SciencePG
Science Publishing Group

Posttraumatic Growth Following Adverse Childhood Experiences: "My Creative Arts Teacher Got Me Through It"

Michelle Pliske[1, 2, *], Allison Werner-Lin[2], Sarah Stauffer[3]

[1]School of Social Sciences, Pacific University, Forest Grove, the United States

[2]School of Social Policy and Practice, University of Pennsylvania, Philadelphia, the United States

[3]Association ESPAS (Espace de Soutien et Prévention – Abus Sexuels), Lausanne, Switzerland

Email address:
mpliske@pacificu.edu (M. Pliske)
*Corresponding author

Abstract: Background: Childhood trauma results in long-term health and economic complications. The original Adverse Childhood Experiences (ACE) inventory provided researchers and health experts a lens to explore the implications of early experiences of trauma on human development. The ACE inventory has been evaluated over the last two decades to include societal and community factors, however gaps in assessment warrant a further need for revision. The ACE-EX was built to combine current research and social determinants of health with data obtained directly from people who experienced trauma but were unable to be accounted for in the original or recent modified measures. This study demonstrates how relationships serve as a fundamental protective factor for traumatized children to experience post-traumatic growth. Objective: The authors examined creative art expression, in context with nurturing relationships, as a protective factor against long term negative outcomes associated with ACEs. Method: The researchers used grounded theory methodology and recruited 10 adult participants who reported having four or more experiences on an expanded trauma inventory (ACE-EX) and did not report significant negative health conditions. Participants completed two qualitative retrospective interviews regarding important relationships and the arts. Data analysis used the constant comparative method to complete both iterative and theoretical coding. Findings: Data supported the importance of nurturing relationships, combined with expressive arts, as protective factors against ACEs. Relationships and the arts provided a context for integrating experiences in relation to early trauma. Conclusion: The implications of chronic traumatic stress necessitate the need for building protective factors into the fabric of societal systems. Identifying variables such as creative expression within the context of supportive relationships with caring adults, and inclusive communities, suggest comprehensive prevention programs are possible and social policy reform is needed to aide in mitigating the long-term effects of childhood trauma.

Keywords: Psychological Trauma, Adverse Childhood Experiences, Posttraumatic Growth, Mentor Relationships, Resiliency, Protective Factors, Play Therapy, Expressive Arts

1. Introduction

"We need relationships in the same life-sustaining way that we need air and water. We are simply and essentially interdependent beings" [17]. Connection to important others is the primary organizer for development. Children search for secure attachments because these relationships provide safety and build an internal framework for regulation patterns which support them in times of stress [3, 17]. In ideal circumstances, relationships meet children's need and help them to regulate emotion for addressing challenging situations. In other circumstances, children who grow without relational or structural supports can face limitations with social and physical health. Child abuse and neglect, family violence, and living in unsafe communities are adversities children face globally exposing them to traumatic stress [28].

Research on childhood trauma provides evidence for the long-term health and economic implications of chronic stress.

Stressors associated with early exposure to developmental trauma produce behavioral challenges, self-esteem deficits, anxiety, depression, learning deficits, and emotional regulation deficiencies, all with projected long-term risks for chronic disease and premature death [1, 21, 25]. Schaefer et. al reported in 2018 [26] that over the next decade childhood adversity is projected to create an economic responsibility exceeding $585 billion in the United States alone. Yet research on protective factors for mitigating substantial long-term effects, thereby reducing their associating costs, are largely absent or inaccessible to children, families, and communities in need. A child's developmental path once faced with these adversities can be altered by positive relational experiences englobed with opportunities for self-exploration through creativity.

1.1. Adverse Childhood Experiences and Social Determinants of Health

A growing body of literature explores the impact of social determinants of health, including childhood adversity, on meaningful health outcomes. Conventional measures of childhood adversity lack most social determinants of health. The term *social determinants* often evoke factors that can influence health-related behaviors, such as health-related features of neighborhoods (e.g., pollution, community violence, walkability, recreational or green areas, and accessibility of healthful foods. Though researchers have investigated the impact of childhood trauma and its long-term health implications [8, 10, 12, 28] there continues to be a paucity of research investigating the impact of community and how social determinants of health contribute to adverse childhood experiences for negative health outcomes. The World Health Organization's Commission on the Social Determinants of Health has defined conditions in which people are born, grow, live, work, and age with social justice as being a matter of life or death. There is a necessity to better understand how children's trauma exposure in conjunction with social determinants of health play out over the course of a lifetime.

Anda, et. al published their adverse childhood experiences (ACEs) study in 1998 which began the conversation about early childhood exposure to trauma and its long-term health implications [11]. They defined ACEs as abuse, witnessing domestic violence, and serious household dysfunction. The quantification of ACEs (ACE score) was used as a measure of cumulative childhood stress to hypothesize a dose-response relationship of the ACE score to long term negative physical and mental health outcomes [11]. The concept of child maltreatment and early experiences of adversity expanded over the last several decades to include community factors, such as poverty, dangerous neighborhood conditions, and pollution [12, 22].

1.2. Complex Trauma

Complex trauma is adversity during early childhood which encompass physical abuse, neglect, betrayal, rejection, antipathy, abandonment, or a feeling of being subhuman within relational contexts by caregivers [9, 30]. The original ACE measure primarily focused on interpersonal violence

resulting in complex trauma. ACEs were codified as interpersonal traumatic experiences or the biological implications of trauma as stress compounded within the human body during childhood development. The result is an alteration of the expression of genes creating disorganization within the brain and nervous system [31]. Consequently, when children experience prolonged stress exposure in relational contexts, such as abuse, neglect, or witnessing violence in the home, relational rupture ensues with toxic stress predominant within the child's life [9, 18, 30].

Toxic stress occurs when the body is faced with repeated and chronic hyper and hypo arousal. This shifts the body and brain back and forth within the stress response system following normally adaptive processes. The body's attempt to maintain homeostasis through the production of mediators, such as adrenalin, cortisol, and other chemical messengers, begin to contribute to allostatic overload within the human stress response system [20]. Complex trauma has emotional and behavioral dysregulation consequences, which are contributing factors to later negative physical and mental health outcomes [6]. Revised ACE inventories that include stress inducing community factors (e.g., poverty, dangerous neighborhood conditions, and pollution), or social determinants of health, capture the intent of the ACE measure in identifying toxic stress and how this contributes to a reduction in positive health outcomes. Toxic stress will impact relationships, often resulting in attachment disruption with primary caregivers, cognitive declines, and biological changes in physical health [18, 30, 31], therefore it is imperative we consider all contributing factors of toxic stress expanding or questionnaires beyond complex trauma to incorporate additional environmental and community factors.

1.3. Relationships

Axline postulated in 1969 that play is a child's natural method for self-expression [2]. Stuart Brown posited that play becomes a basis for all personal relationships [5]. Neuroscience demonstrates that the "environment of relationships is the raw material that builds the brain's architecture, one encounter at a time" [27]. Researchers consistently note resilience as being fundamental for relationship [15, 26]. However, much of the research to date has focused on biological and relational factors to build resiliency, omitting how we engage in and build or nurture relationships. Relationships are built through creativity, the arts, and play interactions. Play and creative art expression support relationships and strengthen social connection within families and larger communities [27] and may mitigate the effects of adverse experiences.

1.4. Play and Creative Arts

Human development can be changed or affected by multiple environmental factors. The interactions of these factors at different ecological levels [4], blended with experience serves as primary change agents for development [21]. Children can express an array of emotions and thought

processes through their play, therefore opportunities to engage in play and creative art expression within the community remain critical for child development. Play is a suitable mode for a child to process adverse experiences because play connects a child's interest and intellectual creativity. The child can integrate their experiences through this creative expression with their thoughts and emotions.

Expressive therapies and their infusion of arts into healthcare, community programs, and educational systems offer experiences that counter the negative impact of trauma through therapeutic powers of play, therefore becoming a strong protective factor that contributes to reducing the impact of adversity [23]. Participating in creative arts reduces suffering by providing opportunities for children to engage in recalling trauma-related memories or emotions they have avoided transforming these experiences [14].

In the present study we asked the central research question: How do experiences with play, expressive, and creative arts serve as a protective factor for children who have exposure to adverse childhood experiences?

2. Methods

Researchers used a grounded theory approach to explore the intersection of expressive arts and important relationships for participants who experienced multiple ACEs. Specifically, this study sought to understand how some adults with extensive exposure to childhood trauma emerged with minimal adverse somatic and mental health outcomes. This study was approved by the human subjects review board of the University of Pennsylvania (protocol #833857).

2.1. Expanded ACE Inventory (ACE-EX)

The 20-item ACE-EX started with an examination of the 10 original ACE study inventory items then modified original items to remove gendered language and to minimize other potential biases. Researchers added items informed by original research with community variables and was further informed by a literature review of social determinants of health [12]. Finally, researchers added new items through a review of data from intake documents from a contributing non-profit that embedded the original ACE into intake forms approximately a decade ago. Individuals completing the original ACE form commonly provided write-in information beyond those identified on the intake form, including adverse life events not fully captured within the original ACE instrument. This data informed the new (ACE-EX) items and served to guide the authors regarding language revisions needed for original ACE items, to fully capture adversity detailed within the documents provided by individuals seeking services (Table 1).

For example, language changes included restructuring questions of divorce to loss: "Was a parent or caregiver ever lost to you through divorce, abandonment, or other reasons?" Bias changes included modified language involving gender and to expand upon forms of domestic violence:

> Was a parent, other adult, sibling, or child in your household…. Often push, grab, slap, or had something thrown at them -or- Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? -or- Ever repeatedly hit or threatened with a gun or knife?

Revised items included on the ACE-EX developed from [12] publications captured community variables of violence, low socioeconomic status (SES), peer victimization and social rejection. This was expanded upon for this study to include involvement within the child welfare system or foster care, unsafe schools, immigration status, marginalization, and oppression (see Table 1).

***Table 1.** Expanded ACE Questionnaire (ACE-EX) Unaltered Original ACE questions are denoted with an *.*

Prior to your 18th birthday, did you experience any of the following…(circle 'yes' or 'no')	
* Did a parent or other adult in your household often…. Swear at you, insult you, put you down or humiliate you? -or- Threaten or act in a way that made you afraid you may be physically hurt? Yes/No	If yes enter 1
Did a parent or other adult in your household often…. Push, grab, slap, hit you with an object, or throw something at you? -or- Ever hit you so hard that you had marks or were injured? -or- Ever repeatedly threaten you with a gun or knife? Yes/No	If yes enter 1
Was a parent, other adult, sibling or child in your household…. Often push, grab, slap, or had something thrown at them -or- Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? -or- Ever repeatedly hit or threatened with a gun or knife? Yes/No	If yes enter 1
* Did an adult or person at least 5 years older than you ever…. Touch or fondle you or have you touch their body in a sexual way? -or- Try to or actually have oral, anal, or vaginal sex with you? Yes/No	If yes enter 1
Did someone less than 5 years, younger or older …. Touch or fondle you or have you touch their body in a sexual way that you did not consent to having? -or- Try to or actually have oral, anal, or vaginal sex with you that you did not consent to having? Yes/No	If yes enter 1
Did you often feel that…. You didn't have enough to eat, had to wear dirty clothes, or had no one to protect you? -or- Your parents were too intoxicated (drunk, high, etc.) to take care of you or take you to the doctor when you were in need? Yes/No	If yes enter 1
Was a parent or caregiver ever lost to you through divorce, abandonment, or other reason? Yes/No	If yes enter 1
Did you live with anyone who was often intoxicated (drunk, high, etc.)? Yes/No	If yes enter 1
* Was a member of your household depressed or mentally ill or did a household member attempt suicide? Yes/No	If yes enter 1
Was a member of your household ever incarcerated? Yes/No	If yes enter 1
Were you adopted? Yes/No	If yes enter 1

Prior to your 18th birthday, did you experience any of the following…(circle 'yes' or 'no')	
Were you ever placed in foster care or a part of the child welfare system in any way? Yes/No	If yes enter 1
Did other kids, including brothers or sisters, often or very often hit you, threaten you, pick on you or insult you? Yes/No	If yes enter 1
Did you often or very often feel lonely, isolated, rejected or that no one liked you? Yes/No	If yes enter 1
Did you live for 2 or more years in a neighborhood that was dangerous, or where you saw people being assaulted? Yes/No	If yes enter 1
Did you attend a school system in which you did not feel physically safe or you believed the school staff would be unable to protect you? Yes/No	If yes enter 1
Was there a period of 2 or more years when your family… Was very poor? -or- On public assistance? -or-Experienced homelessness? Yes/No	If yes enter 1
Did you or a family member ever worry about their immigration status or fear deportation? Yes/No	If yes enter 1
Did you belong to a marginalized group in which growing up you experiencing racism, oppression or felt targeted due to your identity? Yes/No	If yes enter 1
Did you or a family member experience a language or literacy barrier in which…. You found it difficult to access assistance within your community -or- Found it difficult to obtain necessary resources like food, healthcare, housing, or legal assistance?	If yes enter 1

2.2. Sampling and Recruitment

The researchers used purposive and snowball sampling to identify people who experienced significant ACE exposure who reported no enduring adverse health or mental health outcomes in adulthood through a health survey. Consequently, the sampling strategy targeted those who were outliers within a typical ACE study [1]. Adult participants, 25 years or older, who endorsed four or more ACEs on an expanded version of the Adverse Childhood Experiences Inventory completed a brief health history to screen for significant health conditions.

The primary source for recruiting participants was a community, non-profit mental health institute in the Pacific Northwest. Many participants were parents or guardians of children connected to education or support services. Social media and other advertisements further yielded participants in the area. Researchers offered participants $25 gift cards in compensation. Researchers excluded participants if they reported significant health conditions, an ACE-EX score below four, or if they did not endorse proficiency in English, based on the American Council on the Teaching of Foreign Languages (ACTFL) score via the initial screening process.

2.3. Semi-Structured Interviews

The first author conducted two 50-minute interviews with each participant using a semi-structured qualitative design. In the initial interview participants completed a family play genogram [13] and ecomap to gather information about relevant individuals and systems in relation to client development, history, trauma exposure, and protective factors. The family play genogram exercise invites participants to create a visual map of their family system, including members related by blood, law, and choice. Participants constructed a representation of their family system on paper utilizing traditional shapes. The genogram allowed for a comprehensive understanding of family dynamics at a moment in their childhood, including patterns, structure, and functioning through a developmental lens. The play genogram interview starts with a discussion of who is in the family system and who is not, then moves towards tracking emotional and relational connections [13]. This process is oriented towards participant/client insight.

Extending the genogram to additional systems created a brief ecomap, which drew upon narratives associated with participants' culture and community. For everyone on the "map," participants picked from a wide range of miniatures to represent their thoughts or feelings about each member of the family system, including themselves. Some participants expressed ambivalence regarding how to select a representative figure for complex personalities and relationships followed by later experiencing a dawning realization of the meaning of a specific figurine.

The subsequent 50-minute interview was scheduled and completed approximately a week later. The second interview served to deepen participants' narratives associated with interpersonal relationships, community supports, and play and creative arts participation. The researchers employed an empathic relational stance to support participants in engaging with what may be perceived as difficult content, while remaining open to findings in a nonjudgmental manner.

2.4. Data Analysis

The research team used grounded theory constant comparative methods while collecting data, coding transcripts of audio/video interviews, and interpreting findings. The primary researcher (first author) read each transcript line-by-line to complete open coding and to develop a preliminary codebook. This research team reviewed a subset of transcripts, selected for maximum variation, to provide guidance on construction and evolution of the codebook. Emergent during this phase of analysis were key components of change agents found within play and creativity researchers refer to as therapeutic powers of play [27]. The primary researcher then conducted line-by-line theoretical coding using the five primary concepts related to posttraumatic growth, including enhanced personal relationships, enhanced appreciation for life, stronger sense of spirituality, increased personal strengths, and openness to new possibilities in life [29]. Theoretical analysis also focused on identifying patterns regarding trauma, interpersonal relationships, and protective factors against long term harm to wellbeing. The researchers used memos with theoretical notes about the data and the conceptual connection between categories or themes to aid in sorting and categorizing theoretical and data-derived ideas.

2.5. Rigor

Close cooperation between team members supported researcher reflexivity, increased creativity, and intellectual rigor, and benefitted analysis through mentorship with experienced qualitative researchers and play therapists. The primary researcher committed to engaging in self-analysis and reflective practice through journaling to examine her own past experiences with childhood adversity. This ensured a close examination of potential bias within data analysis and interpretation.

2.6. Data Security

Researchers deidentified participant transcripts and assigned pseudonyms to protect confidentiality. Physical documents were stored under lock and key, and electronic records were secured and encrypted in a HIPAA-protected electronic health system operated by the institute where the research was conducted.

3. Findings

3.1. Participants

Ten adults, ranging from 25 to 65 years of age, completed two separate interviews. Nine participants identified as White, and one identified as Hispanic. Seven participants self-identified as female, two as male, and one as agender. Participants conferred a range of ACE-EX events, including emotional, physical, and/or sexual abuse, domestic violence, death of a loved one, adoption, foster care, unsafe schools or neighborhoods, neglect, caregiver incarceration, bullying, poverty, household mental health illness and/or substance abuse, marginalization, and social isolation. Participants reported exposure to ACEs primarily in the context of complex trauma as adverse encounters occurred within their family systems. Participants all reported involvement in expressive and visual arts, including music, theater, dance/movement, art, and imaginative play. All participants described their school- and community-based involvement in play as a significant and a life-sustaining resource to support coping with, healing from, and transforming the emotional and cognitive impact of early trauma.

3.2. Adverse Experiences of Abuse

Experiences of adversity were delivered clearly and articulately by participants. The storytelling for participants was emotional at times. Participants were tearful and reported emotional pain with the retelling. For others, their trauma narrative included an intensity of anger and with the telling. Participants used intonation of voice, mirroring the emotion of the past as they recounted their experiences in the present. Anger was also accompanied by nonverbal communication of disgust. Sam described some of his experiences of physical abuse in the home with a lowered shake of his head, wrinkled nose, lowered brows, and narrowed eyes:

I remember one time when I was 12, my mom left some of her jewelry out on her dresser and I thought it'd be funny to hide it. My mom spent a while looking for it and I'm like,
"Ha ha, I pulled a prank on you. I hid it from you." My dad punched me in the face.

Participants described the nature of their abuse as patterned physical and sexual abuse, but extended experiences to encounters which encompassed emotional abuse. The emotional abuse described by participants included being yelled and screamed at, threatened, and being called derogatory names. Charlotte described both physical and emotional abuse, which resulted in chronic fear of her father:

We had horses when I was little, and my dad was on the ranch. He would train them. He was a cruel trainer with animals too, but he would train them to be scared to death of him. Somebody would comment about how well-behaved his children were when we'd go to their house, and I thought, "Because we're scared to death of him."

Becky reported her world changing when she was a child shifting towards a world filled with fear following sexual abused by a community member. She described this fear and the need for silence while holding the knowledge that she had a "monster" living near her.

It was a realization monsters lived in the world, but not under your bed. I was sexually molested by a family friend... [who was] a member of our church congregation and an umpire for the softball team. He was everywhere. He lived down the street from my elementary school. Nobody knew what happened.

Collectively, participants described a wide range of adverse childhood events representing a range of systems, interpersonal relationships, and situations.

3.3. Adverse Experiences of Family Mental Health and Instability

Participants shared their stories of parental mental illness and the lack of consistency this brought with parent caregiving, behavior, or emotions. The impact for participants was a perception of insecurity, distrust, and fear. The predominant narrative within participant experiences was a lack of trust that a parent was able to care for them adequately. Jane explored her relationship with her mother, which included chronic insecurity with her mother's mental illness, which parentified Jane in her family system during early adolescence:

My mom would get in a relationship with someone and then get divorced. I think she had remarried 12 times or 13 times by the time I was 13 years old. My mom eventually went into this really deep depression. She slept on the floor in our guestroom and would never come out. I stopped going to school and instead started taking care of my grandma, who was still alive on hospice at the time. I knew [my mom] couldn't take care of anyone.

Sibling abuse, family bullying, and conflict were also prevalent for some participants. Christina explored her

history as the fifth child in a family system with ten children while creating a family play genogram. Her oldest brother was often in a position of authority throughout her childhood, asserting power and control through fear and violence:

> My oldest brother is really into hunting, so this moose figurine [with antlers] represents him. You know how elk, they are like prized possessions, he's like that with the siblings. We were brought up to respect our eldest. But for me, the horns make him unapproachable. My brother would get very volatile and that felt so unsafe for me.

Participant experiences such as these suggested the extent to which adverse experiences are embedded within family systems is extremely important to fully account for adversity. This type of adversity contributes to toxic or chronic stress within the developing mind and body. These sibling relationships influenced participant views on the world and their sense of safety daily.

3.4. Adverse Experiences of Loss

Safety within relationships allowed participants to engage in art processes and talk about their trauma. The art expression deepened the extent for participants to share their experience by adding a visual or auditory representation of the trauma which otherwise couldn't be expressed through traditional conversation. This safety and ability to nonverbally express their experiences and pain aided in developing deep meaningful connections, which continued across the lifespan in some cases, serving as a guide for long-term self-care strategies. In cases where participants described lost connections with important adults due to life circumstances or death, they described revisiting those memories of that person and the relationship through their art. Jim explored his narrative of identity demonstrating emotional pain throughout the conversation. He was tearful and angry as he retold his story of being an adoptee and living with the knowledge that his biological mother did not want him:

> My mother, she put me up for adoption at birth. I went into foster care until I was finally adopted by my mom and dad. My biological mother, she never wanted to see me. She married well and I guess she didn't want anything to interfere with that. Reaching out to my biological mother had been a little like a life lesson in be careful what you wish for.

Jim's narrative transformed as he began talking about experiencing loss through his art as a form of emotional expression. He described being able to fully integrate his emotions and thoughts when he was grounded within community relationships.

> So, being in theater it was a place for all that pain to land. If I felt like someone else was going to leave or something bad was going to happen, or I made a mistake it was not long-term. A play only lasted for so long and there were people there who cared about me. Accepted me. That was the thing, it was transformative, I felt like I could relax, funnel all that rage or pain onto the stage and ride things out. Things became less scary for me. This is something I

don't have a problem telling students at the high school now. It is okay if you make a mistake, we can learn and start new. They know they have me to help them get through things.

The narrative aligned with the embodied memory or feeling associated with being integrated into a community. The result served to support participants as they navigated stressors later in life. Participants described thematic qualities of an internal working model of compassion, empathy, and love. Participants developed a new narrative during this process in childhood leading to an internalization of the expressed affection, replacing earlier painful or damaged models of interpersonal trauma.

3.5. Adverse Experiences of Community Violence

Adversity during childhood included an exploration of experiences participants had within their communities. Jane discussed living in unsafe neighborhoods or communities in which interpersonal violence and bullying were commonplace occurrences.

> My mom put her trust in the guy she was with to pay bills. We found out he had not. So, we got evicted with 24 hours' notice. We had these crappy apartments and were concerned for safety. We were in rough neighborhoods where people like died and shit.

Jim's emotions were that of trepidation as he reported on his experiences going to and leaving school. Jim was being bullied and targeted by other children:

> In school, I was never one of the kids in the in-crowd. There were these kids... I don't know how I ended up on their radar, but it was about a mile from school to my house, and I'd ride my bike to school. Every day after school, to avoid getting beaten up by these kids, I would rush out of school, jump on my bike and ride as hard as I could to get home just hoping I could make it.

3.6. The Role of Important Relationships

Social connections and relationships participants found within their creative or expressive arts practices were defined as an opening for expressing new ideas and emotions which otherwise may have been compartmentalized or buried. Relationships through the arts became a source of survival as they navigated adversity at home and within the community. Across all ten interviews, participants told how their most profound relationships were encompassed by support, love, and positive regard, and included some form of play. Participants believed that when a child can combine the factors of relationship with creative expression a deep protection against ACEs occur. They experienced a sense of approval from their community through art and play. They reported feeling connected, heard, and understood in these relationships and the communities that surrounded the making of art and play.

Important adults nurtured and created a holding space for wisdom for participants during ACEs or thereafter. These adults provided participants with guidance in art and in life.

Many participants reported feeling these adults challenged them to reach dearly held goals that participants previously thought were impossible. Relationships within the expressive arts world allowed for shared meaning and communication through art that transcended language. Violet recounted working with an art teacher in school who created the opportunity for her to explore her emotions, thoughts, and ideas about home without using words. Violet's mother suffered from severe anxiety, depression, and suicidality.

> My art teacher always appreciated me and had a genuine interest in what she was teaching me. She was a good listener. She encouraged me to connect with the projects on an emotional level, which made it feel like it was safe to open up around her, because she seemed like she was receptive to it. The art was a way to access feelings and I had someone to share them with.

Violet's connection with her teacher provided safety and let her learn trust. This enabled her to be vulnerable and to share the complexities of her life to create meaning and experience healing.

Jim described feeling more capable because of the trusting relationship he experienced with one of his creative writing teachers: "She was amazing. She was my Albus Dumbledore, just this magical person. She always treated me like I was a capable person who could do this." Christina discussed growing up feeling shy, reserved, and lacking the confidence to do what she needed: to sing. She reflected on her interactions with a trusted choir teacher in grade school and middle school. These interactions provided Christina with a sense of being worthy and valuable:

> I think she was the first one to say, "You need to try out for this." She wouldn't really let me wiggle my way out of things or make excuses because I was uncomfortable. She would literally sign me up for the audition and say, "You need to come. If you need a ride, I will come and pick you up," so it was very intentional, and it was about me, just me, which was so nice.

Julie's description of her creative arts teacher was delivered with warmth in her voice. This relationship showed her a holistic model of being cared for. As a result of this relationship, Julie reflected an understanding for what it meant to have someone prioritize her needs and celebrate her accomplishments unconditionally.

> My art teacher was very wise. She was always really happy. She was really short and kind of big, so she was just love shaped. She was shaped like a friend. It was really easy to be open with her. When I graduated, she brought me a whole bouquet of flowers and was like, "It feels like my daughter's graduating." I was like, "Mom, don't say that. You're going to make me cry." She was always very motherly. I loved her.

Julie contrasted this relationship with her art teacher to a therapist she saw as an adolescent. The therapist was hired as a resource and support for Julie during a time she was experiencing considerable bullying and marginalization at school related to her gender identity. Where her art teacher reflected unconditional acceptance, Julie's therapist reflected the desire for her to be contained. Julie described that upon presenting her artwork to the therapist, the response was different. Julie did not feel accepted by the therapist. The contrast for Julie between these two encounters was the awareness that some people can accept unconditionally and wanted to see her for who she was without editing or conformity and others wanted her to be something they could feel more comfortable with.

> My therapist was like, "Well, why don't you try drawing something happy, like a flower?" And I'm like, "I don't want to draw a flower. Why would I draw a flower?" That seemed so stupid to me that she tried to take this one thing that I willingly did for myself to get feelings and thoughts out and try to get me to do something else with it.

Participants reflected upon their relationships in terms of security as a predominant characteristic of the trusted adult. Participants described wanting to feel confident that the adult could care for them. This consistency provided additional security and safety within the relationship. Charlotte told a story of one of her favorite teachers who also served as her softball coach, a nun at the Catholic school, confronting her father. Charlotte stated her father was an abusive and terrifying man, and she described feeling absolutely frightened by him with this sentiment being shared by many members of the community. However, Sister Mary demonstrated power and control over the situation which became an important and pivotal moment in Charlotte's life:

> Sister Mary was someone I could rely on. She was a boss. My dad had this reputation in the neighborhood. We didn't get to play out on the streets with other kids and had to stay home. Well, I got into trouble, and he said I could not play in the school softball game that Saturday. Sister Mary was a large woman in an old habit with big wooden beads banging off her thigh. She was the coach and without me we would've had to forfeit the game because we only had nine players. She came marching up that driveway, beads banging against her. She confronted my dad like no one had ever or would've ever done. He would never let anyone tell him what to do. Never. I got to play in that softball game. This was the first time I realized my dad was not next to God. The Sister continued to check on me. I think she knew what was happening and truly cared.

This turning point for Charlotte was the knowledge that someone could and would advocate for her. She continued to work with her teacher through music, sports, and dance. The relationship provided a gateway for communication and formulated an idea about herself in relation to her family and community. She discovered ways she could give back to others and find voice, thus breaking the silence of the violence occurring at home.

3.7. Belonging

Community connections served to be important for participants. These connections provided the knowledge of belonging, purpose, and normalcy and reminded participants that they were not alone in their struggles or experience. The communities' participants built became an extended family at

times, people they could count on and trust. These communities were comprised of people who accepted participants unconditionally. Jim commented on his community and the feeling of acceptance:

> Kids were just doing what high school kids do. You're not like us, so there's something wrong with you. The people in theater and music, they didn't care what you looked like, they didn't care how you dressed, they didn't care that you didn't have the latest clothes. But you… you belonged. They were down with you and that was it.

Julie described having a feeling of community and building an awareness that she wasn't alone or different, but that she belonged, and could be understood by others: "I think I specifically built my own community. They definitely had more understanding. We all belonged. We were all going through similar stuff. Whenever we were having a hard time, we were there for each other and understood."

Adverse life experiences were described as destructive for participants. They described that destruction in terms of isolation or the worry that they would end up "broken". However, they also described having increased inner strength or perseverance. Participants identified individual strengths they believed served to support them as they navigated uncertain family systems, dynamics or traumatic events; they described openness to new possibilities and were able to be vulnerable and try again during times of failure. The relationships they forged with friends or family were embedded within their art, play, or creative expression. Participants reviewed their life through a lens of meaning and appreciation. Many found their identity or spirituality had been shaped by their adverse childhood experiences. The same experiences which silenced their voice were transformed through the arts through deep introspective analysis. Participants described finding self-compassion and taking on new points of view as they found their voice and shared their story with others.

3.8. Overcoming Critique

Human development unfolds through important relationships. ACE events led participants to feel devalued, poorly understood, or criticized. Participants shared that they perceived aspects of who they were as being fundamental to their ability to navigate stress or the uncertainty they faced. These characteristics included determination and not giving up on their goals, maintaining a drive to not give up. Participants invested emotional and physical energy into their goals and found they had courage to try again following failure. The combination of supportive, nurturing, and secure relationships combined with creativity supported increased personal strength.

Sam recalled the desire to find the courage and strength to continue auditioning for important roles following rejection after rejection. He voiced having an inner drive to persevere. He found connection with a community as a result.

> I auditioned and auditioned. I was never accepted. I didn't give up. Then for the 11th and 12th grade I was accepted into one of those magnet schools for the gifted and

talented. It was an arts focus, and I auditioned for their theater program, and they wanted me. I had this theater teacher there; she was a trip. Raspy voice, like she was a chain smoker. She and I were close, really tight. That became a deep bond and life-long connection.

Sarah was pensive about her artwork and described that while growing up she faced difficulty in producing art on demand. She described how her life experiences provided learning to have courage to keep putting herself out there, regardless of some criticism or critique she would face as an artist:

> They decided what good was: "Art should look realistic. It's a talent people are bestowed upon," which I don't believe. I don't think it's a talent. I think it is hard work. I think it is dedication. I think people who can draw better have spent more time drawing and trained their eyes to see. I could see because I was willing to keep trying.

Becky described aspects of her personality growing up as having had "grit". She shared having a constant need for movement, which drove her towards athletics. Becky could play sports regardless of physical pain and barriers, finding the gumption to continue.

> I was in volleyball, basketball, softball, flag football, and track. During basketball season, I broke my finger badly. It had to be splinted. I begged for them to let me continue playing, but I was in this splint. I moved onto track, and they wouldn't let me run. So, I decided to prove them all wrong and did shot put and ended up breaking the school record. The school closed. My grade was the last… so my record will stand forever.

3.9. Creating Identity

Participants identified that their adverse experiences during childhood contributed to self-discovery and identity. They were able to explore aspects of spirituality and morality alongside art and play and this was influential for making sense of their identities. Becky reflected on her athletics and music as a vehicle for change in how she viewed herself in relation to her history as being a victim of chronic sexual abuse: "I think the music and the sports could be how I could define myself, rather than defining myself solely as someone who had been abused."

Access to play and the arts also provided participants insight or introspection into their histories and identities. Many experienced life events that were turning points, informative with lasting implications. Sarah described finding her profession and voice through her art. Her experiences in childhood helped inform her decision to give back to her community through art as she grew into adulthood. She reinvented an attachment bond that was destroyed in her childhood to support a new role of teacher and leader, which was influential for her ability to lend strength to others. Sarah reflected on moving to New York City to complete an art degree when 9/11 occurred. She was working at a domestic violence shelter while attending school. The disaster prompted the need for her to live at the shelter to be on the ground helping the people. She found

herself needing to paint to complete schoolwork, while simultaneously providing care and support to the residents at the shelter. She combined the two creatively and meaningfully to allow everyone access to art as a means of self-expression and healing:

I went to New York and was working as a shelter manager. I was working when 9/11 happened. I was at Ground Zero for six months. I started painting in the shelter in the middle of 9/11. I started teaching the homeless people to paint. That is when I decided I wanted to teach art, and I've taught art ever since. It was transformative because they went from being homeless to being painters. I gave them something to do when everything was in chaos.

Jane described having access to music was pivotal in developing a leadership position. To be a leader provided Jane the knowledge and the awareness that she could create change in her world. Jane reflected on being a drum major for three years and guiding other students throughout the process. She was in charge, had control, and had the ability to hear other student's stories. She proposed that this opportunity allowed her to expand her worldview and see beyond her own suffering and experiences, making room to connect with others. This experience helped her find purpose and clarity about herself guiding her to the helping professions later in life. Jane stated these are lessons she teaches her own children:

The music and leadership position helped me break everything down and connect to others. We can find control and make a change for ourselves. We are also not the only thing going on. I try to teach that to even my girls now. I'm like, "Right here, right now and whatever this drama is, it's not the only thing going on." There are things going on all over the world. There are important things to be involved with. There is a way to make a difference and there are things you can and should do to contribute to that difference in the world.

Jane found her voice and offered her insights to her daughters so they, too, could develop self-compassion, introspection, and a sense of connection to their surrounding community.

4. Discussion

This study was designed to provide insight into how play and the arts in the context of relationships protected children from the residual impact of trauma in adulthood. Participants described traumatic childhood stories of pain, humiliation, shame, worthlessness, and loss. Through play and the arts, each participant discovered they were capable of beauty and worthy of love. Participants shifted their perceptions to that which included personal strengths, seeing life from a new perspective, with a reduction of stress through cathartic release afforded by arts. Participants reported using creative expression and play throughout their life, influencing life-long self-care strategies that mitigated the impact of ACEs.

ACE studies demonstrate that childhood adversity often leads to long term negative health consequences [11]. The risk associated with these experiences are considerable, however protective factors such as expressive arts and movement in the context of important relationships, may mitigate and serve to protect children from negative outcomes. Protective factors extend beyond individual characteristics of strength to growth-fostering relationships [16]. Relational dynamics are linked to resilience [15, 16], and these relationships are fostered and potentiated through expressive arts.

Participants described developing a greater appreciation for the fragility of, and possibility in, life because of their experiences. Reflections of the past started with participants being silenced. Silence was necessary for survival, or silence became symptomatic of endured trauma. However, participants also found they could speak about their experiences and created change in their lives. Participants were able to take a new point of view of their life experiences through their creative expression, which held tones of hope and happiness.

4.1. Posttraumatic Growth

Resiliency is often understood as the "bouncing back" from traumatic experiences to prior levels of psychosocial functioning [15]. Posttraumatic growth (PTG) considers that functioning may be improved above pre-trauma basement across multiple dimensions of life, expanding upon the literature associated with resiliency. PTG includes the five domains of positive change because of the trauma: increased personal strength, an openness to new possibilities in life, closer and deeper relationships with friends or family, an enhanced appreciation for life, and a stronger sense of spirituality [7]. The participants in this study reported on how they faced major life crises but were able to find ways for managing distress, they regulated their heightened emotions, and the physiology of trauma through their art expression across development.

Allowing a child to creatively express difficult emotions or traumatic experiences within nurturing, protective, and supportive relationships proved to be a powerful gateway for participants to recognizing their therapeutic posttraumatic growth. Supportive relationships can aid in PTG by providing a context to communicate and be truly heard by an invested and supportive other. Opportunities for cognitive and emotional processing within relationships are considered critical in an individual's movement towards PTG [7, 24]. PTG explores creativity as a driving force for healing. Art therapy, expressive writing, music, and the visual arts all offer creative expression that are important avenues for helping absorb and transform the intensity and quality of the emotions associated with adversity [24].

Participants' traumatic childhood events were not erased from memory. Rather, these events shaped their worldview and informed their perspective on life. The healing power of play and creative arts combined with secure attachment relationship provided a potent combination to heal from childhood trauma. Healthy relationships provided a context for identity formation and integrating emotional and

cognitive processing of early trauma.

This study adds a new dimension to resiliency research, underscoring the work of growth-fostering relationships through play therapy and creative arts as fundamental for survival after experiencing ACEs. The power of relationship as a protective factor to foster resilience has been researched, but the connection of each relationship as it relates to the context of participating in creative expression and the arts, provides clarity for how these factors change the outcome for traumatized individuals. Participants described their connection to relationships and the arts. Relationships embedded within creativity through expressive arts programs (e.g., play therapy, education, community centers) served to support the counterconditioning of trauma and promote learning and growth from traumatic experiences.

4.2. Limitations and Strengths

The sample was small and was comprised primarily of White individuals. Participants ranged from low-income, college-age graduate students to upper-middle class older individuals. Most participants were female, which can impact perspective and reported experiences. Participants grew up in diverse settings, from rural America to inner-city metropolitan settings in the United States. Accounts provided consistent stories across diverse geographies yet limited findings to those of North American and Western culture. Future research should include greater racial-ethnic diversity to address diverse worldviews, social experiences or trauma, discrimination, and gender diversity to account for the interplay between gender, violence, and socialization.

4.3. Implications for Practice and Policy

This study indicates that community creative arts programs may serve as a pathway following adverse childhood events towards posttraumatic growth in adulthood. When building public health programs and discussing access to expressive arts or other creative outlets, multicultural representation must be represented to leverage systems to mitigate the long-term effects of childhood adversity.

This research demonstrates the therapeutic power of play and creativity as activating agents of change in the lives of children. Pediatric mental health providers and provider training may be well served in identifying opportunities for training in expressive arts in practice, shifting children's mental health away from "top-down" approaches and towards "bottom-up" play therapy interventions which access traumatic experiences of childhood [21]. Identifying variables such as creative expression, supportive relationships with caring adults, and inclusive communities, suggest comprehensive prevention programs and social policy reform to aide in mitigating long-term effects of childhood trauma. These findings support that funding for the arts in schools (STEAM education) and in communities may serve as the lifeline that enables children to engage in learning, retain that knowledge, and successfully complete programs. Such programs provide essential training and

coping skills that merit more than "fringe" labels. Research protocols are necessary to study arts program is specific settings to further define evidence based expressive-arts practice. Additional work in this area might include how expressive arts aide in the development of valuable psychological and interpersonal strengths.

5. Conclusion

This study underscored the necessity of leveraging the therapeutic powers of play to support children impacted by adverse life events. Play and expressive arts in the context of mutual, caring relationships are linked to post-traumatic growth in later life. Relationships that offer children kindness, patience, and acceptance foster posttraumatic growth and resiliency thereby reducing the physical, emotional, and economic burden of ACEs. Relationships that celebrate a child's achievements and provide nurturing support help children understand they are connected to others, capable of doing great things, valued, and, therefore, that they can develop the courage to embark on new adventures throughout life. Applying play and expressive arts in relationship with caring adults served to lift each participant towards new beginnings and life-long successes.

Author Note

*Michelle Pliske (iD) https://orcid.org/ 0000-0003-4684-5204

Allison Werner-Lin (iD) https://orcid.org/ 0000-0003-3133-820X

Sarah Stauffer (iD) https://orcid.org/0000-0002-2438-3064

Conflict of Interest

We have no known conflict of interest to disclose.

References

[1] Anda, R. F., Felitti, V. J., Bremner, D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S. R., & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *European Archives Psychiatry and Clinical Neuroscience, 256* (3), 174-186. https://doi.org/10.1007/s00406-005-0624-4

[2] Axline, V. M. (1969). *Play therapy.* Ballantine.

[3] Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development.* Basic Books.

[4] Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Theoretical models of human development (pp. 793-828).* Wiley.

[5] Brown, S. (2009). *Play: How it shapes the brain, opens the imagination and invigorates the soul.* Avery.

[6]   Burke-Harris, N. (2018). The deepest well: Healing the long-term effects of childhood adversity. Houghton Mifflin Harcourt.

[7]   Calhoun, L. G. & Tedeschi, R. G. (2004). The foundations of post-traumatic growth: New considerations. *Psychological Inquiry, 15* (1), 93-102.

[8]   Clemens, V., Berthold, O., Witta, A., Sachsera, C., Brählerc, E., Plener, P. L., Strauße, B., & Fegerta, J. M. (2019). Child maltreatment is mediating long-term consequences of household dysfunction in a population representative sample. *European Psychiatry, 58*, 10-18.

[9]   Courtois, C. A., & Ford, J. D. (2013). *Treatment of complex trauma: A sequenced, relationship-based approach.* Guilford Press.

[10] Dube, S. R., Fairweather, D., Pearson, W. S., Felitti, V. J., Anda, R. F. & Croft, J. B. (2009). Cumulative childhood stress and autoimmune diseases in adults. *Psychosomatic Medicine, 71*, 243-250.

[11] Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14* (4), 245-258. https://doi.org/10.1016/S0749-3797(98)00017-8

[12] Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2015). A revised inventory of adverse childhood experiences. *Child Abuse and Neglect, 45*, 13-21. https://doi.org/10.1016/j.chiabu.2015.07.011

[13] Gil, E. (2003). Play genograms. In C. Ford Sori & L. L. Heckler (Eds.), *The therapist's notebook for children and adolescents: Homework, handouts, and activities for use in psychotherapy* (pp. 49-56). Routledge.

[14] Gil, E. (2017). *Posttraumatic play in children: What clinicians need to know.* Guilford.

[15] Greene, R. R. (2012). *Resiliency: An integrated approach to practice, policy, and research.* National Association of Social Workers Press.

[16] Hartling, L. M. (2008). Strengthening resilience in a risky world: It's all about relationships. *Women and Therapy, 31* (2), 51-70. https://doi.org/10.1080/02703140802145870

[17] Jordan, J. (2018). *Relational-cultural therapy* (2nd ed.). American Psychological Association.

[18] Kliethermes, M., Schacht, M., & Drewry, K. (2014). Complex trauma. *Child Adolescent Psychiatric Clinic North America, 23*, 339–361. https://doi.org/10.1016/j.chc.2013.12.009

[19] Malchiodi, C. A. (2008). Creative interventions and childhood trauma. In. C. A. Malchiodi (Ed.), *Creative interventions with traumatized children* (pp. 3-19). Guilford Press.

[20] McEwen, B. S. (2005). Stressed or stressed out: What is the difference? *Journal of Psychiatry and Neuroscience, 30* (5), 315-318.

[21] Perry, B. D. (2006). The neurosequential model of therapeutics: Applying the principles of neuroscience to clinical work with traumatized and maltreated children. In N. B. Webb (Ed.), *Working with traumatized youth in child welfare* (pp. 27-52). Guilford Press.

[22] Pliske, M. (2020). *Changing the outcome of adverse childhood experiences: How interpersonal relationships, play, and the arts support posttraumatic growth.* University of Pennsylvania.

[23] Pliske, M., Stauffer, S., & Werner-Lin, A. (2021). Healing from adverse childhood experiences through therapeutic powers of play: "I can do it with my hands." *International Journal of Play Therapy, 30 (4),* 244-258. https://doi.org/10.1037/pla0000166

[24] Rendon, J. (2015). *Upside: The new science of posttraumatic growth.* Touchstone.

[25] Simon, V. A., Smith, E., Fava, N., & Feiring, C. (2015). Positive and negative posttraumatic change following childhood sexual abuse are associated with youths' adjustment. *Child Maltreatment, 20* (4), 278-290. https://doi.org/10.1177/1077559515590872

[26] Schaefer, L. M., Howell, K. H., Schwartz, L. E., & Bottomley, J. S. (2018). A concurrent examination of protective factors associated with resilience and posttraumatic growth following childhood victimization. *Child Abuse and Neglect, 85* (1), 17-27. https://doi.org/10.1016/j.chiabu.2018.08.019

[27] Stewart, A. L., & Echterling, L. G. (2014). Therapeutic relationship. In. C. E. Schaefer & A. A. Drewes (Eds.), *The therapeutic powers of play: 20 core agents of change* (pp. 157-169). Wiley.

[28] Stoltenborgh, M. Ijzendoorn, M. H., Euser, E. M., Bakermans-Kranenburg, M. J. (2013). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment, 16* (2), 79-101. https://doi.org/1031177/1077559511403920.

[29] Tedeschi & Calhoun (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15* (1), 1-18. https://doi.org/10.1207/s15327965pli1501_01

[30] Terr, L. (1988). What happens to early memories of trauma? A study of twenty children under age five at the time of documented traumatic events. *Journal of the American Academy of Child and Adolescent Psychiatry, 27* (1), 96-104. https://doi.org/10.1097/00004583-198801000-00015

[31] Van der Kolk, B. (2014). *The body keeps the score: Brain, mind and body in the healing of trauma.* Penguin Press.