxiety disorders in adult women when standard treatments fail. Art therapy research often falls short of research guidelines such as being conducted by non-art therapists and methodological issues. Art therapy studies have shown to be an effective treatment across age groups, nationality and gender. Strengths of art therapy treatment include a transdiagnostic approach, flexibility, and accessibility. The results of this literature review suggest that art therapy treatment is equally as effective as cognitive behavioral therapy in treating comorbid anxiety disorders and is an appropriate alternative treatment.

Keywords: comorbid anxiety, art therapy, women, treatment of anxiety

Author Identity Statement: This author identifies as a white woman with comorbid anxiety from the United States.

Art Therapy Treatment for Adult Women with Comorbid or Co-occurring Anxiety

Introduction

This capstone project considers the prevalence of anxiety, the gender differences in anxiety diagnosis rates, and the high comorbidity of anxiety. It also considers the gold standard or most common treatments for anxiety treatment such as cognitive-behavioral therapy (CBT) and medication, the validity of art therapy as a treatment option for anxiety, and the state of art therapy research and literature. The World Health Organization (WHO) estimates that 264 million people live with anxiety worldwide, and that anxiety disorders are more prevalent in women than in men (2017). While women are more likely to have anxiety disorders and more likely to seek professional help, men are more likely to receive the appropriate mental health services and treatment (McLean et al., 2011). The gold standard of anxiety treatment – CBT and medications – does not work for a significant number of individuals; anywhere from 30 to 60% of CBT and medicinal study participants do not experience significant improvements (Kjernisted & Bleau, 2004). Other options for anxiety treatment are needed to fill the gaps in treatment; literature shows that art therapy treatment is effective in treating several mental health disorders, including anxiety (Abbing, Baars, de Sonneville et al., 2019). Anxiety disorders have been found to negatively impact the outcomes of comorbid and co-occurring mental health disorders and physical illnesses; the improved treatment of anxiety disorders can lead to improved treatment of other illnesses (Stubbs et al., 2021). I hoped to learn about the state of art therapy research, the disparity in anxiety diagnosis across gender, and the validity of art therapy as a treatment for anxiety disorders.

Literature Review

History of Anxiety Disorders

In the 17th century, melancholia was often diagnosed for patients with depressive symptoms but also encompassed anxiety; it was also recognized that fear and sorrow could exist separately (Crocq, 2015). Crocq states that in the 18th century medical publications recognized panic attacks as symptoms of melancholia and were associated with anxiety: "The disorder mainly concerned with anxiety is Panophobia, defined as a panic terror ... in the absence of any obvious cause" (2015, p. 322). According to Crocq (2015) Panophobia was broken down into subtypes such as panophobia hysterica, characterized by panic terror and panophobia phrontis, characterized by extreme worry and tension in the body similar to generalized anxiety disorder (GAD). In the 19th to 20th centuries, anxiety became a feature of many new diagnoses and diagnostic categories. Neurasthenia was characterized by a wide variety of criteria including general discomfort, neuralgia, hypochondria, anxiety, and chronic depression, and anxiety was also a characteristic of the two major neuroses, psychasthenia and hysteria (Crocq, 2015). Freud considered anxiety neuroses to be separate from neurasthenia; Emil Kraepelin considered anxiety a symptom of other diagnoses and less so as its own diagnosis (Crocq, 2015). Crocq further cited that Kraepelin acknowledged that phobias were their own classification, including a phobia of social situations.

It was in the DSM-III (APA, 1980) that information about associated features, age of onset, course, impairment, comorbidity, predisposing factors, prevalence and sex ratio for diagnoses was included. The DSM-III recognized that panic disorder and agoraphobia often overlapped and included agoraphobia with and without panic attacks. The DSM-IV (APA, 1994) distinguished that panic attacks could occur in any anxiety disorder; it also included anxiety

disorders induced by medical conditions and substance use, differential diagnosis, cultural context, and familial pattern.

It was in the DSM-IV that significant impairment became a requirement and part of the definition of a disorder; Crocq (2017) states that was when the GAD lifetime prevalence jumped to 5% and was first observed to be much higher among women than men. Social phobia was renamed to social anxiety disorder in the DSM-IV-TR (APA, 2000). The diagnostic criteria for GAD in the DSM-IV and the DSM-5 are similar and even identical in several categories. By the criteria of the DSM-5, GAD is shaped significantly by exclusion criteria as it cannot be diagnosed if the anxiety is better explained by other mental disorders or illnesses. The DSM –5 also includes more diagnoses associated with and of higher prevalence in children. In the DSM-5 (APA, 2013) PTSD was moved to the Trauma and Stress-Related Disorders chapter and OCD was moved to the Obsessive Compulsive and Related Disorders chapter. While no longer being considered anxiety disorders, the commonality between and high comorbidity with PTSD and OCD are still prevalent (Anxiety and Depression Association of America, 2022; Crocq, 2017). See below for additional information (Table 1).

Table 1

Changes in Anxiety Disorders Across DSM Editions

DSM Edition	Disorder name	Changes in Diagnostic criteria
DSM-I (1952)	Anxiety reaction	Uncontrollable and diffuse worry with apprehension and somatic symptoms differentiated from normal fear.
	Phobic reaction	Anxiety in the form of a specific neurotic fear. The commonly observed forms of phobic reaction include fear of syphilis, dirt, closed places, high places, open places, animals, etc. Attempts to control anxiety by avoiding the phobic object or situation.
	Obsessive compulsive reaction	Persistence of unwanted ideas and of repetitive impulses to perform acts (rituals). The individual may regard the ideas and behavior as unreasonable but is compelled to carry out the ritual.
DSM-II (1968)	Anxiety neuroses	Anxious over-concern extending to panic and frequently associated with somatic symptoms and is not restricted to specific situations or objects.
	Phobic Neurosis	Intense fear of an object or situation which the patient consciously recognizes as no real danger. Apprehension may be experienced as faintness, fatigue, palpitations, perspiration, nausea, tremor, and even panic.
	Obsessive compulsive neurosis	Persistent intrusion of unwanted thoughts, urges, or actions. The actions vary from simple movements to complex rituals such as repeated handwashing. Anxiety and distress are often present if prevented from completing the compulsive ritual.
DSM-III (1980)	Agoraphobia, Social Phobia and Simple Phobia	Persistent and irrational fear of and with desire to avoid a specific object, activity, or situation. Agoraphobia and Simple Phobia more common in women.
	Panic Disorder	Recurrent panic attacks that occur at times unpredictably, though certain situations may become associated with a panic attack. More common in women.
	Generalized Anxiety Disorder	Generalized, persistent anxiety of at least one month's duration, not better explained by another diagnosis. Manifests as physical tension, apprehension, autonomic hyperactivity and hypervigilance. Highly comorbid with other anxiety disorders.
	Obsessive Compulsive Disorder	Recurrent obsessions or compulsions. Equally common in men and women.

Table 1 (continued)

DSM Edition	Disorder name	Changes in Diagnostic criteria
DSM-III (1980)	Post-Traumatic Stress Disorder	Development of characteristic symptoms following a psychologically traumatic event. Symptoms involve re-experiencing the traumatic event; numbing of responsiveness to, or reduced involvement with, the external world; and a variety of autonomic, dysphoric, or cognitive symptoms.
DSM-IV (1994)	Agoraphobia	Anxiety about, or avoidance of, places or situations from which escape might be difficult or embarrassing, with or without panic attacks. Diagnosed more in women.
	Panic Disorder	Recurrent unexpected panic attacks about which there is persistent concern, with or without agoraphobia. Diagnosed two to three times more in women.
	Specific Phobia	Clinically significant anxiety provoked by exposure to a specific feared object or situation, often leading to avoidance behavior. Diagnosed more in women.
	Social Phobia	Clinically significant anxiety provoked by exposure to certain types of social or performance situations, often leading to avoidance behavior. Equally diagnosed in men and women.
	Obsessive-Compulsive Disorder	Characterized by obsessions and/or by compulsions. Equally diagnosed in men and women.
	Posttraumatic Stress Disorder	The reexperiencing of a traumatic event with symptoms of increased arousal and avoidance of stimuli associated with the trauma.
	Generalized Anxiety Disorder	At least 6 months of persistent and excessive anxiety and worry. Diagnosed up to three times more in women.
DSM-5 (2013)	Selective Mutism	Consistent failure to speak in specific social situations in which there is an expectation for speaking (e.g., at school) despite speaking in other situations. More frequent in children.
	Separation Anxiety Disorder	Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached. More frequent in girls/women.
	Anxiety Disorder due to another Medical Condition	There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct pathophysiological consequence of another medical condition.

Anxiety Statistics and Impact

According to the 2022 report from the Anxiety and Depression Association of America (ADAA), GAD affects 6.8 million adults, panic disorder (PD) affects 6 million adults, SAD affects 15 million adults, specific phobias, including agoraphobia, affect 19 million adults in the United States. The percentage of the population with depression worldwide and by region is greater than the percentage with anxiety, except for the Americas; cases of anxiety disorders and depressive disorders in the Americas in 2017 were 21% and 15% respectively (WHO, 2017). The rate of anxiety disorders is higher among females than males across gender and region, the most disparate in the Americas; "4.6% [female] compared to 2.6% [male] at the global level" (WHO, 2017, p. 10). Women are twice as likely than men to have PD, GAD and specific phobias; SAD is equally common among women and men (ADAA, 2022). Panchal et al. (2023) found that adults reported the highest rates of anxiety and depression symptoms during the pandemic in February of 2021 at 39.3%; anxiety and depression symptoms among adults decreased to 32.3% in February of 2023. Panchal et al. (2023) also found that women were more likely to report anxiety and depression symptoms than men with 36% and 28.3% respectively.

According to Alonso et al. (2018) the worldwide treatment of anxiety disorders is disproportionately low with only a third of individuals receiving treatment; treatment for anxiety disorders is higher in the United States than anywhere else globally. Alonso et al. found that the treatment gap for mental health disorders, including anxiety, is especially significant in middle to low-income countries. They reported barriers to effective anxiety disorder treatment included low recognition rates by professionals, lack of access to or awareness of mental health services, high cost of treatment and stigma. The study used a survey to ask respondents if they had attended any self-help groups or talked to any professional – including doctors, social workers, counselors, religious advisors or healers – in the past year for their anxiety. It was found that

"across 21 countries worldwide, only about a fourth (27.6%) of individuals meeting criteria of a 12- month DSM-IV anxiety disorder have received any treatment in the previous year" (Alonso et al., 2018, p. 208).

Alonso et al. (2018) found a gap in adequate treatment, such as evidence-based practices and appropriate treatment duration. The definition of possibly adequate treatment was created using evidence-based guidelines and from consultation of previous research on the subject. According to Alonso et al. (2018) the United States had the highest rate of treatment, with less than 15% of people with an anxiety diagnosis receive adequate, evidence-based treatment. The percentage of anxiety disorders being treated is low, and the percentage of them being treated with evidence-based practices for an appropriate amount of time is even lower. In the same study Alonso et al. found that a significant factor of the treatment gap was a lack of feeling the need for treatment. Only about two thirds of respondents that perceived a need for treatment received it and even fewer met the criteria for adequate treatment. The study also compared the reports from respondents with anxiety and anxiety with comorbid disorders and found that those with comorbid disorders perceived a need for treatment at a higher rate. Alonso et al. found that those with anxiety and comorbid disorders who received treatment were more likely to receive adequate treatment than those with only anxiety; this may be due to the increased severity of symptoms seen in comorbid anxiety. Limitations for the study include using the criteria for anxiety disorders from the DSM-IV, which includes PTSD and OCD as anxiety disorder and may not accurately represent current day estimates for anxiety disorders, and not differentiating between severity of symptoms and diagnosis.

According to the World Health Organization (WHO), "anxiety disorders are ranked as the sixth largest contributor to non-fatal health loss globally and appear in the top 10 causes of Years Lived with Disability (YLD)" (2017, p. 14). Anxiety disorders are associated with severe

disability, high costs in medical and psychological treatment, missed days of work, low quality of life and disability-adjusted life years (DALY's) lost (Alonso et al., 2018). The WHO's definition of disability-adjusted life years is:

> One DALY represents the loss of the equivalent of one year of full health. DALYs for a disease or health condition are the sum of the years of life lost due to premature mortality (YLLs) and the years lived with a disability (YLDs) due to prevalent cases of the disease or health condition in a population (2024, para. 5).

Grambal et al. (2016) found that in borderline personality disorder with comorbid anxiety and depression there was a significant negative correlation between the overall quality of life and level of anxiety and depression measured i.e., as anxiety and depression increase, quality of life decreases.

Anxiety in Women

McLean et al. (2011) summarized the gender differences in DSM-IV anxiety disorders:

> Women were more likely than men to meet criteria for all anxiety disorders examined, with the exception of SAD ... There were no differences between men and women with regard to the age of onset and the estimated chronicity of anxiety disorders. Significant gender effects were observed in the patterns of comorbidity and in the dysfunction associated with having an anxiety disorder, which together underscore the importance of gender to the epidemiology of anxiety. (p. 1033)

McLean et al. found that while anxiety rates differ between races, across race anxiety is more common in women than in men (2011). While women are more likely to seek out medical professionals for help, out of the people who do seek help men are more likely to be referred out to mental health professionals or other more appropriate services, while women are more likely to be treated by their physician, and thus most likely with medication (McLean et al., 2011). The

article suggests that this may be because anxiety is considered a more feminine trait and thus professionals feel it is more alarming to see it in men; it could also be that the symptoms of anxiety for women are more socially acceptable – such as missed work – than the symptoms for men – such as substance use (McLean et al., 2011). Men are less likely in general to seek out services, fit the criteria for or be diagnosed with anxiety disorders; this could be due to the social upbringings that discourage men from seeking help or that because anxiety is considered a feminine trait, anxiety diagnostic criteria fit women's symptoms more accurately than men's (McLean et al., 2011). "One in three women (33%) met criteria for an anxiety disorder during her lifetime, compared to 22% of men ... with the greatest differences in PTSD, GAD, and PD" (McLean et al., 2011, p. 1031).

Comorbidity

According to the WHO, one of the reasons that the total number of globally common mental health disorders cannot be estimated is because of the high comorbidity between anxiety and depression (2017). Anxiety disorders are highly comorbid, and often co-occur with other mental health disorders, medical illnesses and even other anxiety disorders. The Anxiety and Depression Association of America (2022) determined that common illnesses to occur alongside anxiety are obsessive compulsive disorder, posttraumatic stress disorder, depression, attention deficit hyperactive disorder, bipolar disorder, eating disorders, substance use, irritable bowel syndrome, fibromyalgia, and sleep disorders. According to Kjernisted and Bleau (2004), "anxiety disorders are highly comorbid, especially with major depressive disorder and bipolar disorder, which further complicates their management" (p. 60) and anxiety disorders also have high rates of relapse after treatment or remission. In this literature review, to offer a holistic view of anxiety disorders, I will be including medical diagnoses and mental health disorders as part of comorbidity that impacts anxiety.

In their phenomenological art-based study, Stubbs et al. (2021) wished to quantify the experiences of comorbid severe asthma, depression, and anxiety to find the common themes of the individuals' experiences. Stubbs et al. found that "38% of participants with severe asthma had anxiety and 25% had depression, compared to 30% and 9%, respectively of a non-severe asthma population" (2021, p. 1528). The researchers also found "increased risk for two or more acute attacks in people with severe asthma who experience comorbid depression and anxiety compared to those without" (Stubbs et al., 2021, p. 1528). Participants were asked to paint or draw their experience of severe asthma and then described their artwork, which was recorded and transcribed verbatim. The transcripts were coded using software to sort the descriptive data into categories; the transcripts were also frequently reviewed by the researchers. The most prominent themes that emerged were emotional burdens depicted as darkness, physical and social impacts and resilience. Stubbs et al. (2021) suggests that comorbid anxiety and depression correlate with decreased quality of life and increased disease burden.

Grambal et al. (2016) aimed to examine the factors that affect quality of life in borderline personality disorder (BPD) with comorbid anxiety disorders, such as functional impairment and comorbidities. BPD is highly comorbid with depression, anxiety, substance abuse and suicidality; BPD also has a high risk of developing multiple comorbidities according to their study. In the same study, Grambal et al. stated that in a previous U.S. study, it was found that BPD negatively affects the course of anxiety disorders, but anxiety disorders had a minimal effect on the course of BPD. As mentioned previously, the study found that quality of life had a negative correlation with the levels and anxiety and depression measured. The participants were split into subgroups based on the comorbid anxiety disorder, including PD, SAD, GAD, and adjustment disorder; OCD, PTSD, and dissociative disorder were combined into one subgroup labeled "others" (Grambal et al., 2016). It is not clear which DSM the criteria for anxiety

disorders was pulled from but considering that OCD and PTSD were included in a subgroup of comorbid anxiety disorders, it was most likely an edition prior to the DSM-5.

Consecutively hospitalized BPD patients with a comorbid anxiety disorder between the ages of 18 to 65 were included in the study of Grambal et al. (2016). There were 24 male and 64 female participants. Participants with BPD with comorbid anxiety were compared to healthy participants without mental health disorders; participants with BPD and comorbid anxiety were strongly impaired in all areas of QoL compared to the control group. As the BPD patients included had comorbid anxiety disorders, the study could not conclude on the extent of effect that anxiety has on the course of BPD and vice versa. Grambal et al. summarized the findings: "It was demonstrated that anxiety disorders affect the QoL. The question remains as to what the influence of anxiety disorders is and what is the impact of personality disorder itself on reduced QoL in borderline patients" (2016, p.1429). A comparison of QoL in BPD patients with and without comorbid anxiety disorders may provide more conclusive data on the effect of anxiety disorders on the course of BPD and QoL. More studies like this one are needed to better understand the effects of comorbid anxiety disorders on quality of life and the course of disorders.

In their retrospective quantitative study Weber et al. (2021) compared the rates of medication prescribed to patients with comorbid and non-comorbid anxiety disorders. The study found that all anxiety disorders had high rates of other anxiety disorder comorbidity, with PD having the highest rate. Weber et al. (2021) concluded that all anxiety disorders have a high medication prescription rate and that having multiple anxiety diagnoses increases the likelihood of medication prescription. The most common medication prescribed was anti-depressants, followed by benzodiazepines and antipsychotics. The study did not examine anxiety with comorbid non-anxiety disorders, but the use of antidepressants and medications with more

associated side effects like benzodiazepines and antipsychotics suggests that the participants had other diagnoses that impact their daily functions with non-anxiety comorbidities or greater symptom severity.

Current Anxiety Treatment

In their systematic review and meta-analysis of effectiveness studies, Öst et al. (2023) reported that cognitive-behavioral therapy for anxiety studies often have randomized control trial designs with high internal validity, coupled with experienced therapists and specific treatment manuals among other variables that make for good research design. Öst et al. (2023) compared the results of effectiveness studies of CBT for anxiety completed in controlled university settings to those completed in routine clinical care settings to determine the generalizability of CBT for anxiety. They found that the remission rate in post treatment effectiveness studies on CBT for anxiety disorders was 49.1% to 52.3%; there was no significant difference in remission rates across anxiety disorders. The researcher concluded that when CBT interventions derived from strong research are delivered by a competent therapist the outcomes in routine clinical care are the same if not better than outcomes in controlled research settings. Öst et al. (2023) added to the research that shows that CBT has similar effectiveness results across settings and anxiety disorders. The widespread use of CBT for anxiety disorders is due to this strong research base of credible research design, generalizability, and effectiveness.

Kjernisted and Bleau (2004) point out that anxiety disorders are only treated to the point of significant symptom reduction and not to remission or for patients to be symptom-free. The standard for significant response to treatment is a 25 to 50% decrease in symptoms, however this does not consider diagnosis severity, and many are still left with significant symptoms and impairments in functioning (Kjernisted & Bleau, 2004). The systematic literature review by Kjernisted and Bleau (2004) found that psychotherapy such as exposure therapy, cognitive

restructuring, social skills training, and applied relaxation was as effective or more effective for treatment of anxiety disorders than pharmacotherapy. Kjernisted and Bleau (2004) found that up to 60% of panic disorder patients became panic free with remission rates for GAD treatment varied from 30 to 43% and response rates to pharmacotherapy in SAD varied from 43% to 68%. The ADAA (2022) states that "SAD affects 15 million adults or 7.1% of the U.S. population" (para. 4) meaning that response rates to pharmacology in SAD leaves anywhere from 4.8 million to 8.5 million adults with SAD that will not benefit from pharmacology. Despite focusing on the idea that full remission should be the goal in anxiety disorder treatment, this review fails to comment on the fact that anywhere from 30 to 60% of participants did not see significant improvement and does not provide recommendations for further research into treatments for these participants.

Andrews et al. (2016) conducted a review of previous reviews and meta-analyses of pharmacology studies on the efficacy of medication for GAD. After weighing the outcomes of the trials, considering The National Institute for Health and Care Excellence (NICE) guidelines and comparing effect sizes to CBT studies, the authors concluded that medication should be used only when psychological treatments have failed. Andrews et al. (2016) concluded that SSRI's and SNRI's are the most effective medications for GAD. In the reviews analyzed by the authors, CBT was almost twice as effective as medication but also more costly. They also found that transdiagnostic approaches, created to treat commons symptoms over multiple diagnoses, were equally as effective in treating GAD and outcomes were the same when delivered in-person or online. These transdiagnostic approaches included online delivered CBT for anxiety and depression. It also included the Unified Protocol for mood and anxiety disorders, a five-module treatment that focuses on increasing mindful emotional awareness, increasing cognitive flexibility, identifying avoidant behavioral patterns, increasing awareness and tolerance of

physical sensations, and increased interoception. The studies on transdiagnostic treatment included in their review, Andrews et al. (2016) showed the result that up to half of the participants with prior multiple diagnoses including GAD no longer fit any diagnostic criteria for any diagnosis. This is a promising treatment option for comorbid anxiety disorders as separate treatment for different diagnoses can be costly and time consuming.

Some researchers compared the same medication types such as SSRI's, SNRI's, MAOI's and benzodiazepines (Andrews et al., 2016; Weber et al., 2021; Kjernisted and Bleau, 2004). Taken from these studies, medication used in anxiety treatment, despite being researched for decades, has not changed significantly. What the extant literature reveals also is despite the large number of participants that do not see significant improvements or experience remission, cognitive behavioral therapy and medication are the gold standard treatment for anxiety disorders due to consistency, generalizability, and strong research base.

What is Art Therapy

According to the American Art Therapy Association (AATA) "Art therapy is a mental health profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship" (2022, para. 1). Art therapy helps individuals express themselves when words are insufficient. Art therapy is facilitated by trained and credentialed professionals with master's level or higher degrees. Art therapists are knowledgeable in psychological theory, art, and the application of art making and the creative process to help individuals cope with their mental health challenges. Art therapists can work with all ages and mental health conditions; they can work in many settings including hospitals, schools, community health centers, psychiatric facilities and private practice. To participate in art therapy, individuals do not have to have any prior knowledge of art making nor do they have to be good at art; art therapists are

trained in the arts and different types of expression to tailor treatment and interventions to suit every individual. Therefore, it stands to reason that art therapy is an appropriate alternative treatment for women with comorbid and co-occurring anxiety. The next section of literature review will explore how art therapy is utilized in the treatment of medical and mental health diagnoses with comorbid anxiety.

Art Therapy with Comorbid Anxiety

Stubbs et al. (2021) focused on finding the common experiences of individuals with severe asthma and comorbid anxiety and depression and the common themes of their artwork with a qualitative arts-based study. The study was not designed to act as a treatment for anxiety but yielded information that could be used to help develop treatments for comorbid anxiety and depression. While not explicitly utilizing art therapy, Stubbs et al. provided an example of a consciously thought-out art intervention, sound reasoning for the use of art, and described a clear understanding of art-based research. The study provided extra materials to explain the use of arts-based research, the art materials used, descriptions of the scales used to measure outcomes, the standardized instructions script, and prompting questions. Participants were provided with a variety of art materials and were asked to paint or draw their experience of severe asthma; this was followed by an interview in which the participants described their work. Stubbs et al. found that the common themes of the artwork and lived experiences were darkness to express misery and helplessness, symbolic exclusion and restriction to represent physical and social impacts, and depictions of acceptance and perseverance to represent resilience. Stubbs et al. (2021) reported that the artwork of individuals with severe asthma and comorbid depression and anxiety had increased use of gray, dark blue and black and decreased color usage over all compared to individuals with severe asthma without comorbid diagnoses. Implications of the study included

the value of using art to express and identify the lived experiences of participants and the use of art making to aid in early identification of depression and anxiety.

Zubala et al. (2017) used a quantitative randomized control trial to reduce depression and anxiety symptoms and to improve wellbeing in participants with mild to moderate depression using art therapy treatment. Zubala et al. (2017) recognized that antidepressant medication has several side effects or significant adverse effects and suggested that recommended treatments such as cognitive behavioral therapy are not universally effective. The art therapy treatment used in this randomized control trial was evidence based; the guidelines for the treatment manual created for the study were based on previous art therapy research on depression. An art therapist was brought in to facilitate the sessions and consult on the interventions provided. The manual was created to provide structure, highlight the theory behind the interventions, suggest activities, and allow the art therapist to practice flexibility. The study showed a significant decrease in depressive symptoms and a small improvement in perceived well-being based on three questionnaires given to participants before treatment, after treatment, and during a 12-week follow-up. The results had an inconclusive effect on anxiety level, which decreased for some and increased for others. Zubala et al. (2017) reasoned that this could mean that the treatment length was not adequate for some of the participants or that approaching the end of treatment caused an increase in anxiety. The outcomes from this study could also mean that treatment for comorbid and co-occurring anxiety cannot be grouped together with other treatments that are not designed for anxiety and are not based in anxiety treatment literature. Zubala et al. (2017) also commented on the state of the current art therapy literature in that it could benefit from more controlled studies and similar pilot studies to pave the way for large-scale comprehensive studies.

Joschko et al. (2022) proposed a systematic review of the use of art therapy as a complimentary intervention used in medicine. Included in the review will be active visual art

therapy, or the use of art therapy to have an individual create art using modalities like drawing, writing, crafting or sculpting, and it excludes art therapy that utilizes viewing art as an intervention. This excluded the viewing of art as a modality. Joschko et al. described the use of art therapy to be an addition to any standard treatment for further symptom reduction and improvement of quality of life with less risk and without side effects. Joschko et al. recognized that art therapy is a common treatment for anxiety, depression, eating disorders, trauma, cognitive impairment, and dementia but can also be used as a complimentary treatment for chronic medical conditions such as cystic fibrosis and cancer. Preliminary findings of the proposed review found that many studies used art therapy simply because it was agreed upon by clinical consensus and not because it was based on evidence found in art therapy literature; this may be resulting in mixed results on the use of art therapy across the studies (Joschko et al., 2022). The studies reviewed by Joschko et al. (2022) did not consider if art therapy was the most suitable form of expressive therapy for the population or did not consult the literature to determine what art therapy interventions to use. As seen in Zubala et al. (2017) art therapy that is designed to treat depression is not necessarily suitable to treat anxiety; art therapy is not one size fits all and must be tailored to each population based on evidence found in previous research. Joschko et al. (2022) commented on the state of art therapy literature and the inability to generalize the finding of art therapy studies: "[art therapy] is a popular treatment method, the empirical base for its effectiveness is rather fragmented; many (often smaller) studies examined the effect of very specific kinds of [art therapy], with a narrow focus on certain conditions" (p. 6).

In a quantitative study, Alwledat et al. (2023) strived to measure the severity of post-stroke psychological distress and the effect of art therapy on post-stroke stress, anxiety, and depression. According to Alwledat et al. post-stroke stress, anxiety, and depression are common

worldwide and post stroke anxiety ranges from 20 to 45%. The researchers reported that pharmacological treatments for depression and anxiety have a wide range of side effects and contraindications that complicate the treatment of post-stroke anxiety and depression. Alwledat et al. (2023) strived to fill a gap in the literature as there is a need for alternative treatment for comorbid anxiety and depression in this population as stroke survivors can lose critical functions such as speech and, thus, cognitive behavioral therapy is often not feasible. Alwledat et al. (2023) suggested that art therapy is an appropriate treatment for stroke survivors as it uses several methods, including non-verbal means of self-expression: "This is highly important for patients following stroke, which is an assault on the mind's capacity to coordinate body–mind connection" (p. 2).

Alwledat et al. (2023) also recognized that art therapy had been shown in previous literature to relieve the psychological burden of chronic illnesses and allows for the expression of complicated nonverbal thoughts, feelings, and experiences. The intervention was created in collaboration with professionals who specialize in applying creative art therapy in clinical settings. The first author Khadeja Alwledat, a clinical nurse with experience working with chronically ill patients, facilitated the sessions with the second author, Rasmieh Al-Amer. The interventions utilized the expressive arts therapy continuum and had two sessions each for the kinetics/sensory, perceptual/affective, and cognitive/symbolic levels of the continuum. Art interventions included exploration of dough or colorful materials, mandala drawing to represent the internal and outside factors, drawing the source of stress, using calming colors to draw self-care practices, and drawing what one is grateful for. The study found that creative arts therapy was effective in decreasing depression, mild and severe anxiety, and stress in post-stroke patients, and concluded that with the burden of psychological distress removed, health outcomes and quality of life could be improved. The researchers had a clear understanding of art therapy

theory, stating that art therapy uses the creative process to help patients explore and express emotions, gain insight and coping strategies, and focuses on nonverbal avenues of communication to express intricate ideas.

Bosman et al. (2021) recognized in a systematic review that art therapy literature has shown its efficacy in treating personality disorders, aggression, emotional regulation, PTSD, and traumatic brain injury. They also recognized that the literature on the use of art therapy in oncology is just beginning and that previous studies have significant limitations. The review's definition of art therapy was: "an art intervention, aimed at decreasing symptoms of anxiety, depression, and/or increasing QoL, which is delivered by someone with expertise in arts (an artist or professional art therapist)" (p. 2290). Bosman et al. (2021) used this definition to ensure that there was professional guidance and input in the art making process; however, it was noted that this does not necessarily include professional therapeutic involvement. This demonstrates a lack of understanding of the field of art therapy. Music therapy was also included in the definition of art therapy and a music therapy study was included in the review. Only seven art therapy studies met the review's criteria: adults with cancer who participated in art making with an artist or art therapist measuring anxiety, depression and quality of life as outcomes (Bosman et al., 2021). According to the guidelines for art therapy research, studies should be conducted by, or at least in collaboration with an art therapist (Kapitan, 2010). By the standards set by the review of Bosman et al. (2021), even fewer studies than the seven reviewed met the guidelines for art therapy research. This further reflects a misunderstanding of art therapy by researchers and the possible lack of art therapists participating in research.

De Feudis et al. (2021) strived to investigate if brief art therapy interventions could reduce anxiety and distress before cancer treatment. De Feudis et al. (2021) reasoned that art therapy was appropriate for the population because it could be used to express and process

difficult to verbalize thoughts and feelings. The researchers also felt art therapy was appropriate because cancer diagnosis and treatment is a trauma that is stored in the body, and it may be best expressed through art. They further demonstrated an understanding of medical art therapy, describing it as a complimentary medical treatment that focuses on art therapy with physically ill patients. The researchers also gave well thought out and researched reasoning for the use of art therapy with the population by referring to previous literature on medical art therapy with cancer patients. De Feudis et al. (2021) strived to fill gaps in the literature on art therapy with cancer patients by focusing on creating a systematic study, broadening the population served, and utilizing brief art therapy. The sessions had a dedicated art therapy space and were conducted by a psychotherapist with art therapy training and a psycho-oncologist; every session was structured the same, with an introduction, clarification that talent and ability was irrelevant, encouragement to follow spontaneity and sharing with the group with the goal of meaning making and communication. Materials included watercolors, pastels, pencils, drawing paper, canvas and paint brushes; no instructions were given but rather the group was focused on spontaneous art making. Confidentiality and boundaries were established, and the sessions were 90 minutes long to allow for the participants to have ample time to complete the session without any loose ends or unfinished business. Participants attended one out of 27 one-time sessions and outcomes were measured by three pre and post intervention questionnaires. De Feudis et al. (2021) found that 89.8% of participants reported art therapy to have been positive influence on their well-being, 50.8% reported feeling more relaxed, and 94.9% reported feeling at ease during the experience.

De Feudis et al. (2021) found significant reduction in anxiety, distress, drowsiness and fatigue post-intervention; pre and post session anxiety and psychosomatic distress symptoms were (M = 44.32) and (M = 37.1) respectively. A few participants even reported beginning the use of art making at home to cope with negative emotions (De Feudis et al., 2021). The

researcher recognized that while the brief intervention was effective in reducing anxiety, anxiety disorders would require lasting treatment (De Feudis et al., 2021). However, the results of the study may suggest that brief art making may be a suitable coping strategy for anxiety disorder symptoms. De Feudis et al. (2021) asserted that a common limitation in art therapy literature with cancer patients is that it has a high variance in research design, making it difficult to compare studies. Another common limitation that also applies to this study includes the inability to replicate interventions used in studies due to factors such as therapeutic relationships, lack of specificity on the interventions and allowing the therapist creative flexibility. Often the values held by art therapy such as creativity, spontaneity, flexibility, and individuality do not match to the tenets of quantitative and qualitative research i.e. measurable factors and replication. While art therapy is often aligned with arts-based and small sized qualitative research, the generally respected forms of research appear to be of large format, generalizable quantitative studies.

Jang et al. (2016) implemented a randomized control trial that strived to evaluate the treatment effects of mindfulness-based art therapy (MBAT) for breast cancer patients, specifically reduction of psychological burden and increase of quality of life. According to Jang et al. (2016) breast cancer patients often experience comorbid anxiety and depression; based on previous literature the researchers also report that anxiety has been shown to decrease cancer patients' quality of life. Factors that greatly influence the quality of life in breast cancer patients are depression, anxiety, stress and fatigue. Jang et al. explains the main element of MBAT and self-regulation theory: “The critical element in this theory is to equip patients with the ability to cope that can mature the ego harmoniously by subjectively and objectively expressing the physical and psychological pain they face” (2016, p. 334). Jang et al. demonstrated understanding of art therapy and MBAT theory and had clear reasoning for its use based on previous literature that showed MBAT’s efficacy in treating cancer patient’s depression.

In the study of Jang et al. (2016), an expressive therapist with a decade of field experience conducted the sessions under the clinical supervision of a senior researcher who is a mindfulness meditation-based group art therapy instructor. The research design was based on a previous successful study on mindfulness-based art therapy and mindfulness-based stress reduction but was adapted with a Korean mindfulness-based stress reduction interventions to be more culturally appropriate for the population. The researcher provided a list of the 12 sessions' themes and art interventions, but not the session structure. Art interventions included drawing a picture of oneself without judgement, achieving self-awareness thought sensory stimulation in response to different art materials, using collage to express thoughts and feeling felt during meditation and expressing events that induced stress during the week through drawing. Other interventions included doing yoga to bring awareness to physical sensations, meditation to bring awareness to thoughts and feelings in the body, stepping in paint and walking on paper to create an image and breathing exercises. Jang et al. (2016) found that quality of life increased and quantitative measure showed anxiety and depression symptoms decreased after twelve 45-minute sessions with baseline (M = 71.83) and post-intervention (M = 51.58), compared to a control group that did not experience any changes.

In a quantitative, randomized control trial, Beerse et al. (2020) strived to build upon previous mindfulness-based art therapy research with university students, specifically to adjust the delivery of MBAT to decrease access barriers. The intervention modules were changed to be completed in no more than 15 minutes and were delivered via an online platform to make the participation in treatment more feasible for busy university students. The 10 modules included a combination of short form yoga, clay interventions and psychoeducation on mindfulness and meditation e.g., 10 minutes of yoga and five minutes of clay work, a brief audio clip introducing mindfulness and then 10 minutes of forming clay to represent mindfulness. An art therapist was

heavily involved in the creation and implementation of the modules and met with participants to facilitate modules one and 10. Stress and anxiety levels were measured before and after every module with self-reporting questionnaires, and the saliva of the participants was collected before and after module one and module five to measure the stress hormone cortisol. Of the 77 participants, 66 were female and 66.2% identified as White. Beerse et al. (2020) found that there was a significant decrease in cortisol level post-module when measured at module one and five. The results also indicated a decrease in generalized anxiety from module one (M = 9.61, SD = 5.417) to module five (M = 6.12, SD = 3.572). Beerse et al. (2020) recognized that a limitation of the study was the skewed demographics, specifically the large number of female participants; however, this holds important implications for the focus of this thesis in that this form of MBAT can be effective for women with anxiety.

Abbing, Baars, Van Haastrecht et al. (2019) recognizes that 30% to 60% of CBT and pharmacotherapy patients do not benefit from these treatments and should have alternative treatment options available. They suggest that art therapy, specifically anthroposophic art therapy (AAT), may be an appropriate alternative anxiety treatment. Abbing, Baars, Van Haastrecht et al. (2019) describes AAT:

> Anthroposophic art therapists work from a holistic vision on humans. The central point in this approach is that the therapist does not focus on the primary symptoms of a person, but considers the individual as a whole of physical, psycho-social and biographical aspects. (p. 2)

In their mixed method single case study Abbing, Baars, Van Haastrecht et al. (2019) strived to examine if art therapy could reduce anxiety symptoms and increase emotional regulation and executive functioning. The study focused on a 54-year-old Dutch woman with a long history of anxiety including agoraphobia, panic disorder, claustrophobia and symptoms of hypochondria,

who did not have any response to rational emotive therapy or psychotherapy with eye movement desensitization and reprocessing (EMDR). Fourteen weekly 1-hour sessions took place over 6-months. The participant's symptom severity was measured each week. The researchers provided detailed descriptions of the treatment, interventions, goals, the art therapist's reasoning behind therapeutic interventions and decisions, the client's experiences, thoughts, and emotions during the treatment, and the client's view of the outcomes. The interventions were created to target specific anxiety symptoms such as practicing observation, concentration, restraint, and mindfulness. The therapist chose to begin with clay, a medium that the participant was familiar with, to allow for inner relaxation and provide a comforting introduction to art therapy and the therapist. The therapist then planned to move on to using charcoal for slightly more challenging interventions and described charcoal as a material not suited for detailed work but rather for loose expression that can allow the artist to explore their experiences in gray tones, in contrast to black and white non-nuanced thinking patterns commonly experienced with anxiety. Lastly, the therapist used chalk pastels to represent daily life and to cultivate and appreciate a less threatening view of the outside world.

The participant reported that her hypochondria improved by 80-90%, the art activities allowed her to practice mindfulness, her claustrophobic symptoms decreased, she was overall less stressed, and her improvements were still observed at a year follow-up (Abbing, Baars, Van Haastrecht et al., 2019). The researchers found that the participant improved in her clarity of emotions, impulse control, acceptance of emotions, emotional regulation skills and goal-oriented action. The participant reported being able to distance herself from her anxiety through art, making art and visualizing her anxiety softened her view of her anxiety, and commented on her ability to relax into art therapy and immerse herself in her process. Based on participant interviews, therapist observation and questionnaires, the treatment goals of enhancing inner

relaxation, releasing of control, reducing hyper-awareness, improving objective view of the outside world, and enhancing positive interaction with the outside world were achieved. The researchers state that because AAT is so individualized that the interventions provided in any study are not generalizable and the complex interventions make it difficult to conduct efficacy studies that require standardized protocols. The researchers failed to comment on the impact of the therapeutic relationship on the outcomes; however, when conducting any study on efficacy of mental health treatment, the therapeutic relationship should be considered as an influencing factor. This study provides an example of ethical art therapy research that follows art therapy guidelines and contributes to art therapy literature on comorbid anxiety in women with its sound methodology.

Abbing, Baars, de Sonneville et al. (2019) strived to fill a gap in art therapy literature by studying the effects of art therapy in reducing anxiety and increasing quality of life for women in a randomized control trial. The researchers recognized that anxiety disorders have a reoccurrence rate of 54.8% within four years of remission. They argued that the significant number of individuals with anxiety that do not benefit from CBT and medication, or prefer not to take medication, could benefit from art therapy. Abbing, Baars, de Sonneville et al. provide sound reasoning for the use of art therapy for anxiety such as the non-verbal aspect of art therapy can aid the expression of trauma and creating distance from threatening emotions. Included in the study were adult women ages 18 to 65 with diagnosed GAD, SAD, and panic disorder. Participants received 10 to 12 sessions of 45 to 60 minutes over three months with art therapists with more than five years of experience working with adults with anxiety. The treatment interventions were based on guidelines provided by the Dutch professional association of anthroposophic art therapists.

In the study of Abbing, Baars, de Sonneville et al. (2019), intervention options were provided to the art therapists and an outline for the aims and proposed exercises for groupings of sessions. Intervention options that were highlighted were clay modeling of a series of shapes, free drawing an expression of fear, using pastels to draw atmospheric imagery, free painting an expression of fear and color exercised with wet-on-wet painting. The first three sessions focused on intake, setting treatment goals and free art making. Sessions four through ten were given treatment goals and art interventions along with treatment options provided by the art therapist based on individual need; the study relied heavily on the knowledge of the professionals recruited. The interventions included using clay to transform symbolic shapes, drawing an expression of fear, and painting an expression of fear.

Abbing, Baars, de Sonneville et al. (2019) found that the initial experimental group experienced significant improvement in anxiety symptoms post-treatment compared to the waitlisted group and that the improvement remained at the 3-month follow up. The researchers also found that the results of the second experimental group also showed an improvement in anxiety symptoms post-treatment and that anxiety symptom severity decreased by 46% overall. Despite bringing awareness to the reoccurrence rate of anxiety disorders, Abbing, Baars, de Sonneville et al. (2019) do not address this issue further. A way to better understand anxiety recurrence may be to have more longitudinal studies or have more consistent, systematic follow-ups post-treatment.

Art Therapy Research

A significant amount of the research being done under the name “art therapy” does not follow art therapy research guidelines such as having the research conducted by an art therapist, understanding and applying art therapy theory, and having a basis in art therapy literature to formulate a strong research design. According to Kapitan (2010) an essential step in the art

therapy research process is to review the existing literature. As seen in the systematic review of randomized control trials on the effect of art therapy and health outcomes by Joschko et al. (2022), several studies reviewed did not consult art therapy literature. Kapitan (2010) also states that good art therapy research is bolstered by having a clinical team to aid in the research design in terms of validity, reliability, statistical analysis, and interpreting data; however, the role of designing and implementing the intervention and writing the art therapy aspects of the study are reserved for the art therapist. Art therapy research on comorbid anxiety disorder treatment has been done with a wide variety of populations across age, gender, race, and country of origin. Additionally, the studies reviewed are often pilot studies or small scale and non-generalizable or they do not have external validity, do not fit art therapy research guidelines, or are single subject research. Art therapy research is in its preliminary stages and needs more research overall, but specifically would benefit from strong research such as randomized control trials with independent and control groups that are conducted by art therapists. Art therapy research should be done by or with art therapists, as seen in the work of Abbing, Baars, de Sonneville et al. (2019), Abbing, Baars, Van Haastrecht et al. (2019), Beerse et al. (2020), and Jang et al. (2016).

As highlighted by Kapitan (2010), art therapists can struggle to find the balance between spontaneity, flexibility and creativity, and pre-planned, systematic procedures required to conduct research. Cruz (2019) wrote about the research to practice gap in the expressive therapies and how professionals struggle to apply the findings of research in their practice. Adding to the issues of art therapists struggling to conduct research and art therapists' reluctance to apply research is that the research is not being done with inclusion of art therapists.

In a qualitative study Oren et al. (2019) examined the perceptions of psychiatrists, social workers and occupational therapists in Israel on the use of art in community mental health rehabilitation centers. Oren et al. (2019) differentiated that art therapy is facilitated by master's

level practitioners and art making in rehabilitation centers is facilitated by health care professionals. Through recorded interviews Oren et al. gathered the opinions and levels of familiarity of the professionals on non-therapeutic arts-based rehabilitation services. The professionals exposed to arts-based services viewed art making as a supplemental treatment alongside medical and psychiatric services; those who were exposed to both artmaking and art therapy could not distinguish the two. Oren et al. concluded that the professionals agreed that art making is a legitimate supplemental service, encourages motivation in rehabilitation, facilitates self-expression, communication and socialization, and enhances personal identity. By the accounts given by professionals in their study it can also be concluded that non-expressive therapists in the field do not understand art therapy, are unable to distinguish art making from art therapy, and are basing their opinions of art therapy on personal account and not on literature. As seen in Bosman et al. (2021), a review that included art therapy studies done with non-art therapists but rather art professionals, there is a misunderstanding of the art therapy profession by researchers. Joschko et al. (2022) highlighted the use of art therapy in studies done by non-art therapists because of the consensus of the researchers and not because of any reference to previous art therapy literature. Researchers are conducting art therapy research without knowledge of art therapy theory or research guidelines. Can these studies be considered art therapy?

Discussion

Compared to the research base of CBT and medication treatments for anxiety, the number of art therapy studies for anxiety disorder treatment are far fewer. Art therapy literature shows promising preliminary results for its use for anxiety treatment, especially as an alternative to CBT, medication and other traditional treatments as shown in the work of Abbing, Baars, Van Haastrecht et al. (2019) and Alwledat et al. (2023). In addition, Beerse et al. (2020) and Jang et

al. (2016) studied mindfulness-based art therapy (MBAT) and found that it significantly reduced anxiety, stress and depression. De Feudis et al. (2021) found that brief art therapy could alleviate comorbid anxiety and other psychosomatic symptoms; Beerse et al. (2020) also found that brief art therapy modules could decrease anxiety while breaking down barriers to treatment access, time constraints, and availability.

Zubala et al. (2017) showed that art therapy can fall short of treating comorbid anxiety; however, unlike other studies, the researchers only consulted art therapy literature on depression. While comorbid anxiety and depression are common and can be alleviated with similar treatments, the root causes of these diagnoses are different. With the flexibility of art therapy and the evidence found in prior literature, these studies show that art therapy can be used to treat comorbid anxiety and other co-occurring diagnoses. Andrews et al. (2016) pointed out the efficacy and accessibility of transdiagnostic approaches to anxiety treatment; art therapy can be used as a transdiagnostic treatment as it can be tailored to the individual needs of anxiety sufferers, as seen in the study of Abbing, Baars, Van Haastrecht et al. (2019). Factors that contributed to the success of the studies are a collaboration between art therapists and researchers, valuing art therapists' expertise, and strong research design.

Art therapy does not seem to be any more or less effective than CBT but rather provides flexibility and a treatment option for those that do not experience significant results with CBT. Clay, chalk pastels, mindfulness, and grounding techniques were commonly used in the studies. Playing with color, exploration of light and dark, control, creating representations of feelings, and bringing awareness to the self were common themes of the interventions used. Spontaneity, creativity, flexibility, self-expression, the art therapist's expertise, and participant comfort were valued in the studies. The studies treatment length ranged from brief single sessions to weeks and months long; the sessions ranged from short 15-minute modules to 90-minute sessions. The

settings included hospitals, private practices and hybrid online and in-person; the studies focused on group and individual treatment. The studies reviewed were conducted in several places including Jordan, South Korea, Italy, Netherlands, Australia, United States and the United Kingdom. Based on the information found from the literature reviewed and art therapy research guidelines, art therapy for women with comorbid anxiety can be effective in many different formats and cross-culturally.

The treatment goals found in the reviewed studies recommended art therapy goals include increasing mindfulness and comfortability with loss of control, breaking out of black and white thinking patterns, and raising self-awareness. Because individuals experience life through images, senses, and thoughts, art therapy strives to be the connection between experience and expression by providing avenues to express these experiences in their original forms rather than through words. The structure of an art therapy session implemented in the studies reviewed often follows the pattern of first a directive, then art making, and last a discussion. This is purposeful in that the directive gives structure, the art making provides the opportunity for expression, the discussion allows for further expression, interpretation into words, and allows for deeper processing involving meaning-making beyond cognitive restructuring.

The understanding that the art making process is more important than art product is fundamental to art therapy, and this understanding is reflected in the studies reviewed because their focus and values were placed on the art making. Based on the aforementioned studies it can be surmised that materials like clay, chalk pastels, paint, and drawing utensils are all appropriate for use with women with comorbid anxiety. Paint and pastels are loose and difficult to control and thus provide avenues to experience and to overcome experientially anxiety related loss of control in a safe environment. Clay, pastels, and paint provide a sensory experience that pairs with mindfulness exercises and bring awareness to bodily sensations. Materials that are rich in

color like paint, pastels, and colored pencils can be used to break out of black and white thinking, express inner thoughts and emotions, and reflect a realistic view of the outside world. Art therapy provides a holistic, flexible and individualized avenue for expressions and can be used to treat more than one condition at a time.

Abbing, Baars, Van Haastrecht et al. (2019), Abbing, Baars, de Sonneville et al. (2019) and Jang et al. (2016) included only women in their studies. Beerse et al. (2020), De Feudis et al. (2021), and Alwledat et al. (2023) strived to include a percentage of women that reflected the ratio of men to women diagnosed with anxiety disorders. Zubala et al. (2017) did not provide gender data. Due to the inclusion of women in these studies, it can be concluded that art therapy treatment for comorbid anxiety is appropriate for use with women. Art therapy is also flexible and can be adapted to fit new settings and the needs of the participant and, thus, can bridge the gap for women who are unserved, underserved, or are not seeing results with other kinds of treatment.

Areas to be expanded upon in the study of comorbidity of anxiety in women include research that strives to reflect the real-world percentages of people of color within this population, exploration of the correlational and causational relationship of comorbid anxiety and other mental health disorders or medical illnesses, and further investigation of gender and race differences in anxiety presentation and comorbidity. As COVID-19 continues to be a factor in global health, continued information on the impact of the pandemic on anxiety prevalence is also needed. Methodology that could make research with this population more robust includes larger sample sizes, the collaboration of research experts and art therapists or art therapists as researchers, greater thought into the question of: “why use art therapy?” when creating research design, randomized control trials, and the inclusion of control groups.

References

Abbing, A., Baars, E. W., de Sonneville, L., Ponstein, A. S., & Swaab, H. (2019). The effectiveness of art therapy for anxiety in adult women: A randomized controlled trial. *Frontiers in Psychology*, *10*(1203), 1-14. https://doi.org/10.3389/fpsyg.2019.01203

Abbing A. C., Baars E. W., Van Haastrecht O., & Ponstein, A. S. (2019). Acceptance of anxiety through art therapy: A case report exploring how anthroposophic art therapy addresses emotion regulation and executive functioning. *Case Reports in Psychiatry*, *2019*(4875381),1-13. https://doi.org/10.1155/2019/4875381

Alonso, J., Liu, Z., Evans, L. S., Sadikova, E., Sampson, N., Chatterji, S., Abdulmalik, J., Aguilar, G. S., Al, H. A., Andrade, L. H., Bruffaerts, R., Cardoso, G., Cia, A., Florescu, S., de Girolamo, G., Gureje, O., Haro, J. M., He, Y., de Jonge, P., & Karam, E. G. (2018). Treatment gap for anxiety disorders is global: Results of the World Mental Health surveys in 21 countries. *Depression & Anxiety*, *35*(3), 195–208. https://doi.org/10.1002/da.22711

Alwledat, K., Al-Amer, R., Ali, A. M., Abuzied, Y., Adnan Khudeir, F., Alzahrani, N. S., Alshammari, S. R., AlBashtawy, M., Thananayagam, T., & Dehghan, M. (2023). Creative art therapy for improving depression, anxiety, and stress in patients with stroke: A quasi-interventional study. *SAGE Open Nursing*, *2023*(9), 1-10. https://doi.org/10.1177/23779608231160473

American Art Therapy Association. (2024, January 17). *What is art therapy?*. https://arttherapy.org/what-is-art-therapy/

Andrews, G., Mahoney, A. E., Hobbs, M. J., & Genderson, M. (Eds.). (2016). *Treatment of generalized anxiety disorder: Therapist guides and patient manual*. Oxford University Press.

Anxiety and Depression Association of America [ADAA] (2022, October 28). *Anxiety disorders – Facts and statistics* [Fact sheet]. https://adaa.org/understanding-anxiety/facts-statistics

American Psychiatric Association. (1952). *Diagnostic and Statistical Manual of Mental Disorders.*

American Psychiatric Association. (1968). *Diagnostic and Statistical Manual of Mental Disorders* (2nd ed.).

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.).

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.).

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.).

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.).

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Angst, J. (1998). Panic disorder: History and epidemiology. *European Psychiatry*, *13*(S2), 51s–55s. https://doi.org/10.1016/S0924-9338(98)80014-X.

Beerse, M. E., Van Lith, T., & Stanwood, G. (2020). Therapeutic psychological and biological responses to mindfulness-based art therapy. *Stress & Health: Journal of the International Society for the Investigation of Stress*, *36*(4), 419–432. https://doi.org/10.1002/smi.2937

Bosman, J. T., Bood, Z. M., Scherer-Rath, M., Dorr, H., Christophe, N., Sprangers, M. A. G., & van Laarhoven, H. W. M. (2021). The effects of art therapy on anxiety, depression, and

quality of life in adults with cancer: a systematic literature review. *Supportive Care in Cancer, 29*(5), 2289-2298. https://doi.org/10.1007/s00520-020-05869-0

Crocq M. A. (2015). A history of anxiety: from Hippocrates to DSM. *Dialogues in clinical neuroscience, 17*(3), 319–325. https://doi.org/10.31887/DCNS.2015.17.3/macrocq

Crocq M. A. (2017). The history of generalized anxiety disorder as a diagnostic category. *Dialogues in clinical neuroscience, 19*(2), 107–116. https://doi.org/10.31887/DCNS.2017.19.2/macrocq

Cruz, R. F. (2019). What's research got to do with it? In R. F. Cruz & C. F. Berrol (Eds.), *Dance/movement therapists in action: A working guide to research options* (pp. 12-24). Charles C. Thomas.

De Feudis R.L., Graziano G., Lanciano T., Garofoli M., Lisi A. & Marzano N. (2021). An art therapy group intervention for cancer patients to counter distress before chemotherapy. *Arts Health, 13*(1), 35-48. https://doi.org/10.1080/17533015.2019.1608566

Grambal, A., Prasko, J., Kamaradova, D., Latalova, K., Holubova, M., Sedláčková, Z., & Hruby, R. (2016). Quality of life in borderline patients comorbid with anxiety spectrum disorders - a crosssectional study. *Patient preference and adherence*, *2016*(10), 1421–1433. https://doi.org/10.2147/PPA.S108777

Jang S.H., Kang S.Y., Lee H.J. & Lee S.Y. (2016) Beneficial effect of mindfulness-based art therapy in patients with breast cancer - a randomized controlled trial. *Explore*, *12*(5), 333–340. https://doi.org/10.1016/j.explore.2016.06.003

Joschko, R., Roll, S., Willich, S. N., & Berghöfer, A. (2022). The effect of active visual art therapy on health outcomes: protocol of a systematic review of randomised controlled trials. Systematic Reviews, *11*(1), 1–8. https://doi.org/10.1186/s13643-022-01976-7

Kapitan, L. (2010). *An introduction to art therapy research*. Routledge.

Oren, R., Orkibi, H., Elefant, C., & Salomon-Gimmon, M. (2019). Arts-based psychiatric rehabilitation programs in the community: Perceptions of healthcare professionals. *Psychiatric Rehabilitation Journal*, *42*(1), 41–47. https://doi.org/10.1037/prj0000325

Öst, L.G., Enebrink, P., Finnes, A., Ghaderi, A., Havnen, A., Kvale, G., Salomonsson, S., & Wergeland, G. J. (2023). Cognitive behavior therapy for adult anxiety disorders in routine clinical care: A systematic review and meta-analysis. *Clinical Psychology: Science and Practice*, *30*(3), 272–290. https://doi.org/10.1037/cps0000144

Panchal, N., Saunders, H., Rudowitz, R., & Cox, C. (2023, March 20). *The implications of covid-19 for mental health and substance use*. https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/#anxietyanddepression

Kjernisted, K. D., & Bleau, P. (2004). Long-term goals in the management of acute and chronic anxiety disorders. *Canadian Journal of Psychiatry*, *49*, 51S–63S.

Lilienfeld, S. O. (2023). *Agoraphobia and panic disorders*. Salem Press Encyclopedia of Health.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of Psychiatric Research*, *45*(8), 1027–1035. https://doi.org/10.1016/j.jpsychires.2011.03.006

Pilling, S., Mayo-Wilson, E., Mavranezouli, I., Kew, K., Taylor, C., Clark, D. M., & Guideline Development Group. (2013). *GUIDELINES: Recognition, assessment, and treatment of social anxiety disorder: summary of NICE guidance*. *BMJ: British Medical Journal*, *346*(7910), 34–35. http://www.jstor.org/stable/23494798

Stubbs, M. A., Clark, V. L., Cheung, M. M. Y., Smith, L., Saini, B., Yorke, J., Majellano, E. C., Gibson, P. G., & McDonald, V. M. (2021). *The experience of living with severe asthma,*

depression and anxiety: A qualitative art-based study. *Journal of Asthma and Allergy*, *2021*(14), 1527. https://doi.org/10.2147/JAA.S328104

Weber, S. R., Holbrook, E. R., Palettas, M., & Duchemin, A. (2021). Prevalence of Comorbid Anxiety-Anxiety Disorders and the Effect of Comorbidity on Anxiolytic Treatment. *Psychiatric Annals*, *51*(7), 342-349. https://doi.org/10.3928/00485713-20210606-01

World Health Organization. (2017). *Depression and other common mental disorders: Global health estimates* [Fact sheet]. https://iris.who.int/bitstream/handle/10665/254610/W?sequence=1

World Health Organization. (2024). *Disability-adjusted life years (DALYs)*. https://www.who.int/data/gho/indicator-metadata-registry/imr-details/158

Zubala, A., MacIntyre, D. J., & Karkou, V. (2017). Evaluation of a brief art psychotherapy group for adults suffering from mild to moderate depression: Pilot pre, post and follow-up study. *International Journal of Art Therapy: Inscape*, *22*(3), 106–117. https://doi.org/10.1080/17454832.2016.1250797

THESIS APPROVAL FORM

Lesley University
Graduate School of Arts & Social Sciences
Expressive Therapies Division
Master of Arts in Clinical Mental Health Counseling: Art Therapy, MA

Student's Name: _____Gabrielle Russo_____

Type of Project: Thesis

Date of Graduation: _____May 18th, 2024_____

In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

Thesis Advisor:_____Madoka Urhausen_____