

FORCIBLY DISPLACED ADULTS' PERSPECTIVES ON CHANGE MECHANISMS AFTER A RESILIENCE-BUILDING ART THERAPY INTERVENTION

An article published in the
Arts in Psychotherapy —
March 2025



**The
Red
Pencil
Europe**

WITH THE GENEROUS SUPPORT
OF



fondation
alta mane



Forcibly displaced adults' perspectives on change mechanisms after a resilience-building art therapy intervention

Natacha Pirotte^{a,*}, Liliana Montoya De La Cruz^b, Viviana Rodriguez Gonzalez^c,
Martina de Witte^{d,1}, Evelien Joosten^e

^a The Red Pencil (Europe), Brussels, Belgium

^b College of Business, Arts and Social Sciences, University of Brunel, London, United Kingdom

^c The Spanish Red Cross, Malaga, Spain

^d Creative Arts and Music Therapy Research Unit, Faculty of Fine Arts and Music, The University of Melbourne, Melbourne, Australia

^e Research group Arts & Psychomotor Therapies in Health Care, HAN University of Applied Science, Nijmegen, the Netherlands

ARTICLE INFO

Keywords:

Art therapy
Adult refugees
Preventive intervention
Resilience
Change mechanisms

ABSTRACT

Preventive interventions aimed at learning to cope with psychological stressors and building resilience could benefit most forcibly displaced persons (FDP). Limited research has been conducted to examine the usefulness of resilience-building art therapy for FDP. The aim of this exploratory study was to investigate the perspective of adult FDP on the process of change after a resilience-building art therapy intervention, i.e. to (a) identify the positive changes they experience, (b) the associated therapeutic factors, and (c) the mechanisms they believe to be responsible for these changes. An exploratory qualitative study using thematic analysis with descriptive quantitative data was conducted with 11 adult FDP who received an eight-session resilience-building group art therapy intervention. The participants identified three positive changes: (i) felt calmer, (ii) strengthened emotional skills and (iii) reinforced self. The results also highlight multiple therapeutic factors and some combinations of these, which could be possible change mechanisms. The authors suggest replicating the research to confirm and complete the results.

Introduction

According to the United Nations High Commissioner for Refugees (UNHCR), there were worldwide more than 110 million forcibly displaced people (FDP) at mid-2023, and this figure continues to escalate (United Nations High Commissioner for Refugees, 2023). Due to exposure to violence and forced migration, which are considered some of the most severe stressors, prevalence rates for self-reported anxiety, depression, and post-traumatic stress disorder (PTSD) are substantially higher than those reported in non-FDP population (Henkelmann et al., 2020). It is therefore highly desirable to offer interventions that strengthen their resilience. Interventions such as verbal psychotherapy or counseling are difficult to implement with this population due to the language barrier and a general shortage in multi-lingual culturally informed therapists (Feen-Calligan et al., 2020). By favoring non-verbal expression and drawing on the arts, a resource found in all cultures, art therapy (AT) has the potential to be particularly well accepted by this

audience (Rowe et al., 2017). However, we still know very little about what aspects of AT interventions work for this audience as few studies have been carried out to date (Annous et al., 2022). Before we can deliver AT interventions on a larger scale, more knowledge is needed to understand the therapeutic change process, i.e. the processes by which change occurs.

Forcibly displaced persons

Forcibly displaced people are people who have been forced to flee their country because of persecution, war, conflict, generalized violence, or human rights violations (United Nations High Commissioner for Refugees, 2022). FDP often go through a migration journey in which they experience vulnerable, dangerous, and difficult circumstances where their fundamental human rights are violated. During their transit and in the host country, their daily lives are often characterized by uncertainty about the future, numerous losses, lack of control,

* Correspondence to: Bd St-Michel 47, 1040 Brussel, Belgium.

E-mail address: natacha@redpencil.org (N. Pirotte).

¹ ORCID: 0000-0002-6385-9563.

discriminating experiences and loss of hope (World Health Organisation, 2021). Some common consequences are lack of sleep, sadness, anger, and despair. However, not everyone exposed to adverse circumstances will develop serious mental health conditions, such as PTSD.

Resilience plays an important role in preventing severe mental disorders. *Resilience* is defined as the ability to remain stable under stress and bounce back quickly afterwards (Fredrickson et al., 2003) and there are several known resilience factors which prevent the development of PTSD, for example regulating emotions, problem solving skills or seeking support (National Institute of Mental Health, 2020). Although some FDP need trauma-related treatment, most can benefit from preventive interventions that recognize their individual and collective strengths and aim to strengthen their resilience factors to better cope with psychological challenges and adversity, to thrive and prevent the development of chronic mental health problems. (Agency for Healthcare Research & Quality, 2012; Ciaramella et al., 2022).

Art therapy

Art therapy is one of the creative arts therapies (CAT, i.e., art therapy, dance/movement therapy, drama therapy/psychodrama, music therapy, and poetry/bibliotherapy) and is characterized by the clinical and evidence-informed use of the arts within a therapeutic relationship that relies on experiential interventions, including the use of different art forms in a methodically targeted manner (de Witte et al., 2021). AT interventions aim to overcome linguistic and cultural barriers, as they encourage expression through art rather than words (Rowe et al., 2017). Other common therapeutic goals of AT are to regulate arousal, increase bodily awareness, contain and express emotions, externalize implicit memories, widen perspectives, and restructure cognition (Hinz, 2020).

Previous research on art therapy, resilience and forcibly displaced people

On resilience, recent research investigates whether and how AT interventions can help individuals to cope with adversity and develop coping mechanisms. Firstly, an RCT-study ($N = 28$) shows that engaging in artistic creation significantly improves neural interaction between brain regions, and that this is positively correlated with a better score on the resilience scale RS-11 by Bolwerk et al. (2014) and Wagnild and Young (1993). Then, several reasons are identified as to why AT can be effective in strengthening resilience factors. First, it enables physiological regulation, and co-regulation when used in groups (Abbing et al., 2018; Haeyen, 2024; Malchiodi, 2020), which is essential to learn remaining stable under stress and to facilitate mentalization (Czamanski-Cohen & Weihs, 2016). Second, AT provides an opportunity to experience positive emotions and flow (Wilkinson & Chilton, 2013) which can undo the effect of stress at physiological level (Fredrickson et al., 2003) and to confront negative emotional experience in a safe environment, thereby increasing emotional awareness and acceptance (Czamanski-Cohen & Weihs, 2016). Third, AT offers a space for non-verbally expressing one's own stories, reflecting on them and reframing them (Akthar & Lowell, 2019; Feen-Calligan et al., 2020; Ugurlu et al., 2016; Zadeh & Jogia, 2023), introducing opportunity to experience mastery over the disruptive events, leading to enhanced resilience (Akthar & Lowell, 2019; Malchiodi, 2020). Next, when delivered in a group setting, AT enables positive peer support, social connection, a greater sense of belonging and mutual learning (Feen-Calligan et al., 2020; Malchiodi, 2020; Zadeh & Jogia, 2023), which are resilience factors (National Institute of Mental Health, 2020). Finally, AT can foster problem solving through creativity and imagination (Hass-Cohen et al., 2018), that can lead to more flexible thinking and functioning which is linked to resilience and coping (Kalmanowitz & Ho, 2016).

On FDP, most of the previous AT research focuses on the treatment of PTSD or trauma-related symptoms. The recent systematic review of Annous et al. (2022) on the use of AT with FDP with PTSD (8 studies

included) concluded that AT, although considered a promising therapeutic approach, currently lacks sufficient evidence to demonstrate effectiveness. Only two studies used a controlled clinical trial design, one on dance therapy and the other on AT. The latter involves a 12-week AT intervention with children ($N = 15$) aimed at reducing stress and the severity of trauma-related psychopathology (Feen-Calligan et al., 2020). The theoretical orientation is based on providing a safe and supportive environment for children to express their traumatic experiences, with an emphasis on improving coping skills. The study showed that group experiences, kinesthetic and sensory exploration, narrative activities, and rituals were beneficial in reducing separation anxiety symptoms. Feen-Calligan et al. (2020) also observed an improvement in participants' coping skills as evidenced by interaction with the media, problem-solving, self-initiated coping strategies and social support. Another AT study conducted by Schouten et al. (2019) developed an adult group intervention protocol consisting of 11 sessions focusing on complex PTSD. They adopted a three-phase approach, namely (1) stabilization, reducing stress and arousal, increasing sense of control, progressive exposure; (2) trauma-focused; and (3) integration and meaning-making. In their pre-post study with no control group ($N = 12$) was shown that the AT intervention promoted relaxation, emotional control, greater insight, self-esteem, and a sense of empowerment. Another study by Luzzatto et al. (2022), involving four trauma survivors including one refugee, described a six-session AT intervention based on a sequential approach in three phases: (1) self-strengthening; (2) dealing with the trauma; and (3) present life. Their findings suggest that the use of symbols in the creative process enables patients to regulate their self-disclosure at a level they consider safe, and that the sense of group cohesion eases the healing process as patients feel listened to and acknowledged. To explore the use of AT with refugee children through the lens of art therapists, Akthar and Lowell (2019) conducted a qualitative study. The art therapists interviewed ($N = 3$) indicated that AT appears to be a useful therapeutic intervention for this group as it can offer children a safe space to heal and give them a voice to be heard. The study highlights also a limitation, namely that culturally different perceptions of art and therapy make it difficult to convey the aims of the intervention with the participants and their parents.

On preventive interventions with FDP focusing on building resilience and personal strengths, AT research is limited. Kalmanowitz and Ho (2016) conceptualized the inhabited studio that includes both AT and mindfulness. The approach consists in introducing art material and fostering self-expression, no directive is given. It is a short approach as the AT and mindfulness group workshops take place over two days separated by a week, between which creative exercises and meditation to be done autonomously are proposed. The intervention is not published with a detailed description. Inhabited studio's objective is to help people develop safety strategies, support their resilience, and manage multiple losses, after adverse experiences. This study indicated that a mindfulness-based short-term group AT intervention has the potential to help participants regulate their physiological responses so that they become more open to new information and experience and can expand their repertoire of responses (Kalmanowitz & Ho, 2016).

Change process research in art therapy

Change process research (CPR) is the study of the processes by which change occurs in therapy, and several genres of CPR exist in the literature (Elliott, 2010). A comprehensive understanding of the change process theory requires the definition of several key concepts. First, change can be seen as the outcome of an intervention (Kazdin, 2007) and may or may not be beneficial. The change may be temporary or lasting and affect the internal structure (inner change) (Holmqvist et al., 2017), and can happen at different levels (physiological, emotional, cognitive, or behavioral) and in different sphere of influence (individual, interpersonal, community) (de Witte et al., 2021). Second, therapeutic factors (TF) are defined as active elements or components of the therapy

that affect change (Cuijpers et al., 2019). A distinction can be made between intervention factors and external factors. Within the intervention factors, a distinction is also made between factors common to all interventions (e.g., the therapeutic alliance, active client participation) and factors specifically related to the theoretical model and techniques of the chosen intervention, such as art therapy (Cuijpers et al., 2019). Finally, in this article, change mechanisms (CM) were defined as the related processes or sequences of events, that are likely to be responsible for the observed changes (Kazdin, 2007). Fig. 1 outlines how we defined the change process and its components in the current study.

In AT, there is still very little systematic description of the change process. The Expressive Therapy Continuum (ETC), which is a theoretical layered model widely used in AT, associates each layer with therapeutic functions (Hinz, 2020), which could be considered therapeutic factors (TF). In addition, several studies address the concept of TF or CM. First, the scoping review of de Witte et al. (2021) aiming to identify therapeutic factors from literature specific to CAT, showed in their findings a detailed framework of 19 domains of TF classified by their CAT specific or more common nature. Three domains were composed solely of TF unique to the CAT: “embodiment”, “concretization”, and “symbolism and metaphors”. They also identified several specific TF of AT such as the tactile quality of art materials, the transference to the artistic product, seeing own emotions in artwork and self-awareness through artwork. Second, Gabel and Robb (2017) lists five TF in group settings, namely symbolic expression, embodiment, pleasure/play, aesthetic relationship, and ritual. Third, a study on using opposites in art therapy as CM suggests that it could lead to more insight, self-exploration and self-awareness and could facilitate emotional confrontation and acceptance (Haeyen et al., 2022). Finally, Czamanski-Cohen and Weihs (2016) defines the bodymind model and theorizes four CM in AT practice, namely the triangular relationship, self-engagement, embodied self-expression through transition from implicit to explicit processing, and meta cognitive processes. The authors recommend a continued need to translate theoretical research into clear CM.

In short, the change process in AT is still exploratory, notably regarding CM, which are not systematically described, and there is no consensus yet on a common list of potentially operative CM.

The present study

Most FDP can benefit from preventive interventions aimed at strengthening their resilience factors to prevent them from developing serious mental health problems. Prior to undertaking more comprehensive effectiveness studies on AT interventions, gaining a deeper understanding of the process of change is needed. Adopting FDP's

perspective is essential, as it allows for cultural worldviews to be considered. Therefore, the aim of this study is to establish the perspective of adult FDP on the process of therapeutic change after an eight-week art therapy intervention aimed at building resilience, i.e. to identify the positive changes they experience, the TF and the CM they believe to be responsible for these changes.

Method

An exploratory qualitative study by thematic analysis (Braun & Clarke, 2013; Nowell et al., 2017) supplemented with descriptive quantitative data was carried out. It is assumed that the qualitative data will provide a deep and comprehensive insight into the research question and that the quantitative data will provide additional information to inform the design process of a future measurement tool questioning the effectiveness of AT interventions for this population.

Participants

The participants in this study were adult FDP (> 18 years) residing in the Spanish Red Cross reception centers in Malaga, Spain, who received an eight-week AT intervention aimed at building resilience. Exclusion criteria for participation were attending language or vocational training when the intervention took place, not able to express themselves, to some extent, in one of the languages spoken by the art therapist (Spanish, English, French, Portuguese, Russian), not being able to read in their mother tongue, and leaving the center within 12 weeks. There was no prior diagnosis of anxiety disorders, depression, or PTSD.

Procedure and ethics

The AT intervention took place from February to April 2023 and was part of a three-year collaboration between two humanitarian organizations: The Red Pencil (www.redpencil.org) and the Spanish Red Cross (www2.cruzroja.es). Participation was on a voluntary basis. Residents from the centers were informed through posters placed at the entrance of the centers and through oral communication by the Red Cross staff. Three groups were formed (total $N = 28$), and the allocation was made based on language spoken. Research participants were recruited among the three groups two weeks before the end of the intervention. They attended an information session and received a research participant information sheet and informed consent form in their native language (Arabic, Russian, French, or English) and get one week reflection time to confirm their participation. Data were pseudonymized right after collection and stored on a secured drive to ensure confidentiality during processing.

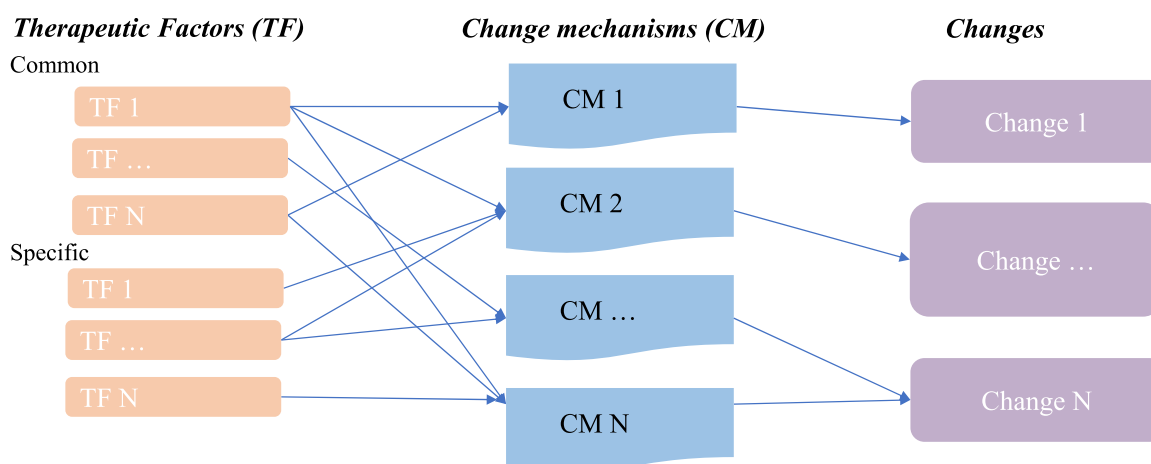


Fig. 1. A conceptualization of the change process in art therapy: therapeutic factors, change mechanisms and changes.

Intervention

The same art therapist delivered the eight AT sessions to all three groups. Each weekly session lasted two hours. The intervention aimed to build resilience and was modelled in stage according to research recommendation (Gerge & Pedersen, 2017): 1) safety, 2) emotional regulation, and 3) coping skills (Fig. 2) which is consistent with previous research (Luzzatto et al., 2022; Schouten et al., 2019). The model illustrates the importance of interaction with the art therapist, the group, and the artwork, as well as adopting a culturally sensitive approach. Working in group setting enables peer support and mutual learning (Malchiodi, 2020) and to normalize behavior and expression (Kalmanowitz & Ho, 2016), which are resilience factors (National Institute of Mental Health, 2020).

The three first art therapy sessions (Table 1) focused on creating a sense of safety and trust in the group to enable participants to (co) regulate their alertness, which is in line with previous AT research with resilience (Haeyen, 2024; Malchiodi, 2020) and FDP (Feen-Calligan et al., 2020; Schouten et al., 2019; Akthar & Lowell, 2019). Anchoring, breathing and mindfulness exercises were offered, in line with prior research too (Feen-Calligan et al., 2020; Kalmanowitz & Ho, 2016; Luzzatto et al., 2022; Usiskin & Lloyd, 2020) to help participants to physiologically regulate. Creative directives and art material were chosen to get to know the group and the creative process. Session 4 and 5 focused on enabling the participants to explore their inner selves and connect with their emotions and their internal resources and providing a space to tell their own stories, which is in line with prior research (Akthar & Lowell, 2019; Czamanski-Cohen & Weihs, 2016; Feen-Calligan et al., 2020; Ugurlu et al., 2016). The next sessions aimed to promote mastery and empowerment, by offering space for further exploration (Malchiodi, 2020). The closing session provided an opportunity to reflect on the creative journey, personal strengths and instilled a sense of hope.

During the intervention, positive experiences were encouraged as they can undo at a physiological level the effect of difficult emotions such as anger, anxiety, sadness and despair (Fredrickson et al., 2003). By activating regulation, positive emotions expand attention, perceptions, thinking patterns and behavioral responses as the frontal cortex is more effective. The result is flexible, creative, and integrative thinking, and therefore greater adaptability. When positive experiences are recurrent, they encourage, over time, the development of habitual and broad-minded coping modes that become lasting internal resources and help to strengthen resilience (Fredrickson et al., 2003). However, confronting and processing emotions such as anger or anxiety may be

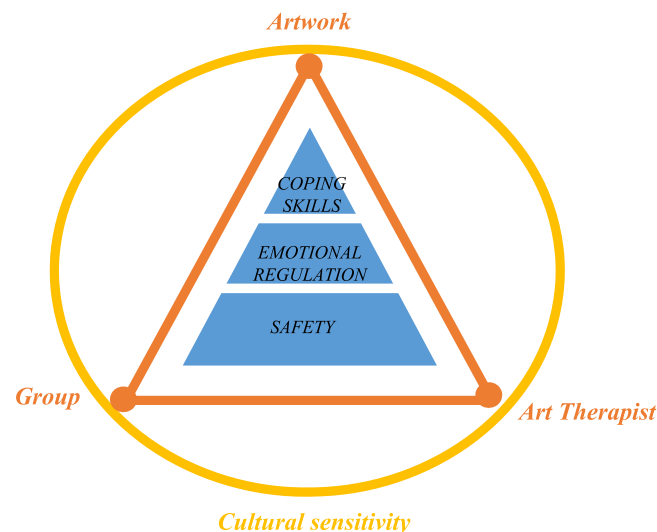


Fig. 2. Resilience-building art therapy intervention model.

Table 1		
AT group intervention aiming at building resilience: Eight-session plan.		
Session	Objectives	Art therapy activity
1	<ul style="list-style-type: none">– Introduce Art Therapy– Presentation and getting to know one another– Connect to self-identity (culture, country of origin)	<p>"<u>Symbol of self</u>" - collage</p> <ul style="list-style-type: none">– Warmup: choose an image to introduce yourself– Create a collage artwork that represents yourself– Present in the group and reflect on similarities & differences
2	<ul style="list-style-type: none">– Promote safety	<p>"<u>My safe place</u>" - recycled 3D material (box, fabric, wool, string, paper,...)</p> <ul style="list-style-type: none">– Warmup: breathing, grounding & visualisation of a safe place– Create a safe place (real or imaginary) where you can go when you need to
3	<ul style="list-style-type: none">– Foster group cohesion– Experience positive emotions in a group	<ul style="list-style-type: none">– Reflect on what it is like to be safe <p>"<u>We are connected</u>" - painting</p> <ul style="list-style-type: none">– Warmup: group movement-activities on music selected by the participants– Create group mandala on large sheets– Reflect on what it is like to be in a group
4	<ul style="list-style-type: none">– Introduction to emotions and emotions regulation– Body awareness– Emotions regulation	<p>"<u>Where do I feel my emotions?</u>" - pastels</p> <ul style="list-style-type: none">– Warmup: breathing & body scan– In pairs: ask your partner to draw a life-size outline of your body. Make a map of your emotions inside. On the outside bring in things that will make you feel good– Reflect on emotions
5	<ul style="list-style-type: none">– Highlight internal resources of the participant– Highlight support circle– Allow reconnection with loved ones– Allow a place for absence/deaths– Express gratitude (positive emotion)	<p>"<u>My loved ones, my pillars</u>" -pastels</p> <ul style="list-style-type: none">– Warmup: relaxation– Create a piece of work honoring those people who are/have been significant in your life– Present in duo– Reflect on what does it feel to honor loved ones
6	<ul style="list-style-type: none">– Body awareness– Letting go– Connect to implicit knowledge	<p>"<u>On the way to the unknown</u>" - clay</p> <ul style="list-style-type: none">– Warmup: grounding, exploring clay with your eyes closed, and create 5 mini artworks– Choose the one that touches you most and further develop. Create an environment around that makes you feel good
7	<ul style="list-style-type: none">– Free expression– Promote self-agency	<ul style="list-style-type: none">– Share in the group <p>"<u>Free expression</u>" - choice of material</p> <ul style="list-style-type: none">– Warmup: body scan– No directive– Reflect on what does the artwork tells about you
8	<ul style="list-style-type: none">– Prepare to leave– Reinforce self-confidence and empowerment– Give perspective, instil hope, help to project in the future	<p>"<u>My amulet</u>" - recycled 3D material (cardboard, fabric, wool, string, paper, ...)</p> <ul style="list-style-type: none">– Warmup: body scan– Create an object that embody positive aspects learned throughout

(continued on next page)

Table 1 (continued)

Session	Objectives	Art therapy activity
		the sessions that will help you in the future
		– Reflect on personal strengths and future

necessary before fully experiencing positive emotions (Rubin, 2016). Resilient people experience negative emotions, but they mix them with positive emotions, and the latter end up compensating for the former. Positive emotions fuel an upward spiral towards greater well-being and growth.

Each AT session followed the same structure to establish safety by means of a predictive routine: 1) welcome, presentation of the theme of the session, warm up; 2) creative process; 3) sharing and reflection; 4) closure. The warmup aimed to prepare the participant for the creative process and to promote connection and safety. It allowed for a transition from the external world to the space of the session, enabling connection with the group and oneself, and fostering exploration of the art media without judgment. Sharing allows everyone to be seen and heard, to see and listen, and so to create a deeper bond, a sense of belonging and normality (Kalmanowitz & Ho, 2016). During the sharing, the art therapist asked questions to foster reflection.

Data collection techniques & tools

Demographic data. Research participant information on country of origin, gender, and age was collected by the Red Cross coordinator.

Qualitative data. Feedback from research participants was collected by the art therapist one week after the end of the intervention through an art-based semi-structured interview which was audio-image recorded. The process was based on the Audio-Image Recording and Reflect Interview protocol (Springham & Brooker, 2013). Questions used to lead the interviews were formulated to develop the themes of change and its mechanisms, and what in the intervention enables change:

- 1) Choose two significant artworks of your own and tell something about it.
- 2) How have the sessions helped you?
- 3) What have you learned about yourself?
- 4) If there is a difference between how you feel now and how you felt when you first started the sessions, what is it?
- 5) What was it like to work with art in a group?
- 6) What were the things that were most useful to you in the sessions?
- 7) What would you like to convey to other people about the sessions?

The interviews were conducted in the week following session eight and took place in groups. Each participant was asked to choose two significant artworks and was interviewed in turn. The selected artworks were photographed, and the audio recordings were transcribed and translated into English using appropriate software or a translator. For each group, the interview process lasted one hour in total and about 10 minutes per participant.

Quantitative data. A survey consisting of 29 items (statements) divided into four sections—general satisfaction, changes, safety factors and CM—was created using a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). The statements were identified by cross-referencing the literature (Czamanski-Cohen & Weihs, 2016; Feen-Calligan et al., 2020; Gabel & Robb, 2017; Hinz, 2020; Wilkinson & Chilton, 2013) with the research objectives and by consulting existing measurement tools such as the RS-14 resilience scale (Wagnild, 2009). The survey was available in the participant’s language (Arabic, Russian, French, and English) and administered to all participants just before the semi-structured interviews. The art therapist went through every

question with participants and then gave them time to answer. Attendance lists were used to record the presence of participants per session.

Data analysis

Qualitative data. The transcripts of the interview recordings were analyzed using the six-step approach to thematic analysis (Braun & Clarke, 2013; Nowell et al., 2017). For this analysis, ATLAS.ti tool was used. The first step was to become familiar with the data. Then, an initial coding was carried out by identifying interesting segments and labelling them with codes. The third step was to organize the codes by merging those that were similar and starting to group them into categories. At this stage, it was decided to use the therapeutic factors framework as defined by de Witte et al. (2021) and, where applicable, to group the codes by therapeutic domain. The main themes were then identified and organized to address the research questions. Finally, for each theme, the changes and TF involved were listed and the CM, i.e. the combinations of TF, identified. The codes and themes were reviewed by the art therapist and the Red Cross coordinator, who is an art therapist and psychologist.

Quantitative data. Descriptive statistics were used to process the demographic data and the survey data. For each survey statement, the mean, median (most representative value), mode (most repeated value) and standard deviation (which give a sense of the homogeneity of the responses) were calculated for the whole population. For each section of the survey and for each research participant, an average score was calculated, called the satisfaction score, the safety score, the change score and the CM score respectively. Attendance statistics included the average number of sessions attended for the population. All analyses were performed using Excel functions.

Results

Of the 28 participants, eleven gave their consent to participate in the study and being interviewed and completed the survey. Table 2 summarizes the demographics of the population.

Qualitative results

Overall framework. Thematic analysis revealed 59 codes which were then grouped into three categories; therapeutic factors (43) classified by domain according to de Witte et al. (2021), changes (8) perceived by participants (Tables 3 and 4 respectively) and challenges & enablers (8). Consequently, four core themes were identified: “somatic safety regulation”, “emotional regulation”, “reinforcing & empowerment”, and “challenges & enablers”. The three first themes are developed by highlighting the change process, i.e. the positive change, the TF and the possible CM. Table 5 summarizes the CM.

Theme 1: somatic safety regulation. Almost all the participants

Table 2
Demographic characteristics of the participants.

Sample Characteristic	N	%
Gender		
Men	8	73 %
Women	3	27 %
Age (yrs)		
[18–24]	5	45 %
[25–34]	4	36 %
[35–50]	1	9 %
> 50	1	9 %
Country of origin		
Ukraine	3	27 %
Russia	1	9 %
Mali	3	27 %
Morocco	3	27 %
Ivory Coast	1	9 %

Note: (N = 11).

Table 3

Therapeutic factors perceived by participants (using TF framework of [de Witte et al., 2021](#)) - qualitative results.

Domain of TF	Therapeutic Factor within the domain	Example of quotation
Concretization	TF - Portraying the future	"For me, this image is my future."
	TF - Portraying the past	"This is the flag of my country, Morocco. I lived there with my whole family."
	TF - Creating something visible (tangible)	"Looking at the artwork, ..."
	TF - Verbal reflection	"I could see myself in the artworks (...). I could tell what was inside me."
Symbolism & metaphor	TF - Artwork as anchor/reminder/ressource	"When I see the drawing again, ..."
	TF - Using visual symbols & metaphor eases expression	"Because I was a bit frustrated, (...), I had drawn in black, a black anger."
	TF - Projection in artwork of unconscious material	"It's like here it's shown that I'm going on such a path, unknown to myself, and I'm returning to a more conscious world, understanding what's happening."
	TF - Shifting between symbolic and realm	"I remember being very focused on the specific colour that I wanted to pick."
Agency	TF - Experiencing control and choice	"It's a good image, the future that I would like to have. I hope I will have all that. One day it will come."
	TF - Motivational force	"It gave me courage to be able to talk about what is inside me."
	TF - Empowering experiences	"I was proud of myself."
	TF - Developing sense of achievement	"When we made the drawing, everyone did what they wanted and we ended up with a result as if we had talked before making it. But we didn't talk."
Interaction through the arts	TF - Non-verbal attunement	"I had never in my life done clay works, painting and so this is something that I discovered."
Developing skills	TF - Developing and practicing artistic skills	"I learned to talk about myself through drawing."
	TF - Developing verbal and non-verbal skills	"I learned about feelings, I learned to express my feelings in drawing."
	TF - Developing emotional skills	"When you are curious it leads you to discover many things."
Active engagement	TF - Client attitude & involvement	"The amount of materials, colors and paints probably provided an opportunity to better understand that everything can be combined."
Creativity	TF - Opportunity to explore	"It made me happy to do this artwork."
	TF - Experiencing positive affects/emotions	"I put on the colours I like (...) I feel good because it's very nice and it was well done."
Artistic pleasure/Positive affects	TF - Experiencing artistic pleasure	"I immerse myself, and all the bad things go away, distracted from all thoughts."
	TF - Distracting from stressful thoughts	"You focus only on one thing, on such images that you want."
Modulating time & space	TF - Focusing on the present moment	"When you are doing art, you don't keep track of time at all."
	TF - Being immersed / experiencing flow	"When we are together, it's too good, it's like in a family. I was very, very happy to be in a group."
Group processes	TF - Group facilitating co-regulation	"When we work in a group, we collaborate, live together, understand each other well."
	TF - Experiencing of togetherness and bonding	"There were very interesting people."
	TF - Group facilitates (inter)personal learning	

Table 3 (continued)

Domain of TF	Therapeutic Factor within the domain	Example of quotation
Non-verbal expression	TF - Non-verbal expression of inner experience	"I was able to express what is inside me, but not in words, but in art."
	TF - Expression of emotion	"All you do is what you feel in your heart, what you feel inside you, that's what you're going to bring up"
Connection with self	TF - Portraying self-image	"I like this painting that I drew of myself."
	TF - Acceptance of artwork	"When you finally understand the situation, you accept it."
Remembering	TF - Reconnect with key moments	"When I looked at the color blue, I felt good. My mother gave me blue-colored clothes."
Therapeutic alliance	TF - Therapist-client bond	"You and I already know each other. (...) This artwork I made it thanks to you. (...) I say thank you."
	TF - Evocation of emotions	"When you draw yourself with wings, you feel lightness, (...) joy and peace."
Emotional elicitation & processing	TF - Confronting oneself with own emotions/actions	"It gave me courage to be able to face my anger and my difficult situation."
	TF - Transforming emotions	"I focused on the dark emotions. So the painting is dark, but I wanted to make it beautiful."
	TF - Regulation of emotions	"Drawing feels good, makes you feel better. It changes your mood."
	TF - Releasing & providing relief	"The important thing is that when we come to the painting and color workshop, we feel calmer."
	TF - Broaden - and - build via positive emotions	"I am working on something (...). I just need to do the walking through the process."
	TF - Sitting back and reflecting	"What was useful for me is talking after doing the artwork, because that gave me more understanding."
Understanding	TF - Knowing oneself better	"AT helped me to know who I really was and what I really wanted to do in my life later."
	TF - Gaining emotional insight	"I wasn't as aware of my emotions and how to deal with them as I am right now."
	TF - Positive cognitive reframing	"You try to think more about the good things."
	TF - Mentalization	"Everyone observes their own thinking. I was able to see the way human beings are in life."

Note:

- the first column lists the domains of therapeutic factors identified by the participants;
- the second column gives the individual therapeutic factors identified by domain;
- the last column gives an example of a quote from a participant to illustrate each therapeutic factor.

reported an improvement in their inner state of arousal by attending the AT sessions (change-felt calmer). They use terms such as feeling calm, less tense, lighter, or no longer having headaches to characterize. However, their perception of the TF and CM behind this regulatory process differs.

CM-regulation through attention. For example, one participant emphasized that engaging in artistic activity (TF-being immersed / experiencing flow) provided a distraction from ruminating thoughts (TF-distracting from stressful thoughts) and helped to relax: "I immerse myself, and all the bad things go away, distracted from all thoughts. Only good remains. Silence. Peace."

CM-regulation through artwork. While others pointed out the importance of the interaction with the artwork. Being able to externalize an inner feeling in a tangible artwork (TF-non-verbal expression of inner experience, TF-creating something visible) and being able to see it and

Table 4
Changes perceived by participants - qualitative results.

Change	Description	Example of quotation from participant
Felt calmer/appeased	Feeling less tense at somatic and/or cognitive level	<i>"In the workshops, you relieve stress, you take a lot of weight off your shoulders, you stop thinking so much about good or bad things."</i>
Felt better	Feeling happy, proud, grateful, satisfied, joyful, hopeful for the future during the sessions	<i>"I was happy, calm, my mind was at ease, I was proud of myself."</i>
Strengthened emotion regulation skills	Experienced emotion regulation process	<i>"I wasn't as aware of my emotions and how to deal with them as I am right now."</i>
Reinforced self	Learned new things/skills, knowing self better, more confident/self-esteem, reunified self	<i>"I learned that I have force within me."</i>
Increased connectedness	Feeling more connected to others	<i>"Working in a group is good. Tomorrow I can pass someone, and I can say to myself I know him."</i>
Over time	Notion of duration (long term or ephemeral), process, repetition, associated with change	<i>"At first I didn't have much courage. Little by little, it calmed me down. In the end, I really calmed down."</i>
Able to see the benefit of AT	Recognizing the benefit of AT for self or others	<i>"I don't see any harm in it. I only see the positive (...) it's good for life, for everyday life especially."</i>
Attitude towards art (making)	Change in attitude towards art (making)	<i>"After these classes, a desire arose, perhaps to continue these activities for myself."</i>

verbally reflect on it (TF-verbal reflection) was providing relief: “I could see myself in the artworks, I was at peace. I could tell what was inside me.”

CM-regulation through the group. Others stressed the importance of the group in the regulation process (TF-group facilitating co-regulation, TF-experiencing of togetherness and bonding): “After we talk in the workshops, I feel calmer and stop thinking.” “When I work with the group, I’m calm, and I feel good.”

CM-regulation through positive emotions. Often, participants associated better with calmer. Most participants reported feeling better after having experienced a positive emotion during the session (TF-experiencing positive affects, TF-experiencing artistic pleasure). For example, a participant expressed pleasure after producing a self-image (TF-experiencing artistic pleasure) with the colors of his country: “I really like the colors. The drawing is also good. I feel good because it’s very beautiful and well done. Especially the colors of the paints, the yellow, the red, the green, and also the color black.”

CM-taking time. For some participants, this takes time and repetition: “Little by little, it calmed me down. In the end, I really calmed down.” “After the lessons, the day still has this state of peace. And then, again, the hustle and bustle returns, and it’s forgotten. And then it’s the same thing all over again. Well, in general, the negativity does go away, and you get more satisfaction from everything.” Although [de Witte et al. \(2021\)](#) framework does not propose any TF that can be associated with this notion of processes evolving over time, as we wanted to stay as close to the data of the current study as possible, we did report it here as a change factor.

Theme 2: emotional regulation. Most participants reported some change in their emotion regulation skills (change-strengthened emotion regulation skills). For example, one participant says: “I wasn’t as aware of my emotions and how to deal with them as I am right now.”

CM-emotional awareness. A participant stresses the importance of having time to focus on emotions and gain insight (TF-focusing on the present moment, TF-gaining emotional insight, TF-mentalization): “It

helped me stay focused on the emotions. I had to draw emotions. I had the time to think of them. And that’s something that I’ve never done before. It was useful for me just to pay attention. And I could do that because of art therapy. (...) I wasn’t as aware of my emotions and how to deal with them as I am right now.”

CM-processing and positive reframing. Another participant explained the process of confronting difficult emotions, processing them using opposing colors, verbalizing them, reflecting on them and reframing them. The following factors, TF-confronting oneself with own emotions/actions, TF-transforming emotions, TF-sitting back and reflecting and TF-positive reframing combine to facilitate the emotional regulation mechanism ([Fig. 3](#)):

Because I was a bit frustrated, (...) I had drawn in black, a black anger. On the left side, there is the heart: all the time the heart is beating. I didn’t darken the black color. I left white color which means peace. Even if you are angry, at some point there is peace behind the anger. Even if you are frustrated, at some point, you will calm down. That’s what I drew. I see myself in this drawing (...) Art making gave me courage to be able to talk about what is inside me, and to be able to face my anger and my difficult situation.

In addition to non-verbal expression and concretization, the TF-domains that most contribute to the emotion regulation process are modulating time and space, emotional elicitation and processing, and understanding. They described this by referring to the artwork created during session four, when they were invited to draw their silhouette and map the emotions in their body.

CM-taking time. Building emotional skills is seen by a participant as a process that develops over time: “It’s still a working process, but it’s something that I’m working on, and I find it interesting. I don’t know what the result is going to be. I think it’s early to say something yet. Something that art therapy gave me, something that I actually work on now.”

Theme 3: reinforcing & empowerment. All participants (except one) acknowledged that taking part in the intervention has strengthened them in one way or another (change- reinforced self). Participants identified several CM generating reinforcement.

CM-learning to verbalize inner experience. Firstly, another participant expressed that they learned to externalize experiences through art making that were not easy to verbalize: “I learned to talk about myself through drawing. I like to draw. Talking about myself allows me to have more confidence.” (TF-non-verbal expression of inner experience, TF-developing verbal and non-verbal skills).

CM-connecting and interpersonal learning. Secondly, a participant emphasized that the group enabled mutual learning and reinforcement (TF-group facilitates (inter)personal learning): “Working in a group is an advantage: there is strength in numbers. It’s beneficial because we get to know the person who also gets to know us better. I was able to see the way human beings are in life. It is something extraordinary. Everything we do in life, we do together. It gives us courage to be together.” Others reported that the group enabled increased connectedness (TF-experiencing of togetherness and bonding): “Working in group is good. Tomorrow I can pass someone, and I can say to myself I know him.”

CM-revealing implicit knowledge. Furthermore, one participant said that the metaphorical artworks he produced in art therapy gave him motivation and a better understanding of himself (TF-using visual symbols & metaphor eases expression; TF-projection in artwork of unconscious material; TF-knowing oneself better; TF-motivational force): “I learned that I am really someone who wants to be a militant. I had that feeling before. But it reinforced a lot. Art therapy helped me to open my eyes, to know who I really was and what I wanted to do in my life later.” Continuing: “Within us there are things we know about ourselves and things we don’t know.”

This revealing mechanism is also clearly perceived by the following participant: “Looking at the first picture ([Fig. 4](#)), I’d say that I learned

Table 5

Change mechanisms by participants after a short resilience-building AT group intervention - qualitative results.

Theme	CM	TF Domain	TF	Change
Somatic regulation	<i>Regulation through attention</i> When I immerse in the art making process, I get distracted from stress inducing thoughts, then I relax and feel calmer.	Modulating time & space	TF - Being immersed / experiencing flow TF - Distracting from stressful thoughts	Felt calmer/appeased
	<i>Regulation through artwork</i> When I express an inner experience on a tangible artwork, I can see it and reflect on it, I feel calmer	Non-verbal expression Concretization	TF - Non-verbal expression TF - Creating something visible TF - Verbal reflection	Felt calmer/appeased
	<i>Regulation through the group</i> When I work with the group, when I talk in the group, I feel good	Group processes	TF - Experiencing of togetherness and bonding TF - Co-regulation with the group	Felt calmer/appeased
	<i>Regulation through positive emotions</i> When I look at my artwork, I find it good/beautiful and I experience positive emotions and I feel better and calmer	Concretization Experience positive affects/aesthetic pleasure	TF - Creating something visible TF - Experience positive affects/emotions	Felt better Felt calmer/appeased
	<i>Taking time</i> When I'm making art in art therapy, I'm feeling calmer. It takes time and repetition to really calm down. <i>Emotional awareness</i>			Felt calmer/appeased Over time
Emotional regulation	When I work on my emotions in art making, I have the time to focus and confront myself with them, and I become more aware of them	Concretization Modulating time & space Emotional elicitation & processing Understanding	TF - Portraying self-image TF- Focusing on the present moment TF - Confronting oneself with own emotions/actions TF - Gaining emotional insight TF - Mentalization	Strengthened emotion regulation skills
	<i>Processing and positive reframing</i> In the sessions, I feel safe enough to explore my emotions, confront and process them. I can then verbalize and positively reframe them.	Concretization Emotional elicitation & processing Understanding	TF - Portraying self-image TF - Confronting oneself with own emotions/actions TF - Transforming emotions TF - Sitting back and reflecting TF - Positive reframing	Strengthened emotion regulation skills
	<i>Taking time</i> The art therapy sessions trigger in me a process that is ongoing and will further develop overtime			Strengthened emotion regulation skills Over time
Reinforcing and empowerment	<i>Learning to verbalize inner experience</i>			
	In the sessions, I learned to talk about my artworks, and I feel more confident	Non-verbal expression Developing skills	TF - Non-verbal expression of inner experience TF - Developing verbal skills	Reinforced self
	<i>Connecting and interpersonal learning</i> In the sessions, I get to know the others and they get to know me. We learn from each other. We feel connected and stronger.	Group processes	TF - Group facilitates (inter) personal learning) TF - Experiencing of togetherness and bonding	Increased connectedness Reinforced self
	<i>Revealing implicit knowledge</i> When I use symbols & metaphor in art making, I sometimes project unconscious material and seeing it, reflecting on it allows me to gain self-insight in my potential which is motivating	Symbolism & metaphor Concretization Understanding Agency	TF - Using visual symbols & metaphor eases expression TF - Projection in artwork of unconscious material TF - Knowing oneself better TF - Motivational force	Reinforced self
	<i>Empowering symbolic experience</i> When I use symbols & metaphor in art making, I can live empowering symbolic experiences, sit back and reflect and feel stronger.	Symbolism & metaphor Concretization Agency	TF - Using visual symbols & metaphor eases expression TF - Shifting between symbolic and realm TF - Sitting back and reflect TF - Empowering experiences	Reinforced self
	<i>Lasting over time</i> When I look back at my artworks again, I feel reinforced, motivated and I've the desire to continue.	Concretization Agency	TF - Artwork as anchor/reminder/ressource TF - Motivational force	Reinforced self

Note:

- the first column lists the themes identified during the qualitative analysis;
- the second column gives the change mechanisms identified by participants for each theme;
- the third and fourth column list the domains of therapeutic factors and the individual TF involved in the change mechanism;
- the last column gives the change generated by the mechanism.

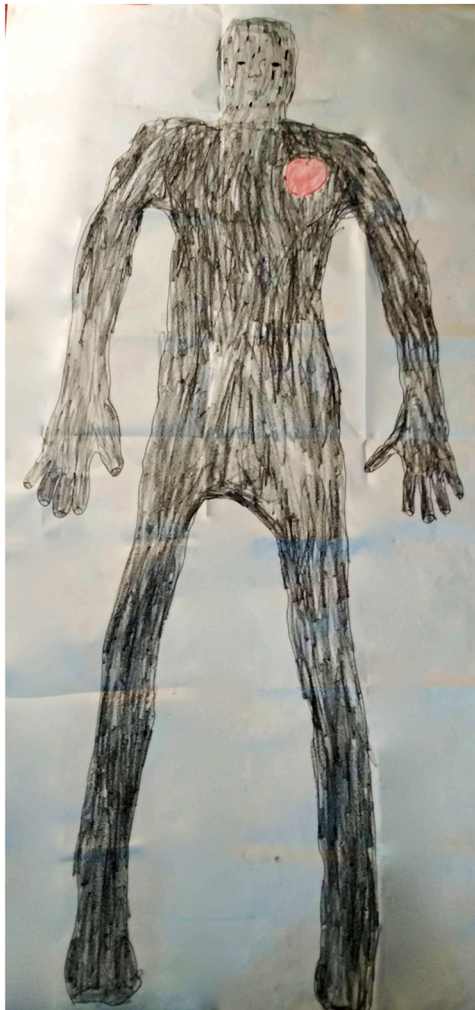


Fig. 3. Session 4 – Body mapping of emotions (life-size) – pastels “Confronting anger”.

that I have force within me. I thought it was going to be a very dark picture, but surprisingly to me, it's not dark. And I drew a lot of force that I now do believe that I have within me. I didn't know that before. So that's something new that I can use to work on myself and to bring more happiness in my life.”

CM-empowering symbolic experience. Finally, one participant said that he had a reinforcing experience when he saw himself in the place of the character in his drawing. His work (produced during session 5) depicts a metaphorical obstacle course in which the character bounces back after each obstacle and has a happy ending:

Basically, this is the obstacles of life. You know that in life, we are not always lucky. You sometimes find yourself in difficult situations. That's what I drew, in a way. It's a person who has a goal. To reach his goal, there are obstacles to overcome. You can't avoid the obstacles; you have to face them. That's what I drew. Do you see this? There, that's an obstacle. The person overcame the first obstacle. He overcame the second obstacle. And here is the last one. After, he

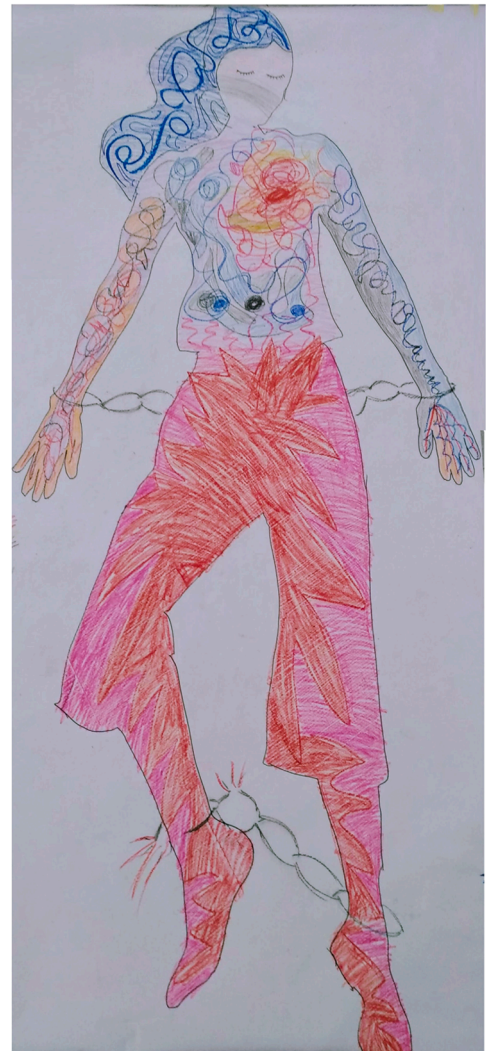


Fig. 4. Session 4 – Body mapping of emotions (life-size) – pastels “I've force within me”.

looks up and sees that he has almost reached his goal. Once he has cleared the final obstacle, I drew a cup to tell that he has reached his goal. The cup is there, he will lift it. That's kind of what I drew. I felt good because I saw myself in the drawing. I see myself there. I drew a person, but I see myself there. (Fig. 5)

The TF involved in this CM are TF-using visual symbols & metaphors eases expression, TF-shifting between symbolic and realm, TF-sitting back and reflect and TF-empowering experiences.

CM-lasting over time. Some participants testify to the significance of the artworks and their lasting meaning and impact: “It's a beautiful work. When I see the drawing again, I'm proud of myself, I've learned a lot, and it gives me courage.” Others express the desire to continue the process in art therapy: “After these classes, a desire arose... perhaps, in some way, to continue these activities for myself, in order to start realizing that there is more that can be done on a larger scale than what is being done now.”



Fig. 5. Session 5 – Representing strengths and pillars – pastels « Symbolic resilience journey”.

Theme 4: challenges & enablers. The participants identified several obstacles linked to the creation process. Firstly, a few participants said that before starting the sessions, the possible benefits were not clear and one of them mentioned having other priorities: “I didn’t understand what awaited me and how it could help or not help me. (...) I have to do all sorts of things that I don’t want to do, but have to do to survive in this world, study, look for a job, earn money, just to not die.”

Art making is perceived as difficult by several participants. Because they don’t have the technical skills or experience: “Drawing like this is not easy, I’m not used to drawing. Imagining in your head is easy, but drawing it is not easy.” Or because the internal judge acts as a brake: “Well, I was always afraid to do it cheaply.”

The participants also perceive a few catalysts. First, the fact that the art therapist was giving a creative directive was stimulating: “And when I’m asked to do something, it leads me to think and that activates my creative side.” Secondly, the availability and diversity of artistic material was highlighted as a facilitating element by a participant: “The number of materials and the number of colors and paints probably provided an opportunity to better understand that everything can be combined.”

The relation with the art therapist is seen as a facilitating factor (TF-therapist-client bond): “This drawing I made thanks to you. Before I didn’t know anything and thanks to you, yes and I say thank you thank you thank you.”

The group is also seen by almost all participants as a positive factor: “I liked working together. I liked that there were very interesting people. I liked the teacher, very interesting, very interesting topics that we covered. I like that in this, you express yourself and become yourself in this creativity. It’s interesting to work in a group and to be able to

express oneself.” A participant implicitly emphasized the importance of non-judgement in the group: “What is important, is to be together, to talk about the things that are talked about in this workshop, without feeling ashamed.”

The attitude of the participant is perceived by the vast majority as being a key factor (TF-client attitude & involvement). They mention amongst other 1) the curiosity to explore and experiment - “When you are curious it leads you to discover many things”; 2) the courage to confront yourself - “I crossed over this boundary of fear or discomfort and was able to show what I think and what’s inside me”; 3) the involvement in the process - “this one also had a lot of work put into it.”

Fig. 6 shows a summary of the change process as perceived by the population studied, and Fig. 7 focuses on the change process of one participant.

Quantitative results

The results of the descriptive analysis of the survey data are presented in Tables 6 and 7. Participants attended an average of 5.73 (SD = 1.74) out of the eight sessions.

Participants indicated feeling more relaxed (Table 6, item B.1), being more aware of their emotions and more able to express them (Table 6, items B.2, B.4), and that they feel stronger, reinforced, in one way or another, after the intervention (Table 6, items B3, [B5-B10]).

Discussion

The purpose of this study was to provide more insight into the perspective of adult FDP on their process of change during a short art therapy intervention aimed at building resilience. This was done by identifying related TF and CM they believe to be responsible for these changes. The findings identified three main changes – “felt calmer”, “strengthened emotional skills” and “reinforced self”.

Participants consistently reported feeling calmer, more relax, in line with previous AT research on FDP and resilience (Feen-Calligan et al., 2020; Kalmanowitz & Ho, 2016; Schouten et al., 2019). Various authors (Haeyen, 2024; Hinz, 2020; Malchiodi, 2020) underline that one of the AT benefits is to regulate arousal. Participants identified five CM through which they felt safely regulated and calmer. First, CM-regulation through attention, participants found that when they immersed in the creative process, they were able to distract their attention from stress-inducing thoughts and felt calmer. This CM calls on TF in domain modulating time and space: art making and imagination allow to transcend the limits of time and space, and act as temporary

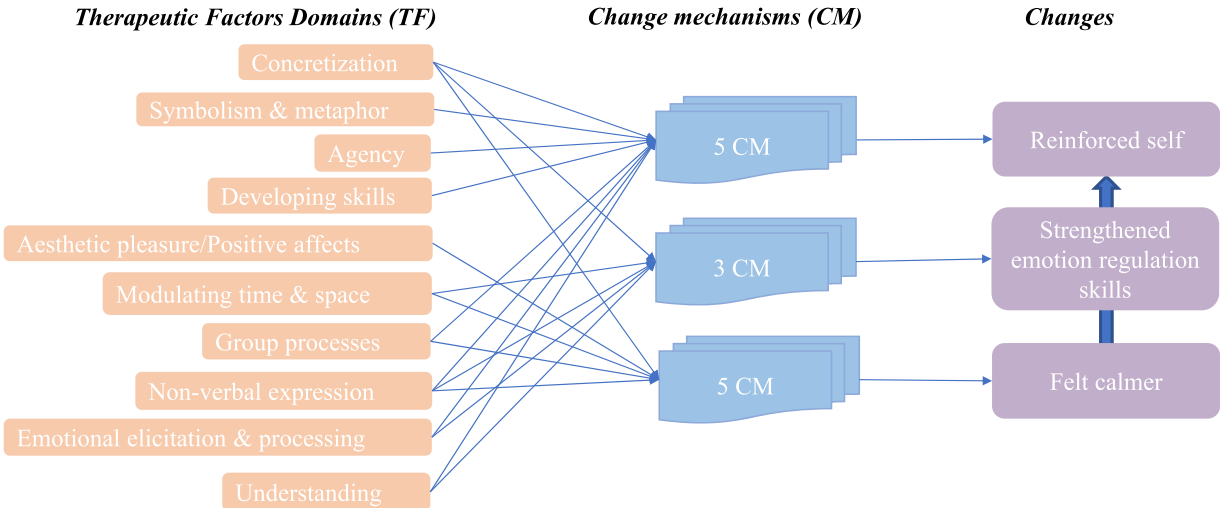


Fig. 6. The change process by participants after a short resilience-building AT group intervention - qualitative results.

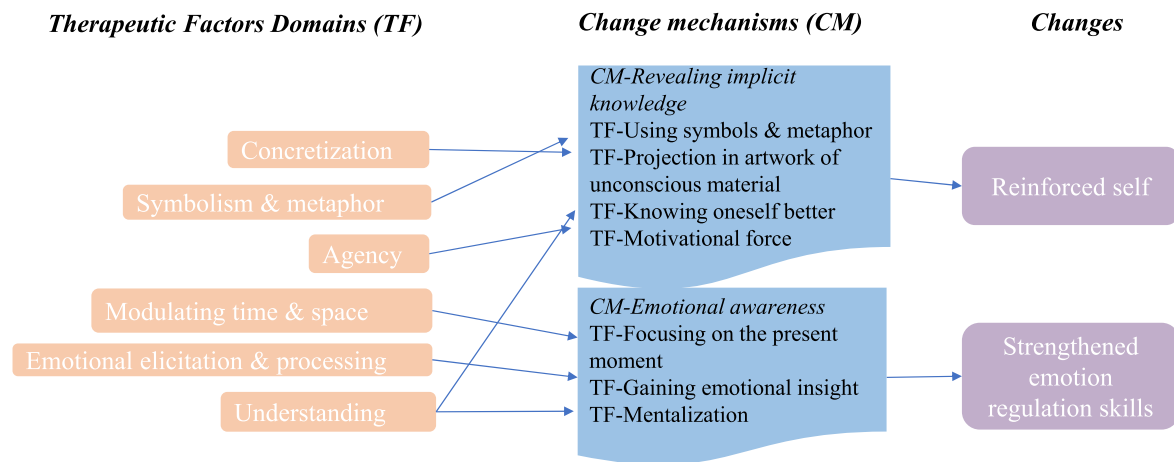


Fig. 7. The change process for a specific participant - qualitative results

Quotes from participant illustrating the 2 CM

CM-Emotional awareness: “It helped me stay focused on the emotions. I had to draw emotions. I had the time to think of them. And that’s something that I’ve never done before. It was useful for me just to pay attention. And I could do that because of art therapy.(...) I wasn’t as aware of my emotions and how to deal with them as I am right now.

CM-Revealing implicit knowledge: “Looking at the artwork, I’d say that I learned that I have force within me. I thought it was going to be a very dark picture, but surprisingly to me, it it’s not dark. And I drew a lot of force that I now do believe that I have within me. I didn’t know that before. So that’s something new that I can use to work on myself and to bring more happiness in my life.”.

Table 6

Survey results.

Sections/Statements	N	Mean	Median	Mode	Std Deviation	Sum
SECTION A - GENERAL SATISFACTION						
A.1 I’m satisfied with the workshops	10	5.00	5	5	0.00	50
A.2 I will recommend the workshops to others	10	4.90	5	5	0.32	49
SECTION B - CHANGES						
B.1 I feel more relax.	11	4.64	5	5	0.67	51
B.2 I’m more aware of my emotions in my body.	10	4.30	5	5	1.25	43
B.3 I’ve learned how to relax.	10	4.70	5	5	0.67	47
B.4 I’m more able to express what I feel.	11	4.36	4	4	0.53	48
B.5 I’m more confident that I can do things well.	10	4.20	5	5	1.23	42
B.6 I’ve learned to take care of myself.	10	4.20	5	5	1.40	42
B.7 I’ve learned new things about myself.	10	4.80	5	5	0.42	48
B.8 I feel more connected to others.	10	4.00	4	4	1.25	40
B.9 I feel more supported.	10	4.40	5	5	0.84	44
B.10 I’m more hopeful about the future.	10	4.40	5	5	1.07	44
SECTION C - SAFETY FACTORS						
C.1 I had trust in the art therapist, and I felt supported to create.	10	4.90	5	5	0.32	49
C.2 I had trust in the group.	11	4.73	5	5	0.65	52
C.3 I felt that I could express myself without being judged.	10	5.00	5	5	0.00	50
C.4 I could express myself through art and not talk if I wanted to.	11	5.00	5	5	0.00	55
C.5 I was able to express difficult things while remaining in control.	11	4.73	5	5	0.47	52
C.6 I experienced pleasant feelings.	11	5.00	5	5	0.00	55
C.7 I felt I could express my culture and faith freely.	11	4.73	5	5	0.65	52
C.8 I was given the freedom to explore many art materials.	11	4.73	5	5	0.65	52
C.9 The workshops all had a similar structure.	11	4.09	5	5	1.38	45
SECTION D - CHANGE MECHANISMS						
D.1 When I’m creating with art materials (painting, clay, pastels), then I connect to emotions/memories, and I can express them in my artwork which help me to understand them better.	10	4.90	5	5	1.51	49
D.2 When I have expressed emotions/memories in an artwork, then I can look at them from a distance and it is easier for me to speak about them.	11	4.82	5	5	0.40	53
D.3 When I’m creating/playing with art materials (painting, clay, pastels), then I most of the time experience pleasure and joy and it helps me to relax.	11	5.00	5	5	0.00	55
D.4 When sharing in the group, I felt seen, heard and understood and it helped to me to feel normal. Looking at the artworks of others in the group and listening to them, helps me to realize that we experience similar things.	11	4.64	5	5	0.67	51
D.5 When I create, I stop thinking about the same things over and over again and new ideas, new memories, new thoughts arise in my mind and broaden my perspective.	11	4.73	5	5	0.47	52
D.6 When I work with the art material, I feel pleasure and it help me to tolerate better difficult emotions and to dare explore them further.	11	4.82	5	5	0.40	53
D.7 During the workshops I was a bit out of my comfort zone, but I managed it and was very satisfied.	11	4.55	5	5	1.04	50
D.8 When I feel tense, engaging with my body (movement, touch) in the art making helps me to release the tension.	11	4.91	5	5	0.30	54

1) In case of multiple responses or no response, response was not considered for the calculation.

Table 7

Attendance and survey section score per participant.

Participant	Nbr of attended sessions (#/8)	Satisfaction score [A1-A2]	Change score [B1-B10]	Safety score [C1-C9]	CM Score [D1-D8]
P1	5	-	4.0	5.0	5.0
P2	5	4.5	4.8	5.0	5.0
P3	6	5.0	5.0	5.0	5.0
P4	6	5.0	4.0	4.1	4.4
P5	8	5.0	5.0	5.0	5.0
P6	2	5.0	4.7	4.6	4.9
P7	6	5.0	5.0	4.9	5.0
P8	8	5.0	4.3	5.0	4.6
P9	7	5.0	4.3	4.6	4.0
P10	4	5.0	4.3	4.9	5.0
P11	6	5.0	2.7	4.4	4.9

distraction (de Witte et al., 2021). Kalmanowitz and Ho (2016) also highlight the importance of time and argue that engaging in art activities can help to focus on the present moment and restore a sense of time inside. These authors, who include mindfulness in their intervention, emphasize focusing attention on thoughts, feelings and physical sensations to increase emotional and cognitive flexibility, rather than distraction. However, they also mention that engaging in distracting activities can generate optimism and lead to more flexibility. Distraction is recognized as being a healthy coping mechanism (Vaugh et al., 2020). Second, the CM-regulation through the artwork: when participants can express an inner experience on a tangible artwork, they can see it and reflect on it, and they feel appeased. The TF-domains non-verbal expression and concretization are involved in this CM. Concretization is specific to creative arts therapy (de Witte et al., 2021). The process of giving form to an abstract inner experience in a tangible artwork that can be physically perceived and reflected upon is described by many AT authors and is central to the AT approach (Malchiodi, 2020; de Witte et al., 2021; Zadeh & Jogia, 2023). It is not labeled as a CM as such and not directly identified as generating appeasement. Feen-Calligan et al. (2020) found that it is rather the kinesthetic exploration of media, particularly sensory media, which, by allowing energy to be discharged, generates appeasement. The third CM is CM-regulation through the group: participants found that being in a group helps them feeling calmer. The TF involved in this CM belong to the TF-domain group processes and emphasize the role of the group in developing individual safety by providing support and a sense of belonging. Researchers Zadeh and Jogia (2023) described a similar process named rebuilding trust, which they classified as a benefit of group interventions. Feen-Calligan et al. (2020) observed that engaging in group art making activities contributes to creating safety, which they found essential to therapeutic outcomes. The fourth CM is the CM-regulation through positive emotions: when participants look at their artwork and experience positive emotions, then they feel appeased. In AT, positive emotions are generally associated with exploring art material, playing, kinesthetic and sensory experience and aesthetic pleasure (Czamanski-Cohen & Weihs, 2016; Hinz, 2020). de Witte et al. (2021) group all these TF under the TF-domain artistic pleasure. The CM is not described in current AT change process research although positive experiences are found to regulate the autonomic nervous system (Fredrickson et al., 2003). Finally, the fifth CM-taking time emphasizes that for some participants lasting change may require time and repetition of the process on several occasions. de Witte et al. (2021) framework does not propose any TF that can be associated with this notion of processes evolving over time, perhaps because they see it as part of the therapeutic change process.

Most participants also reported being more able to regulate their emotions somehow, which is in line with previous AT research on FDP (Kalmanowitz & Ho, 2016; Ugurlu et al., 2016; Schouten et al., 2019). Emotion regulation is recognized as a benefit of art therapy (Abbing et al., 2018; Hinz, 2020; Malchiodi, 2020). Three CM describe aspects of

the emotion regulation process, as perceived by participants. First, CM-emotional awareness includes the ability to express emotions in art making, and then to take the time to focus on and confront them, and thus to become more aware of them. This sequence involves the TF-domain concretization and modulating time and space. Kalmanowitz and Ho (2016) describe a similar process claiming that art therapy can facilitate the expression and then the acknowledgement of emotions simply by staying with them and allowing them to be, which ultimately increase emotional awareness. Zadeh and Jogia (2023) also mention that art therapy interventions help FDP to face painful experiences through drawing or other mediums, which enables them to acknowledge and become aware of their emotions. Schouten et al. (2019) report that FDP participants could express emotions that they never shared before, without any word. Next, the CM-processing and positive reframing describes a longer sequence in which participants express, confront, transform, then verbalize and reframe their emotions in a positive way, which involve in addition the TF-domain emotional elicitation and processing and understanding. Zadeh and Jogia (2023) find that AT enables FDP to transform their narratives through art and adopt a new perspective by reflecting on their experience. Artwork is seen as capable of depicting emotional experiences and serving as a tangible support that facilitates perspective-taking, self-reflection and understanding (Abbing et al., 2018; Bosgraaf et al., 2020; Czamanski-Cohen & Weihs, 2016). Finally, CM-taking time refers to the participants' perception that the art therapy sessions have triggered a process of change that needs more time to develop. Schouten et al. (2019) report the case of a participant whose mourning process took time to set up and develop.

Most participants acknowledged that taking part in the intervention has strengthened them: they learned new things about themselves and the others, felt more confident, motivated and empowered. Increased self-knowledge (Akthar & Lowell, 2019; Kalmanowitz & Ho, 2016), increased sense of control and mastery (Kalmanowitz & Ho, 2016; Malchiodi, 2020; Ugurlu et al., 2016), increased sense of accomplishment (de Witte et al., 2021) are positive changes attributed to AT interventions. Participants described several CM leading to a feeling of reinforcement. First, learning to verbalize inner experience by talking about their artwork was identified by some participants as a confidence booster. In AT the artwork is seen as a tangible agent that facilitates self-reflection and promotes understanding (Abbing et al., 2018; Bosgraaf et al., 2020), which can increase self-confidence. Secondly, participants reported that during the sessions, they got to know others and learn from them, which made them feel stronger. Interpersonal learning is identified as a therapeutic factor in group settings (Gabel & Robb, 2017; de Witte et al., 2021). The group enables individuals not only to talk about themselves and be heard, but also to listen to others, discuss and exchange points of view (Kalmanowitz & Ho, 2016). As a third CM, participants reported that they sometimes projected unconscious symbolic and metaphorical elements into their artwork, and that seeing and reflecting on them gave them a better sense of their potential, which was motivating. This sequence involves the TF-domains symbolism & metaphor, concretization and understanding, the first two domains being specific to the creative art therapies (de Witte et al., 2021). In AT research on FDP, the use of artistic materials is rather seen as a way to encourage exploration of unconscious sensations, emotions and memories associated with trauma, which can then be revealed through the artwork and made explicit (Akthar & Lowell, 2019; Czamanski-Cohen & Weihs, 2016; Kalmanowitz & Ho, 2016; Zadeh & Jogia, 2023). As next CM, participants explained that using metaphors in art making allows them to live symbolic and rewarding experiences, and that they felt stronger when they could step back and reflect on them. Artworks are seen as transitional objects that allow to project ideas and navigate between known and unknown realms (de Witte et al., 2021). The same piece of art can hold the past as well as the present and a hope for the future, it can represent the concrete and imaginative, and hence fosters flexibility (Kalmanowitz & Ho, 2016).

Participants also identified some obstacles and enablers which are

consistent with previous research in art therapy with FDP. Understanding art therapy is seen as a factor that limits the access to art therapy for FDP (Akthar & Lowell, 2019). Bolstering retention is also identified as a challenge, especially when art therapy is competing with other activities (Feen-Calligan et al., 2020). The non-judgement attitude and the role of the therapist are factors common to all therapeutic approaches (de Witte et al., 2021).

Limitations and recommendations

This exploratory study establishes an initial perspective on the process of change from the point of view of forcibly displaced adults after an AT intervention aimed at building resilience. To this end, the authors systematically used the framework of therapeutic factors developed by de Witte et al. (2021) and proposed to define a CM as a sequence of TF that leads to change. Most of the CM identified could be related to previous art therapy research, although the latter does not describe them as CM as such, but rather as benefits, features, elements or factors. There is currently no consensus either on a definition or list of potential CM, and the authors call for a systematic description of these CM in AT research.

The first limitation of the present study is the number of participants. Only 11 participants took part in this study, which is not enough to reach saturation, and some CM are not very elaborate and contain just a single TF. As a result, these findings only provide a first glimpse. Secondly, participants being recruited on a voluntary basis at the end of the intervention showed a great adherence to the process (selection bias). Furthermore, the survey is not a validated tool, and the sample was too small to confirm its reliability and validity, and responses to the survey may have been influenced by the participant's desire to provide a socially desirable answer (response bias). On the other hand, one of the strengths of this study is that it systematically explored the process of change from the participants' point of view, which is pioneering given that little research has been carried out in this area to date, paving the way for further research.

It is recommended that institutions caring for adult FDP include preventive AT interventions that recognize their individual and collective strengths and aim to strengthen their resilience factors to better cope with psychological challenges and adversity. For future research, first, it is recommended to replicate the present study to confirm and enrich the list of CM from the FDP's perspective, to triangulate them with the view of the art therapists and staff and to better identify the AT modalities that are operative in order to improve the intervention. Then, it is proposed to use an art-based assessment method such as ArTA (Pénzes, 2024) in a longitudinal design to measure the effectiveness of the intervention in building resilience. Finally, it is suggested to investigate whether the results could be generalized in individual settings.

CRedit authorship contribution statement

Evelien Joosten: Writing – review & editing, Supervision. **Liliana Montoya De La Cruz:** Writing – review & editing, Validation, Investigation. **Natacha Pirotte:** Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Martina de Witte:** Writing – review & editing. **Viviana Rodriguez:** Writing – review & editing, Validation, Resources.

Institutional Review Board Statement

The study was conducted as per the Declaration of Helsinki and approved by the Ethical Research Committee of the HAN University of Applied Sciences (ECO-435.02/23).

Funding sources

The Alta Mane Foundation, Switzerland, (www.altamane.org) financed the intervention.

Declaration of Competing Interest

The authors declare no conflicts of interest.

Acknowledgements

The authors would like to express their heartfelt thanks to the participants for agreeing to share their experiences and testimonies. We are also very grateful for the help provided by the Red Pencil team and the Malaga Red Cross in organizing the intervention, particularly the Psychologist department in charge of FDP. Furthermore, we would also like to thank the Alta Mane Foundation for its financial support, which enabled us to carry out the interventions. This study was carried out within the framework of the Master's Art Therapy programme at the HAN University of Applied Sciences, Nijmegen.

Data availability

Data will be made available on request.

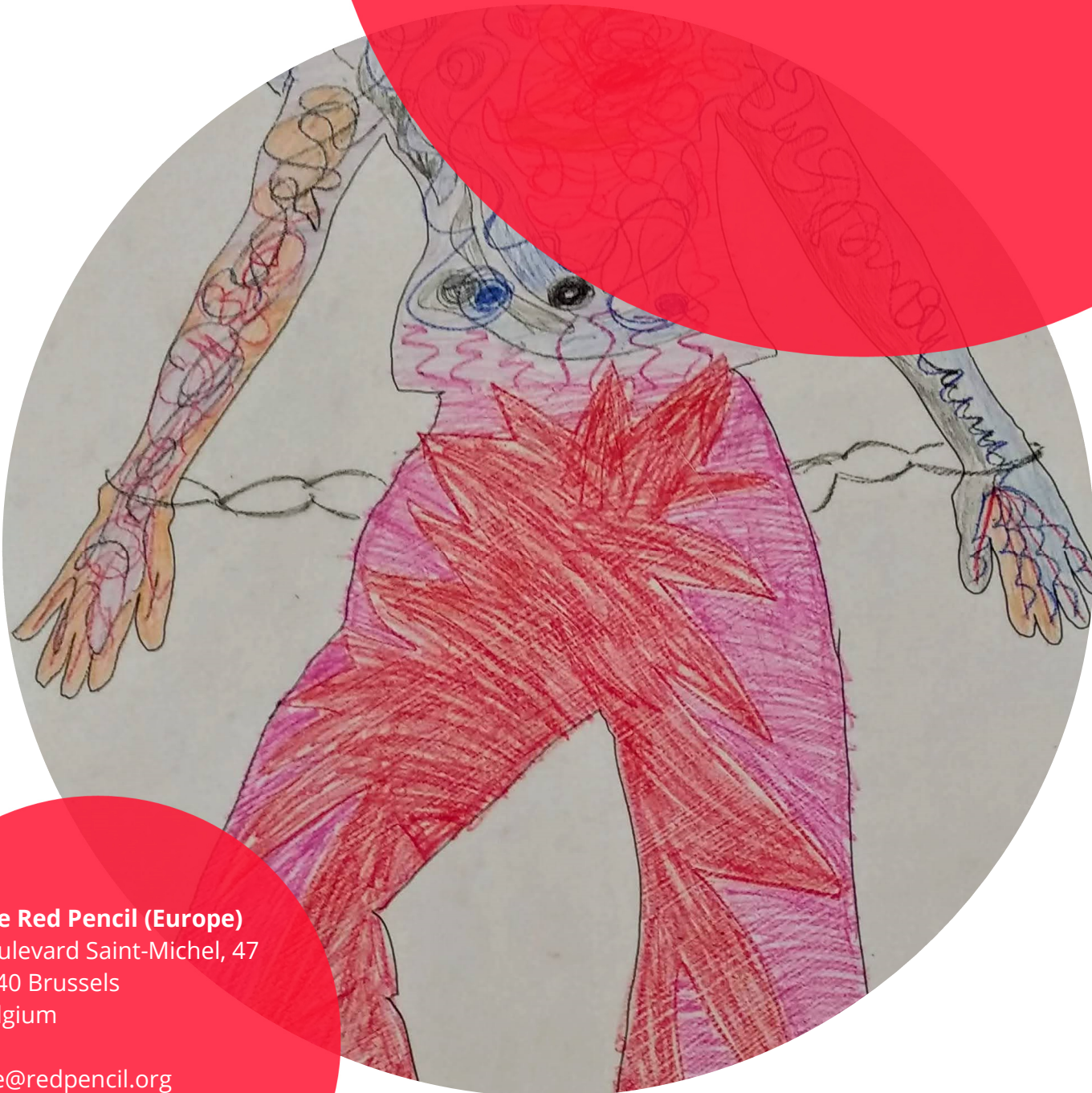
References

- Abbing, A., Ponstein, A., van Hooren, S., de Sonnevle, L., Swaab, H., & Baars, E. (2018). The effectiveness of art therapy for anxiety in adults: A systematic review of randomised and non-randomised controlled trials. *PLoS One*, 13, Article e0208716. <https://doi.org/10.1371/journal.pone.0208716>
- Agency for Healthcare Research & Quality. (2012). *Effective Health care programme. Child and adolescent exposure to trauma: Comparative effectiveness of interventions addressing trauma other than maltreatment or family violence*. Retrieved on 01-06-2022 from (<https://effectivehealthcare.ahrq.gov/products/trauma-child-interventions/research>).
- Akthar, Z., & Lowell, A. (2019). Art therapy with refugee children: A qualitative study explored through the lens of art therapists and their experiences. *International Journal of Art Therapy*, 24(3), 139–148. <https://doi.org/10.1080/17454832.2018.1533571>
- Annous, N., Al-Hroub, A., & El Zein, F. (2022). A systematic review of empirical evidence on art therapy with traumatized refugee children and youth. *Frontiers in Psychology*, 13, Article 811515. <https://doi.org/10.3389/fpsyg.2022.811515>
- Bolwerk, A., Mack-Andrick, J., Lang, F. R., Dörfner, A., & Maihöfner, C. (2014). How art changes your Brain: Differential effects of visual art production and cognitive art evaluation on functional brain connectivity. *PLoS One*, 9(7), Article e101035. <https://doi.org/10.1371/journal.pone.0101035>
- Bosgraaf, L., Spreen, M., Pattiselanno, K., & Hooren, S. V. (2020). Art therapy for psychosocial problems in children and adolescents: A systematic narrative review on art therapeutic means and forms of expression, therapist behavior, and supposed mechanisms of change. *Frontiers in Psychology*, 11, 2389. <https://doi.org/10.3389/fpsyg.2020.584685>
- Braun, V., & Clarke, V. (2013). *Successful qualitative research*. SAGE Publications.
- Ciarumella, M., Monacelli, N., & Cocimano, L. C. E. (2022). Promotion of resilience in migrants: A systematic review of study and psychosocial intervention. *Journal of Immigrant and Minority Health*, 24, 1328–1344. <https://doi.org/10.1007/s10903-021-01247-y>
- Cuijpers, P., Reijnders, M., & Huibers, M. J. H. (2019). The role of common factors in psychotherapy outcomes. *Annual Review Clinical Psychology*, 15, 207–231. <https://doi.org/10.1146/annurev-clinpsy-050718-095424>
- Czarnanski-Cohen, J., & Weihs, K. L. (2016). The bodymind model: A platform for studying the mechanisms of change induced by art therapy. *The Arts in Psychotherapy*, 51, 63–71. <https://doi.org/10.1016/j.aip.2016.08.006>
- de Witte, M., Orkibi, H., Zarate, R., Karkou, V., Sajjani, N., Malhotra, B., Ho, R. T. H., Kaimal, G., Baker, F. A., & Koch, S. C. (2021). From therapeutic factors to mechanisms of change in the creative arts therapies: A scoping review. *Frontiers in Psychology*, 12, Article 678397. <https://doi.org/10.3389/fpsyg.2021.678397>
- Elliott, R. (2010). Psychotherapy change process research: Realizing the promise. *Psychotherapy Research*, 20(2), 123–135. <https://doi.org/10.1080/10503300903470743>
- Feen-Calligan, H., Ruvoilo Grasser, L., Debryn, J., Nasser, S., Jackson, C., Seguin, D., & Javanbakht, A. (2020). Art therapy with Syrian refugee youth in the United States: An intervention study. *Arts in Psychotherapy*, 69, 1–16. <https://doi.org/10.1016/j.aip.2020.101665>
- Fredrickson, B., Tugade, M., Waugh, C., & Larkin, G. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84(2), 365–376. <https://doi.org/10.1037/0022-3514.84.2.365>

- Gabel, A., & Robb, M. (2017). (Re)considering psychological constructs: A thematic synthesis defining five therapeutic factors in group art therapy. *The Arts in Psychotherapy*, 55, 126–135. <https://doi.org/10.1016/j.aip.2017.05.005>
- Gerge, A., & Pedersen, I. N. (2017). Analyzing pictorial artifacts from psychotherapy and art therapy when overcoming stress and trauma. *The Arts in Psychotherapy*, 54, 56–68. <https://doi.org/10.1016/j.aip.2017.02.001>
- Haeyen, S. (2024). A theoretical exploration of polyvagal theory in creative arts and psychomotor therapies for emotion regulation in stress and trauma. *Frontiers in Psychology*, 15, Article 1382007. <https://doi.org/10.3389/fpsyg.2024.1382007>
- Haeyen, S., Ziskoven, J., Heijman, J., & Joosten, E. (2022). Dealing with opposites as a mechanism of change in art therapy in personality disorders: A mixed methods study. *Frontiers in Psychology*, 13, Article 1025773. <https://doi.org/10.3389/fpsyg.2022.1025773>
- Hass-Cohen, N., Bokoch, R., Findlay, J. C., & Witting, A. B. (2018). A four-drawing art therapy trauma and resiliency protocol study. *The Arts in Psychotherapy*, 61, 44–56. <https://doi.org/10.1016/j.aip.2018.02.003>
- Henkelmann, J., De Best, S., Deckers, C., Jensen, K., Shahab, M., Elzinga, B., & Molendijk, M. (2020). Anxiety, depression and post-traumatic stress disorder in refugees resettling in high-income countries: Systematic review and meta-analysis. *The British Journal of Psychiatry*, 6, 1–8. <https://doi.org/10.1192/bjo.2020.54>
- Hinz, L. D. (2020). *Expressive therapies continuum, a framework for using art in therapy* (2nd edition). Taylor & Francis Group.
- Holmqvist, G., Roxberg, A., Larsson, I., & Lundqvist-Persson, C. (2017). What art therapists consider to be patient's inner change and how it may appear during art therapy. *The Arts in Psychotherapy*, 56, 45–52. <https://doi.org/10.1016/j.aip.2017.07.005>
- Kalmanowitz, D., & Ho, R. T. H. (2016). Out of our mind. Art therapy and mindfulness with refugees, political violence and trauma. *The Arts in Psychotherapy*, 49, 57–65. <https://doi.org/10.1016/j.aip.2016.05.012>
- Kazdin, A. (2007). Mediators and mechanisms of change in psychotherapy research. *Annual Review Clinical Psychology*, 3, 1–27. <https://doi.org/10.1146/annurev.clinpsy.3.022806.091432>
- Luzzatto, P., Ndagabwene, A., Fugusa, E., Kimathy, G., Lema, I., & Likindikoki, S. (2022). Trauma Treatment through Art Therapy (TT-AT): A 'women and trauma' group in Tanzania. *International Journal of Art Therapy*, 27(1), 36–43. <https://doi.org/10.1080/17454832.2021.1957958>
- Malchiodi, C. (2020). *Trauma and expressive arts therapy: Brain, body, and imagination in the healing process*. Guilford Publications.
- National Institute of Mental Health. (2020). *Post-Traumatic Stress Disorder*. NIMH publications. Retrieved on 11-11-22 from (<https://www.nimh.nih.gov/health/publications/post-traumatic-stress-disorder-ptsd>).
- Nowell, L., Norris, J., White, D., & Moules, N. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16, 1–13. <https://doi.org/10.1177/1609406917733847>
- Pénzes, I. (2024). *Art therapy observation and assessment in clinical practice: The ArTA method*. Taylor & Francis.
- Rubin, J. (2016). *Approaches to art therapy: Theory and technique* (3rd edition). Taylor & Francis Group.
- Rowe, C., Watson-Ormond, R., English, L., Rubesin, H., Marshall, A., Linton, K., Amolegbe, A., Agnew-Brune, C., & Eng, E. (2017). Evaluating art therapy to heal the effects of trauma among refugee youth: The Burma art therapy program evaluation. *Health Promotion Practice*, 18(1). <https://doi.org/10.1177/1524839915626413>
- Schouten, K. A., van Hooren, S., Knipscheer, J. W., Kleber, R. J., & Hutschemaekers, G. J. M. (2019). Trauma-focused art therapy in the treatment of posttraumatic stress disorder: A pilot study. *Journal of Trauma Dissociation*, 20(1), 114–130. <https://doi.org/10.1080/15299732.2018.1502712>
- Springham, N., & Brooker, J. (2013). Reflect interview using audio-image recording: Development and feasibility study. *International Journal of Art Therapy*, 18(2), 54–66. <https://doi.org/10.1080/17454832.2013.791997>
- Ugurlu, N., Akca, L., & Acarturk, C. (2016). An art therapy intervention for symptoms of post-traumatic stress, depression and anxiety among Syrian refugee children. *Vulnerable Children and Youth Studies*. <https://doi.org/10.1080/17450128.2016.1181288>
- United Nations High Commissioner for Refugees. (2022). *What is a refugee?* Consulted on 26/11/2022 at (<https://www.unhcr.org/what-is-a-refugee.html#:~:text=%E2%80%9Csomeone%20who%20is%20unable%20or,group%20political%20opinion.%E2%80%9D</u>>).
- United Nations High Commissioner for Refugees. (2023). *Refugee Data Finder*. Retrieved on 12/01/23 from (<https://www.unhcr.org/refugee-statistics/>).
- Usiskin, M., & Lloyd, B. (2020). Lifeline, frontline, online: Adapting art therapy for social engagement across borders. *International Journal of Art Therapy*, 25(4), 183–191. <https://doi.org/10.1080/17454832.2020.1845219>
- Wagnild, G. (2009). A review of the resilience scale. *Journal of Nursing Measurement*, 17, 105–113. <https://doi.org/10.1891/1061-3749.17.2.105>
- Wagnild, G., & Young, H. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement*, 1, 165–178.
- Waugh, C. E., Shing, E. Z., & Furr, R. M. (2020). Not all disengagement coping strategies are created equal: Positive distraction, but not avoidance, can be an adaptive coping strategy for chronic life stressors. *Anxiety, Stress, Coping*, 33(5), 511–529. <https://doi.org/10.1080/10615806.2020.1755820>
- World Health Organisation. (2021). *Mental health and forced displacement*. Retrieved on 11-11-22 from (<https://www.who.int/news-room/fact-sheets/detail/mental-health-and-forced-displacement>).
- Wilkinson, R., & Chilton, G. (2013). Positive art therapy: Linking positive psychology to art therapy theory, practice, and research. *Art Therapy: Journal of the American Art Therapy Association*, 30(1), 4–11. <https://doi.org/10.1080/07421656.2013.757513>
- Zadeh, R., & Jogia, J. (2023). The use of art therapy in alleviating mental health symptoms in refugees: A literature review. *International Journal of Mental Health Promotion*, 25(3). <https://doi.org/10.32604/ijmhp.2023.022491>



Our sincere
gratitude goes to
Alta Mane for their
trust and support.



The Red Pencil (Europe)

Boulevard Saint-Michel, 47
1040 Brussels
Belgium

rpe@redpencil.org

www.redpencil.org/europe/