

***Impact of Photography as an Art Therapy on treating trauma disorder***

Catherine Jamal Khalil Sabat \*

Dar Al-Kalima University, Arts & Music Therapy, Faculty of Arts - Graduate  
Studies[Cat.sabat.91@gmail.com](mailto:Cat.sabat.91@gmail.com)<https://orcid.org/0009-0000-5561-8842><https://doi.org/10.63939/JSS.2025-Vol9.N38.244-278>**Received:** 19/11/2025, **Accepted:** 28/12/2025, **Published:** 29/12/2025

**Abstract:** Background: Photography as art therapy has proved to be a potential intervention to those, who have suffered traumatic disorders.

Aim: This paper discusses the potential of photography to help the individuals express emotions, reflect on themselves, and develop post traumas among people who have undergone physical, psychological or chronic adversities to their health.

Methods: An autobiography, qualitative design study was conducted, using the experience that the researcher has passed through as a photographer, and how the researcher treat her psychological trauma through photography.

Results: By capturing, organizing and reflecting on personal photographs, the individuals create visual story through which they can externalize their complex emotional states, reframe traumatic experiences, and recover self-worth. Photography enhances a state of mind, control and rebirth into beauty in everyday life, both a form of therapy and a form of resiliency. Recent studies emphasized the creativity art therapy (photography) is able to decrease the signs and symptoms of post-traumatic stress disorder (PTSD), stress, and depression, and improves coping styles and mental health.

Conclusion: This work highlights the possibilities of photography as artistic and supplementary intervention in the trauma therapy.

**Keywords:** Art Therapy, Photography Therapeutic, Trauma Disorders, Autobiography.

\*Corresponding author

**أثر التصوير الفوتوغرافي كعلاج فني في علاج اضطراب ما بعد الصدمة**

كاثرين صابات\*

جامعة دار الكلمة، العلاج بالفنون والموسيقى، كلية الآداب - الدراسات العليا

[Cat.sabat.91@gmail.com](mailto:Cat.sabat.91@gmail.com) <https://orcid.org/0009-0000-5561-8842><https://doi.org/10.63939/JSS.2025-Vol9.N38.244-278>

تاريخ الاستلام: 2025/11/19 - تاريخ القبول: 2025/12/28 - تاريخ النشر: 2025/12/29

**ملخص:** الخلفية: أثبت التصوير الفوتوغرافي كعلاج فني فعاليته كتدخل علاجي محتمل لمن عانوا من اضطرابات ما بعد الصدمة.

الهدف: تناقش هذه الورقة البحثية إمكانات التصوير الفوتوغرافي في مساعدة الأفراد على التعبير عن مشاعرهم، والتأمل في ذواتهم، وتطوير مهارات ما بعد الصدمة لدى الأشخاص الذين تعرضوا لظروف صحية جسدية أو نفسية أو مزمنة.

المنهجية: أجريت دراسة نوعية قائمة على السيرة الذاتية، بالاعتماد على تجربة الباحثة كمصورة، وكيفية معالجتها لصدمتها النفسية من خلال التصوير الفوتوغرافي.

النتائج: من خلال النقاط الصور الشخصية وتنظيمها والتأمل فيها، يُنشئ الأفراد قصصًا بصرية تمكنهم من التعبير عن حالاتهم العاطفية المعقدة، وإعادة صياغة تجاربهم المؤلمة، واستعادة تقديرهم لذاتهم. يُعزز التصوير الفوتوغرافي حالة ذهنية إيجابية، ويُعزز الشعور بالسيطرة، ويُعيد إحياء الجمال في الحياة اليومية، فهو شكل من أشكال العلاج وشكل من أشكال المرونة النفسية. أكدت دراسات حديثة قدرة العلاج بالفن الإبداعي (التصوير الفوتوغرافي) على تخفيف أعراض اضطراب ما بعد الصدمة، والتوتر، والاكنتاب، وتحسين أساليب التكيف والصحة النفسية.

الخلاصة: تُبرز هذه الدراسة إمكانات التصوير الفوتوغرافي كتدخل فني وتكميلي في علاج الصدمات النفسية.

**الكلمات المفتاحية:** العلاج بالفن؛ العلاج بالتصوير الفوتوغرافي؛ اضطرابات الصدمة النفسية؛ السيرة الذاتية.

\* المؤلف المرسل

## Introduction

Art therapy is a form of psychotherapy that uses art media as its primary mode of expression and communication to address emotional issues that may be confusing or distressing. Systematic reviews concluded that this type of therapy continues to be used in a variety of settings and presentations including trauma (1). It is used with people of all ages and across a wide range of difficulties, influenced by psychodynamic concepts and incorporating other psychological approaches such as attachment, mindfulness, compassion-focused, cognitive-analytic, and neuroscientific findings (2). Art therapy is offered as both group and individual interventions and is sensitive to cultural and social diversity (3).

Systematic reviews have found that particularly traumatized children benefit from art therapy (4), while adults benefit from art therapy for non-psychotic disorders, including the development of relationships, personal achievement, empowerment, and increased insight. Art therapy practice is sensitive to cultural and social diversity (5,6,7,8,9). Therapeutic photography is a generic ‘umbrella’ term within the arts in health and incorporates a great range of practices from community-based participatory arts (techniques such as photo diaries) to intense confidential therapeutic group work (10).

Mizock et al. noted that photography provides a means of expressing and communicating emotions to others, especially when they struggle with expressing their own feelings. This can be particularly beneficial for people experiencing conditions such as depression, anxiety, or trauma. The study

highlighted the importance of smartphone photography in enhancing positive affect, and its contribution to increasing people's positive affect (11). Tourigny & Naydenova also noted that photography is a cognitive activity that helps maintain brain health. In their study, participants who engaged in digital photography were able to enhance and improve their episodic memory and reasoning skills. It is also a therapeutic tool, as some mental health professionals use photography as a form of therapy. Patients are encouraged to take photographs that represent their experiences, which can then be discussed in therapy sessions. This can help people better understand their feelings and experiences (12).

People have always tried to make their impact on the world, regardless of the time they study. Photographs and images were employed to accomplish this after the invention of the camera. Using what was known as a camera vague, photography was first practiced by the Chinese (13). Only people who knew science could engage in this activity when the camera was initially created. Technology has grown more widely available and accessible to the average individual as it has evolved and improved throughout time.

Art therapy is an ancient form of therapy that began in the 1940s and became more widespread in the 1970s. It is a type of therapy used by licensed therapists and art professionals to help patients interpret and express their thoughts, understand their feelings, and better cope with psychological stress (14). Art therapy is suitable for people of all ages and can be incorporated into individual sessions, group therapy, and family or marital counseling (2).

In spite of that Art therapy seeks to help improving psychological and social health, there are number of goals the

art therapy would achieve. Those goals represent in encouraging the individual to express the feelings and thoughts they are experiencing, especially those that are difficult to express in words. In addition to enhance the individual's ability to talk about difficult experiences and complex feelings. Moreover, to help the individual gain a better understanding of themselves (15). As well as, enhancing confidence and comfort in the surrounding environment, and enhancing a sense of security with the therapist. In another context, art therapy aims to develop creative thinking skills to find new ways to deal with difficult problems and situations, in addition to provide the opportunity to connect with others and build social relationships (16).

According to a study followed the systematic review of articles, Phototherapy had facilitated a feeling of personal empowerment, according to all four research. The most common responses were increased self-esteem and confidence. She was “more outgoing and became more comfortable with myself,” for instance (4). Sara was able to lessen her sentiments of self-blame by processing her experience (17). It “...helped build my confidence and strengthen my social skills,” according to (4). Tanja was able to recall her strengths and concentrate on a more optimistic future by using her project to highlight her recently discovered passion for photography (18).

Six people in three studies specifically noted positive life changes, and one study referred to them. Due to their experiences, two got interested in community service projects (19, 20, 21).

According to Sitvast et al., PT helps people become more self-reliant. One can feel less humiliated and more worthy just by

having their tale heard. A (re)connection with more genuine identities and values may be made possible by it. This counteracts the disempowerment that can result from having a problem-based identity as a patient (22).

Three of the four studies that featured exhibitions of picture stories discussed the empowering impact of these. According to participants in Maniam et al., giving people hope increased their own sense of hope. Being able to connect with individuals of diverse statuses gave Jess a boost (23). Three participants in Rolbiecki et al. utilized it to communicate to important individuals in the process the detrimental effects of their experiences pursuing justice after being raped (20). According to Sitvast et al., the displays increased William and Boris's resolve to accomplish their objectives and allowed them to portray themselves as the agents of their own lives (22).

According to several research, PT facilitated different levels of emotional and mental processing. Three sub-themes: critical reflection, meaning-making, and narrative reconstruction (19, 20, 21, 22, 23).

Prior research has showed critical reflection. According to Padgett et al., it provided them with an excuse to take stock of their lives (24). According to Sitvast et al., PT offers a setting for extended introspection that helps participants concentrate on problems and facilitates the creation and ownership of solutions. The advantages of contemplation were covered in other research (22). The other four research (19, 21, 22, 23) found greater self-understanding. One participant in Reid and Alonso's study, for instance, expressed amazement at how much of their internal conflicts and mental processes were revealed in the images, it turned into a tool for improving my

self-awareness (19). According to Linda and Rose, PT helped them sort out their conflicted emotions (22).

In several studies, meaning making was aided. According to Maniam et al., the initiative broadened and clarified the participants' understanding of the significance of their sickness. "[s]ee[s] things as more meaningful," Faith stated. I grew happier and more tolerant of my sickness (23, p.373). According to Reid and Alonso, one participant claimed that the initiative was helping them "...slowly find meaning and purpose in my life..." (19, p. 35). William and Benny discovered more genuine selves and what values were most important to them. Pieter found an inner locus of control and improved his coping mechanisms by confronting and processing his worries stemming from his belief in a hidden government (21, 22).

Rolbiecki et al. used a new approach to meaning making. The goal of the photo voice intervention was to help people process the distress caused by sexual assault. By taking pictures of their triggers, participants were exposed to things that many said they had previously avoided, which helped to integrate and process fragmented memories. This led to a decrease in emotional responses to stimuli. It was stated that participants had healed and made meaning of their pain. For some, this meant recognizing that they might help others in similar circumstances by using their experience (20).

Two of the findings specifically mentioned narrative reconstruction, while two more mentioned it in passing. Rolbiecki et al. found that participants changed their stories from ones of vulnerability to ones of strength (20). Some were able to challenge and update trauma-influenced belief systems through the process of meaning making. Erin demonstrated how "...I can take how [my rape] shaped me as a person and

build it into something bigger, or better" (p.245) using pictures of succulent plants (20).

Two individuals were claimed to have recreated their self-narratives (21, 22). Questions and comments encouraged William and Boris to expand and expand their limited self-stories. William was impacted by hearing his friends' tales and became more receptive to a less strict framing of his own. As previously said, both people shifted from believing they could not accomplish their particular goals to understanding they could.

Quotes from participants in two more investigations point to a narrative reconstruction process. "I'm not as bad as I think I am," Lucy said (23, p.373). One person in Reid and Alonso talked about how internalized stigma had a significant impact on them before the photo voice project. They said that it had been "a transformative experience for me" when it was over. I gradually realized that I could build important contacts and contribute in a meaningful way. Working on the project has made me feel less inconspicuous and humiliated (19, p. 35).

Accordingly, Calosi (2020) employs phototherapy as a component of biographical therapy to counteract the pressure from the outside world on our senses and establish personal balance through inner activity, as mentioned by Hogan (10). It is also considered as an activity enabling us to become more mindful of our own position in the world and in the community that we live; hence, here we have a slightly more outward-facing understanding at play less centered on symptom reduction and explicit therapeutic improvement. He also argues that artistic practice, particularly photography, is revitalizing (10).

Applied studies that used therapeutic photography techniques have proven that it is a means of raising awareness of mental illness and addressing the various problems that many suffer from (11, 25). Many previous studies have indicated the importance of employing photography in treating trauma and mental and psychological illnesses.

Through the student's search for previous studies, it became clear that previous Arab and local studies lacked an examination of the effectiveness of photography in alleviating the symptoms of psychological trauma. Arab studies were limited to addressing the topics of design thinking and art therapy (drawing). While these topics were limited to treating and developing social interaction skills for autistic children in Palestine and behavior modification (26), a study was found that addressed the topic of artistic drawings and their role in treating post-traumatic stress disorder (PTSD). Accordingly, and given the importance of photography as a form of art therapy and its role in treating psychological trauma and PTSD, the current study is considered one of the first studies to address photography and its effectiveness in alleviating the symptoms of psychological trauma in Palestine. The Palestinian people have a significant uniqueness regarding psychological trauma due to the surrounding political, security, economic, and social conditions, especially in Gaza, which is currently experiencing a war of extermination and continuous and intense aerial and artillery bombardment. Undoubtedly, because of the deafening sounds of these practices and their resulting deaths, body parts, and permanent injuries, children are exposed to profound psychological trauma. This increases the number of children suffering from psychological trauma, regardless of the causes (26).

Because participatory photography is usually led by artists rather than therapists or counselors, its therapeutic value is frequently questioned within the psychotherapeutic field, despite research suggesting that it is a therapeutic way for people to self-represent, self-advocate, and thereby improve their wellbeing or mental health recovery. As a result, artists face moral dilemmas when assessing the therapeutic worth of their creations (27).

Prolonged conflict, displacement, political instability, and social trauma have been exposed to Palestine, and this has greatly affected the mental health of the inhabitants. Trauma-related disorders especially among children, young people and women are very prevalent due to constant exposure to violence, loss and insecurity. This notwithstanding, professional mental health services are still inaccessible to many people because of economic factors, social stigma and lack of trained professionals.

The paper *Impact of Photography as an Art Therapy on Treating Trauma Disorder (Autobiography Design)* is extremely important in this context. Photography offers a culturally flexible, cheap and affordable therapy tool where an individual can be able to express himself or herself without necessarily having to tell it through verbal communication. Visual expression is a safe and indirect means of expression of pain, resilience, and lived experiences within Palestinian society where the discussion of psychological distress can be stigmatized.

Especially significant in Palestine, the autobiographical approach finds its meaning in the fact that personal and collective past is closely connected. Photography allows the participants to write down their stories and maintain memories

and their identity amid displacement and loss. This is done to make people retell their stories and turn their trauma to a way of strength and self-understanding.

Another significance of this work is that it will give some people a voice, who are marginalized. Photography helps the participants to witness their realities, encourage self-reflection, and heal themselves via creative experiences. It enhances emotional stability, promotes community attachment and facilitates psychological healing in sensitive cultural way.

This study has been informed by the fact that Palestine is in dire need of innovative mental health interventions. The conventional approaches to therapy are not necessarily practical because of the lack of resources and access. Art therapy using photography can be a viable alternative that can be adopted in schools, community centers, and refugee camps.

Moreover, this study is also valuable to local and global knowledge since the paper reports the efficacy of expressive arts therapy in community-based conflict. It emphasizes the importance of creative practices to trauma recovery and advocates the introduction of culturally relevant therapeutic approaches to the provision of mental health services in Palestine.

Therefore, this article tries to expose the importance of phototherapy as part of art therapy into Psychological Trauma disorders, throughout providing a comprehensive realistic experience of the author, which describes contribution of photography in the treatment of trauma disorder (autobiography).

## Methods

As an "insider" researcher of photography who has personal experience with mental health concerns, I am curious about how therapeutic photography helps individuals with mental health concerns utilize their knowledge and experience as a participant-led assessment method in rehabilitation settings. The literature also draws attention to the powerful outsider art photography that can be found online, which inclusively and revealingly reflects and advocates for mental health survivors (28). The key takeaway is that participatory photography would significantly enhance current qualitative research techniques and broaden the possibilities for phenomenological inquiry.

Therefore, this study adopts the autobiography approach, qualitative design, using the experience that the researcher has passed through as a photographer, and how the researcher treat her psychological trauma through photography, within details related to the techniques used and their results.

## Results (Autobiography)

The story you tell yourself, the mental fortitude, determination, and resilience you've cultivated within yourself, are more important than any other skill for achieving your goals, whether at work or in life. What you believe about yourself, what you whisper to yourself in times of hardship, is what determines your ability to persevere—not circumstances, not luck, not even external support.

To be born different is a challenge, and to continue living despite all difficulties requires immense courage. It's about finding your passion to keep going and seeing the beauty in

life. I've faced many challenges and crises that nearly ended my life, but no; I didn't give up. Instead, with all my love for life and everything in it, I remained steadfast, with determination and resolve. From a young age, I endured hardship; I saw death with my eyes at a time when I should have been living the best days of my life like my peers and other children my age. Sometimes life forces us to fight battles we don't deserve and endures days it doesn't want us to experience. There were days when I wished for death, that the next day would never come so I wouldn't wake up and face another day with the same routine and the same tragedy. This is truly heartbreaking for a girl who was nearly torn apart by the intense pain she endured at such a young age. I've never loved life, and I've never saw anything beautiful in the world back then.

My daily suffering transformed me into someone else, not myself, not the vibrant, ever-smiling girl I once was. Life deteriorated year after year. I didn't understand what was happening, why the world was the way it was. I listened to incredibly sad songs, with lyrics filled with despair and frustration. I wished I could buy optimism if it was for sale. I didn't love myself enough, and I didn't see myself as beautiful as I am. My differences made me unique, and everyone loved me and found me kind, but I didn't see that beauty and uniqueness. I only saw pain, suffering, and the monotonous routine.

I discovered my love for photography when we went on a school trip one day, so I bought a disposable Polaroid camera to take pictures that day. When I took photos with my classmates and teachers, I realized there was something different about the process of taking pictures and seeing them saved and printed. I put them in my personal photo album and

felt like I had spent beautiful moments and a happy day, outside the boring and tiring routine.

After that, I bought a digital camera and started using it to take pictures with my family, siblings, and friends. When I looked at them closely, I realized there were beautiful things in my life, like having my family, siblings, and friends. I also took pictures of the trees and plants around the house and the nature on the street where I live. I saw the beauty of the area.

One day, while walking in the yard, taking pictures of the trees and flowers, I reversed the camera (held it upside down) and took a selfie. When I looked at it, I saw how beautiful I was, my face radiant. I saw beautiful things and felt the value of myself and the things around me. I loved the photos I took, and when I saw them printed, I felt something special. I hung some of them in my room, and that's when I discovered I loved taking and collecting photos. There was something about photos and photography that attracted me and added meaning to my life.

I continued using the camera and taking photos whenever I could, on trips, at events, and to reminisce about my last years of school. I used to print the photos I took and put them in an album or stick some in my diaries. I always took special photos of beautiful memories and days that have gone by and would never return. That's when I realized that buying and using the camera had added meaning to my life and made me feel that there were beautiful things, despite everything. Through photography, I came to love myself, whom I hadn't felt I had self-worth, and I appreciated the beauty of my face. I also came to love the things around me, whose value I hadn't felt I possessed. Little by little, I started using the camera whenever I had the chance, like when meeting friends or on trips and at

events. Also, when my friends saw the photos, they would say, "How lovely we are, and how beautiful those photos are!" I discovered I had a talent for photography and I love it very much. Now, almost every day, I take pictures of anything—beautiful scenery, enjoyable moments, and moments with loved ones. I also take many pictures of nature, as through them I see the beauty of the world and the Creator's artistry.

Skin burning pain resulting from allergies is one of the most bothersome symptoms. The sufferer experiences a severe burning sensation, like a sting, accompanied by redness and swelling in the affected area. This condition worsens with any impact or friction, as the skin becomes more fragile and sensitive to pain, exacerbating the tingling and irritation. This pain often affects the patient's psychological state, making them more anxious and cautious in their interactions with others, fearing a worsening of the symptoms or a lack of understanding from others.

Because of this, I've never had a normal childhood like my classmates. I never attended gym classes for fear of falling or getting sun outside, and I've never went out to play with my friends during recess. I've spent years alone during recess, sometimes staying in class and other times sitting in the school corridors. Occasionally, when there were sick girls who weren't playing during recess, I would be happy and stay with them, a feeling of indescribable misery.

This instilled in me anger and hatred for life, which I now cherish and seize every moment of when I am comfortable and truly happy. Years of repression turned me into a silent shell. I never expressed anything back then; I suppressed all my pain and suffering inside, which eventually led to new and multiple ailments. I didn't realize that suppressing feelings or accepting

and being forced into circumstances I neither liked nor deserved was the worst thing that could happen. I was just a child, accepting my different lifestyle without any awareness or understanding of what was happening around me or how this situation would worsen and exacerbate my circumstances and tragedies. My head became incredibly heavy as I grew older. My body could no longer bear the pain, suffering, and suppression of all my sorrows, all of which remained hidden from everyone. During my final year of high school, while preparing for my exams, I experienced a severe headache for several days. When I went to the doctor, he diagnosed me with a severe sinus infection. I suffered greatly from this, especially since I couldn't take any medication or painkillers because I'm allergic to most of them. Being so sensitive is difficult and not easy. I also started suffering from migraines, and I would literally collapse into my room every week, unable to bear the light or feel any comfort. My head felt like it was going to explode from the intensity of the headaches, and I endured it all without taking a single pill or painkiller. I suffered for weeks and years until I realized that it was all due to the psychological and physical stress I was under, and that my mental health had been deteriorating gradually without my realizing it. I had always been diligent and never neglected my studies despite everything that had happened. I succeeded and completed my education with distinction. This suffering instilled in me the determination and perseverance to succeed in all aspects of life.

Chronic repression and sadness also affected my kidneys' health. I developed kidney stones, which I suffered from for years. I underwent seven endoscopic procedures to remove and clean them. The pain was excruciating and made me feel hopeless and discouraged. However, I clothed myself in hope and joy to persevere. I helped myself accept all of this and believe in a brighter tomorrow by listening to music and

capturing beautiful and promising moments through photography. The general physical and psychological stress resulting from suppressing negative emotions and not addressing them can affect heart and circulatory health. There is a close relationship between the heart and kidneys; elevated stress hormones lead to high blood pressure, which I have also suffered from for years. Chronic depression exacerbates illnesses and pains. Chronic anxiety and stress are also linked to breathing, as they lead to spasms in the respiratory muscles and limit the ability to breathe deeply and easily.

Emotional stress also significantly affects muscles. Last year, I was attacked by dogs in the neighborhood and fell on my back and head. This resulted in fractures and breaks in four vertebrae. This incident wasn't a coincidence; it exposed the chronic muscle pain I had been suffering from. I wasn't aware of it, but two months after the incident, my back pain, which I had considered normal, worsened to an unbearable degree. When I went to the doctor, he told me, after a CT scan; that I had fractures and severe inflammation in my back muscles. My back became rigid; I couldn't move due to the intense pain. I couldn't sit or sleep at night. I thought my life was over. I couldn't walk normally; I spent days and nights screaming and crying from the excruciating pain in my back. I could have lost the ability to walk altogether, God forbid, but I managed to save myself. When I started experiencing strange sensations and went to the doctor, I began to feel tingling in my hands and feet. I could no longer walk or go up or down stairs. I spent months in my room and house, resting and recovering. I longed to see people, the world, and nature. I almost forgot what my neighborhood and street looked like. I helped myself get out of that state when I started to feel better by listening to music, whether instrumental music with a simple, calming rhythm to soothe my nerves, relieve anxiety, and reduce tension, or songs

with lyrics that conveyed hope and positivity, encouraging me to move forward, accept what had happened, and rise again with strength.

## **Rising After the Storm: The Power of Resilience in the Face of Health Shocks**

Life is a journey full of ups and downs, and at some of its harsh turns, we may be surprised by a painful health shock that turns our days upside down. Severe illness or serious injuries are not just physical challenges; they are profound shocks that touch the soul and test the strength of will. One may initially feel as if the world is collapsing, and feelings of despair and helplessness may creep in. But amidst this pain lies the true strength of humanity: the ability to rise and persevere. The recovery process is not only about the body's response to treatment, but also an internal journey of rebuilding oneself and adapting to a new reality.

My body stores tension and anxiety in my jaw, the muscles near my ears, and the vagus nerve connected to my stomach and heart, so I often feel pain in this area. The crisis can only be overcome by acknowledging its existence. By accepting what happened and allowing ourselves space to grieve and feel pain without resistance, this is a natural part of the healing process. Everything that happened has motivated me to gradually rebuild a healthy routine (a new life routine). This includes paying attention to nutrition, getting enough rest, and engaging in light exercise suitable for my condition. These actions help maintain physical and mental balance. I've also started seeking support when needed, and I don't suppress my feelings. While I may keep them to myself in some cases, I don't repress them. This fosters psychological resilience and adaptability. When the big picture seems daunting, break the

challenge down into smaller parts. Every step forward, no matter how small, is a victory in the battle to persevere. Often, health trauma provides a motivation to re-evaluate life, discover a new passion, or gain a deeper understanding of the value of time and well-being. Psychological resilience means returning to life not as you were, but stronger and more conscious.

Besides my passion for photography and its therapeutic benefits, I discovered my love for graphic design and color coordination. After earning my BA in medical imaging (x-ray technician), I pursued another BA in graphic design, as this is what I love to do both as a hobby and as a profession. Now I work in this field as a freelancer, and I'm proud of myself for overcoming all the crises and continuing my life and studies despite all the pain and challenges.

Sleeping and waking up the next day is a blessing in itself. Walking and going to work or school, eating food and drinking water are blessings. Seeing family and friends, smelling and touching things are unique blessings, and listening to music, seeing nature, and photographing it are blessings. Everything that surrounds us is a blessing from the Creator, and we should enjoy it every moment of our lives, especially health and well-being, for whoever possesses it possesses the world.

I want to remind you that we are not alone, and that the scars left by crises are not a sign of weakness, but rather marks of honor that tell the story of a hero who faced the storm, clung to life, and kept going. Hope is our companion on the journey, and recovery is a daily decision. In addition to these health problems, I also suffered from cataracts at a young age. For a girl in her twenties to develop cataracts and undergo surgery typically performed on older people is in itself a shock, a

lingering and somewhat disheartening event. Seven years ago, I began experiencing blurred vision gradually. My doctor told me I needed surgery to improve my central vision and prevent further vision loss; this was all due to my health condition and years of using cortisone-containing medications. I was very worried at that time because they gradually caused blurred vision, sensitivity to light and glare, and a change in my color perception, making it appear faded. However, I felt reassured after the surgery, even though my original lenses were replaced with clear artificial lenses. Perhaps this is why I can now appreciate everything, discover beauty and value more, and see everything around me more clearly—people, events, and objects.

The shocks didn't end there. On the first day of summer this year, I went to an event intending to have fun, enjoy myself, and meet up with some friends after months of separation. I accidentally fell and slipped on a step. I was stunned and overwhelmed with emotions. I didn't know whether to cry, be sad, feel upset, or what to do next. It could have been much worse, and I thank God that it was only my leg that was injured and not my face. But I felt immense sorrow and sadness because my brother's engagement was in three weeks. I started crying, my emotions were in turmoil, not knowing what would happen next or how I would attend the event and celebrate with family and friends. It was a complete shock. My right leg was deformed; my bones, arteries, and veins were exposed. I saw the layers beneath the skin before my eyes, and blood began to flow. I'm grateful to my friends who were around me and supported me. An ambulance took me to the hospital and I've entered the operating room in the middle of the night. I didn't see my leg or what happened to it for two weeks after the surgery. Just the day before the accident, I had bought a dress and was excited to celebrate and

return to life after my back injury. I never expected another injury. But I felt strange emotions then; did I give up? Have lost joy, comfort, and happy moments? I don't know. I was sad, cried, and was in shock after seeing my leg. The nights and days after the surgery were the hardest, as my brother's engagement was approaching, my skin began to respond and change. I didn't give up hope, and I went and bought a long, flowing dress. Thank God, it was more beautiful than the previous one, and in my favorite color. I attended my brother's engagement party and shared in his joy. I took many photos and created many memories with family and friends. Although my leg was hurting, and I felt frustrated and hopeless about the disfigurement, I continued to persevere and seek happiness by collecting photos, printing them, and putting them in a special album. I cherished the moment and the beauty of the memories, especially after all that hardship. By taking photos from different angles and looking at my pictures at parties and events, I grew to love myself and feel my own worth, despite everything.

Photography, and my return back to it after a period of staying home and disconnecting with the outside world; made me appreciate my passion for it as a hobby, a talent, and a form of therapy. I felt it was one of the most important things I love doing in my daily routine. I enjoy capturing snapshots of everyday moments, the ordinary things we consider normal and routine—the very things most people complain about, I don't know why. People don't like routine, but if you lose those things, we consider ordinary, you realize their value. Photography has personally helped me heal in the following ways:

**Building a strong internal narrative – building a strong life:**  
Trauma often returns as a reaction, not a memory. It remains

stored as physical feelings and sensations, not as a clear story. Ordinary memories pass through a part of the brain called the hippocampus, which organizes them as a story with a beginning and an end. In the case of trauma, however, the nervous system collapses because there is a threat, and the brain's alarm system, the amygdala, responds. The person feels as if they are reliving the trauma now, not as a past memory. Trauma can manifest as a racing heart, muscle tension, or a sudden feeling of panic or anger. The solution is to teach your nervous system how to calm down; to become aware of your reactions and what triggers certain emotions, such as listening to music, practicing deep breathing techniques, art therapy, photography therapy, and journaling. The journey is unavoidable, but choosing what you love to do gives you a weapon against the weight of the days. Art therapy is not a denial of pain, but a way to lessen its impact. Without this ability to transform tragedy into a moment of humor, life becomes a series of heavy setbacks. Photography creates a safe distance between me and the wound; it's like placing a glass barrier that protects me from succumbing to darkness. Photography is an act of resistance that restores our ability to move forward.

**Photography affirms and documents moments we have lived and enjoyed:** Photo therapy, a form of expressive art therapy, uses photographs—whether taken, viewed, or organized in albums—as a therapeutic tool for the psychological trauma that many people experience. This approach relies on the expressive and reflective process that occurs when we use the camera as a medium between our inner and outer worlds. Therapists utilize their feelings, memories, and perceptions of themselves and the world around them.

**Positive Vision:** The camera has helped me heal psychological wounds. Trauma often creates a negative narrative in our minds about ourselves, such as: "I am weak," "I am not beautiful," "I am different," "The world is ugly," "People are harmful," "The world is a dangerous place." By capturing images of beauty and strength, or even small positive details on a bad day, we rewrite this narrative. We begin to gather visual evidence that spaces of hope and beauty still exist.

**Expression:** Expressing unspoken emotions; sometimes it's difficult to put feelings into words; feelings like sadness, anger, or fear. The camera provides us with an alternative language, so a picture of a cloudy sky can express melancholy, or a picture of a tree clinging to life in barren land can express resilience. This visual representation of emotions makes them tangible and less confusing.

**Mindfulness:** The act of photography requires us to be present in the moment. We begin to notice details we might otherwise overlook, such as nature, the Earth's regularity, night and day, the changing seasons, the order of the planets and stars, a fleeting smile on a stranger's face, or the harmony of colors in a scene. Add to that a warm cup of tea in winter or a glass of cold juice in summer. This practice pulls us out of the whirlpool of negative thoughts about the past or future and reconnects us peacefully and calmly with the present moment.

**A Sense of Control:** The shock of losing control over one's life can make one feel like they've lost control. Holding a camera and deciding what to take photo of, and from what angle, for example, restores a sense of control. The individual is the one who controls and decides what deserves to be captured in a photograph, and they are capable of literally changing their perspective on things.

**Meaning and Seeing the Difference:** Instead of running away from painful memories, photography gives us tools to deal with them. A person can take photos for places associated with their memories, not to remind them of the pain, but to imbue them with new meaning. Photographing a place that previously caused trauma, after a certain period of time, from a beautiful angle, can be a powerful act of liberation, symbolizing moving beyond and overcoming it. Thus, seeing our series of photographs across time and years allows us to see the differences between the past and the present – from the time of the trauma and its impact until now. Seeing the changes across those days and years allows us to see the vast difference in how we have changed in our appearance and personality. The features of childhood, through adolescence and young adulthood, to the present age are all visible. For me, this has allowed me to see and feel my features changing for the better, and I will continue to change as I grow older. Photographing painful or traumatic events, or even unpleasant moments, can help us see the difference between the past and present. It allows us to recognize that those moments are gone and will never return, and that everything has changed. Everything around us in life is in flux; nothing is constant, whether positive or negative. This helps us focus on the present and believe that there are beautiful moments to be captured in the future. Simple exercises can be practiced, and you don't need to be a professional photographer to reap the benefits of phototherapy. For example, you can challenge yourself to take at least one photo a day that captures a moment of gratitude, peace, or beauty, no matter how simple it is. You can also create a series of photos to express your current emotional state, using symbols and details to reflect your current mood.

**Food:** Photographing food and meals, whether at home or in a restaurant, reminds us of the blessings and gratitude we feel for

food and sustenance in our lives. It's a way to appreciate these blessings, which we often overlook amidst the daily routines and distractions of life.

**Materials:** There's no doubt that photographing places, decor, artifacts, memories, and antiques evokes feelings of nostalgia, warmth, and authenticity in someone experiencing emotional trauma. Using soft, natural lighting adds warmth and softness to the photos. Photographing wooden or fabric backgrounds enhances the classic feel. Capturing images that highlight patterns, scratches, or signs of age on an object shows that everything is beautiful as it is, and nothing is perfect. Some things find their beauty in their imperfections. Focusing on these details helps us understand that life is full of beauty, not perfection. Warm colors like brown or cream create a nostalgic atmosphere and evoke feelings of longing.

**A New Perspective:** Taking a photo of something very familiar, like a favorite outfit, a route to school, or work, from a completely unfamiliar angle. This exercise trains the mind to see new possibilities in everything. **Growth and Recovery:** From my personal experience, I recommend creating a digital or physical album to collect photos that remind you of your strength, your small steps toward improvement, moments of laughter during difficult times, and your perseverance and movement on days when you couldn't even get out of bed. Refer to these photos when you feel weak and hopeless.

**A Journey Toward Self-Love:** Portrait and selfie photography is more than just taking a fleeting picture; it represents, at its' core, a journey toward self-love and genuine self-acceptance. When you stand before the lens, whether it's a professional camera or your phone's front-facing camera; you choose to see yourself. Taking a portrait or selfie that captures a genuine

moment, free from pretense or attempts to hide it, is a powerful step toward accepting yourself in all your facets, including what you might consider "flaws" or weaknesses. This visual process, which allows you to view your image with loving and objective eyes, fosters a sense of worthiness and unique beauty, and builds inner self-confidence. Every successful shot is a celebration of your individual identity.

## **Discussion**

The assumption that inner narrative, mental fortitude and resilience can be more influential than external factors resonate with the results of recent meta-analyses of resilience-building interventions indicating that these interventions can augment coping capacity even in non-clinical samples. As an example, pursuing a meta-analytic study (46 randomized trials, 2025) of studies on interventions among adolescents and young adults, researchers found that such measures as psychotherapy, skill training, and physical activity improved resilience significantly compared to control conditions (29).

Similarly, wider scans of interventions aimed to enhance resilience in children and adolescents indicate that resilience-based, mindfulness-based, and sport programs provide slight-to-moderate enhancements in the stress coping and psychological wellbeing (30).

The case that I have described, the persistent suffering, health issues, and recurring trauma, and still persevering and persistent, which according to the psychology paradigms is referred to as dynamic resilience, is not a phenomenon, but rather a process that one can develop, particularly with the help of adaptive behavior, self-reflecting and meaningful activities (31).

My experience of finding photography and creative expression as a healing medium does not go against the increasing empirical data regarding creative arts therapy (including visual arts) as a method of trauma recovery and psychological health. A meta-analysis (2025) that reviewed creative-arts therapy as an intervention in treating trauma-related disorders concluded that creative-arts treatment showed significant effects in reducing PTSD symptoms in both children/adolescents and adults and among youth populations (Hedges 0.85) (32).

Moreover, a single-case mixed-method study published in 2024 has shown that trauma-related art therapy (TFAT) resulted in a clinically significant decrease of PTSD symptoms and, in addition, enabled a better quality of emotional expression, self-esteem, and resilience (2).

These findings confirm what I've said: photography (a visual / creative expression) can be used to externalize pain, re-experience beauty, and develop self-esteem - therefore a therapeutic intermediary between inner malady and healing as with formal art therapy.

Furthermore, in broader crises (as the pandemic), creative arts activities have assisted individuals in redefining trauma, re-construe adversity as development, and instill hope, which implies that art can make people transform trauma into post-traumatic development (25).

A revelation that both physical and mental health are tightly interconnected, that chronic stress, repressed feelings, and traumatic experiences are the causes of physical disorders, is also justified by the studies that resilience-based interventions can alter neurobiological stress-related mechanisms. A systematic review of neuroimaging research by young adults

and adolescents revealed that resilience-targeted interventions (social support, mindfulness, exercise) among those exposed to stress can be linked to lower limbic (emotion-regulation) activity and reinforced prefrontal-limbic connectivity, which can likely lead to better stress management and better health status (31).

This makes it pointless to emphasize that recovery and healing - your passage through surgeries, chronic illness, suffering, and eventual healing with the help of self-care, creative outlets, mental strength - is psychologically and physiologically based.

Lastly, my change, which involved being suffering, self-doubtful, suppressed, and in pain, to the self-acceptance, creativity, purpose, and hope, can be regarded as an example of post-traumatic development. Recent reviews and research point that resilience-building activities, together with expressive creative practices, can make people grow after trauma, restructuring identity, self-esteem, and sense of purpose in their lives (33).

According to that, a man life narrative, in turn, happens to be not merely a personal story, but a model, which is supported by evidence on the ground:

misfortune + inner resource + resourcefulness in expressing the self + resistance building = development, recovery, and the renewed meaning.

## **In Conclusion**

- Based on the autobiography and discussion with previous literatures, it can be concluded that photography is more than just a recording of reality; it is

a powerful tool for reshaping reality as we see and feel it.

- Every time we press the shutter button, we are not only preserving a moment, but we are also consciously or unconsciously choosing what we want to focus on in our lives, and in the face of the traumas we may experience and the difficult days we may endure.
- The lens gives us a rare opportunity to redirect our attention and awareness from pain to hope, and from loss to discovery, affirming that the beauty of life still exists, waiting only to be captured in a frame.
- While photography can be a powerful aid in recovery, it does not replace professional psychotherapy in cases of deep trauma or serious mental disorders.

Therefore, photography possesses significant therapeutic potential, especially in enhancing self-awareness and expressing personal identity, but it requires further experimental research to prove its effectiveness compared to traditional art media. This researcher's contribution provides a sound theoretical and experimental foundation upon which to build more in-depth and applied future research.

**Based on that, the researcher recommends the following:**

1. The practitioners involved in the use of photography as an autobiographical tool should employ the principles of trauma-informed principles such as safety, choice, control, and empowerment. The subjects are not supposed to be coerced into taking the pictures or reliving the experiences they are not prepared to digest.
2. Photography may be used as symbolic and indirect tool of autobiographical narration. This distance can aid one to express the emotions and memories that can be hard to express by any means, and to manage the emotional

- control and minimize the chance of having the distresses experience once again.
3. Reflective writing, discussion, or therapeutic dialogue should be used to support the writing of the photographic autobiographies. This assists people to place images within a context, derive meaning to their experiences and relate the past experiences to the present identity in a conducive environment.
  4. Giving people the choice of what to shoot, the way the pictures are put in frames, and the narratives to stick on them give a feeling of control. This agency is particularly significant in the recovery process about traumas in which there might be compromised autonomy.
  5. Ethical guidelines must be made clear, and they need to be informed consent, confidentiality, and emotional support. The practitioners are to observe the emotional reactions of the participants and be ready to stop or redirect the process in case distress is growing.
  6. Autobiographical photography cannot be applied as an independent treatment; it should be implemented as an addition to it. The cooperation with trained mental health experts will make sure that the emotional reactions that emerge because of the autobiographical work are addressed appropriately.
  7. Instead of necessarily addressing traumatic experiences only, autobiographical photography can start with the themes of safety, resilience, identity, or hope. This is done in stages so that one can develop emotional stability when approaching more difficult memories.
  8. Future studies ought to address the enduring impacts of photographic autobiography on the trauma recovery, identity formation and emotional health by adopting

qualitative and mixed-method methodologies to elicit personal and treatment effects.

## Acknowledgement

**Author's Contribution:** The author formulated the study concept, drafted the research paradigm and formulated the autobiography-driven photography intervention. The primary author analyzed and interpreted data and collected them. The manuscript was also critically drafted and revised by the author and her supervisor in case of the intellectual content. The author was the only person to deal with all parts of the research including literature review, development of methodology and finally approve the final manuscript.

**Conflict of Interest:** The author has no conflict of interest as far as the publication of this research is concerned. The research was done on its own without any financial or personal affiliations that might have determined the results and explanations of the findings.

**Ethical Clearance:** Before collecting the data, ethical approval was received on this study at the appropriate institutional ethics committee.

## References

Van Lith T. Art therapy in mental health: A systematic review of approaches and practices. *The Arts in Psychotherapy*. 2016 Feb; 47(47):9–22. <https://doi.org/10.1016/j.aip.2015.09.003>

Haeyen S, Wanten F. Effectiveness of Trauma-Focused Art Therapy (TFAT) for psychological trauma: A mixed method single case study. *The Arts in Psychotherapy*. 2024 Nov; 91(91):102218. <https://doi.org/10.1016/j.aip.2024.102218>

Lobban J. The development and practice of art therapy with military veterans [Online]. UK: Routledge; 2017 [cited 2025 Oct 15]. Available from:

<https://www.taylorfrancis.com/chapters/edit/10.4324/9781315564197-1/development-practice-art-therapy-military-veterans-janice-lobban>

Schnitzer G, Holttum S, Huet V. A systematic literature review of the impact of art therapy upon post-traumatic stress disorder. *International Journal of Art Therapy*. 2021 Apr 26; 26(4):1–14. <https://doi.org/10.1080/17454832.2021.1910719>

Malchiodi C.A. *Art therapy and health care* [Printed]. New York: Guilford Press. 2012a.

Malchiodi C. Trauma informed art therapy and sexual abuse in children [Online]. *Handbook of child sexual abuse: Identification, assessment, and treatment*. 2012b [cited 2025 Nov 12]: 341-54. Available from:

<https://onlinelibrary.wiley.com/doi/book/10.1002/9781118094822#page=348>

Malchiodi C. Calm, connection and confidence: Using art therapy to enhance resilience in traumatized children. In: D. Crenshaw, R. Brooks, & S. Goldstein, editors. *Resilience and play therapy*. New York: Guilford Press. 2015a [cited 2025 Sept 10]: 126-145. Available from: <https://psycnet.apa.org/record/2015-25199-006>

Malchiodi, C. *Creative interventions with traumatized children* [Online]. Guilford Press. 2015b [cited 2025 Nov 12]. Available from: [https://www.guilford.com/books/Creative-Interventions-with-Traumatized-Children/Cathy-Malchiodi/9781462548491?srsId=AfmBOoqdqj\\_XnBQGgPo1HFKFX7ae9X7mN4IIRzNaNB1L1KjL8tiADW-4](https://www.guilford.com/books/Creative-Interventions-with-Traumatized-Children/Cathy-Malchiodi/9781462548491?srsId=AfmBOoqdqj_XnBQGgPo1HFKFX7ae9X7mN4IIRzNaNB1L1KjL8tiADW-4)

Scope A, Uttley L, Sutton A. A qualitative systematic review of service user and service provider perspectives on the acceptability, relative benefits, and potential harms of art therapy for people with non-psychotic mental health disorders. *Psychology and Psychotherapy: Theory, Research and Practice*. 2016 Jun 3; 90(1): 25–43. <https://doi.org/10.1111/papt.12093>

Hogan S. *Therapeutic Photography*. Emerald Publishing Limited eBooks. 2022 Jan 11; 153–85. <https://doi.org/10.1108/978-1-80071-535-620221007>

Mizock L, Russinova Z, DeCastro S. Recovery narrative photovoice: Feasibility of a writing and photography intervention for

serious mental illnesses. *Psychiatric Rehabilitation Journal*. 2015 Sep; 38(3):279–82. <https://doi.org/10.1037/prj0000111>

Tourigny L, Naydenova I. Using Therapeutic Photography Techniques to Increase the Wellbeing of College Students. *Journal of Counseling and Psychology* [Internet]. 3(1): 4. Available from: <https://digitalcommons.gardner-webb.edu/cgi/viewcontent.cgi?article=1022&context=jcp>

Azoulay A. What is a photograph? What is photography? *Philosophy of Photography*. 2010 Mar 1;1(1):9–13. <https://doi.org/10.1386/pop.1.1.9/7>

Maddox G, Bodner G, Christian M, Williamson P. On the Effectiveness of Visual Arts Therapy for Traumatic Experiences: A Systematic Review and Meta-Analysis. *Clinical Psychology & Psychotherapy*. 2024 Jul 1;31(4). <https://doi.org/10.1002/cpp.3041>

Gibson D. A Visual Conversation With Trauma: Visual Journaling in Art Therapy to Combat Vicarious Trauma. *Art Therapy*. 2018 Apr 3; 35(2): 99–103. <https://doi.org/10.1080/07421656.2018.1483166>

Ray A. Art therapy postcards: How does a personal arts-based process inform the development of an art therapy protocol to address intergenerational perpetrator trauma? *South African Journal of Arts Therapies* [Internet]. 2023 Jul 13; (1):111–33. <https://doi.org/10.36615/sajat.v1i1.2494>

Robjant K, Fazel M. The emerging evidence for Narrative Exposure Therapy: A review. *Clinical Psychology Review* [Internet]. 2010 Dec;30(8):1030–9. <https://doi:10.1016/j.cpr.2010.07.004>

Buchan CA. Therapeutic benefits and limitations of participatory photography for adults with mental health problems: A systematic search and literature review. *Journal of Psychiatric and Mental Health Nursing*. 2020 Feb 9;27(5). <https://doi:10.1111/jpm.12606>

Reid C, Alonso M. Imagining Inclusion: Uncovering the Upstream Determinants of Mental Health through Photovoice. *Therapeutic Recreation Journal*. 2018; 52(1): 19–41. <https://doi.org/10.18666/TRJ-2018-V52-I1-8461>

Rolbiecki A, Anderson K, Teti M, Albright DL. “Waiting for the cold to end”: Using photovoice as a narrative intervention for survivors of sexual assault.. *Traumatology*. 2016;22(4):242–8. <https://doi.org/10.1037/trm0000087>

Sitvast JE, Abma TA, Widdershoven GAM. Facades of Suffering: Clients' Photo Stories About Mental Illness. *Archives of Psychiatric Nursing*. 2010 Oct;24(5):349–61. <https://doi.org/10.1016/j.apnu.2010.02.004>

Sitvast JE, Abma TA, Widdershoven GAM. Living with severe mental illness: perception of sickness. *Journal of Advanced Nursing*. 2011 Jun 2;67(10):2170–9. <https://doi.org/10.1111/j.1365-2648.2011.05663.x>

Maniam Y, Kumaran P, Lee YP, Koh J, Subramaniam M. The journey of young people in an early psychosis program involved in participatory photography. *British Journal of Occupational Therapy*. 2016 Jan 28;79(6):368–75. <https://doi.org/10.1177/0308022615621567>

Padgett D, Smith B, Derejko K, Henwood, B, Tiderington E. A picture is worth ...? Photo elicitation interviewing with formerly homeless adults. *Qualitative Health Research*. 2013; 23(11): 1435– 1444. <https://doi.org/10.1177/1049732313507752>

Stevenson H, Alzyood M. Healing through art: a thematic synthesis within a quasi-systematic review of art's impact on adult mental well-being during the COVID-19 pandemic. *BMC Public Health*. 2025 May 3; 25(1). <https://doi.org/10.1186/s12889-025-22741-0>

Abdel Hadi T, Al-Qiq N. The effectiveness of a training program based on group art therapy in developing social interaction skills and increasing the aesthetic sense of an autistic child. *An-Najah University Journal for Research - B (Humanities)*. 2024 Apr; 38(4): 633–70. <https://DOI:10.35552/0247.38.4.2180>

Johnson J. Participatory photography as a therapeutic practice: a contextual review and case study. *Community Development Journal*. 2025 Feb 27; bsaf003. <https://doi.org/10.1093/cdj/bsaf003>

Swaminathan R, Mulvihill TM. *Photography, Photographic Arts, and the Visual Research Process in Qualitative Inquiry* [Online]. Routledge. 2024 [cited 2025 Nov 12]. <https://doi.org/10.4324/9781003034773>

Ciren Z, Kam H, Kit S. Effects of Resilience Interventions for Adolescents and Young Adults Without Psychiatric Diagnoses: A Systematic Review and Network Meta-analysis of Randomized Controlled Trials. *Adolescent Research Review*. 2025 Aug 25:1-20 <https://doi.org/10.1007/s40894-025-00270-6>

Mei Z, Cai C, Wang T, Yang Y, Lam C, Zhang Y, et al. Interventions to promote resilience in children and adolescents: A systematic review and meta-analysis of randomized controlled trials.

General Hospital Psychiatry [Internet]. 2025 Aug 20; 96: 295–306. <https://doi.org/10.1016/j.genhosppsy.2025.08.011>

Jawahar N, jawahar B, sayal K, Auer DP. Post-intervention neuroimaging effects of psychosocial interventions aimed at promoting resilience in children and adolescents under psychological stress: a systematic review. *Neuroscience & Biobehavioral Reviews*. 2025 May; 174: 1-19. <https://doi.org/10.1016/j.neubiorev.2025.106196>

Applewhite B, Delattre B, Singh I, Kringelbach M, Spiegler O. Creative arts-based interventions for the improvement of PTSD symptoms in young people: a meta-analysis with a focus on non-Western populations. *Nature Mental Health*. 2025 Nov 27; 3: 1616-1632. <https://doi.org/10.1038/s44220-025-00543-y>

Wang J, Zhang B, Yahaya R, Abdullah A binti. Colors of the mind: a meta-analysis of creative arts therapy as an approach for post-traumatic stress disorder intervention. *BMC Psychology*. 2025 Jan 12;13(32): 1-11. <https://doi.org/10.1186/s40359-025-02361-4>