



**Universidad del
Rosario**

Creative and Martial Arts to Heal Trauma?

A Literature Review on Complementary and Alternative Medicine (CAM) Approaches to Treat PTSD-like Symptoms of Refugees in Germany

Autor

Estella Müller

Directores

Prof. Diego Londoño Paredes

Prof. Dr. Arno Drinkmann

Maestría en Conflicto, Memoria y Paz

**Escuela de Ciencias Humanas, la Facultad de Jurisprudencia,
la Facultad de Estudios Internacionales, Políticos y Urbanos,
y el Centro de Estudios sobre Conflictos y Paz (CECP)**

Maestría en Conflicto, Memoria y Paz

Universidad del Rosario

Rain am Lech - Alemania

Aprobado el 4 de marzo de 2025

Abstract

Considering the deficient therapy possibilities for refugees suffering posttraumatic stress disorder-like symptoms in Germany, this thesis provides psychological and psychotherapeutic insights into complementary and alternative medicine approaches, particularly into therapies based on art, music, dance, drama, and martial arts. The central question is what additional benefits (to standard therapies) can be expected from these treatment methods. To answer that, this study offers an expanded literature review, based on which the functions of the different therapies are filtered and sorted, drawing on Kuckartz's content-structuring qualitative content analysis. The thesis closes with the finding that those complementary and alternative approaches can assist standard therapies in customization and individualization possibilities, the independence of the patient's verbal expression skills, and the inclusion of the body and the physical into the healing progress. Furthermore, Creative and Martial Art Therapies contribute especially well to the traumatized person's (re)integration into society and expand trauma therapy by integrating religious or spiritual healing modalities. Generally, complementary and alternative approaches provide an equilibrium between resilience-enhancing and trauma-overcoming elements.

Keywords: PTSD, Art, Music, Dance, Drama, Martial Art, Refugees

Zusammenfassung

Angesichts der unzulänglichen Therapieangebote für Flüchtlinge mit Posttraumatischer Belastungsstörung-ähnlichen Symptomen in Deutschland, bietet diese Masterarbeit psychologische und psychotherapeutische Einblicke in komplementäre und alternative Medizinansätze basierend auf Kunst, Musik, Tanz, Theater und Kampfkunst. Die zentrale Frage dabei ist, welche zusätzlichen Vorteile (zu herkömmlichen Therapien) von diesen Behandlungsmethoden erwartet werden können. Um diese zu beantworten, bietet die Abschlussarbeit einen ausladenden Literaturüberblick, aus welchem sie anschließend die Wirkungsmethoden der unterschiedlichen Therapien mithilfe der inhaltlich strukturierende qualitative Inhaltsanalyse nach Kuckartz herausfiltert und ordnet. Die Masterarbeit schließt mit der Erkenntnis, dass jene komplementäre und alternative Vorgangsweisen die klassischen Therapien insbesondere in den Bereichen der individuellen Anpassungsmöglichkeiten, der Unabhängigkeit von sprachlichen Ausdrucksvermögen des Patienten, und der Einbeziehung des Körperlichen in die Therapie unterstützen können. Kreative- und Kampfkunsttherapien tragen zudem besonders gut der (Re-)Integration der/des Traumatisierten in die Gesellschaft bei und öffnen die Therapie für religiöse und spirituelle Heilungsarten. Generell bieten die komplementären und alternativen Herangehensweisen ein Equilibrium zwischen resilienzfördernden und traumabewältigenden Elementen.

Schlagwörter: PTBS, Kunst, Musik, Tanz, Theater, Kampfkunst, Flüchtlinge

Resumen

Frente a los inadecuados servicios terapéuticos para refugiados con síntomas similares al trastorno de estrés postraumático en Alemania, esta tesis de máster ofrece un panorama psicológico y psicoterapéutico de los métodos de medicina complementaria y alternativa en terapias basadas en el arte, la música, la danza, el teatro y las artes marciales. La pregunta central es qué beneficios adicionales (a las terapias convencionales) pueden esperarse de estos métodos de tratamiento. Para responder a esta pregunta, la tesis ofrece una amplia revisión bibliográfica, a partir de la cuál filtra y organiza los métodos de sanación de las distintas terapias, con ayuda del análisis de contenido estructurado propuesto por Kuckartz. La tesis de Master, constatación de que los enfoques complementarios y alternativos usados en esta investigación, pueden respaldar a las terapias clásicas. Este respaldo se presenta principalmente en ámbitos de las posibilidades de adaptación individual, la autonomía de la expresividad lingüística del paciente y la inclusión del en la terapia. Las terapias creativas y de artes marciales también contribuyen especialmente bien a la (re)integración de la persona traumatizada en la sociedad y están abiertas a formas religiosas y espirituales de curación. En general, los enfoques complementarios y alternativos ofrecen un equilibrio entre elementos que fomentan la resiliencia y elementos que sirven para superar el trauma.

Palabras clave: TEPT, arte, música, danza, teatro, artes marciales, refugiados

Content

Abstract	II
Content.....	IV
Preface	VIII
Chapter 1: Introduction.....	1
1.1. Background and Context.....	1
1.2. Research Question.....	4
1.3. Research Objectives	5
1.4. Significance of the Study	5
1.5. Ethical Considerations.....	6
Chapter 2: Operational Definitions / Theoretical Framework	8
2.1. Trauma, PTSD, and PTSD-like Symptoms	8
2.2. Standard PTSD Treatments	11
2.3. Creative Art Therapy – CAT.....	12
2.4. Martial Art Therapies	12
2.5. Refugees in Germany	14
Chapter 3: Background Literature Review.....	16
3.1. On the Psychological Hardship and Integrational Problems of Refugees in Germany	16
3.2. On Standard PTSD Treatments	19
3.3. On Complementary and Alternative Medicine and its Trauma Treatments	23
Chapter 4: Overview of Different Creative and Martial Arts Trauma Therapies	25
4.1. Creative Art Therapies (CATs)	25
4.1.1. Art Therapies.....	26
4.1.2. Music Therapies	32
4.1.3. Dance Therapies.....	35
4.1.4. Drama Therapies	39
4.2. Martial Arts Therapies	42
Chapter 5: Data Analysis: Identification of Therapeutical Elements Employed by Creative and Martial Arts Trauma Therapies	47
5.1. Research Method.....	47
5.2. Data Collection Instruments and Technique.....	48
5.3. Sampling	49
5.4. Validity and Reliability	52
5.6. Data Analysis and Findings.....	53
5.6.1. Initiative Text Work	53
5.6.2. Formation of Main Themes	53
5.6.3. Coding of Material into Main Themes	54

5.6.4. Collating Main Themes	54
5.6.5. Inductive Determination of Sub-Themes.....	57
5.6.6. Coding whole Material.....	62
5.6.7. Analysis and Visualization	62
Chapter 6: Unique Therapeutical Characteristics across CATs and Trauma-Informed Martial Art	65
6.1. Therapeutical Elements Special to Creative and Martial Arts Trauma Therapies.....	65
6.2. Enhanced Resilience through Creative and Martial Arts Trauma Therapies	67
Chapter 7: Discussion of Findings	73
Chapter 8: Conclusion	77
Bibliography	VIII
Annex A: Creative and Martial Arts sorted by Main Themes (Step 3).....	XVIII
Annex B: Creative and Martial Arts sorted by Sub-Themes (Step 6).....	XXXVII
Plagiarism Declaration	LXVI

Figure and Table List

Name of Figure or Table	Page(s)
Figure 1: Overview of Complementary and Alternative Medicine	24
Figure 2: The Seven Steps of Kuckartz's content-structuring qualitative content analysis	47
Figure 3: Selection and Screening of the Literature	49
Table 1: Sources of Literature Reviews	51
Figure 4: The Five Main Themes	53
Figure 5: Main and Sub-Themes	57
Figure 6: Visualization of Sub-Themes	63
Table 2: Laban's Five Clusters of Resilience	68
Table 3: Annex A, Main Theme 1 Text Excerpts	XVIII – XXI
Table 4: Annex A, Main Theme 2 Text Excerpts	XXI – XXIII
Table 5: Annex A, Main Theme 3 Text Excerpts	XXIII – XXVIII
Table 6: Annex A, Main Theme 4 Text Excerpts	XXVIII – XXXIII
Table 7: Annex A, Main Theme 5 Text Excerpts	XXXIII – XXXVI
Table 8: Annex B, Main Theme 1 Text Excerpts sorted by Sub-Themes	XXXVII – XLI
Table 9: Annex B, Main Theme 2 Text Excerpts sorted by Sub-Themes	XLII - XLIII
Table 10: Annex B, Main Theme 3 Text Excerpts sorted by Sub-Themes	XLIV – LI
Table 11: Annex B, Main Theme 4 Text Excerpts sorted by Sub-Themes	LII – LXI
Table 12: Annex B, Main Theme 5 Text Excerpts sorted by Sub-Themes	LXI - LXV

List of Abbreviations

AWMF	Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften e. V. Association of the Scientific Medical Societies
BAfF	Bundesweite Arbeitsgemeinschaft der psychosozialen Zentren für Flüchtlinge und Folteropfer German Association of Psychosocial Centers for Refugees and Victims of Torture
BEP	Brief Eclectic Psychotherapy
CAM	Complementary and Alternative Medicine
CAT	Creative Art Therapy
CBT	Cognitive Behavioral Therapy
CPT	Cognitive Processing Therapy
CT	Cognitive Therapy
DeGPT	Deutschsprachige Gesellschaft für Psychotraumatologie German-speaking Society for Psychotraumatology
DSM	Diagnostic and Statistical Manual of Mental Disorders
EMDR	Eye Movement Desensitization and Reprocessing
ICD	International Classification of Diseases
IRT	Imagery Rehearsal-Therapy
NCCIH	National Center for Complementary and Integrative Health (USA)
n.d.	No date
NET	Narrative Exposure Therapy
NIH	National Institutes of Health (USA)
NLM	National Library of Medicine (USA)
n.p.	No page
PE	Prolonged Exposure Therapy
PMC	PubMed Central
PTSD	Posttraumatic Stress Disorder
WHO	World Health Organization

Preface

During my master's program in Conflict, Memory and Peace, I learned various theories and models for analyzing conflict and developing peacebuilding initiatives. Most topics were on a macro or state level, benefiting individuals only in the long run. To address individuals' sufferings from conflict, I decided to shift my focus from politics and history to psychology for my final study.

I was – in retrospect only a bit – familiar with the restraints that PTSD-like symptoms can have on a person's daily life by reading novels. The characters overcame their disorders by drawing and learning self-defense. That sparked my interest and I wondered if these methods could also help real people affected by conflict-related PTSD. What followed was an odyssey of finding an appropriate research question and method, through which my two supervisors guided me patiently – for which I am deeply grateful. In those turbulent times, I experienced first-hand how different psychologists define proper academic research compared to what I was used to in social sciences.

While reading more on the subject and during talks with my supervisors it became apparent to me that the problem causing the breach between standard and alternative trauma treatments was the same discrepancy in methodologies I encountered: they have different research styles. I deduced that classic psychology relies on statistical data drawn from representatively big samples to evaluate a therapy's effectiveness. Alternative trauma treatment usually takes place in small projects, which are difficult to compare to each other, and thus, the results are published in a qualitative and rather exemplary fashion. That does not necessarily mean that alternative approaches cannot help the individual – although it seems like they are sometimes disregarded as 'hocus-pocus' by standard psychologists due to their lack of 'evidence'. On the other hand, alternative practitioners tend to present their work in a purely positive light, as if their methods were always functioning and do not have negative aspects.

Bridging this gap between the two approaches became my main object for the thesis, believing that they can benefit from each other, which will positively affect treatment options for traumatized persons. Due to the limited time, space, and educational background, however, I had to settle for a 'one-way bridge'. In other words, this thesis will not explain standard trauma treatment to alternative practitioners. There is already plenty of literature available on this. Instead, alternative methods will be described and analyzed in a structured way, mainly for readers with standard psychology schooling.

Thankfully, my supervisors (who both have a classic psychology education themselves) were open-minded enough to accompany me on these perhaps not new but certainly unfamiliar grounds.

Estella Müller

Rain am Lech, December 19, 2024

Chapter 1: Introduction

Armed conflicts, wars, forced migration, and refuge-seeking keep being a major theme on the global level, and more and more civilians are affected by war. As a result, symptoms of Posttraumatic Stress Disorder (PTSD) became widely disseminated across all social groups of the respective conflict-torn society, regardless of profession, age, gender, or socioeconomic status. Being forced to flee one's home and seek asylum in a foreign country and culture, may aggravate feelings of loss, homesickness, and potential pathologies of PTSD. The phenomenon is comprehensible from a human point of view and well documented by facts and numbers. Still, appropriate help against mental suffering is often not available to persons in need, even in peaceful and comparably wealthy countries like Germany.

This study aims to broaden the horizon of trauma treatment approaches so that more refugees in Germany can receive psychological help – on the condition that they desire psychological help. To this end, Creative and Martial Arts Therapies are considered.

In this chapter, the relevant background of the situation will be explained further to validate the research's ambition. Furthermore, the specific objectives of this thesis will be delineated and its significance explained. Lastly, some ethical considerations will be pointed out.

1.1. Background and Context

In February 2024, the German parliament adopted a new law (the so-called Rückführungsverbesserungsgesetz) which expanded the period of limited health care for refugees to 36 months after they arrived in the country (prior it has been 18 months). Within this time, only severe illnesses and pain relief are covered by the German public healthcare system. In many cases, a refugee's condition is only considered "acute" if he/she has already become highly psychotic and/or suicidal. Moreover, bureaucratic barriers retrain many traumatized refugees to enforce their need for mental therapy. However, the long wait for treatments might lead to chronification of the disorder(s), making the intervention thus longer and less likely to be successful. It also prevents the individual from integrating into German society and the labor market, which increases the risk of substance abuse and may, in rare cases, lead to criminalization (Berndt, 2024).

Even after those three years of practical exclusion from the healthcare system, it is unlikely that refugees can immediately commence their treatment. Unfortunately, psychotherapy spots are scarce in Germany with long waiting times, even for German nationals. Because of bureaucratic, linguistic, and cultural differences, traumatized refugees will find it even more problematic to obtain treatment.

Moreover, the identification of who requires psychotherapeutic help, coupled with cultural differences in perceiving and interpreting emotional injuries, poses significant challenges. Language barriers also hinder accurate diagnoses and appropriate treatments (UNHCR, 2020).

However, the refugee population in Germany is in dire need of access to psychotherapy, since they are a major risk group for PTSD in the country. In 2021, approximately 30% of refugees in Germany suffered (potentially) from post-traumatic disorders. This calculates to an absolute number of 580.905 individuals (Berndt, 2024; Karato, 2023).

In the same year, a study conducted by one of Germany's major health insurances (AOK) delved into the subjective health conditions of over 2.000 refugees from Syria, Iraq, and Afghanistan. These nations constituted a significant portion of first-time asylum seekers in Germany from January 2015 to May 2018. The focus was on those who had recently arrived in Germany and were yet to be integrated into the healthcare system. The study's findings were alarming, revealing that around three-quarters of asylum seekers surveyed had endured various forms of violence, resulting in multiple traumas. Distressingly, over 40% of respondents exhibited signs of depressive disorders. The traumas experienced by these refugees were primarily related to war-related incidents and attacks by armed forces, with a third of respondents reporting abduction, disappearance, or violent deaths of family members or loved ones (Schröder et al., 2018). Women and girls often fell victim to sexual violence during their escape, leading to severe psychological issues such as depression, sleep disorders, anxiety, panic attacks, and even suicidal thoughts (Stukenberg, 2021). Commonly reported symptoms included also hopelessness, sorrow, nervousness, fatigue, and sleep disturbances. These challenges continued even after the flight, aggravated by poor quality accommodation, long waiting times for bureaucratic decisions, inadequate integration possibilities, and concerns for family members. All this makes it difficult for refugees to cope with their past and build a new life (Schröder et al., 2018).

These findings are supported by other international studies, indicating a high risk of trauma-related disorders like PTSD and other mental illnesses among refugees. Refugee children and adolescents faced an even higher risk. PTSD rates for the Afghan youth, e.g., ranging from 42% to 56.9% (Lindner, n.d.).

Hence, the situation of refugees with PTSD-like symptoms is drastic. Due to all the reasons mentioned above, it would be unrealistic to assume that each traumatized displaced person could be assigned to a professional psychologist for individual treatment in the short or even middle term - if he/she even wishes to be treated. Given this urgent need for more psychological care offers, that are moreover easily accessible and appropriate for refugees in Germany, every treatment method that shows potential for positive results should be considered. Promising options are a range of Complementary and Alternative Medicine (CAM) approaches that are designed to treat PTSD-like symptoms.

Still, the currently valid guideline for treating PTSD in the German-speaking room refers very little and leerily to CAMs. It merely states that “[d]ue to the positive clinical experience in the inpatient setting, also with regard to the effect on comorbid disorders, adjuvant procedures such as occupational therapy, art therapy, music therapy, body and movement therapy or physiotherapy can be offered in a trauma-specific, multimodal treatment plan.”¹ (DeGPT, 2019, p. 7). This recommendation relates to the guideline’s chapter especially dedicated to adjuvant procedures. In there, studies were taken into account that go beyond the PTSD treatment modalities that are suggested in (inter)national guidelines. Following the academic field’s concepts of reliability and valid minimum conditions for research, only studies with “randomized controlled trials that evaluated adjunctive interventions in adult PTSD patients treated with guideline-compliant psychotherapy”² (DeGPT, 2019, p. 35) were considered. Out of the vast field of CAM, only thirteen studies met those requirements (DeGPT, 2019).

Taking a closer look into this alleged study breach, it becomes evident that there are many academic publications on CAMs for PTSD-like symptoms available. However, most of

¹ Own translation, originally: “Aufgrund der positiven klinischen Erfahrung im stationären Setting auch hinsichtlich der Wirkung auf komorbide Störungen können adjuvante Verfahren wie Ergotherapie, Kunsttherapie, Musiktherapie, Körper- und Bewegungstherapie oder Physiotherapie in einem trauma-spezifischen, multimodalen Behandlungsplan angeboten werden.” (DeGPT, 2019, p. 7).

² Own translation, originally: “[Es] wurden alle randomisierten kontrollierten Studien berücksichtigt, die adjuvante Interventionen bei erwachsenen PTBS-Patienten, welche mit leitlinienkonformer Psychotherapie behandelt wurden [...]“ (DeGPT, 2019, p. 35).

them are more of a qualitative nature. They examine, e.g., case vignettes or describe detailed selected projects. In other academic fields, those study methods would be naturally accepted as contributions to knowledge creation. Yet, in psychology those research modalities are untypical. Quantitative studies with randomized controlled trials are generally seen as the best – and often only – method to test hypotheses and evaluate the effectiveness of treatments.

Although there are undoubtedly many valid reasons for this preference for standardized quantitative study methods, it creates a gap between “normal” psychology and CAM. Even though both approaches aim to mitigate the suffering of psychopathologies, they widely ignore and even disapprove of each other. The ones who suffer from this mutual ignorance are the patients (in this case refugees affected by PTSD-like symptoms) – the very same ones whom both parties pledge to help. Standard-trained mental health and PTSD experts, who are versed in both standard and complementary and alternative medicine, like Bessel van der Kolk (2015), are extremely scarce.

This thesis aims to familiarize standard practitioners a bit with CAMs by laying out their potential in treating PTSD-like symptoms and where they can expand the scope of standard therapies. Due to the limited scope of this thesis, only Creative and Martial Arts Trauma Therapies within the broad range of CAM will be delineated closely in this study.

1.2. Research Question

Considering the utter lack of trauma treatment options for refugees in Germany and the broadly impaired cooperation between standard and CAM healing approaches, the following research question emerges:

What additional benefits can be expected from incorporating Creative and Martial Arts Trauma Therapy into standard PTSD treatments for Refugees in Germany?

The subsequent objectives shall be archived to answer this question appropriately and offer a comprehensive glimpse into the functioning of Creative and Martial Arts Trauma Therapies.

1.3. Research Objectives

The overall objective is to evaluate the potential of Creative and Martial Arts-based trauma treatments as complementary and/or alternative approaches and to introduce them to PTSD therapists trained in conventional psychology, particularly in the context of treating refugees in Germany. This research aims to explore how these approaches can address the specific needs of refugees and expand the therapeutic tools available to mental health professionals. This shall be achieved by reaching the following three sub-objectives:

1. To identify and analyze different trauma treatment approaches that utilize Creative and Martial Arts, based on a comprehensive review of existing literature, in order to understand their theoretical foundations and practical applications for treatment of PTSD-like symptoms.
2. To determine the key therapeutic themes underlying these approaches by applying Kuckartz's content-structuring qualitative content analysis, highlighting their potential benefits for refugee populations with trauma experiences.
3. To assess how these themes compare to conventional PTSD treatments and evaluate their applicability and effectiveness for refugees, providing insights that may support therapists in broadening their treatment strategies.

1.4. Significance of the Study

Being part of neither of the conflicting fields of standard and CAM trauma treatment modalities, the author of this thesis sees the urgent need for more collaboration between the two healing approaches to counter the current shortcomings of psychotherapies for refugees in Germany. Her education is in the political field of Peace and Conflict Studies, where quantitative and qualitative research are both indispensable to knowledge creation. Therefore, she can take a less biased stance towards the two psychological treatment methods (compared to practitioners from one affected party). The author intends to use this advantage to bridge the rift for psychologists with a standard education and introduce them to a selection of alternative treatment methods.

Due to the limited scope of this paper, restraints in CAM treatments for PTSD must be made. It was decided to introduce some so-called Creative Art Therapies (CATs) and Martial Arts Trauma Therapies to a reader with a background in Western standard psychology. Within those boundaries, the selected CAM PTSD treatments will be concisely and structured presented. Further, their common therapeutical elements will be inducted,

and their possible differences from standard PTSD treatments will be identified and discussed. To the author's knowledge, all this has not yet been done.

Although this thesis is primarily written for "standard" psychologists, its lecture can also be valuable for CAM practitioners who seek to better understand other alternative treatment modalities or for administrative staff looking for help for populations with PTSD-like symptoms. Generally, it is hoped that this assessment will help the reader to broaden his/her view on PTSD treatments for refugees.

The presented "taster" into Creative and Martial Arts healing approaches for PTSD-like symptoms aspires further to serve as an inspiration for foreign readers, albeit it focuses on refugees in Germany. Supposedly, most of its findings should be translatable into other contexts of displacement and refuge-seeking, either in host countries or conflict-affected societies. However, it is imperative to take the respective cultural circumstances into account. Social projects like the researched trauma healing approaches, must not imply a 'one-size-fits-all' attitude but must tailor their services according to the respective host and reception culture (Asamoah 2013).

Lastly, the topic is also of interest to the author's home academic field of Peace and Conflict studies. Peacebuilding is a long-term commitment, that aims to impede the re-occurrence and re-emerge of violence by addressing its roots and consequences. Resolving traumas is therefore inevitable. Failures in taking care of traumatized populations signify severe repercussions for the individual and an elevated possibility of re-emergence of violence, considering the possibility of the victim becoming a victimizer. Moreover, helping people understand their emotions is important for developing responsible citizenship (Clancy & Hamber, 2008). Nevertheless, CAM PTSD therapy approaches as policy measures are a niche topic in this field, too, and lack proper research quantity. Although this master's thesis does not address this gap per se, it will heighten awareness for future research in this direction and provide a basis for it.

1.5. Ethical Considerations

At this point, the author of this thesis strongly emphasizes that the researched CAM treatment methods shall not be seen automatically as cheaper and faster PTSD interventions for refugee populations. She fully agrees with the BAfF (2019) that, although these low-threshold therapy approaches have a high potential to serve as stabilizers, and social

stand-in procedures in light or middle-severe PTSD cases, they should accompany standard psychological treatments or – at least - have to be (co-)conducted by a professional and sufficiently qualified psychotherapist. The unaccompanied involvement of untrained laypersons in psychological matters is not only highly dangerous for the traumatized individual but also for the supposed helper, which makes it ethnically unbearable. Refugees must not be looked upon as a sort of second-classed patients. They have the same human rights to health and are therefore fully entitled to the same quality of treatment as German citizens. The ultimate goal must be to rectify the existing structural shortcomings of the German mental health system. The researched CAM approaches shall not be used as justifications to postpone or revoke necessary reforms (BafF, 2019).

Chapter 2: Operational Definitions / Theoretical Framework

In this chapter, the key terms 1) Trauma, PTSD, and PTSD-like Symptoms; 2) Standard PTSD Treatments; 3) Creative Art Therapy (CAT); 4) Martial Art Therapies; and 5) Refugees in Germany will be defined in the sense in which they will be used in this research. To this end, existing concepts and definitions are adopted to create a value-adding theoretical framework.

2.1. Trauma, PTSD, and PTSD-like Symptoms

To avoid possible confusion on the understanding and use of the three terms a) Trauma, b) PTSD, and c) PTSD-like symptoms, they shall be explained below.

a) Trauma

The International Statistical Classification of Diseases and Related Health Problems (ICD 10) describes 'trauma' as a "stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone" (ICD-10, 2019, n.p.).³

Similarly, the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) understands trauma as an "exposure to actual or threatened death, serious injury, or sexual violence [...]" (American Psychiatric Association, 2013, p. 271). This exposure might result from one's own experiences of traumatic event(s), from being witness to another's suffering, learning of a violent or accidental (threatened) death of a significant other, and/or recurrent or intense experiencing of distressing details of traumatic events (American Psychiatric Association, 2013). Often, those types of exposure consist of multiple and diverse traumatic events that overlap with other kinds of trauma encounters (Sareen, 2014).

At this point, it has to be emphasized that experiencing a traumatic event does not necessarily lead to the development of a disorder. Experts argue that almost all people experience a potentially traumatic event(s) in their lives and show normal posttraumatic reactions to it. Most people somehow succeed in mobilizing enough resiliency to cope with trauma exposure(s) effectively. In other words, not every traumatized person suffers

³ The later version of the ICD-11 (2022a) does not attempt to define 'Trauma', but does include complex post-traumatic stress disorder (6B41).

from a posttraumatic psychological disorder. Still, all individuals diagnosed with either Acute Stress Disorder (ASD), PTSD, or Complex Posttraumatic Stress Disorder have experienced at least one traumatic event (American Psychological Association, 2017).

Certain groups are more exposed to traumatic experiences and therefore more likely to develop PTSD. PTSD is elevated in some professions (like the military, police, firefighters, and first-aid responders). Survivors of rape, war, confinement, torture, and mass atrocities are also more frequently affected by PTSD. A variety of pre-, peri-, and post-traumatic circumstances influence the possible development of a posttraumatic psychological disorder. Those factors include (but are not limited to) prior traumatic exposures and mental disorders, socioeconomic status, cultural and demographic characteristics, the severity of the traumatic event(s), social support, trauma-related losses, and exposure to re-traumatization (American Psychiatric Association, 2013).

b) PTSD

Posttraumatic Stress Disorder (PTSD) is understood throughout the thesis as defined in the official Diagnostic and Statistical Manual of Mental Disorders (DSM), especially the 5th edition of it. Throughout different editions of the DSM, four central aspects of PTSD have persisted:

- 1) Intrusive memories,
- 2) Avoidance,
- 3) Negative changes in thinking and mood, and
- 4) Changes in physical and emotional reactions/Hyperarousal (American Psychiatric Association, 2013).

In the DSM-5 the further criterium of adverse changes in thinking patterns and emotional states was included in the definition of PTSD and relocated to a different, recently created section titled 'Trauma- and Stress-Related Disorders.' PTSD is distinguished from other (related) mental comorbidities by the symptoms of re-experiencing and trauma exposure (Sareen, 2014).

The morbid reaction in the form of PTSD symptoms to a traumatic event can be delayed. Almost a quarter of all PTSD cases are delayed-onset. This means symptoms do not appear until at least six months after the traumatic event. It is disputed, however, if this delayed-onset reaction is still a case of PTSD per se. It is difficult to exercise proper research on this matter due to the shortfall of relevant reference groups which leads to a

methodological problem (Utzon-Frank et al., 2014). For this research on Alternative and Complementary trauma-healing approaches, however, delayed-onset PTSD is counted as a completely valid form of PTSD (as do Smid et al., 2022; Utzon-Frank et al., 2014).

The ICD-11 furthermore lists separately a ‘complex post-traumatic stress disorder’ (Complex PTSD, 6B41). Complex PTSD specifically stems from prolonged and repeated traumatic exposures, in which the survivor was trapped – either in a metaphorical or in a literal sense. This type of PTSD consists of all symptoms of “normal” PTSD. However, beyond that, it includes severe issues in emotion regulation, as well as negative and diminished self-perceptions coupled with trauma-related feelings of shame, guilt, and failure. It is extremely difficult for affected individuals to form meaningful and intimate relationships with others (ICD-11, 2022b).

Yet another related pathology is Acute Stress Disorder, which has the same symptoms as PTSD but is limited to the length of three days to one month after the traumatic event(s). Should the signs of illness persist after 30 days, the disorder is considered a PTSD case (American Psychiatric Association, 2013).

Now, that the differences between different “forms” of PTSD have been acknowledged, both complex and delay-onset PTSD will not be further distinguished from ‘normal’ cases of the disorder during this study. This serves the reading flow. Also, practically, these graduations may not be professionally diagnosed in many cases. While Acute Stress Disorder is not explicitly excluded from the study’s scope, it seems to be unlikely that affected persons will seek and find therapy spots in this short amount of time. In the case of refugees in Germany, the majority would not have even reached the host country by this time, since the migration routes generally take a lot of time. Bearing this in mind, Acute Stress Disorder *de facto* rarely forms part of trauma treatments for refugees in Germany and is, thus, irrelevant to this study.

c) PTSD-like Symptoms

As mentioned above, many refugees do not get a chance to receive proper diagnosis or treatment from a professional psychologist or psychotherapist. Taking this reality into account, no formal diagnosis of (complex) PTSD is needed for this study. Nevertheless, this thesis is centered on therapies that treat patients who suffered at least one traumatic event and experience at least one of the four symptoms of PTSD mentioned in the DSM-5, and who link these symptoms to his/her traumatic event(s). Namely, these symptoms are:

- 1) Intrusive memories
- 2) Avoidance
- 3) Negative changes in thinking and mood
- 4) Changes in physical and emotional reactions/Hyperarousal (American Psychiatric Association, 2013).

Since the posttraumatic symptoms and possible psychopathologies are not necessarily confirmed by a professional and are therefore often self-diagnosed, this study will operate with the term ‘PTSD-like symptoms’ at appropriate occasions to underline that there might not be a formal diagnosis of the disorder and the cause of the suffering.

This opened definition of trauma-related disorders is not only more inclusive towards (culturally) distinct forms of posttraumatic stress that do not go “by the book”, but it also represents an effort to not “medicalize” an individual’s suffering (Kalmanowitz & Ho, 2016; Summerfield, 1999).

2.2. Standard PTSD Treatments

The term “standard” in this thesis is understood in the sense of ‘classical’, ‘conventional’ or ‘usual’. It does not imply that any specific requirements must be met to qualify as “standard” in this study.

Concretely, for this thesis, “standard treatments” consist of the following eight psychotherapies: Cognitive Behavioral Therapy (CBT), Cognitive Processing Therapy (CPT), Cognitive Therapy (CT), Prolonged Exposure Therapy (PE), Imagery Rehearsal-Therapy (IRT), Brief Eclectic Psychotherapy (BEP), Eye Movement Desensitization and Reprocessing (EMDR), and Narrative Exposure Therapy (NET).

This selection is based on the current German guideline of PTSD treatment, the S3 Guideline for PTSD, published by the AWMF.⁴ Further information on the guideline and its proposed PTSD therapies are included in *Chapter 3.2. On Standard PTSD Treatments*.

Therapies utilizing medication and drugs will not be considered since they would surpass the scope of this thesis and are less comparable to the discussed complementary and alternative treatment approaches.

⁴ AWMF = Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften e. V.

2.3. Creative Art Therapy – CAT

Following the National Center for Complementary and Integrative Health of the U.S. Department of Health and Human Services, Creative Art Therapies form part of the so-called ‘Complementary Health Approaches’. The primary input of CAT lies in the combinations of psychological and physical: i.e., the therapy is received and/or dispatched by using both mental and bodily practices (NCCIH, 2021).

More precisely, Creative Art Therapies (CATs) are an array of methodologies, that allow the patient to express his/her thoughts and emotions concerning the traumatic event(s) in a visual and/or auditory form. The term includes expressions through drawings and pictures as well as music, drama, and body-oriented approaches (Smyth & Nobel, 2015). In this line of thinking, the so-called ‘material art concept’ was borrowed from German jurisprudence. It describes this idea of art as “a process of free creative creation in which the artist's impressions, experiences, and memories are brought to direct visualization through the medium of a specific stylistic language. Accordingly, art should above all be the most direct expression of the artist's unique personality”⁵ (Lenksi, 2016, p. 36).

2.4. Martial Art Therapies

Defining what ‘Martial Arts’ is, is so complex that until today a universally accepted definition does not exist, although it was attempted various times in the past. There are profound differences between different martial arts styles concerning questions like how much physical contact is allowed, and which exercises should be focused on. Often, there are disagreements on these and other matters between different schools of the same martial art (Oulanova, 2009). Therefore, some argue against the need for a definition of ‘Martial Art’. They theorize that each contribution should create its own understanding of the research field or nexus (Bowman, 2017). Within this context, Wetzler (2015) describes at least five dimensions of the term’s meaning, while stressing that this list is neither exhaustive nor meant to apply to every style:

⁵ Own translation, originally: „Er definiert Kunst als einen Prozess freier schöpferischer Gestaltung, in der Eindrücke, Erfahrungen, Erlebnisse des Künstlers durch das Medium einer bestimmten Formensprache zur unmittelbaren Anschauung gebracht werden. Kunst soll danach vor allem unmittelbarster Ausdruck der individuellen Persönlichkeit des Künstlers sein.“ (Lenksi, 2016, p. 36).

1) *Preparation for violent conflict*

Martial arts are originally and, at their core, still taught to enable one to maintain one's physical and psychological integrity during violent times or situations. Building physical fitness is as vital to martial arts as building mental coping strategies and adapting to function despite fear.

2) *Recreational and competitive sports*

In modern times, martial arts are more commonly practiced for fun. Many even take part in tournaments and competitions. Hurting the sparring partner is not the goal: in fact, it is not permitted and may lead to banishment and/or disqualification.

3) *Performance*

Exhibiting fighting techniques before an audience (which at times might consist only of the martial artist him/herself) has a long history in various martial arts. The performance can be part of a ritual, or merely for amusement.

4) *Transcendent goals*

Whether explicitly stated or implicitly practiced, martial arts usually follow a philosophy or even spirituality. Training sessions involve not only physical exercises but also educational content, which intends to shape the scholar's personality and/or his/her ties with spiritual entities.

5) *Health care*

Because of their sportive and therapeutic elements, martial arts are used to prevent or counter physical and psychological ailments (Wetzler, 2015).

Linguistically, the term Martial Art consists of the name of the Roman God of War, Mars, and the Latin word '*ars*' for 'skilled method' or 'technique'. This means that Martial Arts can be translated as 'war techniques', which generally applies to all forms of institutionalized practices of combat (not only to Asian ones). Typically, Martial Arts are ambiances of biopsychosocial-axiological wealth. In other words, physical movements are combined with norms and values and are trained together with micro personal characteristics, such as discipline and macro collective perceptions of human action (*motrice*). A physical enemy as a target is therefore often unnecessary; Martial Arts can adopt a symbolic over-combat perspective (Figueiredo, 2009). For this study, all widely recognized and fully institutionalized arts of combat which include biopsychosocial-axiological will be accepted as 'Martial Arts'. There will be no differentiation between traditional martial arts

versus modern self-defense training (Angleman et al., 2009), as long as they are practiced in a trauma-informed way.

For the definition of ‘Martial Art Therapy’ it suffices for this thesis that the sessions are trauma-informed. This approach addresses the unbroken need for sympathetic and supportive thoughtfulness (CDC Office of Readiness and Response, 2020). A singular method of trauma-informed practices does not exist, but they should consist of six core principles: 1) safety; 2) trustworthiness and transparency; 3) peer support; 4) collaboration and mutuality; 5) empowerment, voice, and choice; 6) cultural, historical, and gender issues (SAMHSA, 2023).

Conclusively, ‘trauma-informed Martial Arts’ in this study is understood as any biopsychosocial-axiological combat art that is taught and practiced with special awareness of trauma. For a better reading experience, this thesis will only refer to ‘Martial Art Therapies’ instead of ‘Trauma-Informed Martial Art Practices’, although it is the more accurate term.

2.5. Refugees in Germany

In the colloquial use of the German language, the term ‘refugee’ (*Flüchtling*) is often used as a general term for people who have fled their home country. In the legal context of the German asylum law, however, it refers exclusively to recognized refugees under the Geneva Refugee Convention: this applies to people who have been granted refugee protection status after completing the whole asylum procedure. The German Ministry of Migration and Refugees (BAMF – Bundesamt für Migration und Flüchtlinge) operates therefore with the three additional terms of

- ‘Asylum seeker’ (*Asylsuchende*): an individual who intends to file for asylum but is not yet registered for the bureaucratic process,
- ‘Asylum applicants’ (*Asylantragstellende*) someone who is in the procedure but it has not yet been decided whether asylum will be granted, and
- ‘Persons entitled to protection and persons entitled to stay’ (*Schutzberechtigte sowie Bleibeberechtigte*) persons who are granted asylum, refugee protection or subsidiary protection or who are allowed to stay in Germany due to a ban on returning them to their home countries (Bundesamt für Migration und Flüchtlinge, 2023).

To be more inclusive, this thesis uses the wider, more conversational understanding of ‘refugee’, which includes all three administrative terms used by the German authorities. That means the existence or current state of the traumatized individual’s asylum procedure is irrelevant to this research endeavor. His/her current presence on German territory is, however, decisive.

Chapter 3: Background Literature Review

For a better understanding, the existing relevant background literature is clustered into three sections, that, respectively, shed light:

1. On the Psychological Hardship and Integrational Problems of Refugees in Germany,
2. On Standard PTSD Treatments,
3. On Complementary and Alternative Medicine and its Trauma Treatment Approaches,

3.1. On the Psychological Hardship and Integrational Problems of Refugees in Germany

As already mentioned in *Chapter 1.1. Background*, studies estimate that over 40% of refugees display signs of depressive disorders after having to endure war-related incidents and attacks by armed forces (Schröder et al., 2018), which is worsened by forced displacement (Berndt, 2024; Karato, 2023).

Scholars who researched the effects of the wars in former Yugoslavia conclude that displacement is a material, social, and psychological loss for the affected population. The uncertainty of economic questions as well as the missing social support hinders effective coping with PTSD. Trauma(s) may be therefore more persistent than for non-displaced populations since they have to tackle additional barriers to meet their basic needs (Savjak, 2002).

Other international studies also consistently indicate a high risk of trauma-related disorders like PTSD and other mental illnesses among refugees. In Blackmore et al.'s meta-study, 31.46% of participants had PTSD (2020). Refugee children and adolescents face a particularly elevated risk of trauma-related disorders, with PTSD rates averaging 42% and even reaching 56.9% for Afghan youth (cited by Lindner, n.d.).

Furthermore, surveys indicated a strong correlation between traumatizing experiences and the prevalence of health complaints. It was evident that refugees who had experienced war, violence, and persecution were more likely to report physical and psychological distress (Schröder et al., 2018).

However, therapy spots are already scarce in Germany, leading even insured individuals to wait for psychotherapy for months. Asylum seekers may face even longer delays; for example, in Saxony-Anhalt (one of Germany's federal states), refugees must wait up

to 14 months for therapy. Over 7,000 refugees are on waiting lists for therapy services, and capacity limitations often force prioritization (Stukenberg, 2021).

Additionally, newly arrived refugees in Germany receive medical care according to the act to improve the repatriation process (*Rückführungsverbesserungsgesetz*), which, compared to statutory health-insured individuals, has a reduced scope. The act covers acute illnesses and pain relief for the first 36 months of stay. The legal situation regarding PTSD treatment is not entirely clear, and distinctions between acute and chronic illnesses are often challenging, particularly in cases of PTSD (Lindner, n.d.). This contributes to the fact, that social authorities are around seven times more likely to reject asylum seekers' requests for psychotherapy compared to health insurers' rejections for insured individuals, potentially violating Germany's international legal obligations (Stukenberg, 2021). It is furthermore ethically reprehensible to *de facto* deny refugees access to health care. At least, refugees from Ukraine have been granted access to comprehensive psychiatric and psychotherapeutic treatments under statutory health insurance since June 1, 2022, while language interpretation costs are still not reimbursed. However, this legally disadvantages refugees from other countries, although they are equally entitled to comprehensive psychiatric and psychotherapeutic treatment (Lindner, n.d.).

Moreover, there is often a lack of assessment to identify those in need of psychotherapeutic help: Although the symptoms of trauma are culturally independent, the perception and interpretation of emotional injuries vary significantly across cultures, influenced by distinct cultural and religious values and norms. Many refugees are unfamiliar with psychotherapeutic care and may approach it with biases. They often initially consult a general practitioner if their trauma manifests through physical problems, leading to incorrect diagnoses and treatments. Language barriers can further complicate diagnoses (Stukenberg, 2021; UNHCR, 2020).

Particularly children of refugee families are vulnerable. Children's nervous and immune systems are not yet fully developed; they are still in their developmental phase. Negative environmental influences, even during pregnancy, can lead to a child's adverse development, resulting in life-long consequences like psychoses. An estimated one-third of all refugee children are affected. Additionally, children can also experience violence from parents who often suffer from mental illnesses due to their own traumatic experiences during migration or endured violence in their childhood. This can be physical or emotional abuse, burdening the children and creating a risk of them perpetuating the experienced violence on their children, thus potentially forming a cycle of violence. Also,

the likelihood of suicide is 20 times higher in affected children and adolescents who were traumatized during their early developmental phase (UNHCR, 2020).

According to the German Association of Psychosocial Centres for Refugees and Victims of Torture (BAfF), about 30% of refugees need psychosocial support out of approximately 2.000.000 people with a refugee background in Germany. BAfF estimates a prevalence of around 581.00 people who suffer from potentially treatable trauma sequelae disorder(s) in 2021. This situation risks exacerbating symptoms and causing symptom chronicity. Unlike the general population, refugees must approach their designated authority to request therapy, unable to seek out therapists directly. However, available psychological help centers for refugees (such as BAfF) face challenges due to inadequate funding. Therefore, these centers could only address about four percent of the potential demand in 2021. Not to forget, language poses another barrier to therapy, as qualified interpreters are often required for successful psychotherapy but aren't guaranteed for refugees. The process of applying for therapy is complex and costly, resulting in the obligation for helping facilities to bear the cost of interpretation services themselves (Karato, 2023; Stukenberg, 2021).

The lack of psychotherapeutic care and underlying life stories can – potentially and in very few cases - contribute to radicalization, making it a security concern. Therefore, providing psychotherapeutic services for refugees and addressing these issues is not only a humanitarian imperative to meet the minimum standard of living but also a meaningful security policy (Stukenberg, 2021). It should be therefore in the state's interest to mitigate and prevent this radicalization risk caused by untreated trauma.

In summary, every publication mentioned above emphasizes the urgent need for comprehensive and timely professional assistance. Overcoming bureaucratic barriers, improving language assistance, and expanding psychotherapeutic services were highlighted as crucial steps for enhanced healthcare delivery and successful societal integration, including integration into the labor market. Traumatic experiences have a long-term impact on the health of the affected individuals and frequently impede successful integration, amidst numerous everyday challenges and future uncertainties. The critical role of early detection and appropriate treatment of trauma-related and mental health issues was underlined for a holistic approach to refugee well-being.

3.2. On Standard PTSD Treatments

Twenty-four German organizations related to PTSD treatments joined their forces under the auspices of the German-speaking Society for Psychotraumatology (DeGPT) in elaborating a national guideline to help practitioners increase their confidence in working with traumatized patients and thus improve the quality of their treatment: the S3-Guideline for PTSD, published by the AWMF⁶. The provided suggestions are drawn from meta-analyses, primary studies, and international guidelines, including publications of the American Psychological Association, the Australian Centre for Posttraumatic Mental Health, the National Institute for Health and Care Excellence, the US Department of Veterans Affairs and Department of Defense, and the World Health Organization (WHO). The S3-Guideline generally recommends providing each PTSD-diagnosed person a “[...] trauma-focused psychotherapy, in which the emphasis is on processing the memory of the traumatic event and/or its meaning”⁷ (DeGPT, 2019, p. 6). Complementarily, it is further advised to consider eventual problem and symptom areas (like ongoing victimization, grief, and building of self-confidence) in the treatment (DeGPT, 2019). As mentioned before, this paper will not consider medication and drugs, since they would surpass the scope of the master’s thesis.

Although the S3-Guideline does not explicitly rate treatment methods concerning their appropriateness, it mentions the following trauma-focused treatment methods in positive contexts:

- Cognitive Behavioral Therapy (CBT),
- Cognitive Processing Therapy (CPT),
- Cognitive Therapy (CT),
- Prolonged Exposure Therapy (PE),
- Imagery Rehearsal-Therapy (IRT),
- Brief Eclectic Psychotherapy (BEP),
- Eye Movement Desensitization and Reprocessing (EMDR), and
- Narrative Exposure Therapy (NET).

⁶ AWMF = Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften e. V.

⁷ Own translation, originally: „[...] traumafokussierte Psychotherapie, bei der der Schwerpunkt auf der Verarbeitung der Erinnerung an das traumatische Ereignis und/oder seiner Bedeutung liegt.“ (DeGPT, 2019, p. 6).

For a better understanding of the above-listed PTSD treatments, they are briefly explained below. More detailed descriptions of the healing approaches are, unfortunately, beyond the scope of this master's thesis.

CBT (Cognitive Behavioral Therapy) is probably the most referred-to treatment method when it comes to PTSD. The intervention is centered on altering disturbing motifs in (the interconnection of) thinking, feeling, and behaving. Due to the generality of this method, the term CBT is also used as a category for several variations within CBT, which focus on distinct elements respectively. Among those specializations are CPT, CT, PE, and IRT (American Psychological Association, 2020).

CPT (Cognitive Processing Therapy) is specifically designed to assist the client in changing his/her beliefs about the traumatic event(s). This approach aims to make it possible to find a more helpful perception of the trauma, decreasing the event's negative impact on the client's daily life. **CT** (Cognitive Therapy), on the other hand, focuses on the cognitive alteration of fatalistic memory and interpretations of the trauma, intending to stop dysfunctional behaviors and thoughts. **PE** (Prolonged Exposure Therapy) encourages the traumatized person to challenge his/her avoidance patterns progressively and to face triggering memories, feelings, and situations. The intent of the method is for the client to realize that these reminders do not have to be off-warded (American Psychological Association, 2020). **IRT** (Imagery Rehearsal-Therapy) is a therapy specialized in combatting nightmares. In line with the CBT understanding that nightmares are learned behaviors, they can be consciously re-trained in a non-threatening way. The patient is therefore encouraged to write and re-write his/her nightmare(s) in a positive or at least neutral form and to rehearse this mental imagery throughout the day (Romier et al., 2024). Also related in a somewhat broader sense to these approaches is **BEP** (Brief Eclectic Psychotherapy), which blends components of psychodynamic processes with parts of CBT to address feelings of shame and guilt. This treatment method is designed for people who have experienced one traumatic event (American Psychological Association, 2020).

During **EMDR** (Eye Movement Desensitization and Reprocessing) sessions, the client is asked to concentrate on the traumatic memory for a short period. At the same time, the emotional affect of remembering is reduced by bilateral stimulation, normally provoked by eye movements (American Psychological Association, 2020).

The last here listed therapy, **NET** (Narrative Exposure Therapy), is especially well fit to work with a group of traumatized refugees. It emphasizes building and accepting a coherent life narrative while considering the trauma(s) context. The inherent element of

giving testimony of what happened is associated with increased self-respect of the patients and an affirmation of their human rights (American Psychological Association, 2020).

Most of these interventions are based on the CBT assumption that dysfunctional patterns of thoughts, feelings, and behaviors must be cognitively reframed to achieve positive change in the client's symptomologies and lives. The client is also expected to develop a certain habituation to the traumatic material, which lessens arousal and anxiety in future exposures. To this end, they rely mainly on psychological education about prevailing PTSD symptoms and their identification, relaxation strategies, and *in vivo* or imaginal exposure, i.e., reliving the trauma. Imaginal exposure is usually conducted in either spoken or written form. Many studies found CBT helpful across many cultures, while only a little training is needed on the therapist's side. The treatment can be conducted individually or in group settings (Kar, 2011).

Having such a broad and well-researched palette of (trauma-focused as well as non-fear-based) psychotherapies after only some 40 years since PTSD was added to the DMS, and thus being able to let the patient hope for full remedy, is amazing. All the treatment methods mentioned in this chapter are supported by a large and thorough body of evidence regarding their effectiveness. They are therefore without doubt rightfully included in various national and international PTSD treatment guidelines. Out of the trauma-focused psychotherapies PE, CPT, EMDR, and CT are the most researched ones, which thus present the most solid evidence of effectiveness (Norman, 2022). Specific numbers and percentages may vary dramatically between studies but are very promising overall. Watkins et al. (2028) concluded that 61% to 82,4% of patients treated with CBT archived a loss of diagnosis; among CPT clients the numbers range from 30% to 97%; while people treated with PE accomplished a loss of diagnosis in 41% to 95% of the cases.

Nonetheless, these interventions may not be suitable for everyone for various reasons:

All those therapies are predominantly mediated by a **“top-down” approach**. The client is taught to counter his/her symptomology through (changes in) thinking and cognition. This may be often useful for improving one's emotional stress management but neglects fully the patient's eventual need to gain awareness and for sensorimotor processing methods (Bernius, 2019; Kalmanowitz & Ho, 2016).

Alexithymia, a blindness towards one's emotions, is a common side effect of trauma. However, the standard treatments **miss out on sensory and bodily therapy elements**, that are important to tackle manifestations of dissociation and numbness. The feeling of being disconnected from one's body and feelings, originally trained as a protection mechanism, can frequently be observed in trauma survivors. This goes as far as they often cannot pinpoint emotions as such, and instead, only note the connected physical sensations (such as stomach cramps and heart racing) without being able to identify the cause of it. To protect themselves from the horrible visceral feelings and emotions of the trauma itself and the connected (perceived) threat traumatized people tend to suppress the brain areas responsible for self-sensing. They, thus, develop a general numbness and an incapacity to feel 'present' or 'alive' (van der Kolk, 2015). Special efforts to "[bring] the person back into their bodies" (Levine et al, 2015, p. 50) must be made. Nonetheless, these exercises are mostly marginalized in the above-mentioned standardized interventions.

In line with the Freudian idea of the "talking cure", the standard treatments rely heavily on **verbal externalization**, either in spoken or written form. Sigmund Freud and his colleague Josef Breuer described in the late 19th century that "hysterical" pathologies can be eradicated by having the traumatic content and the connected affects meticulously spelled out by the patient (van der Kolk, 2015). However, it seems like the frequent inability of trauma survivors to verbalize their terrifying memories is a human survival mechanism, where the brain tries to restrain the narrative (Malchiodi, 2008). Looking into psychoneuroimmunology, it can be observed that trauma changes brain function and structure. Normally, the right side of the brain stores information and memories and can weave them into complete stories and concepts. The left side of the brain functions more linguistically, which is necessary to grasp and verbalize the abstract thoughts of the right brain side. Trauma impacts the middle prefrontal cortex, which serves as a connector between the limbic areas and the prefrontal region; the flow of information disrupts and causes disassociation from cognitive processing and body sensations (Levine et al., 2015). Namely, the so-called Broca's area, located in the left frontal lobe of the cortex, goes "offline" when clients remember their traumatic experience(s). Since Broca's area is one of the speech zones within the brain, traumatized people often struggle hard to verbalize their emotions and thoughts (van der Kolk, 2015).

Since avoidance is a main symptom of PTSD, **high dropout rates** are anticipated across all treatment methods. Watkins et al. (2018) carefully refer to the percentage of

18,28% (for PE, CPT, and trauma-focused CBT), because of the high fluctuation in the figures between studies.

This could be related to why Kar's (2011) meta-analysis deduced a **grand non-responsive rate** (towards CBT) as high as up to 50% and only moderate improvement during the following two years after the treatment's end.

This discrepancy between the reality of a significant portion of traumatized people and the working method of standard PTSD treatment methods calls for basic changes and an expanded horizon for future research. Or to use Bessel van der Kolk's words:

“The body keeps the score. If the memory of trauma is encoded in the viscera, in heartbreaking and gut-wrenching emotions, in autoimmune disorders and skeletal/muscular problems, and if mind/brain/visceral communication is the royal road to emotion regulation, this demands a radical shift in our therapeutic assumptions.” (van der Kolk, 2015, p. 88).

3.3. On Complementary and Alternative Medicine and its Trauma Treatments

Bessel van der Kolk is by far not the only person looking for Complementary and Alternative Medicine (CAM) treatment approaches. Techniques, either supporting conventional treatments or replacing them, have gained popularity in Western societies over the recent decades (NCCIH, 2021; Pal, 2002). The term CAM encompasses an immense span of healing approaches even within the treatment of PTSD-like symptoms. It includes – but is not limited to – traditional practices (such as Chinese acupuncture) and herb-based medicines (Hu & Wang, 2021) or other natural products, spiritual approaches such as ancestral and energy healing (Dennison & Powell-Watts, 2021). Practices of mindfulness, meditation, and relaxation, physical exercise, nature, and animal-assisted therapies are also part of the broad span of CAMs (Motta, 2020).

The cited authors are all examples of CAM trauma healing approaches, in accordance with the subject of the thesis. CAM, however, is not restricted to only counter trauma—the field is much broader and can be applied in incalculable contexts. Due to the immen-

sity of these non-mainstream approaches, the US-American National Center for Complementary and Integrative Health (NCCIH) defines CAM as “[...] health care approaches that are not typically part of conventional medical care or that may have origins outside of usual Western practice” (NCCIH, 2021, n.p.).

In a systematic review, Wahbeh et al. (2018) rated the scientific evidence for individual CAM modalities, especially regarding PTSD. Out of 33 studies, they concluded *strong* scientific evidence for repetitive transcranial magnetic stimulation; and *good* evidence for acupuncture, hypnotherapy, meditation, and visualization. They furthermore ranked the scientific evidence for biofeedback, relaxation, Emotional Freedom and Thought Field therapies, yoga breath work, and natural products as *unclear or conflicting*. Their review, however, did not consider Creative or Martial Arts Therapies against PTSD-like symptoms.

The following illustration will help the reader localize Creative or Martial Arts Therapies in the vast field of CAM. The picture was retrieved from the website of the NCCIH (2021). Although Drama Therapy and Martial Arts (except T'ai Chi) are originally not listed in this depiction, they are also part of the intersection between psychological and physical CAM approaches. They were adjoined to the illustration accordingly. The yellow highlight was also added.

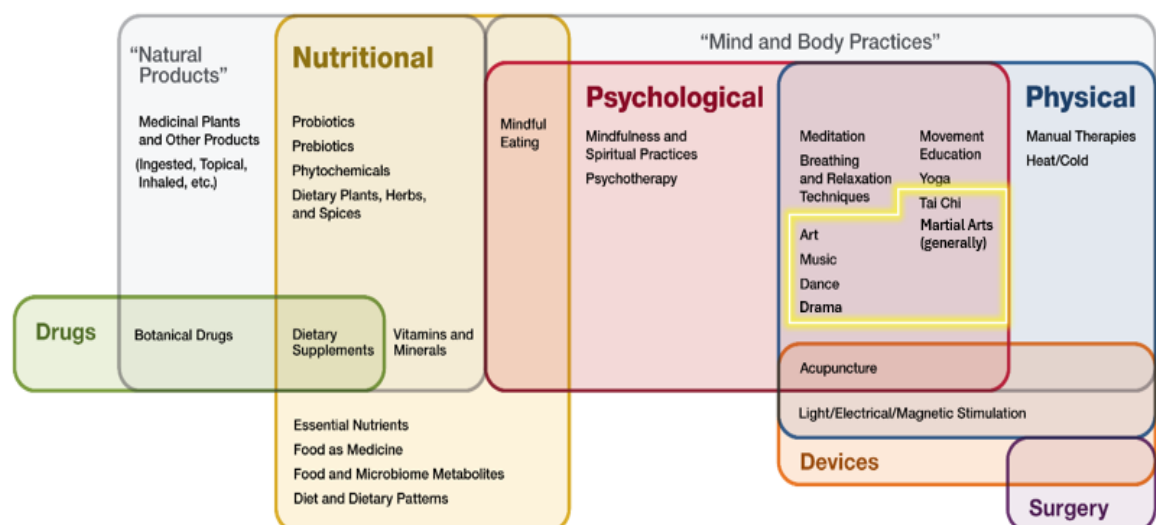


Figure 1: Overview of Complementary and Alternative Medicine

Chapter 4: Overview of Different Creative and Martial Arts Trauma Therapies

This chapter aims to respond to the first research objective, by providing literature reviews on the four Creative Art Therapies (art, music, dance, drama), and Martial Art Therapies.

4.1. Creative Art Therapies (CATs)

Creative Art Therapy (CAT) approaches are part of Complementary and Alternative Medicine (CAM). However, the field of CATs is very diverse and heterogeneous, as the therapy approaches can differ in their focuses, techniques, and therapeutic inputs.

All Creative Art Therapies have in common the interweaving of arts, creativity, and play with psychotherapy and counseling. Generally, they furthermore incorporate relaxation techniques. CATs are based on the cognition that the human range of emotions is so intricate that the conscious mind cannot comprehend it to its fullest extent. Instead, these feelings and memories are stored within the body. Especially traumatized people often find it difficult to access and verbally describe their traumatic materials – may it be as a result of avoidance patterns, alexithymia, dissociation, an instinct of self-preservation, or simply because these contents are remembered as pictures or other somatic realities. CATs assert to offer different ways of expressing that (otherwise inaccessible) information and ultimately the self. Therefore, they are also often referred to as ‘expressive therapies’. Nonetheless, it would be an oversimplification to understand CATs as purely ‘non-verbal’ approaches, since they usually seek a conscious verbalization of the sensations revealed by their respective form of art. In fact, verbalization is the main purpose of poetry, bibliotherapy, creative writing, and drama therapies. Emblematic for CATs are also their inherent self-relaxation and self-soothing elements by placebo effects, which draw on positive past sensations and memories (Malchiodi, 2008).

This thesis is centered on the four CATs modalities of Art, Music, Dance/Movement, and Drama Therapy. These therapies will be described respectively in detail in the following. Other forms of CAT like Poetry, Nature Therapies, and Mindfulness Therapies, are hereby acknowledged, but will not form part of the present study. This decision is not only justified by the page limitation for a thesis but also by the fact that poetry heavily depends on language. However, most refugees do not yet speak German on a level, where

it could be used poetically. On the assumption that the therapist does not speak the refugee's mother tongue, Poetry Therapy seems problematic for this population. Nature Therapies and Mindfulness Therapies were discarded, too, since their level of creativity is not as high as the therapies analyzed for this paper.

4.1.1. Art Therapies

Art Therapy is broadly defined as the therapeutical use of visible and tactile arts (DFKGT, n.d.). This includes, without being limited to, techniques such as drawing, painting, sculpturing, collaging, embroidery, and quilting. These interventions are vastly seen as a promising means to raise the psychological health of PTSD patients, as well as to address the symptoms' roots. Next to positive results on intrusive thoughts and hyperarousal, art therapy is said to be especially favorable in treating avoidance behaviors and emotional numbing, which are considered difficult to treat in other treatment methods (Collie et al., 2006; Schouten et al., 2015). Although the aesthetic of the respective piece of art is an important aspect of therapy, it remains experiential. It is subordinate to the very act of creating something and the highly personal metaphors woven into it (Kalmanowitz & Ho, 2016). These symbols might consist of colors, outlines, (a)symmetry, heterogeneity, harmony, contours, space, forms, accents, flow patterns, and/or textures, among others. Engaging in artistic creation can help individuals to make sense of their thoughts and feelings, as well as to develop an alternative and more positive self-perception (Brillantes-Evangelista, 2013). Collie and her colleagues Backos, Malchiodi, and Spiegel (2006) have identified seven core therapeutic mechanisms of art therapy, which will be described in more detail below:

- Externalization,
- Progressive exposure,
- Reduction of arousal,
- Reconsolidation of memories,
- Reactivation of positive emotion,
- Enhancement of emotional self-efficacy, and
- Improved self-esteem.

Visual, kinesthetic, and metaphorical expressions of traumatic memories, current sorrows, fears, imprecise feelings, as well as (self-)perceptions can be **externalized** and symbolized through art – to an extent where language alone reaches its limits. A patient can

be asked to illustrate whatever he/she deems important at the moment. This technique is called ‘free drawing’ and is presumed to be an uttermost authentic expression of the self. The survivor might also be tasked to draw what has happened, known as ‘narrative drawing’ (Martin, 2008). Considering the inertness of Broca’s area and the increased active-ness of the amygdala, hippocampus, and occipital cortex in cases of traumas, it is no surprise that affected persons struggle to put their visual memories into words. Especially since they are associated with high levels of fear, anger, and anxiety. By externalizing thoughts and feelings of all kinds, the artist gains a distance from his/her emotional state, without necessarily having to be exposed directly to the traumatic event(s), making it a non-threatening approach. The own, now “external” traumatic material can be approached as an observer and facilitates, therefore, working through the patient’s inner turmoil, which otherwise might be too overwhelming for him/her. The traumatized person can now explore and process latent psychological problems from a safe emotional distance. Thus, possible negative short-term adverse secondary effects can be bypassed at best (Collie et al., 2006; Kalmanowitz & Ho, 2016). However, other authors found that Art Therapy can also lead to a short-term increase in PTSD (and depression) symptoms. They stress treating these consequences with earnestness and give the patients enough space to come to terms with their emotions and thinking to achieve long-term improvement (Brillantes-Evangelista, 2013).

The easily regulated use of symbols in art triggers less avoidance and devastating feelings compared to a direct verbal expression of the same traumatic material. Art therapy therefore commences at a lower level of sensory stimuli and **progresses the exposure** step-by-step (Collie et al., 2006). Entrusting one’s fears, guilt, and hurtful memories to a piece of art, and hence communicating primarily with oneself, is often simpler than talking about it to another person, or even an almost stranger like a therapist (Baker, 2006). It furthermore provides the necessary timely latitude to use a tempo fitted to the client’s processing ability and to stay within the personal boundaries to evade a too-strong exposure to stimuli or even re-traumatization (Martin, 2008).

Engaging in art-making furthermore **reduces arousal**, enhances mindfulness, and counters negative moods, which are stirred up by exposing oneself to one’s traumatic material, due to its tranquil and meditative traits (Baker, 2006; Collie et al., 2006; Kalmanowitz & Ho, 2016; Martin, 2008). Drawing, quilting, sculpturing, etc. can serve as (calming) rituals and/or distractions from daily sorrows as they require concentration and a certain degree of ‘being present’ (Brillantes-Evangelista, 2013). Moreover, patients

do not have to worry about possible reactions of disgust, aversion, or retaliation by an interlocutor while artistically expressing their dark past (Baker, 2006). Especially for persons with a past of (politically motivated) violence, continuous efforts must be made to achieve a perception of being safe here (in terms of time, place, and company), which is essential to obtain any form of therapeutic progress (Kalmanowitz & Ho, 2016).

Creating art also offers a non-verbal facilitation to **reconsolidate memories** by constructing a coherent narrative, that includes fragmented memories and splintered parts of the self. Suppressed and distorted memories can be brought into awareness by illustrating them as something palpable (Kalmanowitz & Ho, 2016). Artmaking fosters the cognitive integration of fragmented memories and emotions: For example, working with fluid materials (e.g., watercolors) is considered especially helpful in disclosing visible hard-to-access sentiments due to their fluctuating outcomes. Contrarily, resistant materials (e.g., pencils and chalk), whose results are reliable, are suggested to visualize excessive and overwhelming feelings (Collie et al., 2006). Moreover, artmaking has been shown to help transfer those mental images into declarative memory, promoting verbal dialogue. However, art is not restricted to a supportive function towards verbal treatments, in which they use the artwork as a conversation starter or interpretation material; The process of artmaking itself leads the patient to recall, relive, re-enact, reinterpret, and eventually understand and resolve his/her inner conflict(s) (Baker, 2006; Brillantes-Evangelista, 2013; Collie et al., 2006). This, in turn, can result in feelings of catharsis, and relief (Kalmanowitz & Ho, 2016).

Emotional numbing – also of positive feelings – is a common symptom of PTSD. Creating something meaningful and somewhat aesthetical **reactivates positive emotions** and is associated with pleasant and rewarding sensations. More than that, art can visualize positive, hopeful, resilience-enhancing, and even spiritual themes—those affirmative characteristics of making art hold the possibility of finding back to feeling joy and balance and re-connect to one’s character before the traumatic event(s) (Baker, 2006; Collie et al., 2006). Especially concerning spirituality, Brillantes-Evangelista (2013) points out that therapy should not be about the mere disclosure of symptoms, but about facilitating the patient to lead a purposeful and qualitative life. Strengthening spirituality might be a means for some to advance their psychological healing without resulting automatically in clinically measurable symptom improvement (Brillantes-Evangelista, 2013).

Consequentially, Art Therapy also **enhances emotional self-efficacy**. Being able to enclose, contain, and manipulate artistic representations of the unspeakable traumatic

memories may produce a sensation of empowerment, agency, and regained control and mastery over one's emotions and reactions (Brillantes-Evangelista, 2013; Kalmanowitz & Ho, 2016); instead of mere 'victims' the clients can turn themselves into 'survivors' (Baker, 2006). The traumatized person builds up confidence in his/her capability to communicate internal and externally strong emotions in a healthy, proper, and non-shattering form (Collie et al., 2006). Art making furthermore encourages being more aware and accepting of the self in a non-judgmental manner. It expands the range of possible reactions to a stressor, equipping the traumatized person with adequate coping strategies for future exposures (Kalmanowitz & Ho, 2016).

When Art Therapy is modeled as a group intervention, additional positive effects on the healing process are observed: experiencing that the created art is seen, understood (regardless of cultural and linguistic differences), and even valued by others without judgment within a safe space **improves self-esteem**. Likewise, witnessing peers struggle with similar issues, fears, shame, and traumatic experiences can function as validation and normalization of one's hassles (Collie et al., 2006; Kalmanowitz & Ho, 2016; Miller, 2010). Seeing others already enthusiastically engaging in therapy makes it easier for newcomers to get involved in the healing treatment. Likewise, helping new group members to settle into the therapy routine and to show them already created part works, can evoke a sense of accomplishment and self-esteem in the senior group members. That way, all members can benefit from the peer support (Miller, 2010). The group setting may also serve as a steppingstone out of social isolation back into a community, and into confiding and functional relationships (Collie et al., 2006; Miller, 2010).

Brillantes-Evangelista (2013) identified six art psychotherapy theories. Her theories partly employ Collie's et al. (2006) core therapeutic mechanism but offer another approach to cluster and understand art therapy's functioning. The six theories shall therefore be briefly presented:

- Narrative/constructivist approach,
- Gestalt approach,
- Response and arousal,
- Psychoanalytic approach,
- Jung's active imagination and archetypes, and
- Mindfulness and spiritual encounter.

The **narrative/constructivist approach** sees art as a means for individuals to make sense of their perceptions of themselves and their environment. Through illustrations, metaphors, and other embodiments of their experiences, people can gain new interpretations, and discover further meanings of their realities, by immersing themselves consciously in their problems and finding artistic solutions (Kalmanowitz & Ho, 2016). Even more so, they could make use of constructive alternativism, if they chose to experiment with alternative narratives of their lives. This may inspire them to change their views or actions in their real lives for the newly constructed ones (Brillantes-Evangelista, 2013). It is argued on a neuro-scientific level that as long as a “corrective” narrative is sufficiently felt, it is irrelevant to the brain whether the experience is fictional or real; this loophole can be used to create a healing counter-experience, resulting in the fortification of new learnings (Boudrias, 2021).

The German word ‘**Gestalt**’ can be translated into form, shape, or figure. The main goal of this approach is to ‘take shape’ emotions and memories. Creating something physical helps the traumatized person see himself/herself from an outsider's perspective. Similar to the narrative/constructivist approach, this can lead to a re-creation of the person (Brillantes-Evangelista, 2013).

Art uses more diverse channels than solemn cognitive recognition to provoke the audience's feelings. Consuming art is, therefore, intended to stimulate certain levels of **response and arousal**, which can be induced through specific tones or moods. Sympathy with the artist can bring emotions to the surface, independently of how close these feelings are actually to the piece of art (Brillantes-Evangelista, 2013).

This surfacing of repressed and/or unconscious material is the point of departure for the **psychoanalytic approach**: The emerged psychic elements can be interpreted by the therapist, which allows him/her to better understand the client's inner turmoil. The non-threatening character of art facilitates the patient to work through the hurtful emotions buried before (Brillantes-Evangelista, 2013).

By taking advantage of **active imagination and archetypes** during the creation of art, people can venture with their future and recall their past, while not running the risk of feeling obligated to these versions. The use of archetypes, which are understood as culturally shaped representations of images and concepts, may be beneficial to actively give structure to chaos by imagination. Those insights are expressed in art and therefore feasible to others (Brillantes-Evangelista, 2013).

Lastly, engaging in art encourages **mindfulness and spiritual encounters**. While trying to make sense of their experiences, people become more attentive to how they act, feel, and present themselves within their social relationships. In searching for a meaningful way of life, art might also be a touchable container and/or exploration testimony for spiritual beliefs (Brillantes-Evangelista, 2013). Symbolizing a memorial for a lost person, for example, has a tremendous impact on a healthy mourning process and the healing process (Baker, 2006).

As a third concept, Hamel's (2021) six hypotheses on why Art Therapy is effective will be laid out. She argues that in many cases, art in its various two or three-dimensional styles offers a safe way of **abreaction**. Locked-away memories and feelings can find an aiding outlet through art making. Stirred-up sensations can immediately be externalized, leading to relaxation and the facilitation of reconsolidating fragmented memories. Another hypothesis is that the **simulation of the right brain** (or more accurately: implicit neural pathways) circumvents the inactivity of the Broca's area. Sensations for which no words can be found can be expressed by art-making. Later, the created art piece may also be used as an anchor or guide to verbalize the images and emotions, reconnecting them with explicit neural pathways. Closely linked to this is the concept of **isomorphism** which theorizes that every artistic expression reflects parts of the artist. In other words, by looking at the art of the patient the therapist (and often the patient himself/herself) can find glimpses of traumatic material that otherwise the traumatized person is not yet ready or able to communicate. Hamel's fourth explanation of the effectiveness of art therapy revolves around **objectification**. As indicated earlier in this chapter, it is easier to discuss sensations represented in one's art than directly the traumatic memory or feeling. It gives the patient the possibility to distance himself/herself from his/her trauma(s), leading to a sense of control. A similar purpose serves the idea of **containment**. Letting the paper, canvas, clay, etc. hold parts of the traumatic material, the patients can leave it behind; they do not have to carry it themselves. By trapping and securing their memories in art, traumatized persons may feel that the content diminished or lost its harm on them. Lastly, as the patient is free in his/her choice of material/techniques, the depth and speed of the trauma exposure, they experience a heightened feeling of **security** and run a lowered risk of symptoms worsening or re-traumatization (Hamel, 2021).

Although art therapy is hardly a new concept, surprisingly little research was done on artistic trauma treatments for refugees (Kalmanowitz & Ho, 2016; Scott & Williams, 2024). However, especially refugee populations, which are otherwise hard to access, can be intentionally targeted by offering specific art therapy initiatives, that are tailored to the population's culture and social norms. That provides them with an accessible way to work on their traumatic experiences safely. Such ventures do not only make an effort to reconnect the individuals to their pre-conflict and displacement identity and culture but also provide a social support network with people who share and therefore understand the socio-political context of the home country and the migration problems in the host country (Baker, 2006). Nevertheless, it must be considered that therapy is mostly offered by the host country. The programs can therefore be subject to cultural misapprehension and unconscious biases. The perception and interpretation of art are closely linked to one's home region and culture, and so, the therapist must constantly practice cultural humility to minimize those barriers (Scott & Williams, 2024).

4.1.2. Music Therapies

Music is meaningful to all people, regardless of their demographic characteristics, and particularly to those in critical situations (Ng, 2005). It is profoundly related to the processing of feelings and is therefore an effective instrument to help patients gain awareness of their emotions and to give them a tool to process those new insights constructively. Music-based therapy, independently of whether they are product- or process-orientated, can alter the emotional manner of how a person goes through and interprets traumatic experience(s). Making music also gives the traumatized individual a sense of normality. The knowledge, that one can achieve a form of ordinariness after all he/she has been through, can boost resilience. Music therapy may furthermore be seen as an alternative to some who fear the stigmata of 'normal' psychological treatments (Landis-Shack et al., 2017).

Positive psychological and emotional results can be obtained by active (playing and composing music) and passive use of music (listening to songs and compositions). Active employment of music therapy can, *inter alia* include exercises of musical improvisations (vocally or on instruments) and songwriting within or without a group. But also the simple act of listening to music can bring better abilities to be relaxed and grounded in the present

moment as well as to pinpoint one's (non-verbally accessible) emotions (Bensimon et al., 2012; Garrido et al., 2015; Landis-Shack et al., 2017; Smyth & Nobel, 2015).

Moreover, a study by Bensimon et al. (2012) also discovered that concentration and organization skills were enhanced, while psychopharmaceutical and substance dependency decreased and hallucinations of traumatic material became less frequent thanks to music therapy.

Since both trauma and music are sensory mediated, music offers a pathway to spark brain functions that are responsible for emotional behavior, sensory-emotional processing, and lastly posttraumatic expressions without having to employ verbal approaches. As stated before, many individuals affected by PTSD-like symptoms suffer from alexithymia, i.e. blindness to one's emotions and the disability to phrase them verbally due to a malfunction of the middle prefrontal cortex. This gentle approach is especially suitable for expressing memories, which are non-explicit and/or linguistically unavailable (Bensimon et al., 2012; Bernius, 2019). Music contributes to the development of a more coherent trauma narrative (Garrido et al., 2015).

Some sounds, instruments, and/or lyrics might be associations, memories, sensations, and feelings of traumatic events and have therefore qualities of exposure to the individual. At the same time, other instruments are associated with calming and relaxing effects. To successfully treat PTSD-like symptoms, both features of music are needed in a pendulum: regular exposure to the trauma leads to habituation, i.e., the sympathetic nervous system responds less intensively. On the other hand, music offers a way out of the state of panic into a deliberately created calm mode of being (Bensimon et al., 2012; Carr et al., 2011). A distinction is made between bottom-up and top-down methods of stress regulation in music therapy: Whereas the first one evolves around sensorimotor processing modes, the second one makes use of cognitive-emotional techniques (Bernius, 2019).

Being part of a music group is associated with feelings of belonging and social connection. Group music therapy is, therefore, an adequate means to direct tendencies of avoidance, detachment, and social isolation of the client, even for participants who do not want or cannot verbally engage (Carr et al., 2011; Landis-Shack et al., 2017). This stand-in social technique can be carried out with "baby steps": at the beginning, not even eye contact is needed to hear one's own music harmoniously blending into the music of the

whole group. In an astonishingly short amount of time, a connection between group members and a feeling of community can be obtained. Within this newly created safe space, music facilitates speaking about topics related to trauma but also independent ones. The empathetic musical or verbal response of peers to his/her story helps the individual open up to himself/ herself and others (Bensimon et al., 2012). The musical interpretation and replay of the emotions and stories of his/her peers, make the client feel deeply understood, in a way that words alone cannot mediate (Bensimon et al., 2012).

On a neurobiological level, music has proved to have an impact on the mesolimbic dopaminergic system. It orchestrates the release of endorphins and makes the musician feel enjoyment, titillation, and reward. It simultaneously curbs the levels of stress hormones triggered by unfavorable feelings of anxiety, shame, panic, (self-)blame, sadness, and other forms of emotional distress. Making music may also be an effective tool in cases of anhedonia and muted or numbed emotional experiences (Landis-Shack et al., 2017).

Moreover, music can have cathartic effects. Especially the physical movement of “hitting” drums has proved to be a healthy and constructive outlet for letting go of rage, frustration, or hyperactivity by using up (hitherto suppressed) physical energy. It has also proven to be suitable to provoke depressive clients to take part in the activity (Bensimon et al., 2012; Carr et al., 2011; Hilliard, 2008; Landis-Shack et al., 2017).

However, the expression of emotion via music is not limited to just rage and anger. Music can articulate and communicate the whole range of human emotions, which are mostly highly complex. The provided output of emotions is capable of paving the way toward a healing processing of any kind of feeling. This in turn results in an increasing ability to regulate and control emotions consciously and autonomously. Music is therefore an effective support to create grounding or distraction opposing trauma-related triggers in the patient's daily life (DMtG, 2019). This enhanced emotional control, in turn, allows for an ameliorated handling of stressors. The risk of falling into dissociation or becoming overwhelmed by emotions is thus reduced, enabling the individual to build functional social relationships (Bernius, 2019).

Practicing music alone or within a group enhances self-esteem while diminishing self-perceptions of hopelessness and insignificance. This is achieved by (re-)learning instruments, the shared enjoyment of music (within a group), and the acquired control over one's emotions (DMtG, 2019; Landis-Shack et al., 2017). Music Therapy also practices

fundamental social skills like frustration management, acceptance of help, and compliance with instructions. Moreover, music-making trains prosocial and reciprocal interactions such as active listening and participation, practicing patience, and taking turns. These learnings of how to function within a group are not limited to combat PTSD symptoms and will benefit the patients, who are often socially impaired, in all life situations (Hussey et al., 2008). Other resources like connection to the self, openness to new experiences, and the ability to establish trusting relationships are also activated by playing music (Bernius, 2019).

Music is part of all cultures. Therefore, this form of creative and symbolic emotional outreach is receivable for others, regardless of possible language barriers. Moreover, many cultures perceive music to hold healing qualities. It also can give displaced people back a sense of cultural identity (Longacre et al., 2012).

4.1.3. Dance Therapies

Dance – in various forms – has been used over different cultures and centuries as a healing ritual, or spiritual and sacred expression (Gray & Fargnoli, 2022; Parker, 2018). Modern-day Dance Therapy is still closely related to these ancient socio-cultural techniques from around the world, without categorizing and thus reducing its multicultural roots (Gray & Fargnoli, 2022). While the term ‘Dance Therapy’ does not have a universally accepted definition (Tomaszewski et al., 2023), ‘Dance Movement Therapy’, which is a more specific and formalized discipline within the domain of Dance Therapy, has professional standards and is defined as “[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual” (ADTA, 2020, n.p.). However, it is clearly advised to incorporate it into other (verbal) therapies (Levine et al., 2015). ‘Dance Therapy’ is a broader term, which includes all kinds of therapeutic activities which engage dance (Tomaszewski et al., 2023). In the following the term ‘Dance Therapy’ includes ‘Dance Movement Therapy’. Although most of the literature read for this thesis is on Dance Movement Therapies, this study also compassed different forms of trauma-focused Dance Therapies.

The holistic approach of Dance Therapies is non-goal-oriented, which allows the individual to process and heal at his/her own pace while decreasing stress in an open and accepting ambiance (Parker, 2018; Pierce, 2014).

The function of dance therapy can be explained by a short excursion into psychoneuroimmunology. As stated before, the impacts of trauma on the middle prefrontal cortex (and the related restraints on the exchange between the right- and left-brain area) can lead to disassociation from cognitive processing and body sensations. Bringing the body into trauma treatment allows not only a non-verbal means of communication but may also excavate dissociated past experiences and foster body-mind-brain connections (Levine et al., 2015).

Dance therapy is considered a bottom-up approach: It tries to attend to the underlying cause of PTSD-like symptoms, rather than focusing on getting rid of dysfunctionalities only. This method provides the patient with adequate coping skills, which can also be utilized to counter other, previously unidentified problems in the future (Parker, 2018).

Expressive dance prompts memories, pictures, and mental connections, which excites the progress of reflection on these impressions (Martinec, 2018). Dance is a pre-, or nonverbal medium for identifying, expressing, and letting go of emotions that were otherwise too imprecise, painful, or subconscious to be said aloud. It uses metaphor and surveys the mind, allowing the body to “speak” instead. These feelings can be externalized while holding a safe emotional distance through motoric metaphors, conveyed by e.g., moves, facial expressions, poses, gestic, physical contact, and kinesthetic sensation. This, in turn, may eventually also contribute to the verbalization of traumatic material in time (Martinec, 2018; Tomaszewski et al., 2023). Trained dance therapists can interpret and bring the clients’ (often tenuous) movements into awareness by mirroring them exaggeratively. Moving the body intentionally freely might be healing for those who were for some reason immobilized during the traumatic event(s) they suffered and got stuck in a fear freeze (Levine et al., 2015). It is advised that each dance therapy session should end with a discussion of new impressions and findings evoked by the movements (Martinec, 2018).

As already implied, discovering different themes and metaphors in dancing counters numbness and the suppression and fragmentation of memories. Since dance is often linked to music, the selection of lyrics, rhythms, and styles must be carefully considered and employed to favor this exploration of the self (Levine et al., 2015). Some dancers may also be able to self-identify themselves in the movement of others, which makes them and their psychological and physical problems feel “seen” and understood. Mirroring others’ movements also fosters kinesthetic empathy, which (re-)connects the dancer

to other human beings (Levine et al., 2015; Martinec, 2018; Parker, 2018; Pierce, 2014; Tomaszewski et al., 2023).

Another effect that unites a group of dancers is “muscular bonding”. This term describes the visceral link between members of a group who perform rhythmic movements together. It is often used to foster camaraderie and sodality in military contexts (Winters Fisher & Freeman, 2022). In this context, dancing might help to form interpersonal boundaries, rebuild a healthy sense of intimacy and trust, and generally improve social skills and confidence in oneself (Pierce, 2014).

Dance and trauma are necessarily and directly linked to the body. Therefore, dance may serve as a tool to modulate traumatic material and stimulate a re-connection of mind, body, and brain, which is essential to treat PTSD-like symptoms (Koch & Weidinger-von der Recke, 2009; Levine et al., 2015; Parker, 2018). Dance is seen as a portal to the right brain, allowing for its vertical integration. Combined with techniques to regulate this brain side, this assimilation fosters the construction of a cohesive and safe self-awareness (Pierce, 2014). In other words, engaging in dance therapy has positively impacted the dancers’ relation to themselves and their bodies. The patients report higher perceptions of empowerment, self-pride, and improved motor coordination and awareness of physiological sensations, and their connected physical expressions. This may be because they notice that they can perform more and more movement and can therefore claim and control their bodies (again). The enhancement of sensorial and emotional awareness as well as the learned self-care and the active handling of psychopathological symptoms can contribute to welcoming being alive and present anew (Levine et al., 2015; Martinec, 2018; Tomaszewski et al., 2023). Thus, this body-centered therapy is especially profitable for people who have suffered physical traumata (e.g. sexual abuse and torture). Those traumatic materials are often stored in the body and remembered like the original physical sensations. Consequently, survivors are frequently restricted in recognizing their sensory, emotional, and social necessities. They show symptoms of bodily dissociation, motionlessness, and chronic states of agitation (Koch & Weidinger-von der Recke, 2009; Martinec, 2018).

Dance and movement help to (re-)develop embodiment cognition and interoception by employing e.g., rhythm, mirroring, and relaxation. Desirably, the client reaches the ‘Flow Stage’. In this situation of “holding space”, the traumatized person is completely in the

'here and now', enjoying the activity and its inherent creativity. In the 'Flow Stage' he/she is distracted from everything else in a near-hypnotic manner. This has a soothing effect on the parasympathetic nervous system and provides a wholesome outlet for fears and aggression. Mental health impairments like depression, anxiety, hypervigilance, and/or chronic physical pain can be lessened significantly (Levine et al., 2015; Martinec, 2018; Tomaszewski et al., 2023). Other calming and downshifting elements of dance therapy include (but are not limited to) breathing, awareness, and grounding exercises, which have positive impacts on the neurochemical ramifications of arousal and stress (Levine et al., 2015; Martinec, 2018; Pierce, 2014). Chakraborty & Tant (2022) see embodiment as the foundation of Dance Therapy, which acknowledges and appreciates the body's adaptive coping mechanisms, which save the survivor's life during the traumatic event(s). Focusing on the already existing and constructive coping strategies, Dance Therapy tries to strengthen the client's spiritual, somatic, and psychological power. With this bolstered resilience, it is hoped that clients can regulate into their window of tolerance where they can integrate new learnings without getting retraumatized when confronted with their past (Chakraborty & Tant, 2022).

Some authors suggest that dance therapy might be especially beneficial for migrants and other individuals who are restricted in their verbalization skills. This is deducted from the existence of different dances that aim to activate the targeted cognitive, creative, and sensorial elements all around the globe. The importance of language skills fades into the background, while cultural resources and family backing can be bolstered (Koch & Weidinger-von der Recke, 2009; Tomaszewski et al., 2023). Moreover, reclaiming and rebuilding a safe space of familiar (dance) rituals is highly reassuring for forced immigrants because it gives them back a sense of belonging and community (Gray & Fagnoli, 2022).

In summary, dance therapy is a biopsychosocial process, that promotes the development of self-awareness and -compassion, emotion regulation efficiency, and social skills (Martinec, 2018; Parker, 2018; Pierce, 2014). It furthermore fosters spiritual experiences, communication skills, and creativity. Especially the latter is associated with higher levels of flexibility, resilience, and personal growth (Martinec, 2018). All of this contributes to an increased profoundness, swiftness, and facility of the trauma treatment (Levine et al., 2015).

4.1.4. Drama Therapies

Drama therapy was defined as “[...] the systematic and intentional use of drama/theater processes, products, and associations to achieve the therapeutical goals of symptom relief, emotional and physical integration, and personal growth” (Malchiodi, 2008, p. 11). Drama therapy combines the artistic discipline of drama/theatre – characterized by roles, storytelling, and improvisations - with influences of neuropsychology, psychoanalysis, narrative, and developmental psychology as well as role theory (Bleuer & Harnden, 2018; Haen, 2008). It incorporates a multi-model technique, that can blend music- and artmaking, play, movement, and dramatic and theatrical processes (Mackenzie, 2013).

Similarly to other art therapies, drama therapy utilizes exposure and externalization through projection. Through artistic forms of acting, storytelling, and playwriting traumatized people can portray interior turmoil and part of themselves or reenact memories. They might also be able to identify themselves with dramatic projections of others. The act of projection allows the client to perceive his/her inner conflicts from another perspective, which, in turn, is hoped to lead to internalization, acceptance, and transformation of the traumatic material and/or its affects (Bleuer & Harnden, 2018).

“Drama therapy is a rehearsal of life, wherein clients can rewrite past experiences, gain new insight or perspectives in the here and now, and explore future possibilities” (Ventura, 2021, p. 11). Play in drama therapy is, therefore, seen as a principal method to gain access to traumatic memories, to comprehend, organize, and externalize them as well as to experiment with alternative options, decisions, and reactions to stimuli (Haen, 2008). Play can be characterized as “part of the expressive range which can be drawn on in creating meaning, exploring difficulties, and achieving therapeutic change” (Jones, 1991, as cited by Bleuer & Harnden, 2018, p. 169). Children often use play naturally and instinctively to make sense of their experiences and process them (Jones, 2015; Landy, 2010). But also for adults, playing offers a pathway to control traumatic material that does not rely on language alone through metaphors and symbolism (Bleuer & Harnden, 2018). Within the playspace (the understanding that the said and done is fictionary) the newly created alternative reality is liberated from time and space. In this ‘dream space’, dark and heavy emotional content can be faced with humor and playfulness. Comparable to ancient shamanic transcendental practices, drama therapy allows for mental journeys, awake dreaming, and shape-shifting through role fluctuations within its trance-like play space (Glaser, 2004).

Many people who suffer from interpersonal trauma shy away from conflict situations, fearing to end up hurt again. The material of classical and modern theatre plays, however, revolve essentially around various forms of conflict and their outcomes, representing a special kind of exposure by their nature to traumatized people. Feelings of shame and guilt are also common among clients, causing them to be anxious if they are being noticed. On the stage, however, they are required to stand and perform confidently as well as to fill a whole room with their voice (van der Kolk, 2015).

Being witnessed in expressing the traumatic event(s) and the effects of it, are core elements of drama therapy. The artistic interpretation can be witnessed by an audience, by the therapist, by peers, or only by oneself. Performing before an audience holds the potential power of transformation in both the actor/actress and the spectators (Buckley, 2023) since actors and actresses are schooled to sense emotions so deeply that they can convey those feelings to the audience. This empathy and sharing of emotion are even stronger when the people audience is permitted to take part in the play actively and become actors/actresses themselves. The theatrical need to sense emotional and physical impressions profoundly runs contrary to the impulses of individuals with PTSD-like symptoms, forming an incentive to become aware of feelings (van der Kolk, 2015).

Within play, role-playing may serve especially well in attempting to evaluate a situation from other points of view and to fathom other characters' emotions. In written plays, traumatized actors/actresses are encouraged to reflect intensely on the character's lines and to find out how he/she interprets the words and what reaction they generate for him/her personally (van der Kolk, 2015). Role-play can moreover be used to train body-based self-regulation techniques such as grounding, self-touch, and debriefing. Switching roles within an improvised scene delineates how other people react in the same situation, presenting further options and alternative responses. Changing the role also benefits those who are temporally overwhelmed and too affected by their role to gain distance (Haen, 2008).

Distancing is a vital component of drama therapy and has been defined as “[a] process of titrating emotion and cognition through engagement with dramatic media” (Buckley, 2023, p. 136). Often referred to as ‘aesthetic distance’, the therapeutic tool allows the traumatized person to sense, externalize and accept their traumatic material and their reactions to it without getting emotionally too affected by their PTSD-like symptoms. Pretending to be another (imaginary) being, or to be in another fictional reality facilitates

expressing what has happened, what is felt, and what is hoped for. So does the use of metaphors, masks, or the telling of fictional stories. Finding the right degree of distancing is a balancing act; the drama therapist must be able to weigh out the patient's over- and under-emotional engagement into the right amount of exposure to obtain therapeutic progress while avoiding re-traumatization (Bleuer & Harnden, 2018; Buckley, 2023). The exposure can be 'distanced' through variations in embodiment, ranging from partial and widely extrinsic media like hand puppets or tiny toys to full-body performances in almost realistic interactions with other actors. A clear distinction between the play and reality is often created consciously by marking a physical 'stage' or by establishing rituals (like, shouting 'action' and 'cut') to define the act temporally (Haen, 2008).

If a drama therapist observes a client's tentative expression, the professional will augment it with a dramatic maneuver. By doing that the traumatized person becomes aware of this gesture and can delve deeper into this aspect. Such kinesthetic encounters are associated with a rebounding with the body (Haen, 2008). Moreover, this technique can be employed to strengthen resources by literally holding happy or proud memories in front of the client's eye (Bleuer & Harnden, 2018).

Embodiment, in turn, is understood as the physical expression of feelings, experiences, and/or fragments of one's personality. Although often used as a means to explore one's own inner conflicts, the body is also considered the main communication tool between the self and others (Ventura, 2021). Thus, embodiments performed by outsiders, like therapists or peers, can also have a tremendous and eye-opening effect. Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. Obtaining high levels of embodiments in drama therapy is therefore also associated with increased engagement in concurrent talk therapies (Bleuer & Harnden, 2018).

Dramas and theaters are usually performed in a group, which holds additional benefits for the traumatized actors. The knowledge that they are all battling similar obstacles in life allows them to tie into a working group, providing a safe space for the free expression of traumatic material. It equips the group members with shared affirmation, fortitude, and aspiration (Haen, 2008).

4.2. Martial Arts Therapies

Comparable to most other sports, martial arts build up physical fitness, aerobic capacity, and cardiovascular function, as well as mind-body coordination, flexibility, attention, strength, and balance through disciplined physical activity (Bell, 2008; Burke et al., 2007; Faggianelli & Lukoff, 2006; Lukoff & Strozzi-Heckler, 2017; Niles et al., 2022; Oulanova, 2009). Several studies do furthermore agree that the performance of martial arts leads to increased levels of prosocial behavior, self-esteem and concentration, and an elevated feeling of empowerment (Momartin et al., 2019; Niles et al., 2022; Oulanova, 2009; Rosenblum & Taska, 2014; Twemlow et al., 2008). Being part of a group as well as engaging physically and respectfully with others promotes social well-being (Bell, 2008; Garcia Vargas, 2019; Lukoff & Strozzi-Heckler, 2017; Momartin et al., 2019; Rosenblum & Taska, 2014; Shamseddin Sami, 2021; Twemlow et al., 2008). Martial arts can furthermore have a positive impact on talk-centered therapy since they do not only foster the verbal interventions by allowing the client to learn more about him/herself, and his/her boundaries to physical touch, but also because the training reconnects the mind with the body and foster mental unification (Oulanova, 2009).

Generally, the existing literature shows consistency in the fact that practicing martial arts can enhance not only physical but also mental and social well-being. Figueiredo (2009) describes combat sports and martial arts as a “bonanza [of] biopsychosocio-axiological wealth” (Figueiredo, 2009, p. 32). These sports are portrayed as a gold mine of rich mixtures of values, biological, psychological, and social ingredients. The motrice actions of the martial artist can only be understood in their physical, spiritual, and social aspects through a double epistemology. It therefore requires both theoretical and practical knowledge to understand a particular movement in its full complexity (Figueiredo, 2009). Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay (Tsai et al., 2018).

Oulanova (2009) observed that her experiences of practicing and teaching a martial art (karate, in her case) are in multiple ways reminiscent of her counseling as a psychotherapist; to be able to learn and to cultivate oneself, both the martial art practitioner and the client must trust the process and the master/therapist. Both ‘teachers’ animate their student/client to find his/her own way to succeed in the task at hand, even though this includes remaining passive during times of tension. Furthermore, East Asian philosophies like Zen Buddhism, which are basic to many martial arts, advocate the renunciation of

attachment – as does psychotherapy in a sense when it comes to letting go of dysfunctional thought patterns. Meeting the same people, at the same place at the same time to do the same thing, reminds one vaguely of group therapy. Shared meaning is created, by following a set etiquette, rituals, and maybe even wearing the same clothes. This, in turn, leads to social group building. Eventually, the martial arts practitioner finds oneself alone in confronting situations (e.g., while sparring physically with peers in the dojo). That is how they learn to deal alone with negotiating conflicts and how to surmount feelings of aggression, vulnerability, weariness, and uneasiness; just as the client must ultimately adjust to handle inner conflicts without the therapist. In succeeding in overcoming these challenges, the fighter/client realizes his/her strength, resilience, and hardiness. This experienced growth is further strengthened by the fact that the hurdle was taken based on free will despite feelings of cognitive dissonance (Oulanova, 2009).

Although physical and social well-being are undoubtedly essential parts of stable mental health, this study focuses on the more direct positive effects of martial arts on PTSD patients. Willing et al. (2019) found in their research, that Brazilian Jiu-Jitsu is promising in decreasing PTSD symptomology and improving comorbidities like depression, anxiety, and substance abuse. Another study by Tsai et al. (2018) concluded that PTSD patients enjoyed their participation in a Tai Chi intervention. They furthermore benefitted from reduced feelings of pain, fear, and anxiety in a stigma-free environment.

As shown below, those results can also be expanded to other martial arts. Consequently, martial arts are proven to help cope with all four above-defined PTSD-like symptoms:

a) Intrusive memories

Traditional Asian martial arts are often described as ‘moving meditations’ since they demand a still mind while moving the body. Holding the mental focus, while keeping attention to breathing techniques, the choreography of movements, and/or the actions of the training partner, requires a high level of ‘being present’, which was proved to impede the occurrence of intrusive memories in various studies (Lukoff & Strozzi-Heckler, 2017; Niles et al., 2022). This meditational training and the associated increased spiritual fitness were documented to be an effective coping mechanism, especially in dealing with feelings of guilt and shame. During the occurrence of flashbacks, the awareness methods are expected to increase calmness, focus, and awareness of one’s body and surroundings have

been practiced previously (Eads & Wark, 2018; Grodin et al., 2008; Lukoff & Strozzi-Heckler, 2017).

b) Avoidance

Trauma-informed self-defense and martial arts lessons can be used as *in vivo* exposures to the individual's trauma. To counter avoidance behavior, the traumatic event can be re-enacted in verbal and physical assault scenarios. The patient is therefore not only confronted with his/her trauma but has also the possibility to react to this exposure physically and actively, which counteracts conditioned immobilization (contrary to 'talk therapies' where a calm, freezing state is coerced). These classes also provide an opportunity to re-script the painful memory in a safe environment. Because of the newly learned ability to defend oneself physically and the social support from peers, many patients feel empowered and can potentially modify their fear structures which are associated with the trauma. For this kind of exposure therapy, a professionally trained psychologist should be present (Rosenblum & Taska, 2014; Willing et al., 2019).

Since many martial arts also teach self-calming routines through grounded stances and controlled breathing, they can be understood as a non-clinical form of alert hypnosis. Being capable of fighting panic attacks and flashbacks and remaining "present", enables PTSD-suffering persons to feel secure enough to confront themselves with activities they would have otherwise avoided (Eads & Wark, 2018).

Also, most martial arts (in particular external ones) include necessarily physical touch with another human. The *homo sapiens* is a highly social being, to touch and being touched is essential for its well-being. However, people suffering from interpersonal trauma often avoid social touch. Practicing an external form of martial arts may favor the circumstances to find the way back to normalized physical contact (Lukoff & Strozzi-Heckler, 2017).

The philosophies provided by (Asian) martial arts allow the practitioner to take an 'over-combat' perspective, where the trauma and its psychological consequences can be fought against, instead of having to have a physical enemy (Figueiredo, 2009).

c) Negative changes in thinking and mood

In learning to engage respectfully with others and especially with oneself, martial arts hold the possibility to increase self-compassion and reduce negative self-statements. The patient can experience peer support from other martial artists and find newfound trust in

his/her ability to set boundaries and to defend himself/herself physically. This leads to a sense of empowerment and a turndown in self-blame, self-loathing, and stigmatization. Moreover, martial arts allow victims of interpersonal trauma (i.e., men-made trauma) to reenact and alter the violent event(s) they endured. The potential realization that they are no longer helpless in such situations can lead to an increased sense of empowerment in certain situations. They, therefore, feel safer after the training in self-defense methods (Anderson & Hernandez, 2015; Willing et al., 2019).

Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly (Grodin et al., 2008; Lukoff & Strozzi-Heckler, 2017; Rosenblum & Taska, 2014). Internal aspects of Asian martial arts allow the performer to cultivate mindfulness and self-awareness, to delve into his/her thoughts, attitudes, moods, and lastly, self-concepts (Bell, 2008). Many chronic trauma symptoms like mood disturbances, anxiety, depression, weariness, aggression, and rage are measurably alleviated by practicing (internal) martial arts (Longacre et al., 2012; Oulanova, 2009). Engaging in this kind of physical activity stimulates the production of serotonin, norepinephrine, endorphins, and dopamine, leading to enhanced mood, diminished pain, and reduced stress (Lukoff & Strozzi-Heckler, 2017).

d) Changes in physical and emotional reactions/hyperarousal

A dissociation of the self from one's body is frequent after an interpersonal trauma. Every martial art form includes bodywork, which fosters bodily awareness through movements. Also, the meditational aspects of martial arts help regulate muscle tension and constricted breathing (Grodin et al., 2008). Likewise, the same techniques of creating 'a calm mind' can be used to identify falsely perceived threats and the triggered physical reactions (Rosenblum & Taska, 2014). Japanese martial arts (like Karate, Aikido, and Kendo) operate with the image of '*Mizu No Kokoro*' (水の心; 'a mind like water'). The idea is to stay calm and flexible in order to be able to *respond* adequately to an attack, instead of merely *reacting* to it. Thus, this mind state functions like a stimulus/reaction rejoinder to perceived threats (Bell, 2008).

Relevant literature on Aikido and T'ai Chi proves that practicing martial arts does enhance concentration (Longacre et al., 2012; Lukoff & Strozzi-Heckler, 2017). Since the cultivation of (mindful) concentration during physical training is not singular to these two martial arts, it is reasonable to assume that those positive findings on concentration

can also apply to other forms of martial arts, although the specific techniques might differ among them.

Moreover, studies concluded that by practicing T'ai Chi, sleep disturbances (e.g., due to nightmares) can be decreased (Grodin et al., 2008; Niles et al., 2022).

Apart from all the already-mentioned physical and psychological advantages of performing martial arts, those sports may especially benefit refugees since being part of a club or dojo may give displaced persons a feeling of belonging, inclusion, and community as well as an opportunity for social integration and put their German language skills into practice (Tischler, 2017). Particularly for adolescents, the sense of belonging is important. Practitioners of this age furthermore benefit deeply from the inherent physical aggressive play (Oulanova, 2009). The dojo can also be a safe environment to express some traumatic memories physically and emotionally (Twemlow et al., 2008; Willing et al., 2019). The neatly structured, disciplined, mindful, and respectful nature of martial arts lessons might assist the refugee in building healthy coping mechanisms and resilience (Lukoff & Strozzi-Heckler, 2017).

Worries that teaching martial arts might lead to increased aggression and destructive behaviors were allayed by several studies. On the contrary, they found elevated frustration levels of martial arts practitioners through their training (Oulanova, 2009).

As shown above, current literature on CAT and martial arts for PTSD focuses primarily on non-refugee populations. This leads to a dearth of research on the cultural adaptation and effectiveness of these therapies for refugees (in Germany), whose backgrounds and traumas may significantly differ. While Creative Art Therapy is recognized globally, research specific to its efficacy and implementation within the German healthcare system for refugees with PTSD is scant. Understanding its adaptability and effectiveness within the German cultural and healthcare context is essential to lessen the refugees' suffering from PTSD and related mental health issues. Also, alarmingly many authors lack a visible critical stance towards their own texts, describing little to no negative aspects or failures of their methods.

Chapter 5: Data Analysis: Identification of Therapeutical Elements Employed by Creative and Martial Arts Trauma Therapies

As mentioned in *Chapter 1.3. Research Objectives*, this study aims to identify therapeutic elements employed by Creative and Martial Arts Therapies. To this end, Kuckartz’s content-structuring qualitative content analysis is applied. This chapter sheds light on the research method, the sampling process, the data collection instrument and technique, and its validity and reliability.

5.1. Research Method

Kuckartz’s content-structuring qualitative content analysis was chosen to ensure a systematic and guided meta-analysis of the literature reviews on Creative and Martial Arts Therapies as treatment options for PTSD-like symptoms. This method allows for an inductive development of main and sub-themes, which makes it possible to answer a thematically orientated research question and to explore an unknown research field (Kohlbrunn & Scheytt, 2021).

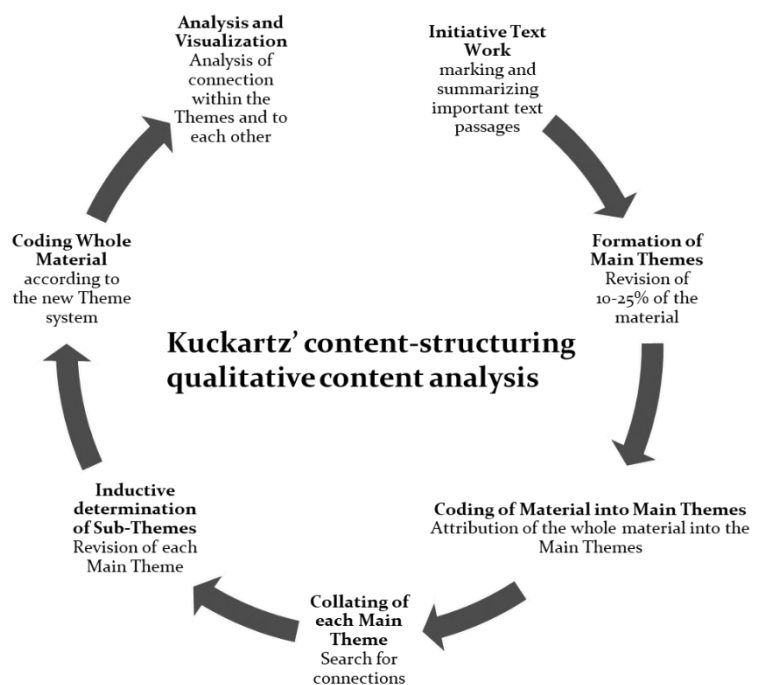


Figure 2: The Seven Steps of Kuckartz’s content-structuring qualitative content analysis

The specific content-structuring form of qualitative content analysis is conducted within seven stages, as briefly described in the illustration (JWPA KU, n.d.; Kohlbrunn & Scheytt, 2021). *Chapter 5.5. Data Analysis and Findings* describes the case-specific implementation of each analysis stage.

5.2. Data Collection Instruments and Technique

The literature used in the literature review was (to its largest majority) found through three online tools, and various combinations of keywords in three different languages.

The three online tools were Google Scholar; OPAC KU; and Google searches of the keywords' combination plus the precision 'PDF'⁸. Keywords were 'trauma', 'PTSD', 'refugee', 'Art', 'Dance', 'Music', 'Drama', 'Theater', and different Martial Arts names. This process was repeated with German and Spanish analogs of the keywords.

However, the respective titles could only be read if they were free of or accessible through licenses of either the KU Eichstätt-Ingolstadt or the UR. Other hits of the searches were thematically irrelevant or redundant to already used literature. Published theses of other students were especially keenly analyzed regarding their credibility. In these cases, it was preferred to work directly with used sources of the theses.

Few titles were obtained by other means: By a snowball system if the author/institution was extraordinarily often or directly cited or by suggestions of the supervisors of this master's thesis.

Texts were excluded when they did not provide the minimum criteria for serious scientific research or when the publisher seemed driven by external factors (such as economic advantages by using the texts as advertisements for provided goods and services).

In every instance, the three inclusion criteria of the texts were

1. Publication of the text by a reliable scientific platform or company,
2. Employment of the author(s) in a reputable and official institution, and
3. Sufficient and trustworthy citation within the text.

The inclusion criteria are consciously chosen a bit looser since this thesis' topic evolves around an alternative topic. Expanding the eligible sources enabled capturing the field in greater depth and range. However, scientific quality criteria were never abundant, even when loosening them up compared to the usual standards applied to the psychological field.

The following flowchart illustrates the selection and screening of the literature:

⁸ When searching key terms on Google (and adding "pdf" in citation marks) the browser suggests hits that lead directly to platforms like PubMed (NIH), Research Direct, Taylor & Francis Online, or University Websites. In the author's opinion, a specific search on those databases is thus often redundant.

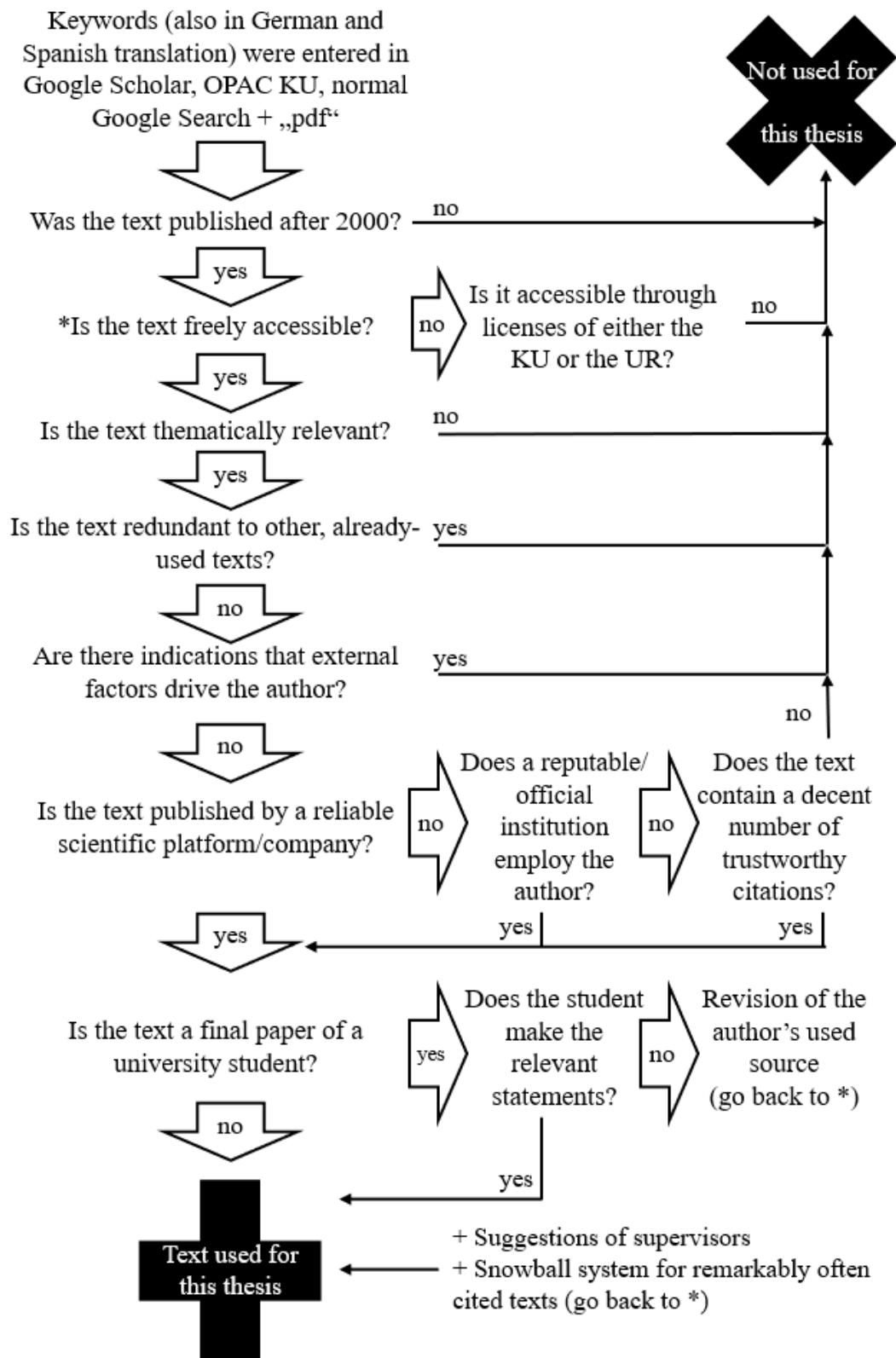


Figure 3: Selection and Screening of the Literature

5.3. Sampling

In preparation for this study, many books, articles, and research papers were read and assessed for their scientific quality and relevance for this study's purpose. Now, a compilation of 60 texts forms *Chapter 4*. Confining that the sources used in those literature reviews already form a sufficiently broad and qualitatively sound basis for the analysis, the texts produced above will be used to apply Kuckartz's content-structuring qualitative content analysis.

The following table shows the sources of the literature reviews of *Chapter 4* with all its sub-chapters. After ten relevant texts, a cut was made so as not to exceed the thesis's limit. *Chapter 4.2. Martial Arts Therapies* forms an exception since it combines various Martial Arts styles. The included texts can be described as the most relevant to their respective field, judging from the redundancy of other read materials compared to them. Furthermore, attention was paid to ensuring the texts were up to date, with most of them published in the 2010s and the oldest dating back to 2004. However, only a part of the existing literature focuses on the treatment of PTSD-like symptoms in refugee samples. Therefore, texts on the 'general' populations must have been included.

	<i>Art Therapy</i>	<i>Music Therapy</i>	<i>Dance Therapy</i>	<i>Drama Therapy</i>	<i>Martial Art Th.</i>	Total
<i>APA</i>		1			2	3
<i>SAGE</i>				1	2	3
<i>PubMed (NIH)</i>		3			6	9
<i>Research Gate</i>	1		1	3	1	6
<i>Science Direct</i>	3	1	2	1		7
<i>Taylor & Francis Online</i>	3	1	1	1	1	7
<i>University Web- sites</i>	1		1	1	4	7
<i>Related Organi- zations</i>	1	1	1			3
<i>Print Material (Books)</i>	1		3	3		7
<i>Other Sources</i>		3	1		4	8
Total	10	10	10	10	20	60

Table 1: Sources of Literature Reviews

Most literature was found on PubMed (NIH), Research Direct, Taylor & Francis Online, University Websites, print materials (books), and other sources. Most of these publication sites are well-known to academic scholars. Nonetheless, the overall scientific quality of some of those sources shall now be briefly discussed.

- a) PubMed is an online search tool specialized in biomedical and life sciences literature, provided by the U.S. National Institutes of Health (NIH). It enables one to browse directly through MEDLINE, PubMed Central (PMC), and Bookshelf, which are all run (and thus approved by) the U.S. National Library of Medicine (NLM, a division of the NIH). Albeit it does not provide the full texts directly, PubMed offers links to the respective publication sites (PubMed, 2023).
- b) Research Gate works like a social medium, designed for researchers of all fields to publish their work and connect with each other. The author of this study is well aware that this hub does not stipulate an academic review of the scientists' publications. Thus, each source was assessed directly for its credibility (according to the selection criteria described in the next chapter).

- c) Published theses and studies on university levels were used in a relatively high number, but in very shallow depth throughout this master's thesis. In other words, scholars from seven diverse universities were cited to give them credit for one, maximum for two statements incorporated in this thesis. Although those publications were approved by the respective supervisors and were found worthy of the university officially publishing them, it was preferred to work directly with the cited literature there. On a side note, however, it is interesting and designative that alternative treatment methods seem to spark the interest of many young researchers.
- d) The category '*Other Sources*' refers mainly to publications in small journals, which would be too numerous to list individually in the table above.

5.4. Validity and Reliability

It is noted that the validity and reliability of this study rely heavily on those of the literature reviews. The following measures will be taken to ensure the quality of this research objective and ultimately the whole study.

Regarding validity, every important term of operation is precisely defined in *Chapter 2*. Especially the understanding of the concepts of Creative Art Therapies (CAT) and Martial Arts Therapies are employed and followed rigorously throughout the literature research and therefore, for the theoretical analysis. While writing the literature reviews, the contents of the books, articles, and internet sources are already compared and structured by content.

Data collection is strictly carried out as described above to guarantee the highest level of reliability possible. Since only this author conducting the analysis, fluctuations in procedures, interpretations, and calibration are kept at a minimum to secure consistency.

5.6. Data Analysis and Findings

In this chapter, Kuckartz’s content-structuring qualitative content analysis (as theoretically described in *Chapter 5.1. Research Method*) is implemented practically. To ensure reliability, this chapter is structured and named according to the seven steps of Kuckartz’s method, describing what has been done and to which results the respective stage has led.

5.6.1. Initiative Text Work

As the first stage of the analysis process, Kuckartz envisages compiling key sections of the text(s) to be analyzed and highlighting the most significant excerpts.

This master's thesis delves into the analysis of 60 texts on complementary and alternative medicine and their respective trauma treatment approaches. *Chapter 4* already compiles a comprehensive summary of the most valuable passages from these texts, providing readers with easy access to crucial insights. As a result, this chapter will play a pivotal role in guiding the subsequent analysis steps.

5.6.2. Formation of Main Themes

To develop the main themes, the content-structuring qualitative content analysis advises starting with revisioning only ten to twenty-five percent of the whole material. Out of the six thematical sub-chapters of *Chapter 4*, the summary on Music Therapies constitutes around twelve percent of the material, which makes it a suitable starting point to form the first main themes.

After revisioning this chapter,⁹ the following five main themes were identified:

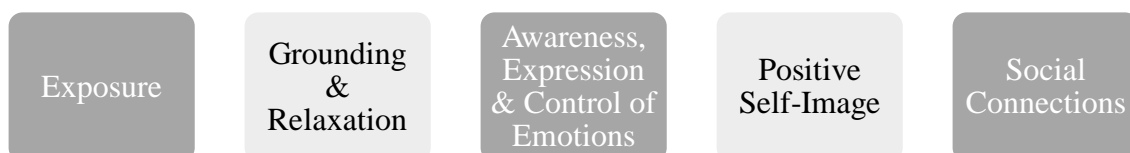


Figure 4: The Five Main Themes

⁹ Originally, the main themes of „Universality of Art“, “Feeling of Enjoyment”, and “Spirituality” were also envisioned. They were, however, re-evaluated after working through the whole material. It was only in the same step, that the main theme “Awareness, Expression & Control of Emotions” was added.

5.6.3. Coding of Material into Main Themes

In this step, the whole material was coded into the now-established main themes. A table was created, sorting quotes from the literature reviews on the respective therapy types by the five main themes. Since this list would be too long and contain-wise redundant to *Chapter 4*, it has only been included in the annex (see Annex A: Main Themes).

5.6.4. Collating Main Themes

There are many connections between the five main themes. In the following, each theme will be very briefly correlated with the others.

The Connection between “Exposure” and “Grounding & Relaxation”

In order to avoid re-traumatization and to navigate within the patient’s window of tolerance, the affected person has to feel safe and stay anchored in the present. Thus, diverse grounding and relaxation techniques must be employed to ensure exposure with an efficacious outcome.

The Connection between “Exposure” and “Awareness, Expression & Control of Emotions”

Being exposed to one’s traumatic material in a safe and controlled environment is an indispensable step toward the client’s ability to gain awareness and control over his/her feelings connected to the trauma. The patient will find it easier (or at least possible) to express those memories and emotions in one way or another after having explored them further and trained to regulate them better.

The Connection between “Exposure” and “Positive Self-Image”

Alone being brave enough to (finally) face one’s trauma can boost an affected person’s ego. When the therapy continues and the traumatized individual dares to put himself/herself into situations that he/she would have avoided before and master them, the impression of achievement rises further.

The Connection between “Exposure” and “Social Connections”

Attaining habituation to former avoidance situations concerning social environments enables a person suffering from PTSD-like symptoms to (re)enter freely daily and social settings, to accept human touch, and to build healthy boundaries.

The Connection between “Grounding & Relaxation” and “Awareness, Expression & Control of Emotions”

An anchor to the present reality is necessary to delve into traumatic memories and their connected reactions and emotions without drowning in them. Relaxation methods assist the patient in lowering their arousal while holding or regaining their calmness. This widens his/her window of tolerance. Equipped with this safety net, it seems more manageable to explore one’s feelings, without fearing getting astray in the traumatic material or losing control over one’s reactions. Moreover, relaxation techniques like meditation often require practitioners to be aware of bodily signals related to emotional stressors.

The Connection between “Grounding & Relaxation” and “Positive Self-Image”

Many grounding and relaxation methods also employ elements of self-care and self-love. The rediscovered ability to experience joy and create a calm state of mind further enhances the client’s self-perception.

The Connection between “Grounding & Relaxation” and “Social Connections”

Bearing in mind that for many people who suffer from PTSD-like symptoms, socialization is frightening and, thus, often avoided, the formation of new contacts can be seen as stressors. Accordingly, similar grounding and relaxation exercises must be used to enable the affected person to stand their ground in social settings. On the other hand, belonging to a group and feeling understood and seen by others may have a comforting and soothing effect on the traumatized individual.

The Connection between “Awareness, Expression & Control of Emotions” and “Positive Self-Image”

Many trauma survivors need to learn to pay attention to their feelings instead of suppressing them. In venturing into the causes behind their emotions and reactions towards them,

the affected person might understand himself/herself better and even feel self-compassion. Expressing those feelings and thoughts in a controlled way may not only lead to an experience of achievement but also help to let go of harmful self-perceptions and other destructive thinking patterns.

The Connection between “Awareness, Expression & Control of Emotions” and “Social Connections”

Similarly, being aware and in control of one’s emotions makes social interactions more predictable, both for the traumatized person and his/her interlocutor. This, in turn, reduces anxiety in all kinds of social settings. In exchanging with other trauma survivors (in cases of group therapy), an affected individual might find himself/herself in the description of his/her peers' emotions. Social connection can, therefore, intensify awareness of his/her own sentiments.

The Connection between “Positive Self-Image” and “Social Connections”

Associating with other traumatized people’s suffering reinforces not only empathy towards them but also towards oneself. If this empathy and recognition is expressed, the other trauma survivors might feel seen, understood, and less strange and lonely. Being part of a group and having sincere relationships is a basic need for human beings. However, many people affected by PTSD-like symptoms struggle with this. Reentering social networks of akin people (may it be through shared cultural or linguistic bonds or similar symptomologies) makes patients perceive themselves more positively.

As positive as all those main themes of these CAM approaches sound, it is important to note that many of the benefits and improvements can also be found in standard therapies. This raises the question of what exactly distinguishes CAM methods from standard treatments, which have been statistically proven to be effective. Additionally, one might ask how they can contribute new and/or other factettes to the treatment of PTSD-like symptoms. As often, the devil is in the details, which is analyzed and explained in the following.

5.6.5. Inductive Determination of Sub-Themes

As just indicated, it needs a closer look into the functionality of Creative and Martial Art Therapies to understand their processes and how they vary from standard PTSD therapies. After examining the whole material gathered in Step 3, the following twenty-one sub-themes were established:¹⁰

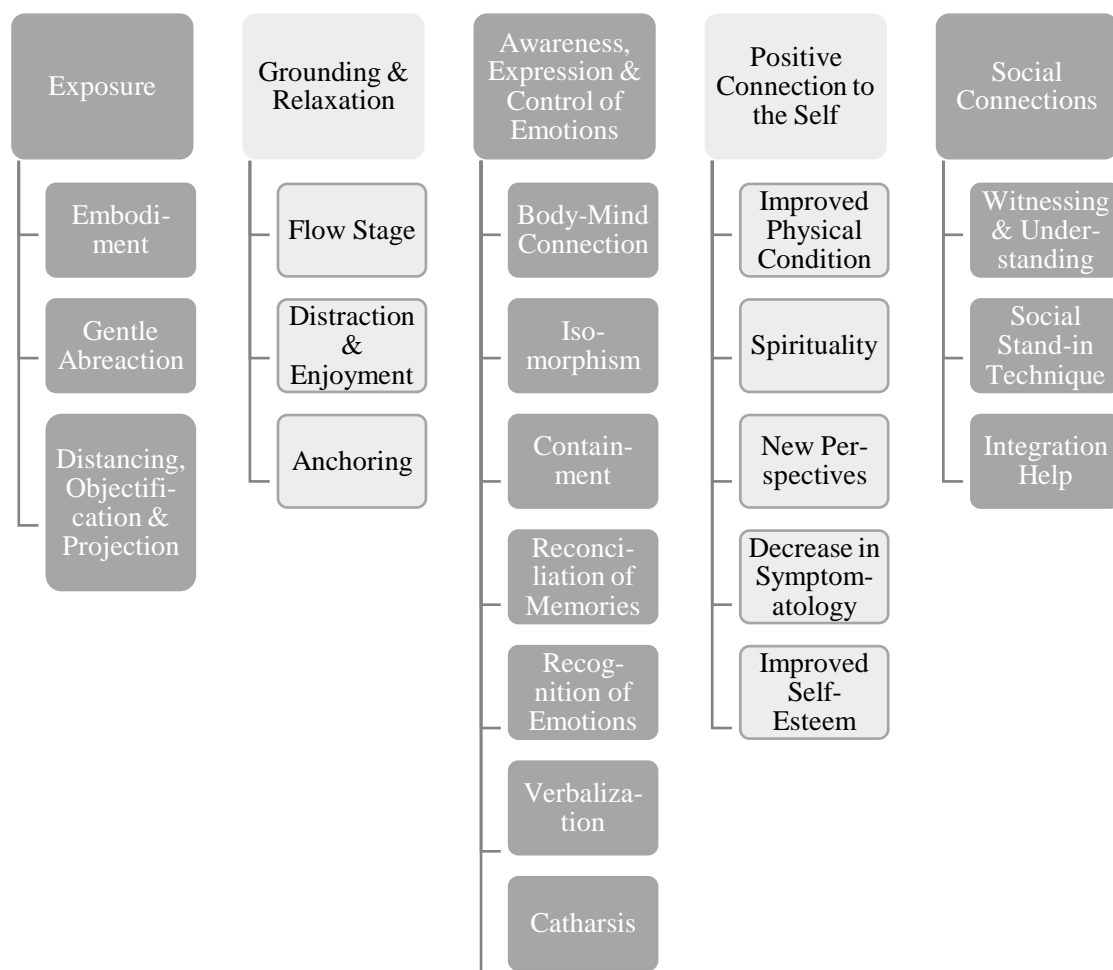


Figure 5: Main and Sub-Themes

¹⁰ After conducting Step 6, a few adjustments to the sub-themes were made. They consisted of replacing “Non-Goal Orientation” with “Anchoring” (Main Theme 2), “Feelings of Accomplishment” with “Improved Self-Esteem” (Main Theme 4), and “Social Touch” with “Social Stand-in Technique” (Main Theme 5). The sub-themes “Recognition of Emotions” and “Spirituality” were added belated to the Main Themes 3 and 4, respectively.

The third sub-theme of *Main Theme 1: Exposure* is labeled as **Embodiment** and generally refers to the intentional immersion into physical expressions and repercussions of the traumatic experience(s). Opening up to these sensations (instead of instinctively suppressing them) frees the way to a fruitful exposure therapy element.¹¹

The second sub-theme, **Gentle Abreaction**, is closely linked to this concept. However, it is less focused on the physical and more on the mental part of trauma. Abreaction also includes the patient's conscious exposure to hurtful memories and emotions. Its aim is also to gain habituation or a cathartic effect from this exposure (Taylor & Francis Knowledge Centers, n.d.). The adjective 'gentle' was added to label this sub-theme to mirror the literature's common emphasis on the non-threatening character and timely freedom to exercise this exposure.¹²

Some of this 'gentleness' is achieved through the last sub-theme **Distancing, Objectification & Projection**. All Creative and Martial Art Therapies frequently resort to the idea of facilitating the needed exposure by creating a separation between the client's 'Self of Today' and the traumatic material. Depending on the therapy type this can include the use of metaphors, a change in role, and the discussion of the emotions as shown in the art, instead of as one's own.¹³

The second *Main Theme 2: Grounding and Relaxation* also has three subthemes. The first one, **Flow Stage**, describes a person's almost hypnotic state in which he/she is fully immersed in the task at hand. This state has a calming quality and also helps in letting go of unfavorable feelings.¹⁴

The concept of the sub-theme **Distraction & Enjoyment** is similar but easier to reach and somewhat more awake. In it, text excerpts about the concentration needed to create

¹¹ The sub-theme *Embodiment* is based on text sources by the following authors: Chakraborty & Tant, 2022; Kalmanowitz & Ho, 2016; Rosenblum & Taska, 2014; Willing et al., 2019.

¹² The sub-theme *Gentle Abreaction* is based on text sources by the following authors: Baker, 2006; Ben-simon et al., 2012; Bleuer & Harnden, 2018; Brillantes-Evangelista, 2013; Carr et al., 2011; Chakraborty & Tant, 2022; Collie et al., 2006; Hamel, 2021; Lukoff & Strozzi-Heckler, 2017; Martin, 2008; Martinec, 2018; Oulanova, 2009; Parker, 2018; Pierce, 2014; van der Kolk, 2015.

¹³ The sub-theme *Distancing, Objectification & Projection* is based on text sources by the following authors: Bleuer & Harnden, 2018; Brillantes-Evangelista, 2013; Buckley, 2023; Collie et al., 2006; Figueiredo, 2009; Glaser, 2004; Haen, 2008; Hamel, 2021; Kalmanowitz & Ho, 2016; Martinec, 2018; Tomaszewski et al., 2023.

¹⁴ The sub-theme *Flow Stage* is based on text sources by the following authors: Eads & Wark, 2018; Levine et al., 2015; Lukoff & Strozzi-Heckler, 2017; Martinec, 2018; Niles et al., 2022; Tomaszewski et al., 2023.

all sorts of art and the fun associated with doing so will be collected. This will divert the patient from the hurtful exposure and difficulties faced in his/her life outside of therapy.¹⁵

The last identified sub-theme in this block, **Anchoring**, can also be quite helpful in the client's daily life since it describes some techniques to 'stay present' and grounded. Naturally, having methods at hand to counter falling into panic or disassociation helps the PTSD-like suffering person also during therapy sessions.¹⁶

The third *Main Theme 3: Awareness, Expression & Control of Emotions* is the biggest, with seven sub-themes.

All art forms have a more or less intense sensory component, that re-cultivates a **Body-Mind Connection**. Engaging in such exercises can counter involuntary states of bodily disassociation, promote vertical integration of the two brain parts, and acknowledge traumatic sensations stored in the body itself.¹⁷

As explained in *Chapter 4.1.1.*, the idea of **Isomorphism** suggests that each artistic creation of the client uncovers a bit of himself/herself (Hamel, 2021). Therefore, it can serve to identify and express trauma-related thoughts and feelings by the person suffering from PTSD-like symptoms as well as his/her therapist.¹⁸

Also introduced in the same chapter, the concept of **Containment** allows the artist to externalize and "disarm" the traumatic material symbolically by entrusting it into physical storage instead of carrying its weight himself/herself.¹⁹

The fourth sub-theme is centered on the **Reconciliation of Memories**. The different kinds of art allege that the survivor can gain awareness and metaphorically disclose non-

¹⁵ The sub-theme *Distraction & Enjoyment* is based on text sources by the following authors: Baker, 2006; Brillantes-Evangelista, 2013; Collie et al., 2006; DMtG, 2019; Kalmanowitz & Ho, 2016; Landis-Shack et al., 2017; Martin, 2008; Tsai et al., 2018.

¹⁶ The sub-theme *Anchoring* is based on text sources by the following authors: Bell, 2008; Bensimon et al., 2012; Bernius, 2019; Carr et al., 2011; Eads & Wark, 2018; Garrido et al., 2015; Grodin et al., 2008; Haen, 2008; Landis-Shack et al., 2017; Levine et al., 2015; Lukoff & Strozzi-Heckler, 2017; Malchiodi, 2008; Martinec, 2018; Pierce, 2014; Rosenblum & Taska, 2014; Smyth & Nobel, 2015; Tsai et al., 2018.

¹⁷ The sub-theme *Body-Mind Connection* is based on text sources by the following authors: ADTA, 2020; Bensimon et al., 2012; Bernius, 2019; Grodin et al., 2008; Haen, 2008; Koch & Weidinger-von der Recke, 2009; Levine et al., 2015; Martinec, 2018; Parker, 2018; Pierce, 2014; Tomaszewski et al., 2023; Ventura, 2021.

¹⁸ The sub-theme *Isomorphism* is based on text sources by the following authors: Bleuer & Harnden, 2018; Brillantes-Evangelista, 2013; Buckley, 2023; Hamel, 2021; Kalmanowitz & Ho, 2016; Martin, 2008; Martinec, 2018; Tomaszewski et al., 2023; van der Kolk, 2015.

¹⁹ The sub-theme *Containment* is based on text sources by the following authors: Brillantes-Evangelista, 2013; Hamel, 2021; Kalmanowitz & Ho, 2016.

explicit and/or fragmented memories by exercising them. This helps to make sense of the pictures and mental connections and to integrate them into a coherent trauma narrative.²⁰

Similar but focused on mental feelings is the sub-theme **Recognition of Emotions**. Here, all text passages are clustered that describe the traumatized person's development to gain proper awareness of his/her emotions. Survivors tend to suppress their unwanted feelings so much that they can become unable to identify them when they resurface. CATs and Martial Art Therapies claim to be supportive in becoming more attentive to one's emotions.²¹

This and other forms of dealing (at first non-verbally but still consciously) with inner turmoil also enhance the client's ability to transfer them into declarative memory. In other words, expressing traumatic images and sensations through artistic means may foster their **Verbalization** (Baker, 2006; Brillantes-Evangelista, 2013; Collie et al., 2006).²²

The term **Catharsis** refers to the experience of relief and cleansing of shame, anger, and/or grief after expressing and thus letting go of painful emotions.²³

Main Theme 4: Positive Connection to the Self consists of five subthemes, of which the first one is **Improved Physical Condition**. It is based on the Latin saying that a sound mind exists in a sound body (*mens sana in corpore sano*). While doing physical exercises, the client improves his/her coordination, fitness, and muscles and builds up the mental elements of control and body awareness.²⁴

Another way of coming to terms with traumatic experiences and their resulting suffering is **Spirituality**. This sub-theme uses intentionally a broader concept than religion,

²⁰ The sub-theme *Reconciliation of Memories* is based on text sources by the following authors: Bensimon et al., 2012; Bernius, 2019; Brillantes-Evangelista, 2013; Collie et al., 2006; Garrido et al., 2015; Hamel, 2021; Kalmanowitz & Ho, 2016; Levine et al., 2015; Martinec, 2018.

²¹ The sub-theme *Recognition of Emotions* is based on text sources by the following authors: Bell, 2008; Bleuer & Harnden, 2018; Brillantes-Evangelista, 2013; Haen, 2008; Landis-Shack et al., 2017; Levine et al., 2015; Malchiodi, 2008; Martinec, 2018; Parker, 2018; Pierce, 2014; Tomaszewski et al., 2023; van der Kolk, 2015; Ventura, 2021.

²² The sub-theme *Verbalization* is based on text sources by the following authors: Baker, 2006; Bensimon et al., 2012; Bleuer & Harnden, 2018; Brillantes-Evangelista, 2013; Collie et al., 2006; Garrido et al., 2015; Hamel, 2021; Landis-Shack et al., 2017; Malchiodi, 2008; Martinec, 2018; Oulanova, 2009; Smyth & Nobel, 2015; Tomaszewski et al., 2023.

²³ The sub-theme *Catharsis* is based on text sources by the following authors: Bensimon et al., 2012; Carr et al., 2011; DMtG, 2019; Hilliard, 2008; Kalmanowitz & Ho, 2016; Landis-Shack et al., 2017; Martinec, 2018; Tomaszewski et al., 2023; Twemlow et al., 2008; Willing et al., 2019.

²⁴ The sub-theme *Improved Physical Condition* is based on text sources by the following authors: Bell, 2008; Burke et al., 2007; Faggianelli & Lukoff, 2006; Levine et al., 2015; Lukoff & Strozzi-Heckler, 2017; Martinec, 2018; Niles et al., 2022; Oulanova, 2009; Tomaszewski et al., 2023; Tsai et al., 2018.

even if all institutionalized faiths are certainly part of it. But some might also find release by resorting to more indigenous-shamanic practices, esoteric and mediation, and all sorts of metaphysical philosophies.²⁵

If this sense-making is, however, not attempted on a spiritual level, the respective text passages will be sorted into the sub-theme of **New Perspectives**. It furthermore includes the possibility of positive re-inventing and re-interpretation of the self and one's (social) surroundings.²⁶

Several texts on CATs and Martial Art Therapies claim to have found ways to **decrease symptomatology**. This sub-theme will cluster depictions of those desired results.²⁷

It seems logical enough that all the former aspects (especially those of *Main Theme 4*) **improve the self-esteem** of the traumatized person. However, due to its numerous remarks, an extra sub-theme was created.²⁸

The last three sub-themes form *Main Theme 5: Social Connections*.

Most CAT and Martial Arts trauma interventions take place in a group setting, allowing the survivor to experience **Witnessing & Understanding** not only on behalf of the therapist but also by peers and sometimes a room full of audience. This can boost the

²⁵ The sub-theme *Spirituality* is based on text sources by the following authors: Baker, 2006; Brillantes-Evangelista, 2013; Chakraborty & Tant, 2022; Collie et al., 2006; Eads & Wark, 2018; Figueiredo, 2009; Glaser, 2004; Gray & Fargnoli, 2022; Grodin et al., 2008; Levine et al., 2015; Longacre et al., 2012; Lukoff & Strozzi-Heckler, 2017; Oulanova, 2009; Parker, 2018; Tsai et al., 2018.

²⁶ The sub-theme *New Perspectives* is based on text sources by the following authors: Anderson & Hernandez, 2015; Baker, 2006; Bleuer & Harnden, 2018; Boudrias, 2021; Brillantes-Evangelista, 2013; Collie et al., 2006; Haen, 2008; Kalmanowitz & Ho, 2016; Landis-Shack et al., 2017; Levine et al., 2015; Longacre et al., 2012; Martinec, 2018; Miller, 2010; Rosenblum & Taska, 2014; Tomaszewski et al., 2023; Ventura, 2021; Willing et al., 2019.

²⁷ The sub-theme *Decrease in Symptomatology* is based on text sources by the following authors: ADTA, 2020; Bensimon et al., 2012; Bernius, 2019; Brillantes-Evangelista, 2013; Chakraborty & Tant, 2022; Collie et al., 2006; Figueiredo, 2009; Garrido et al., 2015; Grodin et al., 2008; Landis-Shack et al., 2017; Levine et al., 2015; Longacre et al., 2012; Lukoff & Strozzi-Heckler, 2017; Martinec, 2018; Niles et al., 2022; Oulanova, 2009; Parker, 2018; Rosenblum & Taska, 2014; Schouten et al., 2015; Smyth & Nobel, 2015; Tomaszewski et al., 2023; Tsai et al., 2018; Willing et al., 2019.

²⁸ The sub-theme *Improved Self-Esteem* is based on text sources by the following authors: Anderson & Hernandez, 2015; Brillantes-Evangelista, 2013; Collie et al., 2006; DMtG, 2019; Eads & Wark, 2018; Grodin et al., 2008; Hamel, 2021; Kalmanowitz & Ho, 2016; Landis-Shack et al., 2017; Levine et al., 2015; Lukoff & Strozzi-Heckler, 2017; Martinec, 2018; Miller, 2010; Momartin et al., 2019; Niles et al., 2022; Oulanova, 2009; Pierce, 2014; Rosenblum & Taska, 2014; Tomaszewski et al., 2023; Twemlow et al., 2008; Willing et al., 2019.

client's self-esteem and willingness to continue his/her healing process while forming (new) social contacts additionally.²⁹

Alone being part of a group can serve as a **Social Stand-in Technique**, where it is easier for the often socially isolated patients to bond on a personal level with the other project participants, including on non-trauma-related topics.³⁰

This bonding is also integral to the last sub-theme called **Integration Help**. 'Integration' is understood in two ways; the group structure facilitates newcomers to adjust to the given tasks and to take them seriously, thus getting engaged quicker in the therapy. Moreover, from a macro perspective, the presented CAM trauma treatments are believed to pave the way into broad society – may it be a return after the traumatic event(s), or into a completely new one, in cases of international refugees.³¹

5.6.6. Coding whole Material

Based on the tables from Step 3, the quotes were further sorted into the newly established subthemes. Given the shortage of space in the main documents of this master's thesis, the full tables can be found in Annex B.

5.6.7. Analysis and Visualization

The analyzed texts of *Chapter 4* do not qualify for an extensive quantitative investigation since no measurable parameter was set for a 'quote unit'. Moreover, there is a significant risk of biases in the literature sources and the master thesis's author's compilation of them. Still, the approximation of the most basic statistical data might be interesting to some readers and could even spark fruitful questions for further research that is quantita-

²⁹ The sub-theme *Witnessing & Understanding* is based on text sources by the following authors: Bensimon et al., 2012; Bleuer & Harnden, 2018; Collie et al., 2006; Kalmanowitz & Ho, 2016; Levine et al., 2015; Martinec, 2018; Miller, 2010; Parker, 2018; Pierce, 2014; Rosenblum & Taska, 2014; Tomaszewski et al., 2023; van der Kolk, 2015; Willing et al., 2019.

³⁰ The sub-theme *Social Stand-in Technique* is based on text sources by the following authors: ADTA, 2020; Anderson & Hernandez, 2015; Bell, 2008; Bensimon et al., 2012; Carr et al., 2011; Collie et al., 2006; Figueiredo, 2009; Garcia Vargas, 2019; Grodin et al., 2008; Hussey et al., 2008; Landis-Shack et al., 2017; Lukoff & Strozzi-Heckler, 2017; Martinec, 2018; Miller, 2010; Momartin et al., 2019; Niles et al., 2022; Oulanova, 2009; Parker, 2018; Pierce, 2014; Rosenblum & Taska, 2014; Shamseddin Sami, 2021; Tsai et al., 2018; Twemlow et al., 2008; Willing et al., 2019; Winters Fisher & Freeman, 2022.

³¹ The sub-theme *Integration Help* is based on text sources by the following authors: Baker, 2006; Bensimon et al., 2012; Carr et al., 2011; Gray & Fagnoli, 2022; Hilliard, 2008; Koch & Weidinger-von der Recke, 2009; Landis-Shack et al., 2017; Longacre et al., 2012; Miller, 2010; Ng, 2005; Oulanova, 2009; Tischler, 2017; Tomaszewski et al., 2023.

tively more reliable. Bearing this ambiguity in mind, the following table shows the number of quotes per sub-theme and how often the same passage was referred to in other sub-themes. Please refer to Annex B for more detailed information on the links between themes.

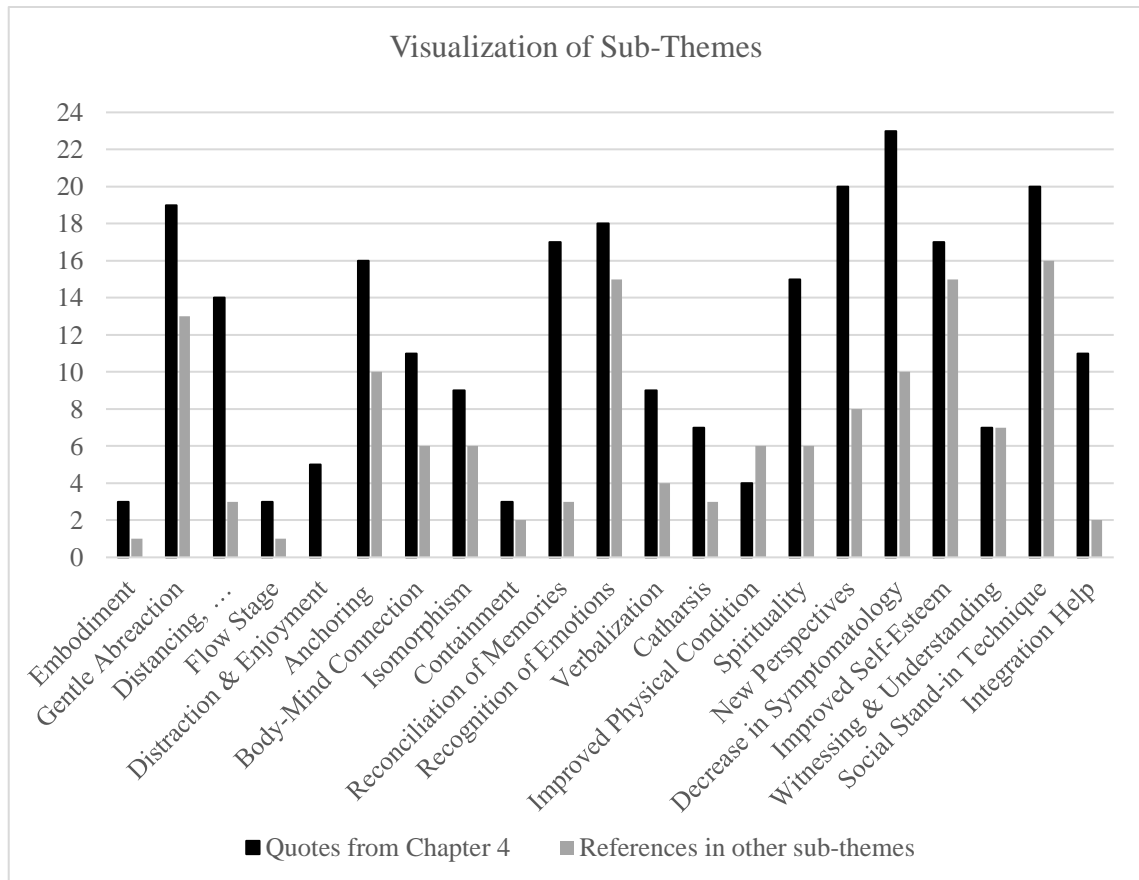


Figure 6: Visualization of Sub-Themes

The chart illustrates the most-mentioned sub-themes. The top three themes are Decrease in Symptomatology (23), New Perspectives (20), and Social Stand-in Technique (20). The first one is hardly surprising since the main goal of all intervention types is a lessening of PTSD-like symptoms and the suffering they cause. More illuminating is the second one: facilitating the survivor to (re-)enter into a community seems to be a core objective of the here-covered CAMs. That might also be why these projects predominantly occur in a group setting. Additionally, those therapies emphasize their encouragement to perceive one’s own persona in a more positive light and (artistically) reinvent one’s unwanted characteristics.

The analysis further reveals that the subthemes most frequently referenced (which underscores their significance and interconnectedness) consist of Social Stand-in Technique,

(16), alongside Recognition of Emotions (15) and Improved Self-Esteem (15). This pattern indicates that a rich tapestry of supporting sub-themes significantly contributes to patients' journey toward reinvigorating their social relationships.

Some readers might rightfully argue that some of the above-identified categories (namely Abreaction, Decrease in Symptomatology, and Improved Self-Esteem) are also the main objectives of any standard trauma treatment. Therefore, the next chapter is dedicated to the special therapeutic features of these CAMs in a filtered form.

Chapter 6: Unique Therapeutical Characteristics across CATs and Trauma-Informed Martial Art

Based on the extensive Literature Review in *Chapter 4* and its analysis in *Chapter 5*, this thesis can now present the therapeutic elements special to Creative and martial arts therapies. To this end, *Sub-chapter 6.1.* discusses identified therapeutic elements one by one. *Sub-chapter 6.2.* deals with the CAMs' impact on the patient's resilience.

6.1. Therapeutical Elements Special to Creative and Martial Arts Trauma Therapies

Five sub-themes or therapeutical elements were identified, that are unique to Create and Martial Arts Trauma Therapies and cannot be found like this in standard therapies.

a) Balance of Engagement

It is claimed across multiple texts and therapy types that the investigated Creative and Martial Arts Therapies can offer the traumatized person more gentle ways to abreact to his/her traumatic material and even experience joy in doing so. Dealing with a horrible past becomes more endurable and patients are more likely to continue with the treatment. Moreover, all CAMs teach some forms of awareness and grounding exercises, which can positively impact the traumatized person's neurochemical processes.

Contrary to standard PTSD treatments, CAMs do not have a timetable and can thus offer the patient healing at his/her own pace. This also includes the possibility of slower exposure to the trauma. These benefit from the fact that many CAMs can begin placing the trauma stimuli lower than would be possible with standard speech therapy. Additionally, by not having to voice his/her worst memories out loud, the patient can distance himself/herself even further by using a variety of metaphors and symbols. This expanded range of exposure intensity allows for a quick withdrawal to a lower stimulus if the supervisor shows signs of being overwhelmed by the exposure.

Generally, thanks to the merry nature and gentler exposure of those CAM approaches, traumatized people are less likely to drop out of therapy.

b) Non-verbal and Multisensory Expression

Creative and Martial Art Therapies enable the patient to communicate his/her memories and emotions in ways that bypass Broca's area. However, this possibly slower, and non-verbal expression of traumatic material should not be dismissed as ineffective or even as a form of avoidance. On the contrary, multi-sensory expressions foster the harmonization of memories and emotions and the ability to put them into words. During the whole process, Dance and Drama therapies, in particular, include physique as an integral part of therapy. This allows the patient to gain awareness of visceral memories stored only in the body and externalize them in the closest and most intuitive way: through movements and positions. Therefore, these button-up approaches contribute to the reconsolidation of formerly fragmented memories.

c) Body-Based Self-Regulation

The physique is also an integral part of self-relaxation and emotional abreaction. What seems rather obvious for Drama, Dance, and Martial Arts Therapies is also true for Art and Music interventions; Even if the product of these activities is either visual or audible, the mere physical action of wielding the brush/pencil, forming the clay, singing, or hitting the strings/keys can have cathartic and soothing effects. Following this train of thought, the body was involved in every bold and furious, sometimes sad and melancholic brush. Likewise, it is part of a loudly and aggressively, or quietly and timidly played instrument. The same applies to singing voices and percussion instruments.

d) Spirituality

Western standard medicine is highly secularized and often concentrated on measurable symptom improvement. However, religions and other spiritual beliefs can be a valuable source of strength and self-love. They might even explain why the person had and still has to endure the traumatic event(s), which facilitates acceptance and closure.

Thanks to ritual roots of many creative and martial forms, they can easily adapt spiritual contents. In doing so, they can contribute to the traumatized individual's search for meaning in a transcendental realm, if he/she wishes for it. At the same time, these therapies are not bound to this component, making them accessible for non-spiritual characters and people whose faith forbids depicting religious contents or differing from them.

e) Social and Cultural Connection

Participating in Creative or Martial Art Therapies mostly means being part of a group. Thus, these interventions are inherent to the patient's first step in escaping post-traumatic isolation. Moreover, since many group members had similar experiences and are currently enduring similar symptoms, the individual might feel less alienated, lowering the barrier to forming new relationships.

Some CATs or Martial Art Therapies are designed specifically for one refugee population. They are focused on giving displaced people a sense of their home culture and contributing to the formation of the respective diaspora community.

Other trauma interventions are designed for people in need of them, regardless of their nationality, ethnicity, gender, and other demographical characteristics. By mixing expatriates with local group members, it is hoped that the refugees can get acquainted with the host culture and language, providing a steppingstone for successful integration.

6.2. Enhanced Resilience through Creative and Martial Arts Trauma Therapies

This sub-chapter puts the above-highlighted unique therapeutical characteristics across CATs and Martial Art Therapies into the context of resilience-oriented treatment of traumatized asylum seekers and refugees. To this end, the findings will be compared to the homonymous essay by Laban (2015) and the resilience-orientated therapies and strategy (ROTS) model presented there. The model hypothesizes that risks like stress (external factors) and vulnerability (internal factors) only then negatively affect a person's health and quality of life when they cannot adequately be balanced by the resilience types of personal strength (internal factor) and social support systems (external factors). Following this train of thought, PTSD-like symptoms can be decreased by both lowering the risks and stressors and by fortifying the patient's self-healing capacities and resilience (Laban, 2015). This sub-chapter is meant to serve as an example showing the interconnectedness of Creative and Martial Art Trauma Treatments for refugee populations with the jargon of more standard approaches.

Laban (2015) classified five clusters of resilience resources with a total of twelve sub-clusters, as shown in the illustration below:

<p>Biological Resources</p> <ul style="list-style-type: none"> • Understanding the Body • Physical Exercise • Stress Management / Relaxation • Medication • Treatment of Nonpsychiatric Illnesses 	<p>Psychological Resources</p> <ul style="list-style-type: none"> • Positive Emotions and Humour • Cognitive Flexibility • Empowering Self-Esteem • Coping
<p>Social Resources</p> <ul style="list-style-type: none"> • Connectedness to the Family • Social Support • Meaningful Activities 	<p>Religious/Spiritual Resources</p>
	<p>Cultural Resources</p>

Table 2: Laban’s Five Clusters of Resilience

In the following, Laban’s clusters will be compared to the findings in this master’s thesis, specifically to the themes and sub-themes established in *Chapter 5*. At this point, it should be noted that his article does not mention any CAT or Martial Art Therapy (even corresponding keywords are mentioned only ten times and mostly in parentheses)³².

Beginning with Laban’s first cluster of “**Biological Resources**” (pp. 195-197), Creative and Martial Arts can be applied to three of his five sub-clusters.

Under the heading “**Understanding the Body**”, Laban stresses the importance of educating the patient about the physical reaction to stress and trauma. He calls to explain to the trauma survivor why he/she suffers the bodily symptoms. In comprehending their response to stressors, the anxiety level of the traumatized person can be lowered significantly. That is why Laban advises doing body-oriented activities. That Creative and Martial Arts are suitable choices of therapies to this end, was revealed by the sub-theme ‘Body-Mind Connection’. Since those CAMs integrate the body strongly into the treatment, symptoms of physical disassociation and bodily-stored memories can be identified by the therapist and the patient and deciphered accordingly.

³² Laban (2015) uses the related keywords “creativity/creative” (pp. 197, 199), “music” (pp. 198, 199, 203, 204), “movement therapy” (p. 198), “theater” (p. 198), “artistic” (p. 203), “painting” (p. 203).

Laban's next section on "**Physical Exercise**" argues that symptoms of depression and partly PTSD can be countered by practicing physical training. The effects described correlate highly with the thesis's sub-theme 'Improved Physical Condition', which can be observed best in Dance and Martial Arts Therapies.

A more complex connection exists between Laban's text passage on "**Stress Management/Relaxation**" as it has ties to three of this thesis' sub-themes. He starts by illustrating stress management therapies that employ muscle relaxation to initiate a reconnection between the mind and the body. This thought would have been categorized under the sub-theme 'Body-Mind Connection' in this master's thesis. However, Laban continues by outlining the concepts of mindfulness and meditation, featuring their potential to enable the patient to stay grounded in the presence. This characteristic was previously labeled 'Anchoring'. However, Laban also included the other coin's side of mindfulness, where the practitioner learns to accept his/her emotional reactions without condemning them, beginning with differentiating different emotions from each other and distinguishing between them and physical sensations. This last part of Laban's paragraph describes the same learning process as the sub-theme 'Recognition of Emotions'.

Laban ends his discussion on the cluster "Biological Resources" by stating that **medication** should have an auxiliary role in trauma treatment. Still, medication is a helpful tool for supporting the patient by lessening draining symptoms and leaving more energy for fighting the trauma itself. Furthermore, he applies the same argumentation for the **treatment of nonpsychiatric diseases**, as they endanger the resilience advance. This master's thesis did not include physical illnesses. Hence, no correlating sub-theme was established, under which possible positive effects of Creative and Martial Arts Therapies could have been collected.

Correlations were detected between all five sub-clusters in Laban's second cluster on "**Psychological Resources**" (pp. 197-200) and the analyzed CAMs.

In the first paragraph "**Positive Emotions and Humour**", Laban argues that enjoyable feelings promote a wider thought-action arsenal and more diverse and effective coping techniques. Therefore, Laban suggests that a resilience-focused therapist should assist the displaced person in finding entertaining endeavors since this can lower stress levels and boost the individual's coping skills. A similar effect was observed while scrutinizing the five CAMs, collecting respective statements in the sub-theme 'Distraction and Enjoy-

ment'. Not surprisingly, it is in this context that Laban mentions four³³ of the ten keywords related to CATs, indicating a strong liaison between this aspect of resource-orientated therapy and this master thesis's topic.

In the following section titled "**Cognitive Flexibility**", Laban states that encountering positive experiences is associated with an alleviated level of thinking flexibility, i.e., the capability to change perspective on hardship to a more positive angle. A new position in judgment can curb the amygdalae's activeness, preventing overassessments of fear and danger. This cognitive reevaluation and positive appraisal of the self and the environment were also identified as a characteristic of Creative and Martial Arts Therapies, referring to it under the sub-theme 'New Perspectives'.

Laban's next sub-cluster treats the topic "**Empowering Self-Esteem**". It depicts the same effects as the sub-theme 'Improved Self-Esteem'. The main reason why better self-esteem is necessary is to break the vicious circle of mental illness that diminishes feelings of worth and happiness. Some of the self-confidence of being able to see face to one's life can be restored by identifying new and realistic ambitions, e.g., mastering new skills such as arts, sports, or the host country's language.

The last of Laban's section under psychological resources is called "**Coping**". He stresses that achievements in coping equal accomplishments in resilience. Depending on whether the circumstances are changeable or objectively out of the patient's hands, he advises using active, resolving coping styles or passive, avoiding coping techniques. Laban sees the formula of mastering coping as being flexible between different styles according to the situation. Although this thesis did not pinpoint coping as a sub-theme per se, it did identify some themes that could be used as coping techniques, such as 'Distraction & Enjoyment', 'Anchoring', and 'Containment'.

The third cluster on "**Social Resources**" (pp. 200-202) consists of three parts, of which two can be directly linked to the thesis' topic.

The first paragraph, "**Social Relatedness/Connectedness to Family**," in which Laban recommends a family resilience therapy in observation of the ROTS model to boost the household collective coping skills, has no linkage to this Thesis. In here, the family's role in the healing process of PTSD-like symptoms is discussed only very periphrastically.

³³ The four keywords mentioned in Laban's paragraph on "Positive Emotions and Humour" are "creativity", "music", "movement therapy", and "theatre".

However, Laban continues to depict refugees' struggle to experience "**Social Support**" since linguistic and financial barriers impede their active construction of new networks. A sense of belonging and acceptance from a social group is vital for humans. Many internationally displaced people also struggle with the cultural setting of whom to ask for help in a specific regard and how, or even to accept help in the first place. Creative and Martial Arts Therapies were previously found helpful as a 'Social Stand-in Technique' and 'Integration Help'. Participation in most CAM projects automatically means being a group member and often being (partly) financially sponsored. Moreover, the other attendees are unlikely to judge the individual for his/her traumatic experiences and his/her reaction to them because they either have a similar background or are at least sensitized to these issues. Depending on the group's structure, sessions can also be a formidable opportunity to train the host country's language and to interact with locals, facilitating it to get to know the new culture better.

Laban's last thoughts on Social Resources are centered on the importance of **Meaningful Activities**. Although he focused on the correlation between unemployment and feelings of depression, isolation, and impotence, some people might also find purpose in practicing Creative and Martial Arts. This, of course, depends highly on the individual's character and worldview. In any case, many refugees could perceive it worthwhile and useful to 'decrease [their] symptomatology' and to take advantage of the offered 'Integration Help', which both have been established as sub-themes in this master's thesis.

The penultimate cluster on Laban's resilience resorts is titled "**Religious/Spiritual Resources**" (pp. 202-203). In this comparatively short section, he describes religion (for lack of studies on the vaguer term spiritualism) as having the potential to serve as an interpretation framework, sentimental backing, suicide prevention factor, and community adhesive. Because of their (optional) ability to deepen 'Spirituality' and religious beliefs Creative and Martial Art Therapies can contribute to those positive effects depicted.

Lastly, Laban presents what he calls "**Cultural Resources**" (pp. 203-204). He argues that resilience is not built in a social vacuum but must be seen as a development in different communal settings. Internationally displaced people frequently struggle to find their new selves and to conciliate their pre-flight (and pre-trauma) identity with their current realities. Similar cognitive dissonances might occur during processes of acculturation. In this

context, Laban acknowledges the potential of creative arts³⁴ to link those temporally and locally shattered parts of self-perception back into a coherent personality. According to him, an equilibrium of integration into the guest society and sturdy home-culture identity provides the healthiest position in this acculturation ridge walk. As Laban already noted in his article, Creative and Martial Art Therapies can assist as ‘Integration Help’, gaining awareness of both cultures and allowing to explore them for resilience-improving elements.

Laban calls for resilience-focused interventions to complement trauma-focused ones. As shown before, there are strikingly many overlaps between those treatment approaches and Creative and Martial Art Therapies. The corresponding unique therapeutical characteristics across Creative and Martial Art Therapies were identified with the twelve sub-themes of

1. Distraction & Enjoyment
2. Anchoring
3. Body-Mind Connection
4. Containment
5. Recognition of Emotions
6. Improved Physical Condition
7. Spirituality
8. New Perspectives
9. Decrease in Symptomatology
10. Improved Self-Esteem
11. Social Stand-in Technique
12. Integration Help

With more than half of the previously identified sub-themes (and all elements of the *Main Theme ‘Positive Connection to the Self’*), it makes sense to understand those CAMs as resilience-orientated therapies, as described by Laban.

However, they are not limited to resilience-building but also have elements of trauma-focused interventions as suggested by the therapeutical characteristics not listed above but surely integral to any Creative and Martial Art Therapies (e.g., the whole Main Theme of ‘Exposure’, the sub-themes of ‘Reconciliation of Memories’, ‘Verbalization’, and ‘Witnessing & Understanding’).

³⁴ Laban (2015) uses the keywords „artistic“, „painting“, and twice “music” (p. 203f.).

Chapter 7: Discussion of Findings

Reaching this point, this thesis answered all objectives indicated in *Chapter 1.3*. In the following, the key findings are summarized and their significance is explained to the reader.

Firstly, an extensive literature review on Art, Music, Dance, Drama, and Martial Arts Trauma Therapies was collected in *Chapter 4*, allowing readers to delve quickly but thoroughly into the respective approach without combing dozens of publications themselves. Responding to the second research objective, these compilations were methodically further analyzed and categorized using Kuckartz's content-structuring qualitative content analysis in *Chapter 5*. This allows standard trauma therapists (and all other readers) to apprehend at first glance, where Creative and Martial Art Therapies can be applied and where they are aiming. Moreover, these insights are presented in a visual, yet transparent way. Furthermore, *Chapter 5* briefly describes each sub-theme and some preliminary statistical thoughts on those new findings. Lastly, the overlapping between Creative and Martial Art and Standard trauma Therapies was filtered out in *Chapter 6*. Subsequently, the remaining themes were again sorted by their subjects and interpreted respectively. The chapter was completed with a comparison between the complementary and alternative trauma treatments researched in this thesis and resilience-focused interventions, concluding that those CAMs include but exceed coping-enhancing healing approaches. This helps the reader comprehend the advantageous characteristics of Creative and Martial Arts Therapies and locate them in the bigger frame of resilience- and trauma-focused interventions.

Based on the first two research objectives, the last one also answers the overall research question; The additional benefits that can be expected from incorporating Creative and Martial Arts Trauma Therapy into standard PTSD treatments for Refugees in Germany include ...

1. ... the possibility for individuals suffering from PTSD-like symptoms to start their trauma exposure at a lower level and to continue the therapeutic intervention with a personalized depth and velocity, avoiding overstimulation and drop-outs. Particularly for refugees, who often encounter ongoing stressors like high uncertainties concerning their futures, difficult housing conditions, as well as language and acculturation issues, it seems prudent to make their trauma treatment more flexible.
2. ... the bypassing of (spoken) language. In addition to fragmented memories and the neurological complications of verbalizing traumatic content as a general obstacle for all survivors, most refugees do not have a sufficient German level to put their memories, feelings, and emotions into words. It is thus fundamental for them

to be given other means of expression. Creative and Martial Arts Trauma Therapies employ various non-verbal and multisensory communication methods. Nonetheless, it is still advised by several CAM authors to integrate these approaches into verbal therapies.

3. ... the inherent physicality of each CAM intervention (in more or less obvious degrees). Not only becomes the body a communication tool, but the survivor also learns how to relax and abreact by himself/herself. Another advantage of this physical focus is its quality as a bottom-up technique to gain awareness of visceral remembrances, and to subsequently translate them into verbal memory.
4. ... the openness to integrate religious and spiritual themes into therapy. Since the great majority of refugees in Germany come from Muslim countries, where religion tendentially forms a more important part of the inhabitant's life, they instinctively might wonder about Allah's/God's role in their current situation (Laban, 2015). Including and creatively broaching this issue might clear a rounder and complete picture of the traumatized refugee's reality. Of course, precaution must be taken by the therapist respecting culturally and religiously sensitive topics like the aniconism (i.e., the prohibition of pictures of sentient beings) in Islam.
5. ... the value of giving (back) a sense of community and belonging to the refugees. By being a member of a Creative and Martial Arts Therapy initiative, the displaced person can participate in a pleasurable activity, which he/she might even perceive as meaningful, while enjoying an accepting, and connecting environment. The group setting of those interventions helps to learn more about oneself from the expression of the other participants regarding their trauma but also to chat about topics that are not connected to the therapy and form new social relationships. Refugees can, furthermore, profit from the integration and acculturation assistance and the opportunity to improve their German language skills.
6. ... a harmonious duality between resilience- and trauma-focused therapy elements. As shown in detail in the previous chapter, Creative and Martial Arts Therapies are suitable procedures to expand and fortify the traumatized persons' coping skills, while simultaneously treating PTSD-like symptoms consciously and directly. For their continuous exposure to environmental stressors (may they be trauma-related or not), refugees in particular benefit from resilience-enhancing interventions. In participating in Creative and Martial Arts Trauma Therapy, they do not have to compromise between the two foci. They can proportionate between them as they (in accordance with their therapist) see fit.

These findings can be interpreted as an attempted shift in mental health care towards more personalized therapy styles that integrate a holistic and multidimensional range of physical, social, and spiritual needs. For they can serve these demands, Creative and Martial

Arts Therapies seem especially suitable for vulnerable and marginalized populations like refugees, since they particularly benefit from those less linear and verbal treatment methods. The emphasis on the necessity of an individually tailored trauma healing process reflects the CAM's resentment of one-size-fits-all treatments and calls instead for inclusivity of the patient and his/her cultural and personal background and strengthening of the person's resilience and coping skills.

There were also indications that those projects seem more accessible for those who fear stigmatizing for needing psychotherapy, widening the number of people willing to undergo therapy in the first place. It was also argued that these interventions also induce less anxiety compared to language-based approaches, making them more bearable for individuals who might find 'normal' talk therapies and directly confronting their trauma(s) too overwhelming (Smyth & Nobel, 2015), which would lower drop-out rates. Lastly, it is also assumed that less funding is needed to set up Creative and/or Martial Art Therapies, compared to standard individual PTSD treatments. However, this master's thesis did not research further on these statements, so they can neither be confirmed nor refuted here.

In assembling four kinds of Creative Art Therapies and including Martial Art Therapies for treating PTSD-like symptoms, the master's thesis adds a singular broad, yet detailed view of these CAMs to the existing literature. To the author's knowledge, it is also the only study on shared therapeutical modes of operation across the five approaches. Moreover, it is unique in its direct analysis of CAM therapy elements in connection with standard PTSD treatments. Even though some texts on treatments of PTSD-like symptoms especially for refugees exist, it is still a niche topic. Thus, the realized compilation of available information and the contribution of new thoughts and findings on the matter also fill parts of this research gap.

This thesis' findings align with Dieterich-Hartwell & Koch's (2017) text "Creative Arts Therapies as Temporary Home for Refugees", stating that CATs can help those displaced populations struggle with homesickness and integration. The article focuses on Art, Music, Dance/Movement, and Drama Therapy. As those therapies reach the clients through their senses using preverbal and artistic language forms, they are accessible to all individuals regardless of culture or (German) language skills. Making art related to their former homes helps the refugees to preserve their pre-migration selves and to recover a sense of control. The displaced person creates a safe and reassuring place for himself/herself, where his/her cultural identity is authentically expressed and cherished. Finding comfort in the produced beauty and aesthetic shelters the refugees from his/her unpleasant new life conditions and facilitates to feel complete again. Movement and dance, in particular, also promote a perception of the body as a 'home'. Homesickness and its associated mental weight are therefore lessened. Next to their positive impacts on the individual's restoration process, CATs provide a link to the host country and encourage progressive

integration. The displaced artist processes the new impression of being in the host country symbolically, integrating these experiences into his/her narrative and personal identity (Dieterich-Hartwell & Koch, 2017).

For all that, it must be considered that this master's thesis faces some significant limitations. First and foremost, every analysis and interpretation of the results is based on the available literature on Creative and Martial Arts Trauma Therapies. However, as noted before the Literature Reviews in *Chapter 4*, the scrutinized texts rarely include possible negative aspects of these topics, nor do they provide transparent statistical data on the effectiveness of these treatments. Often, they are also not limited to refugee populations in terms of their content. For a lack of a better research foundation, it must be assumed that this master's thesis is subject to the same limitation. The second limitation is the author's foreignness to the discipline. Although this allowed her to take a relatively neutral stance between standard and alternative healing approaches for PTSD-like symptoms, her unfamiliarity with psychology may show at some points during the thesis. Both limitations have been mitigated as well as possible by spending longer on the literature review and reading and studying more publications on the subjects than is common. That way, the author aspired to expand her knowledge in the discipline and to diversify (at least horizontally) the literature base for the following analysis.

Nonetheless, this 'pioneering' study is significant because it addresses several literature gaps (as indicated early in this chapter). That way, administrative staff responsible for refugees' health care is given a compact catalog of alternative and complementary possibilities, their functioning, and benefits for displaced populations. The same orientation is now offered to practitioners of other CAMs who seek to broaden their horizons. The study is hoped to contribute to positive, practical implications in the life of trauma-suffering refugees.

Still, this field needs more research. First and foremost, the author joins the call for quantitative, "standard-methodized" studies on the effectiveness of CAMs with conclusive sample sizes, particularly on Creative and Martial Arts Trauma Therapies. Apart from this, it would be helpful to know if some CAMs correlate to the refugee population's demographic or cultural aspects and if they work especially well. Following this step, it is also advisable to study the effects of (those) CAM interventions from the angle of integration and trauma-informed policing in the public security sector.

Lastly, it is strongly advised to create a guideline or protocol that would make it easier for municipal administrators to plan such CAM projects and link them to standard talking PTSD therapies. The practical feasibility of these initiatives and the possible overcoming of financial, linguistic, or political hurdles will in reality heavily influence the existence and success of all those therapies - and thus the mental health of refugees with PTSD-like symptoms in Germany.

Chapter 8: Conclusion

This thesis has answered all research objectives set in *Chapter 1.3.*, compiling available information and creating new knowledge in the field of Creative and Martial Arts Trauma Therapies in the treatment of PTSD-like symptoms among refugees in Germany.

The study provides easily understandable insights into these CAM therapies through extensive literature reviews of Art, Music, Dance, Drama, and Martial Art Trauma Therapies (*Chapter 4*). After conducting Kuckartz's qualitative content analysis and categorizing these texts, a filtered and visual display of the therapeutic elements used in the Creative and Martial Arts Trauma Therapies was offered to the reader (*Chapter 5*). Lastly, these findings were reconciled with standard PTSD treatment methods and the additional therapeutic elements of CAMs were highlighted and explained (*Chapter 6*).

These unique elements of the analyzed Creative and Martial Arts Trauma Therapies for combatting PTSD-like symptoms can be seen as the main finding of this thesis and consist of:

1. A higher adaptability in exposing the patient to his/her trauma in terms of intensity and time (compared to standard treatments with fixed therapy plans).
2. A non-reliance on the survivor's linguistic memory and expression skills by working foremost via non-verbal and multisensory communication types.
3. The inclusion of the physical and the body to facilitate a bottom-up healing approach and educate relaxation and bodily awareness.
4. The openness to religious and spiritual dimensions broadens the search for coping styles and mitigates post-colonial, purely "Western" attitudes.
5. A (re)connection to society, thanks to the group setting of the CAMs, that fosters cultural integration and language training in addition to the psychological advantages of the feeling of belonging and being accepted.
6. A balance of resilience-enhancing and trauma-facing techniques.

All these results were discussed on their importance for refugees in Germany, who suffer PTSD-like symptoms. It has been concluded that Creative and Martial Arts Trauma Therapies are especially suitable to help this population.

To the author's knowledge, this thesis is the first systematical assessment across several Creative and Martial Art Trauma Therapies. Moreover, the study includes the synergies between these CAMs and standard healing methods and focuses on the implications for refugees. As a result, this thesis addresses several literature gaps and presents relevant

insights into standard and CAM practitioners, and public health care administrative personnel.

Despite its contributions, this thesis has limitations that call for further scientific research, due to a deficiency in statistical data and critical aspects of the respective CAM in the available literature. Also, the author's academic background outside of psychology may have limited some interpretations. Both constraints were mitigated by conducting extensive research and by the fact that the subject of the study itself was alternative and, thus, not necessarily part of a standard psychology academic curriculum.

Nevertheless, future research should focus on quantitative studies with sturdy sample sizes to assess the efficacy of Creative and Martial Arts Trauma Therapies. Insights into potential interrelationships between demographic or cultural characteristics and the various respective healing approaches would also be interesting, to further customize and optimize the CAM projects offered for refugees.

By closing some of the literature gaps and analyzing the modes of functions of Creative and Martial Arts Trauma Therapies, this study contributed to bridging the gap between standard and alternative trauma medicine, at least as a one-way road for standard practitioners. It is hoped that this thesis sparks interest for more research on the compatibility of both approaches and facilitates mutual understanding and acceptance for the good of the individual patient. The author sees enormous potential in the analyzed CAM trauma treatment methods to fill some of the insufficiencies of the German public mental health care system, which are especially challenging for refugees in the Federal Republic of Germany.

Bibliography

- ADTA. (2020). *What is dance/movement therapy?* American Dance Therapy Association. <https://www.adta.org/faq>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: Dsm-5* (5. ed.). American Psychiatric Publishing. <http://swb.ebib.com/patron/FullRecord.aspx?p=1811753>
- American Psychological Association. (2017). *Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder*. <https://www.apa.org/ptsd-guideline/ptsd.pdf>
- American Psychological Association. (2020). *PTSD Treatments*. American Psychological Association. <https://www.apa.org/ptsd-guideline/treatments>
- Anderson, K. B., & Hernandez, J. (2015). Internal martial arts training and the reduction of hostility and aggression in martial arts students. *Psi Chi Journal of Psychological Research*, 20(3), 169–176.
- Angleman, A. J., Shinzato, Y., van Hasselt, V. B., & Russo, S. A. (2009). Traditional martial arts versus modern self-defense training for women: Some comments. *Aggression and Violent Behavior*, 14(2), 89–93. <https://doi.org/10.1016/j.avb.2008.12.001>
- Asamoah, Y. (2013). *Innovations in Delivering Culturally Sensitive Social Work Services: Challenges for Practice and Education*. Taylor & Francis.
- BaFF. (2019). *Lots*innen, Peers und Laienhelfer*innen: (Neue) Unterstützungskonzepte in der psychosozialen Arbeit mit Geflüchteten*. Positionspapier. https://www.baff-zentren.org/wp-content/uploads/2019/02/BAFF_Positionspapier_Laienhilfe_2019.pdf
- Baker, B. A. (2006). Art Speaks in Healing Survivors of War. *Journal of Aggression, Maltreatment & Trauma*, 12(1-2), 183–198. https://doi.org/10.1300/J146v12n01_10
- Bell, C. (2008). Asian martial arts and resiliency. *Ethnicity and Inequalities in Health and Social Care*, 1(2), 11–17. <https://doi.org/10.1108/17570980200800016>
- Bensimon, M., Amir, D., & Wolf, Y. (2012). A pendulum between trauma and life: Group music therapy with post-traumatized soldiers. *The Arts in Psychotherapy*, 39(4), 223–233. <https://doi.org/10.1016/j.aip.2012.03.005>

- Berndt, C. (2024, February 13). "Psychotherapie gibt es erst, wenn ein Geflüchteter hochgradig psychotisch ist". *Süddeutsche Zeitung*. <https://www.sueddeutsche.de/gesundheit/psychotherapie-gefluechtete-depressionen-ptbs-angststoerungen-1.6356492?reduced=true>
- Bernius, V. (2019). Wo hilft Sprache, wo hilft Musik? Musiktherapie und Trauma. *Musiktherapeutische Umschau*, 40(4), 411–414.
- Bleuer, J., & Harnden, B. (2018). Translating drama therapy: Reflections on clinical practice with complex trauma. *Drama Therapy Review*, 4(2), 167–182. https://doi.org/10.1386/dtr.4.2.167_1
- Boudrias, S. (2021). Neuroscience and Somatic Art Therapy: Emotional Memory Reconsolidation. In J. Hamel (Ed.), *Somatic art therapy: Alleviating pain and trauma through art* (pp. 51–62). Routledge Taylor & Francis Group.
- Bowman, P. (2017). The definition of martial arts studies. *Martial Arts Studies*, 0(3), 6. <https://doi.org/10.18573/j.2017.10092>
- Brillantes-Evangelista, G. (2013). An evaluation of visual arts and poetry as therapeutic interventions with abused adolescents. *The Arts in Psychotherapy*, 40(1), 71–84. <https://doi.org/10.1016/j.aip.2012.11.005>
- Buckley, M. (2023). The aesthetics of language, body and distancing in dramatherapeutic trauma work. *Dramatherapy*, 44(2-3), 132–144. <https://doi.org/10.1177/02630672231209693>
- Bundesamt für Migration und Flüchtlinge. (2023). *Ablauf des deutschen Asylverfahrens: Ein Überblick über die einzelnen Verfahrensschritte und rechtlichen Grundlagen*. <https://www.bamf.de/SharedDocs/Anlagen/DE/AsylFluechtlingsschutz/Asylverfahren/das-deutsche-asylverfahren.html?nn=282388>
- Burke, D., Al-Adawi, S., Lee, Y., & Audette, J. (2007). Martial arts as sport and therapy. *Journal of Sports Medicine and Physical Fitness*, 47(1), 96–102.
- Carr, C., d'Ardenne, P., Sloboda, A., Scott, C., Wang, D., & Priebe, S. (2011). Group music therapy for patients with persistent post-traumatic stress disorder--an exploratory randomized controlled trial with mixed methods evaluation. *Psychology and Psychotherapy*, 85(2), 179–202. <https://doi.org/10.1111/j.2044-8341.2011.02026.x>
- CDC Office of Readiness and Response. (2020). *6 Guiding Principles To A Trauma-Informed Approach*. https://www.cdc.gov/orr/infographics/6_principles_trauma_info.htm
- Chakraborty, S., & Tant, L. (2022). Dance/Movement Therapy: Renewing Purpose when Emerging from Sexual Abuse and International Human Sex Trafficking. In R.

- Dieterich-Hartwell & A. M. Melsom (Eds.), *Dance/Movement Therapy for Trauma Survivors: Theoretical, Clinical, and Cultural Perspectives* (pp. 144–157). Routledge. <https://doi.org/10.4324/9781003111382-12>
- Clancy, M. A. C., & Hamber, B. (Eds.) (2008). *Trauma, Peacebuilding, and Development: An overview of key positions and critical questions*.
- Collie, K., Backos, A., Malchiodi, C., & Spiegel, D. (2006). Art Therapy for Combat-Related PTSD: Recommendations for Research and Practice. *Art Therapy: Journal of the American Art Therapy Association*, 23(4), 157–164.
- DeGPT. (2019). *S3 Leitlinie Posttraumatische Belastungsstörung*. https://register.awmf.org/assets/guidelines/155-0011_S3_Posttraumatische_Belastungsstoe-rung_2020-02_1.pdf
- Dennison, A., & Powell-Watts, L. (2021). Ancestral healing in psychotherapy. *Spirituality in Clinical Practice*, 8(3), 188. <https://doi.org/10.1037/scp0000254>
- DFKGT. (n.d.). *Definition Kunsttherapie*. Retrieved July 24, 2024, from <https://www.dfkg.de/page.cfm?id=1517>
- Dieterich-Hartwell, R., & Koch, S. C. (2017). Creative Arts Therapies as Temporary Home for Refugees: Insights from Literature and Practice. *Behavioral Sciences (Basel, Switzerland)*, 7(69). <https://doi.org/10.3390/bs7040069>
- DMtG. (2019). *Musiktherapie mit traumatisierten Menschen: Wege aus der Erstarrung finden*. Deutsche Musiktherapeutische Gesellschaft e.V. <https://www.musiktherapie.de/wp-content/uploads/2019/09/DMTG-Faltblatt-Musiktherapie-mit-traumatisierten-Menschen.pdf>
- Eads, B., & Wark, D. M. (2018). Alert Hypnosis With Tai Chi Movement for Trauma Resolution. *The American Journal of Clinical Hypnosis*, 61(2), 173–184. <https://doi.org/10.1080/00029157.2018.1489775>
- Faggianelli, P., & Lukoff, D. (2006). Aikido and Psychotherapy: A Study Of Psychotherapists Who Are Aikido Practitioners. *The Journal of Transpersonal Psychology*, 38(2), 159–178.
- Figueiredo, A. (2009). The Object of Study in Martial Arts and Combat Sports Research: Contributions to a Complex Whole. In *Biblioteka Lykeion: Vol. 9. Martial arts and combat sports - humanistic outlook* (pp. 20–34). Wydawnictwo Uniwersytetu Rzeszowskiego.
- Garcia Vargas, A. (2019). *Psychological Effects of Training in Martial Arts After Interpersonal Trauma* (6695) [Dissertation]. Walden University, Columbia, MD. <https://scholarworks.waldenu.edu/dissertations/6695>

- Garrido, S., Baker, F. A., Davidson, J. W., Moore, G., & Wasserman, S. (2015). Music and trauma: The relationship between music, personality, and coping style. *Frontiers in Psychology*, 6, Article 977, 1–3. <https://doi.org/10.3389/fpsyg.2015.00977>
- Glaser, B. (2004). Ancient traditions within a new drama therapy method: shamanism and Developmental Transformations. *The Arts in Psychotherapy*, 31(2), 77–88. <https://doi.org/10.1016/j.aip.2004.02.001>
- Gray, A. E., & Fargnoli, A. (2022). Theoretical Underpinnings of Dance/Movement Therapy in the Treatment of Psychological Trauma. In R. Dieterich-Hartwell & A. M. Melsom (Eds.), *Dance/Movement Therapy for Trauma Survivors: Theoretical, Clinical, and Cultural Perspectives* (pp. 7–23). Routledge. <https://doi.org/10.4324/9781003111382-3>
- Grodin, M. A., Piwowarczyk, L., Fulker, D., Bazazi, A. R., & Saper, R. B. (2008). Treating survivors of torture and refugee trauma: A preliminary case series using qigong and t'ai chi. *Journal of Alternative and Complementary Medicine*, 14(7), 801–806. <https://doi.org/10.1089/acm.2007.0736>
- Haen, C. (2008). Vanquishing Monsters: Drama Therapy for Treating Childhood Trauma in Group Settings. In C. A. Malchiodi (Ed.), *Creative interventions with traumatized children* (pp. 225–246). Guilford Press.
- Hamel, J. (2021). Hypotheses About Art Therapy Effectiveness. In J. Hamel (Ed.), *Somatic art therapy: Alleviating pain and trauma through art* (pp. 41–45). Routledge Taylor & Francis Group.
- Hilliard, R. E. (2008). Music and Grief Work with Children and adolescents. In C. A. Malchiodi (Ed.), *Creative interventions with traumatized children* (pp. 62–80). Guilford Press.
- Hu, G.-T., & Wang, Y. (2021). Advances in Treatment of Post-Traumatic Stress Disorder with Chinese Medicine. *Chinese Journal of Integrative Medicine*, 27(11), 874–880. <https://doi.org/10.1007/s11655-021-2864-1>
- Hussey, D. L., Reed, A. M., Layman, D. L., & Pasiali, V. (2008). Music Therapy and Complex Trauma: A Protocol for Developing Social Reciprocity. *Residential Treatment for Children & Youth*, 24(1-2), 111–129. <https://doi.org/10.1080/08865710802147547>
- ICD-10. (2019). *F43.1 Post-traumatic stress disorder*. <https://icd.who.int/browse10/2019/en#/F43.1>
- ICD-11. (2022a). *6B40 post traumatic stress disorder*. https://icd.who.int/ct/icd11_mms/en/release

- ICD-11. (2022b). *6B41 Complex post traumatic stress disorder*. World Health Organization. <https://icd.who.int/browse/2024-01/mms/en#585833559>
- Jones, P. (2015). Trauma and dramatherapy: dreams, play and the social construction of culture. *South African Theatre Journal*, 28(1), 4–16. <https://doi.org/10.1080/10137548.2015.1011897>
- JWPA KU. (n.d.). *Strukturierende qualitative Inhaltsanalyse nach Kuckartz*. Retrieved September 9, 2024, from <https://eo-vmw-jwpa.ku.de/journalistik/methoden/methoden-der-empirischen-sozialforschung/inhaltsanalyse/qual-inhaltsanalyse/strukturierende-qualitative-inhaltsanalyse-nach-kuckartz/>
- 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>
- Kar, N. (2011). Cognitive behavioral therapy for the treatment of post-traumatic stress disorder: A review. *Neuropsychiatric Disease and Treatment*, 7, 167–181. <https://doi.org/10.2147/NDT.S10389>
- Karato, Y. (2023). *Flucht & Gewalt: Psychosozialer Versorgungsbericht Deutschland 2023*. https://www.baff-zentren.org/wp-content/uploads/2023/06/BAfF_Versorgungsbericht2023.pdf
- Koch, S. C., & Weidinger-von der Recke, B. (2009). Traumatised refugees: An integrated dance and verbal therapy approach. *The Arts in Psychotherapy*, 36(5), 289–296. <https://doi.org/10.1016/j.aip.2009.07.002>
- Kohlbrunn, Y., & Scheytt, C. (2021). *Qualitative Inhaltsanalyse nach Kuckartz*. Ruhr-Universität Bochum. <https://methodenzentrum.ruhr-uni-bochum.de/e-learning/qualitative-auswertungsmethoden/qualitative-inhaltsanalyse/qualitative-inhaltsanalyse-nach-kuckartz/>
- Laban, C. J. (2015). Resilience-Oriented Treatment of Traumatised Asylum Seekers and Refugees. In M. Schouler-Ocak (Ed.), *Trauma and Migration* (pp. 191–208). Springer International Publishing. https://doi.org/10.1007/978-3-319-17335-1_13
- Landis-Shack, N., Heinz, A. J., & Bonn-Miller, M. O. (2017). Music Therapy for Post-traumatic Stress in Adults: A Theoretical Review. *Psychomusicology*, 27(4), 334–342.
- Landy, R. J. (2010). Drama as a means of preventing post-traumatic stress following trauma within a community. *Journal of Applied Arts & Health*, 1(1), 7–18. <https://doi.org/10.1386/jaah.1.1.7/1>
- Lenski, S. (2016). Die Kunstfreiheit des Grundgesetzes. *JURA - Juristische Ausbildung*, 38(1), 35–44. <https://doi.org/10.1515/jura-2016-0006>

- Levine, B., Land, H. M., & Lizano, E. L. (2015). The Elements of Dance/Movement Therapy Employed when Treating Women with Posttraumatic Stress Disorder. *Critical Social Work, 16*(1), 40–57.
- Lindner, K. (n.d.). *Prävalenzen für eine posttraumatische Belastungsstörung (PTBS) bei Geflüchteten und gesetzliche Behandlungsansprüche in Deutschland: Ein Überblick vor dem Hintergrund der Fluchtmigration aus der Ukraine*. Retrieved September 11, 2023, from <https://infodienst.bzga.de/migration-flucht-und-gesundheit/im-fokus-gefluechtete/v/praevalenzen-fuer-eine-posttraumatische-belastungsstoerung-ptbs-bei-gefluechteten-und-gesetzliche-beha/>
- Longacre, M., Silver-Highfield, E., Lama, P., & Grodin, M. A. (2012). Complementary and alternative medicine in the treatment of refugees and survivors of torture: A review and proposal for action. *Torture, 22*(1).
- Lukoff, D., & Strozzi-Heckler, R. (2017). Aikido: A martial art with mindfulness, somatic, relational, and spiritual benefits for veterans. *Spirituality in Clinical Practice, 4*(2), 81–91. <https://doi.org/10.1037/scp0000134>
- Mackenzie, N. (2013). A Brief Exploration of the Role of Dramatherapy within a Multi-Modal Arts Therapy Approach to Working with Children Aged 4–14 Years Impacted by Trauma. *Dramatherapy, 35*(2), 131–139. <https://doi.org/10.1080/02630672.2013.823747>
- Malchiodi, C. (2008). Creative Interventions and Childhood Trauma. In C. A. Malchiodi (Ed.), *Creative interventions with traumatized children* (pp. 3–21). Guilford Press.
- Martin, E. S. (2008). Medical Art and Play Therapy with Accident Survivors. In C. A. Malchiodi (Ed.), *Creative interventions with traumatized children* (pp. 112–131). Guilford Press.
- Martinec, R. (2018). Dance Movement Therapy in the Wider Concept of Trauma Rehabilitation. *Journal of Trauma and Rehabilitation, 1*(1), 1–5.
- Miller, C. (2010). *Group art therapy and combat-related posttraumatic stress disorder: A case study* [Master Thesis]. Concordia University, Ottawa. <https://spectrum.library.concordia.ca/id/eprint/979419/1/MR67258.pdf>
- Momartin, S., da Silva Miranda, E., Aroche, J., Naguran, A., Emmadi, A., & Coello, M. (2019). STARTTS Capoeira Angola Project Bantu: Combining Alternative Therapeutic Intervention with Sport for Traumatized Young Refugees: On the Way to Recovery. *Journal of Physical Medicine and Rehabilitation, 1*(1), 15–17.
- Motta, R. W. (2020). *Alternative therapies for PTSD: The science of mind-body treatments*. American Psychological Association.

- NCCIH. (2021). *Complementary, Alternative, or Integrative Health: What's In a Name?*
<https://www.nccih.nih.gov/health/complementary-alternative-or-integrative-health-whats-in-a-name>
- Ng, W. F. (2005). Music Therapy, War Trauma, and Peace: A Singaporean Perspective. *Voices: A World Forum for Music Therapy*, 5(3).
<https://doi.org/10.15845/voices.v5i3.231>
- Niles, B. L., Reid, K. F., Whitworth, J. W., Alligood, E., Williston, S. K., Grossman, D. H., McQuade, M. M., & Mori, D. L. (2022). Tai Chi and Qigong for trauma exposed populations: A systematic review. *Mental Health and Physical Activity*, 22.
<https://doi.org/10.1016/j.mhpa.2022.100449>
- Norman, S. B. (2022). Effectiveness of currently available psychotherapies for post-traumatic stress disorder and future directions. *World Psychiatry*, 21(2), 309–310.
<https://doi.org/10.1002/wps.20974>
- Oulanova, O. (2009). Healing through the martial way: Incorporating karate training into counselling and psychotherapy. *Body, Movement and Dance in Psychotherapy*, 4(1), 45–57. <https://doi.org/10.1080/17432970802097978>
- Pal, S. K. (2002). Complementary and alternative medicine: An overview. *Current Science*, 82(5), 518–524.
- Parker, S. (2018). Moving On: An Investigation of Dance Movement Therapy in PTSD Treatment. *The BYU Undergraduate Journal of Psychology*, 13(1), 100–111.
- Pierce, L. (2014). The integrative power of dance/movement therapy: Implications for the treatment of dissociation and developmental trauma. *The Arts in Psychotherapy*, 41(1), 7–15. <https://doi.org/10.1016/j.aip.2013.10.002>
- PubMed. (2023, August 15). *PubMed Overview*. NIH. <https://pubmed.ncbi.nlm.nih.gov/about/>
- Romier, A., Clerici, E., Stern, E., Maruani, J., & Geoffroy, P. A. (2024). Therapeutic Management of Nightmares: Practice Guide for Imagery Rehearsal Therapy (IRT). *Current Sleep Medicine Reports*. Advance online publication.
<https://doi.org/10.1007/s40675-024-00287-8>
- Rosenblum, G. D., & Taska, L. S. (2014). Self-defense training as clinical intervention for survivors of trauma. *Violence Against Women*, 20(3), 293–308.
<https://doi.org/10.1177/1077801214526048>
- SAMHSA. (2023). *Practical Guide for Implementing a Trauma-Informed Approach*.
<https://store.samhsa.gov/sites/default/files/pep23-06-05-005.pdf>

- Sareen, J. (2014). Posttraumatic stress disorder in adults: Impact, comorbidity, risk factors, and treatment. *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie*, 59(9), 460–467. <https://doi.org/10.1177/070674371405900902>
- Savjak, N. (2002). Displacement as a factor causing posttraumatic stress disorder. In E. Duraković-Belko & S. Powell (Eds.), *Psychosocial consequences of war: Results of empirical research from the territory of former Yugoslavia: presentations from a Symposium held at the Faculty of Philosophy in Sarajevo, July 7 and 8, 2000* (pp. 42–47). UNICEF B&H.
- Schouten, K. A., Niet, G. J. de, Knipscheer, J. W., Kleber, R. J., & Hutschemaekers, G. J. M. (2015). The Effectiveness of Art Therapy in the Treatment of Traumatized Adults. *Trauma, Violence & Abuse*, 16(2), 220–228.
- Schröder, H., Zok, K., & Faulbaum, F. (2018). Gesundheit von Geflüchteten in Deutschland: Ergebnisse einer Befragung von Schutzsuchenden aus Syrien, Irak und Afghanistan. *WIdO Monitor*, 1(15), 1–20.
- Scott, K., & Williams, E. N. (2024). Art therapy with adult refugees: A systematic review of qualitative research. *The Arts in Psychotherapy*, 88, 102126. <https://doi.org/10.1016/j.aip.2024.102126>
- Shamseddin Sami, Z. S.'d. (2021). *Comparison study of sustainable development impact between martial arts and group sports program in refugee camps* [Master Thesis]. University of Peloponnese, Tripolis. <https://amitos.library.uop.gr/xmlui/bitstream/handle/123456789/7008/Final%20Draft%20-%20The-sis%20Zaid%20Sami.pdf?sequence=1&isAllowed=y>
- Smid, G. E., Lind, J., & Bonde, J. P. (2022). Neurobiological mechanisms underlying delayed expression of posttraumatic stress disorder: A scoping review. *World Journal of Psychiatry*, 12(1), 151–168. <https://doi.org/10.5498/wjp.v12.i1.151>
- Smyth, J., & Nobel, J. (2015). Creative, Artistic, and Expressive Therapies for PTSD, 1–7. https://www.artandhealing.org/wp-content/uploads/2015/07/PTSD-White_Paper_0323121.pdf
- Stukenberg, T. (2021). *Warum in Deutschland Therapieplätze für Migranten fehlen*. Deutschlandfunk. <https://www.deutschlandfunk.de/flucht-und-trauma-warum-in-deutschland-therapieplaetze-fuer-100.html>
- Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-affected areas. *Social Science & Medicine* (1982), 48(10), 1449–1462. [https://doi.org/10.1016/S0277-9536\(98\)00450-X](https://doi.org/10.1016/S0277-9536(98)00450-X)

- Taylor & Francis Knowledge Centers. (n.d.). *Abreaction*. Retrieved November 12, 2024, from https://taylorandfrancis.com/knowledge/Medicine_and_healthcare/Psychiatry/Abreaction/
- Tischler, T. (2017). *Kampfsportarten als unterstützende Integrationsmaßnahme bei minderjährigen, unbegleiteten Flüchtlingen* [Master thesis]. Karl-Franzens-Universität, Graz.
- Tomaszewski, C., Belot, R.-A., Essadek, A., Onumba-Bessonnet, H., & Clesse, C. (2023). Impact of dance therapy on adults with psychological trauma: A systematic review. *European Journal of Psychotraumatology*, *14*(2), 2225152. <https://doi.org/10.1080/20008066.2023.2225152>
- Tsai, P.-F., Kitch, S., Chang, J. Y., James, G. A., Dubbert, P., Roca, J. V., & Powers, C. H. (2018). Tai Chi for Posttraumatic Stress Disorder and Chronic Musculoskeletal Pain: A Pilot Study. *Journal of Holistic Nursing : Official Journal of the American Holistic Nurses' Association*, *36*(2), 147–158. <https://doi.org/10.1177/0898010117697617>
- Twemlow, S., Sacco, F., & Fonagy, P. (2008). Embodying the Mind: Movement as a Container for Destructive Aggression. *American Journal of Psychotherapy*, *62*(1), 1–33.
- UNHCR. (2020). *Trauma - mit Erlebtem leben lernen*. UNHCR. <https://www.uno-fluechtlingshilfe.de/hilfe-weltweit/humanitaere-hilfe/gesundheit/trauma>
- Utzon-Frank, N., Breinegaard, N., Bertelsen, M., Borritz, M., Eller, N. H., Nordentoft, M., Olesen, K., Rod, N. H., Rugulies, R., & Bonde, J. P. (2014). Occurrence of delayed-onset post-traumatic stress disorder: A systematic review and meta-analysis of prospective studies. *Scandinavian Journal of Work, Environment & Health*, *40*(3), 215–229. <https://doi.org/10.5271/sjweh.3420>
- van der Kolk, B. A. (2015). *The body keeps the score: Brain, mind and body in the healing of trauma*. Penguin Books.
- Ventura, N. (2021). *The Need for School-Based Trauma-Informed Drama Therapy Interventions: A Literature Review* (379) [Master Thesis]. Lesley University, Cambridge, Massachusetts. https://digitalcommons.lesley.edu/expressive_theses/379
- Wahbeh, H., Senders, A., Neuendorf, R., & Cayton, J. (2018). Complementary and Alternative Medicine for Posttraumatic Stress Disorder Symptoms: A Systematic Review. *Focus (American Psychiatric Publishing)*, *16*(1), 98–112. <https://doi.org/10.1176/appi.focus.16102>

- Watkins, L. E., Sprang, K. R., & Rothbaum, B. O. (2018). Treating PTSD: A Review of Evidence-Based Psychotherapy Interventions. *Frontiers in Behavioral Neuroscience*, *12*, Article 258. <https://doi.org/10.3389/fnbeh.2018.00258>
- Wetzler, S. (2015). Martial arts studies as Kulturwissenschaft: A possible theoretical framework. *Martial Arts Studies*, *0*(1), 20–33. <https://doi.org/10.18573/j.2015.10016>
- Willing, A. E., Girling, S. A., Deichert, R., Wood-Deichert, R., Gonzalez, J., Hernandez, D., Foran, E., Sanberg, P. R., & Kip, K. E. (2019). Brazilian Jiu Jitsu Training for US Service Members and Veterans with Symptoms of PTSD. *Military Medicine*, *184*(11-12), e626-e631. <https://doi.org/10.1093/milmed/usz074>
- Winters Fisher, A. F., & Freeman, E. K. (2022). Dance/Movement Therapy with Active Duty and Veteran Military Populations. In R. Dieterich-Hartwell & A. M. Melsom (Eds.), *Dance/Movement Therapy for Trauma Survivors: Theoretical, Clinical, and Cultural Perspectives* (pp. 202–214). Routledge. <https://doi.org/10.4324/9781003111382-16>

For linguistic correctness and fluency in English, the following websites and applications were consulted: www.deepl.com, www.dict.leo.org, Grammarly, and www.thesaurus.com.

Annex A: Creative and Martial Arts sorted by Main Themes (Step 3)

The following tables show which text passages from *Chapter 4* were clustered under which Main Theme. The page numbers on the right indicate where the quoted text is in the master's thesis.

Main Theme 1: Exposure		pp.
Art Therapy	Visual, kinesthetic, and metaphorical expressions of traumatic memories, current sorrows, fears, imprecise feelings, as well as (self-)perceptions can be externalized and symbolized through art – to an extent where language alone reaches its limits.	26
	--	
	By externalizing thoughts and feelings of all kinds, the artist gains a distance from his/her emotional state, without necessarily having to be exposed directly to the traumatic event(s), making it a non-threatening approach.	27
	--	
	The own, now “external” traumatic material can be approached as an observer and facilitates, therefore, working through the patient's inner turmoil, which otherwise might be too overwhelming for him/her. The traumatized person can now explore and process latent psychological problems from a safe emotional distance.	27
	--	
	The easily regulated use of symbols in art triggers less avoidance and devastating feelings compared to a direct verbal expression of the same traumatic material. Art therapy therefore commences at a lower level of sensory stimuli and progresses the exposure step-by-step.	27
	--	
	Entrusting one's fears, guilt, and hurtful memories to a piece of art, and hence communicating primarily with oneself, is often simpler than talking about it to another person, or even an almost stranger like a therapist.	27
	--	
It [Art Therapy] furthermore provides the necessary timely latitude to use a tempo fitted to the client's processing ability and to stay within the personal boundaries to evade a too-strong exposure to stimuli or even re-traumatization.	27	
--		
Through illustrations, metaphors, and other embodiments of their experiences, people can gain new interpretations, and discover further meanings of their realities, by immersing themselves consciously in their problems and finding artistic solutions (<i>See also: and Main Theme 4: Positive Connection to the Self</i>).	30	
--		
The main goal of this approach is to ‘take shape’ emotions and memories. Creating something physical helps the traumatized person see himself/herself from an outsider's perspective.	30	
--		
Art uses more diverse channels than solemn cognitive recognition to provoke the audience's feelings. Consuming art is, therefore, intended to stimulate certain levels of response and arousal, which can be induced through specific tones or moods. Sympathy with the artist can bring emotions to the surface, independently of how close these feelings are actually to the piece of art.	30	
--		

	<p>The non-threatening character of art facilitates the patient to work through the hurtful emotions buried before. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).</p> <p>--</p> <p>[...] art in its various two or three-dimensional styles offers a safe way of abreaction. Locked-away memories and feelings can find an aiding outlet through art making. Stirred-up sensations can immediately be externalized, leading to relaxation and the facilitation of reconsolidating fragmented memories. (<i>Main Theme 3: Awareness, Expression & Control of Emotions</i>).</p> <p>--</p> <p>As indicated earlier in this chapter, it is easier to discuss sensations represented in one's art than directly the traumatic memory or feeling. It gives the patient the possibility to distance himself/herself from his/her trauma(s), leading to a sense of control.</p> <p>--</p> <p>Lastly, as the patient is free in his/her choice of material/techniques, the depth and speed of the trauma exposure, they experience a heightened feeling of security and run a lowered risk of symptoms worsening or re-traumatization. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p>	30 31 31 31
Music Therapy	Some sounds, instruments, and/or lyrics might be associations, memories, sensations, and feelings of traumatic events and have therefore qualities of exposure to the individual.	33
Dance Therapy	<p>The holistic approach of Dance Therapies is non-goal-oriented, which allows the individual to process and heal at his/her own pace while decreasing stress in an open and accepting ambiance.</p> <p>--</p> <p>Expressive dance prompts memories, pictures, and mental connections, which excites the progress of reflection on these impressions (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).</p> <p>--</p> <p>These feelings can be externalized while holding a safe emotional distance through motoric metaphors, conveyed by e.g., moves, facial expressions, poses, gestic, physical contact, and kinesthetic sensation.</p> <p>--</p> <p>Chakraborty & Tant (2022) see embodiment as the foundation of Dance Therapy, which acknowledges and appreciates the body's adaptive coping mechanisms, which save the survivor's life during the traumatic event(s).</p> <p>--</p> <p>With this bolstered resilience, it is hoped that clients can regulate into their window of tolerance where they can integrate new learnings without getting re-traumatized when confronted with their past. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p>	35 36 36 38 38
Drama Therapy	<p>Similarly to other art therapies, drama therapy utilizes exposure and externalization through projection. Through artistic forms of acting, storytelling, and playwriting traumatized people can portray interior turmoil and part of themselves or reenact memories.</p> <p>--</p> <p>They [traumatized people] might also be able to identify themselves with dramatic projections of others. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).</p> <p>--</p> <p>The act of projection allows the client to perceive his/her inner conflicts from another perspective, which, in turn, is hoped to lead to internalization, acceptance, and transformation of the traumatic material and/or its affects. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p>	39 39 39 39

	<p>Within the playspace (the understanding that the said and done is fiction-ary) the newly created alternative reality is liberated from time and space. In this ‘dream space’, dark and heavy emotional content can be faced with humor and playfulness.</p> <p>--</p> <p>The material of classical and modern theatre plays, however, revolve essentially around various forms of conflict and their outcomes, representing a special kind of exposure by their nature to traumatized people. Feelings of shame and guilt are also common among clients, causing them to be anxious if they are being noticed. On the stage, however, they are required to stand and perform confidently as well as to fill a whole room with their voice.</p> <p>--</p> <p>The theatrical need to sense emotional and physical impressions profoundly runs contrary to the impulses of individuals with PTSD-like symptoms, forming an incentive to become aware of feelings. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions).</i></p> <p>--</p> <p>In written plays, traumatized actors/actresses are encouraged to reflect intensely on the character’s lines and to find out how he/she interprets the words and what reaction they generate for him/her personally. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions).</i></p> <p>--</p> <p>Changing the role also benefits those who are temporally overwhelmed and too affected by their role to gain distance.</p> <p>--</p> <p>Distancing is a vital component of drama therapy and has been defined as “[a] process of titrating emotion and cognition through engagement with dramatic media” (Buckley, 2023, p. 136).</p> <p>--</p> <p>Often referred to as ‘aesthetic distance’, the therapeutic tool allows the traumatized person to sense, externalize and accept their traumatic material and their reactions to it without getting emotionally too affected by their PTSD-like symptoms. Pretending to be another (imaginary) being, or to be in another fictional reality facilitates expressing what has happened, what is felt, and what is hoped for. So does the use of metaphors, masks, or the telling of fictional stories. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions).</i></p> <p>--</p> <p>Finding the right degree of distancing is a balancing act; the drama therapist must be able to weigh out the patient’s over- and under-emotional engagement into the right amount of exposure to obtain therapeutic progress while avoiding re-traumatization [...]. The exposure can be “distanced” through variations in embodiment, ranging from partial and widely extrinsic media like hand puppets or tiny toys to full-body performances in almost realistic interactions with other actors. A clear distinction between the play and reality is often created consciously by marking a physical ‘stage’ or by establishing rituals (like, shouting “action” and “cut”) to define the act temporally.</p> <p>--</p> <p>Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions and Main Theme 5: Social Connections).</i></p>	<p>40</p> <p>40</p> <p>40</p> <p>40</p> <p>40</p> <p>40-41</p> <p>41</p> <p>41</p>
Martial Art Therapy	Eventually, the martial arts practitioner finds oneself alone in confronting situations (e.g., while sparring physically with peers in the dojo). That is how they learn to deal alone with negotiating conflicts and how to surmount feelings of aggression, vulnerability, weariness, and uneasiness; just	43

	as the client must ultimately adjust to handle inner conflicts without the therapist.	
	-- Trauma-informed self-defense and martial arts lessons can be used as in vivo exposures to the individual's trauma. To counter avoidance behavior, the traumatic event can be re-enacted in verbal and physical assault scenarios. The patient is therefore not only confronted with his/her trauma but has also the possibility to react to this exposure physically and actively, which counteracts conditioned immobilization (contrary to 'talk therapies' where a calm, freezing state is coerced).	44
	-- Practicing an external form of martial arts may favor the circumstances to find the way back to normalized physical contact. (<i>See also: Main Theme 5: Social Connections</i>).	44
	-- The philosophies provided by (Asian) martial arts allow the practitioner to take an 'over-combat' perspective, where the trauma and its psychological consequences can be fought against, instead of having to have a physical enemy.	44

Table 3: Annex A, Main Theme 1 Text Excerpts

Main Theme 2: Grounding & Relaxation		pp.
Introduction	Emblematic for CATs are also their inherent self-relaxation and self-soothing elements by placebo effects, which draw on positive past sensations and memories.	25
Art Therapy	Engaging in art-making furthermore reduces arousal , enhances mindfulness, and counters negative moods, which are stirred up by exposing oneself to one's traumatic material, due to its tranquil and meditative traits.	27
	-- Drawing, quilting, sculpturing, etc. can serve as (calming) rituals and/or distractions from daily sorrows as they require concentration and a certain degree of 'being present'.	27
Music Therapy	But also the simple act of listening to music can bring better abilities to be relaxed and grounded in the present moment as well as to pinpoint one's (non-verbally accessible) emotions. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).	32-33
	-- At the same time, other instruments are associated with calming and relaxing effects.	33
	-- On the other hand, music offers a way out of the state of panic into a deliberately created calm mode of being.	33
	-- A distinction is made between bottom-up and top-down methods of stress regulation in music therapy: Whereas the first one evolves around sensorimotor processing modes, the second one makes use of cognitive-emotional techniques.	33
	-- It [music] simultaneously curbs the levels of stress hormones triggered by unfavorable feelings of anxiety, shame, panic, (self-)blame, sadness, and other forms of emotional distress.	34
	-- Music is therefore an effective support to create grounding or distraction opposing trauma-related triggers in the patient's daily life.	34
	--	34

	<p>This enhanced emotional control, in turn, allows for an ameliorated handling of stressors. The risk of falling into dissociation or becoming overwhelmed by emotions is thus reduced, enabling the individual to build functional social relationships.</p> <p>--</p> <p>This [enhanced self-esteem and diminished self-perceptions of hopelessness and insignificance] is achieved by (re-)learning instruments, the shared enjoyment of music (within a group), and the acquired control over one's emotions. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p>	34
Dance Therapy	<p>Desirably, the client reaches the 'Flow Stage'. In this situation of "holding space", the traumatized person is completely in the 'here and now', enjoying the activity and its inherent creativity. In the 'Flow Stage' he/she is distracted from everything else in a near-hypnotic manner. This has a soothing effect on the parasympathetic nervous system and provides a wholesome outlet for fears and aggression.</p> <p>--</p> <p>Other calming and downshifting elements of dance therapy include (but are not limited to) breathing, awareness, and grounding exercises, which have positive impacts on the neurochemical ramifications of arousal and stress.</p>	37-38 38
Drama Therapy	<p>Role-play can moreover be used to train body-based self-regulation techniques such as grounding, self-touch, and debriefing.</p>	40
Martial Art Therapy	<p>Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (<i>See also: Main Theme 4: Positive Connection to the Self and Main Theme 5: Social Connections</i>).</p> <p>--</p> <p>Another study by Tsai et al. (2018) concluded that PTSD patients enjoyed their participation in a Tai Chi intervention.</p> <p>--</p> <p>Traditional Asian martial arts are often described as 'moving meditations' since they demand a still mind while moving the body. Holding the mental focus, while keeping attention to breathing techniques, the choreography of movements, and/or the actions of the training partner, requires a high level of 'being present', which was proved to impede the occurrence of intrusive memories in various studies.</p> <p>--</p> <p>During the occurrence of flashbacks, the awareness methods are expected to increase calmness, focus, and awareness of one's body and surroundings have been practiced previously. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>Since many martial arts also teach self-calming routines through grounded stances and controlled breathing, they can be understood as a non-clinical form of alert hypnosis.</p> <p>--</p> <p>Being capable of fighting panic attacks and flashbacks and remaining "present", enables PTSD-suffering persons to feel secure enough to confront themselves with activities they would have otherwise avoided. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly. (<i>See also: Main Theme 4: Positive Connection to the Self and Main Theme 5: Social Connections</i>).</p> <p>--</p> <p>Also, the meditational aspects of martial arts help regulate muscle tension and constricted breathing.</p> <p>--</p>	42 43 43 44 44 44 45 45

	Likewise, the same techniques of creating ‘a calm mind’ can be used to identify falsely perceived threats and the triggered physical reactions. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).	45
	-- Japanese martial arts (like Karate, Aikido, and Kendo) operate with the image of ‘Mizu No Kokoro’ (水の心; ‘a mind like water’). The idea is to stay calm and flexible in order to be able to respond adequately to an attack, instead of merely reacting to it. Thus, this mind state functions like a stimulus/reaction rejoinder to perceived threats.	45

Table 4: Annex A, Main Theme 2 Text Excerpts

Main Theme 3: Awareness, Expression & Control of Emotions		pp.
Introduction	CATs are based on the cognization that the human range of emotion is so intricate that the conscious mind cannot comprehend it to its fullest extent. Instead, these feelings and memories are stored within the body. Especially traumatized people often find it difficult to access and verbally describe their traumatic materials – may it be as a result of avoidance patterns, alexithymia, dissociation, an instinct of self-preservation, or simply because these contents are remembered as pictures or other somatic realities. CATs assert to offer different ways of expressing that (otherwise inaccessible) information and ultimately the self. Therefore, they are also often referred to as ‘expressive therapies’.	25
	-- Nonetheless, it would be an oversimplification to understand CATs as purely ‘non-verbal’ approaches, since they usually seek a conscious verbalization of the sensations revealed by their respective form of art. In fact, verbalization is the main purpose of poetry, bibliotherapy, creative writing, and drama therapies.	25
Art Therapy	Engaging in artistic creation can help individuals to make sense of their thoughts and feelings, as well as to develop an alternative and more positive self-perception (<i>See also: Main Theme 4: Positive Connection to the Self</i>).	26
	-- A patient can be asked to illustrate whatever he/she deems important at the moment. This technique is called ‘free drawing’ and is presumed to be an uttermost authentic expression of the self.	26-27
	-- Creating art also offers a non-verbal facilitation to reconsolidate memories by constructing a coherent narrative, that includes fragmented memories and splintered parts of the self. Suppressed and distorted memories can be brought into awareness by illustrating them as something palpable.	28
	-- Artmaking fosters the cognitive integration of fragmented memories and emotions: For example, working with fluid materials (e.g., watercolors) is considered especially helpful in disclosing visible hard-to-access sentiments due to their fluctuating outcomes. Contrarily, resistant materials (e.g., pencils and chalk), whose results are reliable, are suggested to visualize excessive and overwhelming feelings.	28
	-- However, art is not restricted to a supportive function towards verbal treatments, in which they use the artwork as a conversation starter or interpretation material; The process of art-making itself leads the patient to recall, relive, re-enact, reinterpret, and eventually understand and resolve his/her inner conflict(s).	28
	-- This [resolving inner conflicts], in turn, can result in feelings of catharsis, and relief.	28

	-- Being able to enclose, contain, and manipulate artistic representations of the unspeakable traumatic memories may produce a sensation of empowerment, agency, and regained control and mastery over one's emotions and reactions. (<i>See also: Main Theme 4: Positive Connection to the Self</i>). --	29
	-- The traumatized person builds up confidence in his/her capability to communicate internal and externally strong emotions in a healthy, proper, and non-shattering form. (<i>See also: Main Theme 4: Positive Connection to the Self</i>). --	29
	-- The non-threatening character of art facilitates the patient to work through the hurtful emotions buried before. (<i>See also: Main Theme 1: Exposure</i>). --	30
	-- The use of archetypes, which are understood as culturally shaped representations of images and concepts, may be beneficial to actively give structure to chaos by imagination. --	30-31
	-- While trying to make sense of their experiences, people become more attentive to how they act, feel, and present themselves within their social relationships. --	31
	-- In searching for a meaningful way of life, art might also be a touchable container and/or exploration testimony for spiritual beliefs. (<i>See also: Main Theme 4: Positive Connection to the Self</i>). --	31
	-- [...] art in its various two or three-dimensional styles offers a safe way of abreaction . Locked-away memories and feelings can find an aiding outlet through art making. Stirred-up sensations can immediately be externalized, leading to relaxation and the facilitation of reconsolidating fragmented memories. (<i>See also: Main Theme 1: Exposure</i>). --	31
	-- Another hypothesis is that the simulation of the right brain (or more accurately: implicit neural pathways) circumvents the inactivity of the Broca's area. Sensations for which no words can be found can be expressed by art-making. Later, the created art piece may also be used as an anchor or guide to verbalize the images and emotions, reconnecting them with explicit neural pathways. --	31
	-- [...] the concept of isomorphism which theorizes that every artistic expression reflects parts of the artist. In other words, by looking at the art of the patient the therapist (and often the patient himself/herself) can find glimpses of traumatic material that otherwise the traumatized person is not yet ready or able to communicate. --	31
	-- A similar purpose serves the idea of containment . Letting the paper, canvas, clay, etc. hold parts of the traumatic material, the patients can leave it behind; they do not have to carry it themselves. By trapping and securing their memories in art, traumatized persons may feel that the content diminished or lost its harm on them.	31
Music Therapy	It [music] is profoundly related to the processing of feelings and is therefore an effective instrument to help patients gain awareness of their emotions and to give them a tool to process those new insights constructively. Music-based therapy, independently of whether they are product- or process-oriented, can alter the emotional manner of how a person goes through and interprets traumatic experience(s). --	32
	-- But also the simple act of listening to music can bring better abilities to be relaxed and grounded in the present moment as well as to pinpoint one's	32-33

	<p>(non-verbally accessible) emotions. (<i>See also: Main Theme 2: Grounding & Relaxation</i>).</p> <p>--</p> <p>Since both trauma and music are sensory mediated, music offers a pathway to spark brain functions that are responsible for emotional behavior, sensory-emotional processing, and lastly posttraumatic expressions without having to employ verbal approaches.</p> <p>--</p> <p>This gentle approach is especially suitable for expressing memories, which are non-explicit and/or linguistically unavailable.</p> <p>--</p> <p>Music contributes to the development of a more coherent trauma narrative.</p> <p>--</p> <p>Making music may also be an effective tool in cases of anhedonia and muted or numbed emotional experiences. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>Moreover, music can have cathartic effects.</p> <p>--</p> <p>Especially the physical movement of “hitting” drums has proved to be a healthy and constructive outlet for letting go of rage, frustration, or hyperactivity by using up (hitherto suppressed) physical energy.</p> <p>--</p> <p>However, the expression of emotion via music is not limited to just rage and anger. Music can articulate and communicate the whole range of human emotions, which are mostly highly complex.</p> <p>--</p> <p>The provided output of emotions is capable of paving the way toward a healing processing of any kind of feeling. This in turn results in an increasing ability to regulate and control emotions consciously and autonomously.</p>	<p>33</p> <p>33</p> <p>33</p> <p>34</p> <p>34</p> <p>34</p> <p>34</p> <p>34</p>
Dance Therapy	<p>[‘Dance Movement Therapy’] has professional standards and is defined as “[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual” (ADTA. 2020, n.p.). (<i>See also: Main Theme 4: Positive Connection to the Self and Main Theme 5: Social Connections</i>).</p> <p>--</p> <p>Bringing the body into trauma treatment allows not only a non-verbal means of communication but may also excavate dissociated past experiences and foster body-mind-brain connections.</p> <p>--</p> <p>Expressive dance prompts memories, pictures, and mental connections, which excites the progress of reflection on these impressions. (<i>See also: Main Theme 1: Exposure</i>).</p> <p>--</p> <p>Dance is a pre-, or nonverbal medium for identifying, expressing, and letting go of emotions that were otherwise too imprecise, painful, or subconscious to be said aloud. It uses metaphor and surveys the mind, allowing the body to “speak” instead.</p> <p>--</p> <p>This [externalization of feelings through body language], in turn, may eventually also contribute to the verbalization of traumatic material in time.</p> <p>--</p> <p>Trained dance therapists can interpret and bring the clients’ (often tenuous) movements into awareness by mirroring them exaggeratively.</p> <p>--</p> <p>It is advised that each dance therapy session should end with a discussion of new impressions and findings evoked by the movements.</p> <p>--</p> <p>[...] discovering different themes and metaphors in dancing counters numbness and the suppression and fragmentation of memories.</p>	<p>35</p> <p>36</p> <p>36</p> <p>36</p> <p>36</p> <p>36</p> <p>36</p> <p>36</p>

	-- Some dancers may also be able to self-identify themselves in the movement of others, which makes them and their psychological and physical problems feel “seen” and understood. (<i>See also: Main Theme 5: Social Connections</i>). --	36
	-- Dance and trauma are necessarily and directly linked to the body. Therefore, dance may serve as a tool to modulate traumatic material and stimulate a re-connection of mind, body, and brain, which is essential to treat PTSD-like symptoms. --	37
	-- Dance is seen as a portal to the right brain, allowing for its vertical integration. Combined with techniques to regulate this brain side, this assimilation fosters the construction of a cohesive and safe self-awareness. --	37
	-- The patients report higher perceptions of empowerment, self-pride, and improved motor coordination and awareness of physiological sensations, and their connected physical expressions. (<i>See also: Main Theme 4: Positive Connection to the Self</i>). --	37
	-- The enhancement of sensorial and emotional awareness as well as the learned self-care and the active handling of psychopathological symptoms can contribute to welcoming being alive and present anew. (<i>See also: Main Theme 4: Positive Connection to the Self</i>). --	37
	-- Thus, this body-centered therapy is especially profitable for people who have suffered physical traumata (e.g. sexual abuse and torture). Those traumatic materials are often stored in the body and remembered like the original physical sensations. Consequently, survivors are frequently restricted in recognizing their sensory, emotional, and social necessities. They show symptoms of bodily dissociation, motionlessness, and chronic states of agitation. --	37
	-- [...] dance therapy is a biopsychosocial process, that promotes the development of self-awareness and -compassion, emotion regulation efficiency, and social skills. (<i>See also: Main Theme 5: Social Connections</i>). --	38
Drama Therapy	They [traumatized people] might also be able to identify themselves with dramatic projections of others. (<i>See also: Main Theme 1: Exposure</i>). --	39
	-- The act of projection allows the client to perceive his/her inner conflicts from another perspective, which, in turn, is hoped to lead to internalization, acceptance, and transformation of the traumatic material and/or its affects. (<i>See also: Main Theme 1: Exposure</i>). --	39
	-- “Drama therapy is a rehearsal of life, wherein clients can rewrite past experiences, gain new insight or perspectives in the here and now, and explore future possibilities” (Ventura, 2021, p.11). (<i>See also: Main Theme 4: Positive Connection to the Self</i>). --	39
	-- Play in drama therapy is, therefore, seen as a principal method to gain access to traumatic memories, to comprehend, organize, and externalize them as well as to experiment with alternative options, decisions, and reactions to stimuli. --	39
	-- Play can be characterized as “part of the expressive range which can be drawn on in creating meaning, exploring difficulties, and achieving therapeutic change” (Jones 1991, as cited by Bleuer & Harnden, 2018, p. 169). --	39
	-- Children often use play naturally and instinctively to make sense of their experiences and process them. But also for adults, playing offers a pathway	39

	<p>to control traumatic material that does not rely on language alone through metaphors and symbolism.</p> <p>--</p> <p>Performing before an audience holds the potential power of transformation in both the actor/actress and the spectators since actors and actresses are schooled to sense emotions so deeply that they can convey those feelings to the audience. This empathy and sharing of emotion are even stronger when the people audience is permitted to take part in the play actively and become actors/actresses themselves. <i>(See also: Main Theme 5: Social Connections)</i>.</p> <p>--</p> <p>The theatrical need to sense emotional and physical impressions profoundly runs contrary to the impulses of individuals with PTSD-like symptoms, forming an incentive to become aware of feelings <i>(See also: Main Theme 1: Exposure)</i>.</p> <p>--</p> <p>In written plays, traumatized actors/actresses are encouraged to reflect intensely on the character’s lines and to find out how he/she interprets the words and what reaction they generate for him/her personally. <i>(See also: Main Theme 1: Exposure)</i>.</p> <p>--</p> <p>Often referred to as ‘aesthetic distance’, the therapeutic tool allows the traumatized person to sense, externalize and accept their traumatic material and their reactions to it without getting emotionally too affected by their PTSD-like symptoms. Pretending to be another (imaginary) being, or to be in another fictional reality facilitates expressing what has happened, what is felt, and what is hoped for. So does the use of metaphors, masks, or the telling of fictional stories. <i>(See also: Main Theme 1: Exposure)</i>.</p> <p>--</p> <p>If a drama therapist observes a client’s tentative expression, the professional will augment it with a dramatic maneuver. By doing that the traumatized person becomes aware of this gesture and can delve deeper into this aspect.</p> <p>--</p> <p>Such kinesthetic encounters are associated with a rebounding with the body.</p> <p>--</p> <p>Embodiment, in turn, is understood as the physical expression of feelings, experiences, and/or fragments of one’s personality. Although often used as a means to explore one’s own inner conflicts, the body is also considered the main communication tool between the self and others.</p> <p>--</p> <p>Thus, embodiments performed by outsiders, like therapists or peers, can also have a tremendous and eye-opening effect. Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. <i>(See also: Main Theme 1: Exposure and Main Theme 5: Social Connections)</i>.</p> <p>--</p> <p>Obtaining high levels of embodiments in drama therapy is therefore also associated with increased engagement in concurrent talk therapies.</p>	<p>40</p> <p>40</p> <p>40-41</p> <p>41</p> <p>41</p> <p>41</p> <p>41</p> <p>41</p>
<p>Martial Art Therapy</p>	<p>Martial arts can furthermore have a positive impact on talk-centered therapy since they do not only foster the verbal interventions by allowing the client to learn more about him/herself, and his/her boundaries to physical touch, but also because the training re-connects the mind with the body and foster mental unification.</p> <p>--</p> <p>Internal aspects of Asian martial arts allow the performer to cultivate mindfulness and self-awareness, to delve into his/her thoughts, attitudes, moods, and lastly, self-concepts.</p> <p>--</p>	<p>42</p> <p>45</p>

	Every martial art form includes bodywork, which fosters bodily awareness through movements.	45
	--	
	The dojo can also be a safe environment to express some traumatic memories physically and emotionally.	46

Table 5: Annex A, Main Theme 3 Text Excerpts

Main Theme 4: Positive Connection to the Self		pp.
Art Therapy	These interventions are vastly seen as a promising means to raise the psychological health of PTSD patients, as well as to address the symptoms' roots.	26
	--	
	Next to positive results on intrusive thoughts and hyperarousal, art therapy is said to be especially favorable in treating avoidance behaviors and emotional numbing, which are considered difficult to treat in other treatment methods.	26
	--	
	Engaging in artistic creation can help individuals to make sense of their thoughts and feelings, as well as to develop an alternative and more positive self-perception. (See also: Main Theme 3: Awareness, Expression & Control of Emotions).	26
	--	
	Creating something meaningful and somewhat aesthetical reactivates positive emotions and is associated with pleasant and rewarding sensations. More than that, art can visualize positive, hopeful, resilience-enhancing, and even spiritual themes—those affirmative characteristics of making art hold the possibility of finding back to feeling joy and balance and re-connect to one's character before the traumatic event(s).	28
	--	
	Especially concerning spirituality, Brillantes-Evangelista (2013) points out that therapy should not be about the mere disclosure of symptoms, but about facilitating the patient to lead a purposeful and qualitative life. Strengthening spirituality might be a means for some to advance their psychological healing without resulting automatically in clinically measurable symptom improvement.	28
	--	
Being able to enclose, contain, and manipulate artistic representations of the unspeakable traumatic memories may produce a sensation of empowerment, agency, and regained control and mastery over one's emotions and reactions. (See also: Main Theme 3: Awareness, Expression & Control of Emotions).	29	
--		
[...] instead of mere 'victims' the clients can turn themselves into 'survivors'.	29	
--		
The traumatized person builds up confidence in his/her capability to communicate internal and externally strong emotions in a healthy, proper, and non-shattering form. (See also: Main Theme 3: Awareness, Expression & Control of Emotions).	29	
--		
Art making furthermore encourages being more aware and accepting of the self in a non-judgmental manner. It expands the range of possible reactions to a stressor, equipping the traumatized person with adequate coping strategies for future exposures.	29	
--		
When Art Therapy is modeled as a group intervention, additional positive effects on the healing process are observed: experiencing that the created art is seen, understood (regardless of cultural and linguistic differences), and	29	

	<p>even valued by others without judgment within a safe space improves self-esteem. (<i>See also: Main Theme 5: Social Connections</i>).</p> <p>--</p> <p>Likewise, witnessing peers struggle with similar issues, fears, shame, and traumatic experiences can function as validation and normalization of one's hassles. (<i>See also: Main Theme 5: Social Connections</i>).</p> <p>--</p> <p>Likewise, helping new group members to settle into the therapy routine and to show them already created part works, can evoke a sense of accomplishment and self-esteem in the senior group members. (<i>See also: Main Theme 5: Social Connections</i>).</p> <p>--</p> <p>Through illustrations, metaphors, and other embodiments of their experiences, people can gain new interpretations, and discover further meanings of their realities, by immersing themselves consciously in their problems and finding artistic solutions. (<i>See also: Main Theme 1: Exposure</i>).</p> <p>--</p> <p>[...]they [traumatized individuals] could make use of constructive alternativism, if they chose to experiment with alternative narratives of their lives. This may inspire them to change their views or actions in their real lives for the newly constructed ones.</p> <p>--</p> <p>It is argued on a neuro-scientific level that as long as a "corrective" narrative is sufficiently felt, it is irrelevant to the brain whether the experience is fictional or real; this loophole can be used to create a healing counter-experience, resulting in the fortification of new learnings.</p> <p>--</p> <p>Similar to the narrative/constructivist approach, this [seeing oneself from an outsider's perspective] can lead to a re-creation of the person.</p> <p>--</p> <p>[...] during the creation of art, people can venture with their future and recall their past, while not running the risk of feeling obligated to these versions.</p> <p>--</p> <p>Lastly, engaging in art encourages mindfulness and spiritual encounters.</p> <p>--</p> <p>In searching for a meaningful way of life, art might also be a touchable container and/or exploration testimony for spiritual beliefs. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).</p> <p>--</p> <p>Symbolizing a memorial for a lost person, for example, has a tremendous impact on a healthy mourning process and the healing process.</p> <p>--</p> <p>Lastly, as the patient is free in his/her choice of material/techniques, the depth and speed of the trauma exposure, they experience a heightened feeling of security and run a lowered risk of symptoms worsening or re-traumatization. (<i>See also: Main Theme 1: Exposure</i>).</p> <p>--</p> <p>Such ventures do not only make an effort to reconnect the individuals to their pre-conflict and displacement identity and culture but also provide a social support network with people who share and therefore understand the socio-political context of the home country and the migration problems in the host country. (<i>See also: Main Theme 5: Social Connections</i>).</p>	<p>29</p> <p>29</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>31</p> <p>31</p> <p>31</p> <p>31</p> <p>32</p>
Music Therapy	<p>Making music also gives the traumatized individual a sense of normality. The knowledge, that one can achieve a form of ordinariness after all he/she has been through, can boost resilience.</p> <p>--</p> <p>Positive psychological and emotional results can be obtained by active (playing and composing music) and passive use of music (listening to songs and compositions).</p> <p>--</p>	<p>32</p> <p>32</p>

	[...] concentration and organization skills were enhanced, while psychopharmaceutical and substance dependency decreased and hallucinations of traumatic material became less frequent thanks to music therapy.	33
	-- Making music may also be an effective tool in cases of anhedonia and muted or numbed emotional experiences. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).	34
	-- Practicing music alone or within a group enhances self-esteem while diminishing self-perceptions of hopelessness and insignificance.	34
	-- This [enhanced self-esteem and diminished self-perceptions of hopelessness and insignificance] is achieved by (re-)learning instruments, the shared enjoyment of music (within a group), and the acquired control over one's emotions. (<i>See also: Main Theme 2: Grounding & Relaxation</i>).	34
	-- Other resources like connection to the self, openness to new experiences, and the ability to establish trusting relationships are also activated by playing music.	35
	-- Moreover, many cultures perceive music to hold healing qualities.	35
	-- It also can give displaced people back a sense of cultural identity.	35
Dance Therapy	Dance – in various forms – has been used over different cultures and centuries as a healing ritual, or spiritual and sacred expression.	35
	-- Modern-day Dance Therapy is still closely related to these ancient socio-cultural techniques from around the world, without categorizing and thus reducing its multicultural roots.	35
	-- [‘Dance Movement Therapy’] has professional standards and is defined as “[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual” (ADTA. 2020, n.p.). (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions and Main Theme 5: Social Connections</i>).	35
	-- This method provides the patient with adequate coping skills, which can also be utilized to counter other, previously unidentified problems in the future.	36
	-- Moving the body intentionally freely might be healing for those who were for some reason immobilized during the traumatic event(s) they suffered and got stuck in a fear freeze.	36
	-- In this context, dancing might help to form interpersonal boundaries, rebuild a healthy sense of intimacy and trust, and generally improve social skills and confidence in oneself. (<i>See also: Main Theme 5: Social Connections</i>).	37
	-- In other words, engaging in dance therapy has positively impacted the dancers’ relation to themselves and their bodies. The patients report higher perceptions of empowerment, self-pride, and improved motor coordination and awareness of physiological sensations, and their connected physical expressions. This may be because they notice that they can perform more and more movement and can therefore claim and control their bodies (again). (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).	37
	-- The enhancement of sensorial and emotional awareness as well as the learned self-care and the active handling of psychopathological symptoms can contribute to welcoming being alive and present anew. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).	37

	-- Mental health impairments like depression, anxiety, hypervigilance, and/or chronic physical pain can be lessened significantly.	38
	-- Focusing on the already-existing and constructive coping strategies, Dance Therapy tries to strengthen the client's spiritual, somatic, and psychological power. With this bolstered resilience, it is hoped that clients can regulate into their window of tolerance where they can integrate new learnings without getting retraumatized when confronted with their past. (<i>See also: Main Theme 1: Exposure</i>).	38
	-- It [dance] furthermore fosters spiritual experiences, communication skills, and creativity. Especially the latter is associated with higher levels of flexibility, resilience, and personal growth. (<i>See also: Main Theme 5: Social Connections</i>).	38
Drama Therapy	"Drama therapy is a rehearsal of life, wherein clients can rewrite past experiences, gain new insight or perspectives in the here and now, and explore future possibilities" (Ventura, 2021, p.11). (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions</i>).	39
	-- Comparable to ancient shamanic transcendental practices, drama therapy allows for mental journeys, awake dreaming, and shape-shifting through role fluctuations within its trance-like play space.	39
	-- Switching roles within an improvised scene delineates how other people react in the same situation, presenting further options and alternative responses.	40
	-- Moreover, this technique can be employed to strengthen resources by literally holding happy or proud memories in front of the client's eye.	41
	-- The knowledge that they are all battling similar obstacles in life allows them to tie into a working group, providing a safe space for the free expression of traumatic material. It equips the group members with shared affirmation, fortitude, and aspiration.	41-42
Martial Art Therapy	Comparable to most other sports, martial arts build up physical fitness, aerobic capacity, and cardiovascular function, as well as mind-body coordination, flexibility, attention, strength, and balance through disciplined physical activity.	42
	-- Several studies do furthermore agree that the performance of martial arts leads to increased levels of prosocial behavior, self-esteem and concentration, and an elevated feeling of empowerment. (<i>See also: Main Theme 5: Social Connections</i>).	42
	-- Generally, the existing literature shows consistency in the fact that practicing martial arts can enhance not only physical but also mental and social well-being. Figueiredo (2009) describes combat sports and martial arts as a "bonanza [of] biopsychosocio-axiological wealth" (Figueiredo, 2009). (<i>See also: Main Theme 5: Social Connections</i>).	42
	-- These sports are portrayed as a gold mine of rich mixtures of values, biological, psychological, and social ingredients. (<i>See also: Main Theme 5: Social Connections</i>).	42
	-- The motrice actions of the martial artist can only be understood in their physical, spiritual, and social aspects through a double epistemology. It therefore requires both theoretical and practical knowledge to understand a particular movement in its full complexity.	42

--		
	Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (<i>See also: Main Theme 2: Grounding & Relaxation and Main Theme 5: Social Connections</i>).	42
--		
	Furthermore, East Asian philosophies like Zen Buddhism, which are basic to many martial arts, advocate the renunciation of attachment – as does psychotherapy in a sense when it comes to letting go of dysfunctional thought patterns.	43
--		
	In succeeding in overcoming these challenges, the fighter/client realizes his/her strength, resilience, and hardiness. This experienced growth is further strengthened by the fact that the hurdle was taken based on free will despite feelings of cognitive dissonance.	43
--		
	[...] Brazilian Jiu-Jitsu is promising in degreasing PTSD symptomology and improving comorbidities like depression, anxiety, and substance abuse.	43
--		
	They [the patients] furthermore benefitted from reduced feelings of pain, fear, and anxiety in a stigma-free environment.	43
--		
	This meditational training and thus the increased spiritual fitness was documented to be an effective coping mechanism, especially in dealing with feelings of guilt and shame. During the occurrence of flashbacks, the awareness methods are expected to increase calmness, focus, and awareness of one's body and surroundings have been practiced previously. (<i>See also: Main Theme 2: Grounding & Relaxation</i>).	43-44
--		
	These classes also provide an opportunity to re-script the painful memory in a safe environment.	44
--		
	Because of the newly learned ability to defend oneself physically and the social support from peers, many patients feel empowered and can potentially modify their fear structures which are associated with the trauma. (<i>See also: Main Theme 5: Social Connections</i>).	44
--		
	Being capable of fighting panic attacks and flashbacks and remaining “present”, enables PTSD-suffering persons to feel secure enough to confront themselves with activities they would have otherwise avoided. (<i>See also: Main Theme 2: Grounding & Relaxation</i>).	44
--		
	In learning to engage respectfully with others and especially with oneself, martial arts hold the possibility to increase self-compassion and reduce negative self-statements. (<i>See also: Main Theme 5: Social Connections</i>).	45
--		
	The patient can experience peer support from other martial artists and find newfound trust in his/her ability to set boundaries and to defend himself/herself physically. This leads to a sense of empowerment and a turndown in self-blame, self-loathing, and stigmatization. (<i>See also: Main Theme 5: Social Connections</i>).	45
--		
	Moreover, martial arts allow victims of interpersonal trauma (i.e., men-made trauma) to reenact and alter the violent event(s) they endured. The potential realization that they are no longer helpless in such situations can lead to an increased sense of empowerment in certain situations. They, therefore, feel safer after the training in self-defense methods.	45
--		
	Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly. (<i>See also: Main Theme 2: Grounding & Relaxation and Main Theme 5: Social Connections</i>).	45

	-- Many chronic trauma symptoms like mood disturbances, anxiety, depression, weariness, aggression, and rage are measurably alleviated by practicing (internal) martial arts.	45
	-- Engaging in this kind of physical activity stimulates the production of serotonin, norepinephrine, endorphins, and dopamine, leading to enhanced mood, diminished pain, and reduced stress.	45
	-- Likewise, the same techniques of creating ‘a calm mind’ can be used to identify falsely perceived threats and the triggered physical reactions. (<i>See also: Main Theme 2: Grounding & Relaxation</i>).	45
	-- Relevant literature on Aikido and t'ai chi proves that practicing martial arts does enhance concentration.	46
	-- Moreover, studies concluded that by practicing t'ai chi, sleep disturbances (e.g., due to nightmares) can be decreased.	46
	-- The neatly structured, disciplined, mindful, and respectful nature of martial arts lessons might assist the refugee in building healthy coping mechanisms and resilience.	46
	-- On the contrary, they [several studies] found elevated frustration levels of martial arts practitioners through their training.	46

Table 6: Annex A, Main Theme 4 Text Excerpts

Main Theme 5: Social Connections		pp.
Art Therapy	Moreover, patients do not have to worry about possible reactions of disgust, aversion, or retaliation by an interlocutor while artistically expressing their dark past.	27-28
	-- When Art Therapy is modeled as a group intervention, additional positive effects on the healing process are observed: experiencing that the created art is seen, understood (regardless of cultural and linguistic differences), and even valued by others without judgment within a safe space improves self-esteem . (<i>See also: Main Theme 4: Positive Connection to the Self</i>).	29
	-- Likewise, witnessing peers struggle with similar issues, fears, shame, and traumatic experiences can function as validation and normalization of one’s hassles. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).	29
	-- Seeing others already enthusiastically engaging in therapy makes it easier for newcomers to get involved in the healing treatment. Likewise, helping new group members to settle into the therapy routine and to show them already created part works, can evoke a sense of accomplishment and self-esteem in the senior group members. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).	29
	-- The group setting may also serve as a steppingstone out of social isolation back into a community, and into confiding and functional relationships.	29
	-- Such ventures do not only make an effort to reconnect the individuals to their pre-conflict and displacement identity and culture but also provide a social support network with people who share and therefore understand the socio-political context of the home country and the migration problems in the host country. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).	32

Music Therapy	Music is meaningful to all people, regardless of their demographic characteristics, and particularly to those in critical situations.	32
	--	
	Music therapy may furthermore be seen as an alternative to some who fear the stigmata of ‘normal’ psychological treatments.	32
	--	
	Being part of a music group is associated with feelings of belonging and social connection. Group music therapy is, therefore, an adequate means to direct tendencies of avoidance, detachment, and social isolation of the client, even for participants who do not want or cannot verbally engage.	33
	--	
	This stand-in social technique can be carried out with “baby steps”: at the beginning, not even eye contact is needed to hear one’s own music harmoniously blending into the music of the whole group.	33-34
	--	
In an astonishingly short amount of time, a connection between group members and a feeling of community can be obtained. Within this newly created safe space, music facilitates speaking about topics related to trauma but also independent ones.	34	
--		
The empathetic musical or verbal response of peers to his/her story helps the individual open up to himself/ herself and others. The musical interpretation and replay of the emotions and stories of his/her peers, make the client feel deeply understood, in a way that words alone cannot mediate.	34	
--		
It [hitting drums] has also proven to be suitable to provoke depressive clients to take part in the activity.	34	
--		
Music Therapy also practices fundamental social skills like frustration management, acceptance of help, and compliance with instructions. Moreover, music-making trains prosocial and reciprocal interactions such as active listening and participation, practicing patience, and taking turns. These learnings of how to function within a group are not limited to combat PTSD symptoms and will benefit the patients, who are often socially impaired, in all life situations.	34-35	
--		
Music is part of all cultures. Therefore, this form of creative and symbolic emotional outreach is receivable for others, regardless of possible language barriers.	35	
Dance Therapy	[‘Dance Movement Therapy’] has professional standards and is defined as “[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual” (ADTA. 2020, n.p.). (See also: <i>Main Theme 3: Awareness, Expression & Control of Emotions and Main Theme 4: Positive Connection to the Self</i>).	35
	--	
	Some dancers may also be able to self-identify themselves in the movement of others, which makes them and their psychological and physical problems feel “seen” and understood. Mirroring others’ movements also fosters kinesthetic empathy, which (re-)connects the dancer to other human beings. (See also: <i>Main Theme 3: Awareness, Expression & Control of Emotions</i>).	36
	--	
Another effect that unites a group of dancers is “muscular bonding”. This term de-scribes the visceral link between members of a group who perform rhythmic movements together. It is often used to foster camaraderie and sodality in military contexts.	37	
--		
In this context, dancing might help to form interpersonal boundaries, rebuild a healthy sense of intimacy and trust, and generally improve social skills and confidence in oneself. (See also: <i>Main Theme 4: Positive Connection to the Self</i>).	37	

	-- The importance of language skills fades into the background, while cultural resources and family backing can be bolstered.	38
	-- Moreover, reclaiming and rebuilding a safe space of familiar (dance) rituals is highly reassuring for forced immigrants because it gives them back a sense of belonging and community.	38
	-- [...] dance therapy is a biopsychosocial process, that promotes the development of self-awareness and -compassion, emotion regulation efficiency, and social skills. (See also: Main Theme 3: Awareness, Expression & Control of Emotions).	38
	-- It [dance] furthermore fosters spiritual experiences, communication skills, and creativity. Especially the latter is associated with higher levels of flexibility, resilience, and personal growth. (See also: Main Theme 4: Positive Connection to the Self).	38
Drama Therapy	Being witnessed in expressing the traumatic event(s) and the effects of it, are core elements of drama therapy. The artistic interpretation can be witnessed by an audience, by the therapist, by peers, or only by oneself. Performing before an audience holds the potential power of transformation in both the actor/actress and the spectators since actors and actresses are schooled to sense emotions so deeply that they can convey those feelings to the audience. This empathy and sharing of emotion are even stronger when the people audience is permitted to take part in the play actively and become actors/actresses themselves. (See also: Main Theme 3: Awareness, Expression & Control of Emotions).	40
	-- Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. (See also: Main Theme 1: Exposure Main Theme 3: Awareness, Expression & Control of Emotions).	41
Martial Art Therapy	Several studies do furthermore agree that the performance of martial arts leads to increased levels of prosocial behavior, self-esteem and concentration, and an elevated feeling of empowerment. (See also: Main Theme 4: Positive Connection to the Self).	42
	-- Being part of a group as well as engaging physically and respectfully with others promotes social well-being.	42
	-- Generally, the existing literature shows consistency in the fact that practicing martial arts can enhance not only physical but also mental and social well-being. Figueiredo (2009) describes combat sports and martial arts as a “bonanza [of] biopsychosocio-axiological wealth” (Figueiredo, 2009). (See also: Main Theme 4: Positive Connection to the Self).	42
	-- These sports are portrayed as a gold mine of rich mixtures of values, biological, psychological, and social ingredients. (See also: Main Theme 4: Positive Connection to the Self).	42
	-- Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (See also: Main Theme 2: Grounding & Relaxation and Main Theme 4: Positive Connection to the Self).	42
	-- Meeting the same people, at the same place at the same time to do the same thing, reminds one vaguely of group therapy. Shared meaning is created, by	43

	<p>following a set etiquette, rituals, and maybe even wearing the same clothes. This, in turn, leads to social group building.</p> <p>--</p> <p>Because of the newly learned ability to defend oneself physically and the social support from peers, many patients feel empowered and can potentially modify their fear structures which are associated with the trauma. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>Also, most martial arts (in particular the external ones) include necessarily physical touch with another human. The <i>homo sapiens</i> is a highly social being, to touch and being touched is essential for our well-being. However, people suffering from interpersonal trauma often avoid social touch. Practicing an external form of martial arts may favor the circumstances to find the way back to normalized physical contact. (<i>See also: Main Theme 1: Exposure</i>).</p> <p>--</p> <p>In learning to engage respectfully with others and especially with oneself, martial arts hold the possibility to increase self-compassion and reduce negative self-statements. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>The patient can experience peer support from other martial artists and find newfound trust in his/her ability to set boundaries and to defend himself/herself physically. This leads to a sense of empowerment and a turndown in self-blame, self-loathing, and stigmatization. (<i>See also: Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly. (<i>See also: Main Theme 2: Grounding & Relaxation and Main Theme 4: Positive Connection to the Self</i>).</p> <p>--</p> <p>[...] those sports may especially benefit refugees since being part of a club or dojo may give displaced persons a feeling of belonging, inclusion, and community as well as an opportunity for social integration and put their German language skills into practice.</p> <p>--</p> <p>Particularly for adolescents, the sense of belonging is important. Practitioners of this age furthermore benefit deeply from the inherent physical aggressive play.</p>	<p>44</p> <p>44</p> <p>45</p> <p>45</p> <p>45</p> <p>46</p> <p>46</p>
--	---	---

Table 7: Annex A, Main Theme 5 Text Excerpts

Annex B: Creative and Martial Arts sorted by Sub-Themes (Step 6)

The following tables show which text passages from *Chapter 4* were clustered under which Main Theme and Sub-Theme. The page numbers on the right indicate where the quoted text is in the master's thesis.

Main Theme 1: Exposure			pp.
Art Therapy	Gentle Abreaction	Visual, kinesthetic, and metaphorical expressions of traumatic memories, current sorrows, fears, imprecise feelings, as well as (self-)perceptions can be externalized and symbolized through art – to an extent where language alone reaches its limits. --	26
		The easily regulated use of symbols in art triggers less avoidance and devastating feelings compared to a direct verbal expression of the same traumatic material. Art therapy therefore commences at a lower level of sensory stimuli and progresses the exposure step-by-step. --	27
		Entrusting one's fears, guilt, and hurtful memories to a piece of art, and hence communicating primarily with oneself, is often simpler than talking about it to another person, or even an almost stranger like a therapist. --	27
		It [Art Therapy] furthermore provides the necessary timely latitude to use a tempo fitted to the client's processing ability and to stay within the personal boundaries to evade a too-strong exposure to stimuli or even re-traumatization. --	27
		Art uses more diverse channels than solemn cognitive recognition to provoke the audience's feelings. Consuming art is, therefore, intended to stimulate certain levels of response and arousal, which can be induced through specific tones or moods. Sympathy with the artist can bring emotions to the surface, independently of how close these feelings are actually to the piece of art. --	30
		The non-threatening character of art facilitates the patient to work through the hurtful emotions buried before. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Reconciliation of Memories</i>). --	30
		[...] art in its various two or three-dimensional styles offers a safe way of abreaction . Locked-away memories and feelings can find an aiding outlet through art making. Stirred-up sensations can im-	31

		<p>mediately be externalized, leading to relaxation and the facilitation of reconsolidating fragmented memories. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Reconciliation of Memories</i>).</p> <p>--</p> <p>Lastly, as the patient is free in his/her choice of material/techniques, the depth and speed of the trauma exposure, they experience a heightened feeling of security and run a lowered risk of symptoms worsening or re-traumatization. (<i>See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem</i>)</p>	31
	Embodiment	<p>Through illustrations, metaphors, and other embodiments of their experiences, people can gain new interpretations, and discover further meanings of their realities, by immersing themselves consciously in their problems and finding artistic solutions. (<i>See also: Main Theme 4: Positive Connection to the Self → New Perspectives</i>)</p>	30
	Distancing, Objectification & Projection	<p>By externalizing thoughts and feelings of all kinds, the artist gains a distance from his/her emotional state, without necessarily having to be exposed directly to the traumatic event(s), making it a non-threatening approach.</p> <p>--</p> <p>The own, now “external” traumatic material can be approached as an observer and facilitates, therefore, working through the patient’s inner turmoil, which otherwise might be too overwhelming for him/her. The traumatized person can now explore and process latent psychological problems from a safe emotional distance.</p> <p>--</p> <p>The main goal of this approach is to ‘take shape’ emotions and memories. Creating something physical helps the traumatized person see himself/herself from an outsider’s perspective.</p> <p>--</p> <p>As indicated earlier in this chapter, it is easier to discuss sensations represented in one’s art than directly the traumatic memory or feeling. It gives the patient the possibility to distance himself/herself from his/her trauma(s), leading to a sense of control.</p>	27 27 30 31
Music Therapy	Gentle Abreaction	<p>Some sounds, instruments, and/or lyrics might be associations, memories, sensations, and feelings of traumatic events and have therefore qualities of exposure to the individual.</p>	33
Dance Therapy	Embodiment	<p>Chakraborty & Tant (2022) see embodiment as the foundation of Dance Therapy, which acknowledges and appreciates the body’s adaptive coping mechanisms, which save the survivor’s life during the traumatic event(s).</p>	38

	Gentle Abreaction	<p>The holistic approach of Dance Therapies is non-goal-oriented, which allows the individual to process and heal at his/her own pace while decreasing stress in an open and accepting ambiance.</p> <p>--</p> <p>Expressive dance prompts memories, pictures, and mental connections, which excites the progress of reflection on these impressions (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Reconciliation of Memories</i>)</p> <p>--</p> <p>With this bolstered resilience, it is hoped that clients can regulate into their window of tolerance where they can integrate new learnings without getting retraumatized when confronted with their past. (<i>See also: Main Theme 4: Positive Connection to the Self → Decrease of Symptomatology</i>)</p>	35
			36
	Distancing, Objectification & Projection	<p>These feelings can be externalized while holding a safe emotional distance through motoric metaphors, conveyed by e.g., moves, facial expressions, poses, gestic, physical contact, and kinesthetic sensation.</p>	36
Drama Therapy	Gentle Abreaction	<p>The act of projection allows the client to perceive his/her inner conflicts from another perspective, which, in turn, is hoped to lead to internalization, acceptance, and transformation of the traumatic material and/or its affects. (<i>See also: Main Theme 1: Exposure → Distancing, Objectification & Projection, and Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions</i>).</p> <p>--</p>	39
		<p>The material of classical and modern theatre plays, however, revolve essentially around various forms of conflict and their outcomes, representing a special kind of exposure by their nature to traumatized people. Feelings of shame and guilt are also common among clients, causing them to be anxious if they are being noticed. On the stage, however, they are required to stand and perform confidently as well as to fill a whole room with their voice.</p> <p>--</p>	40
		<p>The theatrical need to sense emotional and physical impressions profoundly runs contrary to the impulses of individuals with PTSD-like symptoms, forming an incentive to become aware of feelings. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions</i>).</p> <p>--</p>	40
		<p>In written plays, traumatized actors/actresses are encouraged to reflect intensely on the character's lines and to find out how he/she interprets the words and what reaction they generate for him/her personally. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions</i>).</p>	40

		-- Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions, and Main Theme 5: Social Connections → Witnessing & Understanding).</i>	41
	Distancing, Objectification & Projection	Similarly to other art therapies, drama therapy utilizes exposure and externalization through projection. Through artistic forms of acting, storytelling, and playwriting traumatized people can portray interior turmoil and part of themselves or reenact memories.	39
		-- They [traumatized people] might also be able to identify themselves with dramatic projections of others. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions).</i>	39
		-- The act of projection allows the client to perceive his/her inner conflicts from another perspective, which, in turn, is hoped to lead to internalization, acceptance, and transformation of the traumatic material and/or its affects. <i>(See also: Main Theme 1: Exposure → Gentle Abreaction, and Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions).</i>	39
		-- Within the playspace (the understanding that the said and done is fictionary) the newly created alternative reality is liberated from time and space. In this 'dream space', dark and heavy emotional content can be faced with humor and playfulness.	39
		-- Changing the role also benefits those who are temporally overwhelmed and too affected by their role to gain distance.	40
		-- Distancing is a vital component of drama therapy and has been defined as "[a] process of titrating emotion and cognition through engagement with dramatic media" (Buckley, 2023, p. 136).	40
		-- Often referred to as 'aesthetic distance', the therapeutic tool allows the traumatized person to sense, externalize and accept their traumatic material and their reactions to it without getting emotionally too affected by their PTSD-like symptoms. Pretending to be another (imaginary) being, or to be in another fictional reality facilitates expressing what has happened, what is felt, and what is hoped for. So does the use of metaphors, masks, or the telling	40- 41

		<p>of fictional stories. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Isomorphism</i>).</p> <p>--</p> <p>Finding the right degree of distancing is a balancing act; the drama therapist must be able to weigh out the patient's over- and under-emotional engagement into the right amount of exposure to obtain therapeutic progress while avoiding re-traumatization [...]. The exposure can be "distanced" through variations in embodiment, ranging from partial and widely extrinsic media like hand puppets or tiny toys to full-body performances in almost realistic interactions with other actors. A clear distinction between the play and reality is often created consciously by marking a physical 'stage' or by establishing rituals (like, shouting "action" and "cut") to define the act temporally.</p>	41
Martial Art Therapy	Embodiment	Trauma-informed self-defense and martial arts lessons can be used as in vivo exposures to the individual's trauma. To counter avoidance behavior, the traumatic event can be re-enacted in verbal and physical assault scenarios. The patient is therefore not only confronted with his/her trauma but has also the possibility to react to this exposure physically and actively, which counteracts conditioned immobilization (contrary to 'talk therapies' where a calm, freezing state is coerced).	44
	Gentle Abreaction	<p>Eventually, the martial arts practitioner finds oneself alone in confronting situations (e.g., while sparring physically with peers in the dojo). That is how they learn to deal alone with negotiating conflicts and how to surmount feelings of aggression, vulnerability, weariness, and uneasiness; just as the client must ultimately adjust to handle inner conflicts without the therapist.</p> <p>--</p> <p>Practicing an external form of martial arts may favor the circumstances to find the way back to normalized physical contact. (<i>See also: Main Theme 5: Social Connections → Social Stand-in Technique</i>).</p>	43
	Distancing, Objectification & Projection	The philosophies provided by (Asian) martial arts allow the practitioner to take an 'over-combat' perspective, where the trauma and its psychological consequences can be fought against, instead of having to have a physical enemy.	44

Table 8: Annex B, Main Theme 1 Text Excerpts sorted by Sub-Themes

Main Theme 2: Grounding & Relaxation			pp.
Intro- duction	Anchoring	Emblematic for CATs are also their inherent self-relaxation and self-soothing elements by placebo effects, which draw on positive past sensations and memories.	25
Art Therapy	Distraction & Enjoyment	Engaging in art-making furthermore reduces arousal, enhances mindfulness, and counters negative moods, which are stirred up by exposing oneself to one's traumatic material, due to its tranquil and meditative traits.	27
		-- Drawing, quilting, sculpturing, etc. can serve as (calming) rituals and/or distractions from daily sorrows as they require concentration and a certain degree of 'being present'.	27
Music Therapy	Distraction & Enjoyment	It [music] simultaneously curbs the levels of stress hormones triggered by unfavorable feelings of anxiety, shame, panic, (self-)blame, sadness, and other forms of emotional distress.	34
		-- Music is therefore an effective support to create grounding or distraction opposing trauma-related triggers in the patient's daily life.	34
	Anchoring	But also the simple act of listening to music can bring better abilities to be relaxed and grounded in the present moment as well as to pinpoint one's (non-verbally accessible) emotions. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Verbalization</i>).	32- 33
		-- At the same time, other instruments are associated with calming and relaxing effects.	33
		-- On the other hand, music offers a way out of the state of panic into a deliberately created calm mode of being.	33
		-- A distinction is made between bottom-up and top-down methods of stress regulation in music therapy: Whereas the first one evolves around sensorimotor processing modes, the second one makes use of cognitive-emotional techniques.	33
		-- This enhanced emotional control, in turn, allows for an ameliorated handling of stressors. The risk of falling into dissociation or becoming overwhelmed by emotions is thus reduced, enabling the individual to build functional social relationships.	34
Dance Therapy	Flow Stage	Desirably, the client reaches the 'Flow Stage'. In this situation of "holding space", the traumatized person is completely in the 'here and now', enjoying the activity and its inherent creativity. In the 'Flow Stage' he/she is distracted from everything else in a near-hypnotic manner. This has a soothing effect on the parasympathetic nervous system and provides a wholesome outlet for fears and aggression.	37- 38
	Anchoring	Other calming and downshifting elements of dance therapy include (but are not limited to) breathing, awareness, and grounding exercises, which have positive impacts on the neurochemical ramifications of arousal and stress.	38
Drama Therapy	Anchoring	Role-play can moreover be used to train body-based self-regulation techniques such as grounding, self-touch, and debriefing.	40

Martial Art Therapy	Flow Stage	<p>Traditional Asian martial arts are often described as ‘moving meditations’ since they demand a still mind while moving the body. Holding the mental focus, while keeping attention to breathing techniques, the choreography of movements, and/or the actions of the training partner, requires a high level of ‘being present’, which was proved to impede the occurrence of intrusive memories in various studies.</p> <p>--</p> <p>Since many martial arts also teach self-calming routines through grounded stances and controlled breathing, they can be understood as a non-clinical form of alert hypnosis. (See also: Main Theme 2: Grounding and Relaxation → Anchoring).</p>	43
			44
	Distraction & Enjoyment	<p>Another study by Tsai et al. (2018) concluded that PTSD patients enjoyed their participation in a Tai Chi intervention.</p>	43
	Anchoring	<p>Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (See also: Main Theme 4: Positive Connection to the Self → Improved Physical Condition, Spirituality and Main Theme 5: Social Connections → Social Stand-in Technique).</p> <p>--</p> <p>During the occurrence of flashbacks, the awareness methods are expected to increase calmness, focus, and awareness of one’s body and surroundings have been practiced previously.</p> <p>--</p> <p>Since many martial arts also teach self-calming routines through grounded stances and controlled breathing, they can be understood as a non-clinical form of alert hypnosis. (See also: Main Theme 2: Grounding and Relaxation → Flow Stage).</p> <p>--</p> <p>Being capable of fighting panic attacks and flashbacks and remaining “present”, enables PTSD-suffering persons to feel secure enough to confront themselves with activities they would have otherwise avoided (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem)</p> <p>--</p> <p>Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly. (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem and Main Theme 5: Social Connections → Social Stand-in Technique).</p> <p>--</p> <p>Also, the meditational aspects of martial arts help regulate muscle tension and constricted breathing.</p> <p>--</p> <p>Likewise, the same techniques of creating ‘a calm mind’ can be used to identify falsely perceived threats and the triggered physical reactions. (See also: Main Theme 4: Positive Connection to the Self → Decrease of Symptomatology).</p> <p>--</p> <p>Japanese martial arts (like Karate, Aikido, and Kendo) operate with the image of ‘Mizu No Kokoro’ (水の心; ‘a mind like water’). The idea is to stay calm and flexible in order to be able to respond adequately to an attack, instead of merely reacting to it. Thus, this mind state functions like a stimulus/reaction rejoinder to perceived threats.</p>	42
			44
			44
			44
			45
			45

Table 9: Annex B, Main Theme 2 Text Excerpts sorted by Sub-Themes

Main Theme 3: Awareness, Expression & Control of Emotions			pp.
Introduction	Recognition of Emotions	CATs are based on the cognization that the human range of emotions is so intricate that the conscious mind cannot comprehend it to its fullest extent. Instead, these feelings and memories are stored within the body. Especially traumatized people often find it difficult to access and verbally describe their traumatic materials – may it be as a result of avoidance patterns, alexithymia, dissociation, an instinct of self-preservation, or simply because these contents are remembered as pictures or other somatic realities. CATs assert to offer different ways of expressing that (otherwise inaccessible) information and ultimately the self. Therefore, they are also often referred to as ‘expressive therapies’.	25
	Verbalization	Nonetheless, it would be an oversimplification to understand CATs as purely ‘non-verbal’ approaches, since they usually seek a conscious verbalization of the sensations revealed by their respective form of art. In fact, verbalization is the main purpose of poetry, bibliotherapy, creative writing, and drama therapies.	25
Art Therapy	Isomorphism	Engaging in artistic creation can help individuals to make sense of their thoughts and feelings, as well as to develop an alternative and more positive self-perception. (<i>See also: Main Theme 4: Positive Connection to the Self → New Perspectives</i>).	26
		-- A patient can be asked to illustrate whatever he/she deems important at the moment. This technique is called ‘free drawing’ and is presumed to be an uttermost authentic expression of the self.	26-27
		-- The use of archetypes, which are understood as culturally shaped representations of images and concepts, may be beneficial to actively give structure to chaos by imagination.	30-31
		-- [...] the concept of isomorphism which theorizes that every artistic expression reflects parts of the artist. In other words, by looking at the art of the patient the therapist (and often the patient himself/herself) can find glimpses of traumatic material that otherwise the traumatized person is not yet ready or able to communicate.	31
	Containment	Being able to enclose, contain, and manipulate artistic representations of the unspeakable traumatic memories may produce a sensation of empowerment, agency, and regained control and mastery over one’s emotions and reactions. (<i>See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem</i>).	29
		--	

		<p>In searching for a meaningful way of life, art might also be a touchable container and/or exploration testimony for spiritual beliefs. (See also: <i>Main Theme 4: Positive Connection to the Self → Spirituality</i>).</p> <p>--</p> <p>A similar purpose serves the idea of containment. Letting the paper, canvas, clay, etc. hold parts of the traumatic material, the patients can leave it behind; they do not have to carry it themselves. By trapping and securing their memories in art, traumatized persons may feel that the content diminished or lost its harm on them.</p>	31
			31
	Reconciliation of Memories	<p>Creating art also offers a non-verbal facilitation to reconsolidate memories by con-structing a coherent narrative, that includes fragmented memories and splintered parts of the self. Suppressed and distorted memories can be brought into awareness by illustrating them as something palpable.</p> <p>--</p> <p>Artmaking fosters the cognitive integration of fragmented memories and emotions: For example, working with fluid materials (e.g., watercolors) is considered especially helpful in disclosing visible hard-to-access sentiments due to their fluctuating outcomes. Contrarily, resistant materials (e.g., pencils and chalk), whose results are reliable, are suggested to visualize excessive and overwhelming feelings.</p> <p>--</p> <p>The non-threatening character of art facilitates the patient to work through the hurtful emotions buried before. (See also: <i>Main Theme 1: Exposure → Gentle Abreaction</i>).</p> <p>--</p> <p>[...] art in its various two or three-dimensional styles offers a safe way of abreaction. Locked-away memories and feelings can find an aiding outlet through art making. Stirred-up sensations can immediately be externalized, leading to relaxation and the facilitation of reconsolidating fragmented memories. (See also: <i>Main Theme 1: Exposure → Gentle Abreaction</i>).</p>	28
			28
			30
			31
	Recognition of Emotions	<p>While trying to make sense of their experiences, people become more attentive to how they act, feel, and present themselves within their social relationships.</p>	31
	Verbalization	<p>However, art is not restricted to a supportive function towards verbal treatments, in which they use the artwork as a conversation starter or interpretation material; The process of art-making itself leads the patient to recall, relive, re-enact, reinterpret, and eventually understand and resolve his/her inner conflict(s).</p> <p>--</p>	28

		Another hypothesis is that the simulation of the right brain (or more accurately: implicit neural pathways) circumvents the inactivity of the Broca's area. Sensations for which no words can be found can be expressed by art-making. Later, the created art piece may also be used as an anchor or guide to verbalize the images and emotions, reconnecting them with explicit neural pathways.	31
	Catharsis	This [resolving inner conflicts], in turn, can result in feelings of catharsis, and relief.	28
Music Therapy	Body-Mind Connection	Since both trauma and music are sensory mediated, music offers a pathway to spark brain functions that are responsible for emotional behavior, sensory-emotional processing, and lastly post-traumatic expressions without having to employ verbal approaches.	33
	Reconciliation of Memories	This gentle approach is especially suitable for expressing memories, which are non-explicit and/or linguistically unavailable. -- Music contributes to the development of a more coherent trauma narrative.	33 33
		Recognition of Emotions	It [music] is profoundly related to the processing of feelings and is therefore an effective instrument to help patients gain awareness of their emotions and to give them a tool to process those new insights constructively. Music-based therapy, independently of whether they are product- or process-orientated, can alter the emotional manner of how a person goes through and interprets traumatic experience(s). -- Making music may also be an effective tool in cases of anhedonia and muted or numbed emotional experiences. (<i>See also: Main Theme 4: Positive Connection to the Self → Decrease of Symptomatology</i>).
	Verbalization	But also the simple act of listening to music can bring better abilities to be relaxed and grounded in the present moment as well as to pinpoint one's (non-verbally accessible) emotions. (<i>See also: Main Theme 2: Grounding & Relaxation → Anchoring</i>).	32- 33
	Catharsis	Moreover, music can have cathartic effects. --	34
			Especially the physical movement of "hitting" drums has proved to be a healthy and constructive outlet for letting go of rage, frustration, or hyperactivity by using up (hitherto suppressed) physical energy. --

		<p>However, the expression of emotion via music is not limited to just rage and anger. Music can articulate and communicate the whole range of human emotions, which are mostly highly complex.</p> <p>--</p> <p>The provided output of emotions is capable of paving the way toward a healing processing of any kind of feeling. This in turn results in an increasing ability to regulate and control emotions consciously and autonomously.</p>	34 34
Dance Therapy	Body-Mind Connection	<p>['Dance Movement Therapy'] has professional standards and is defined as "[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual" (ADTA, 2020, n.p.). (See also: <i>Main Theme 4: Positive Connection to the Self</i> → <i>Decrease in Symptomatology and Main Theme 5: Social Connections</i> → <i>Social Stand-in Technique</i>).</p> <p>--</p> <p>Bringing the body into trauma treatment allows not only a non-verbal means of communication but may also excavate dissociated past experiences and foster body-mind-brain connections.</p> <p>--</p> <p>Dance and trauma are necessarily and directly linked to the body. Therefore, dance may serve as a tool to modulate traumatic material and stimulate a re-connection of mind, body, and brain, which is essential to treat PTSD-like symptoms.</p> <p>--</p> <p>Dance is seen as a portal to the right brain, allowing for its vertical integration. Combined with techniques to regulate this brain side, this assimilation fosters the construction of a cohesive and safe self-awareness.</p> <p>--</p> <p>The patients report higher perceptions of empowerment, self-pride, and improved motor coordination and awareness of physiological sensations, and their connected physical expressions. (See also: <i>Main Theme 4: Positive Connection to the Self</i> → <i>Improved Self-Esteem, Improved Physical Condition</i>).</p> <p>--</p> <p>The enhancement of sensorial and emotional awareness as well as the learned self-care and the active handling of psychopathological symptoms can contribute to welcoming being alive and present anew. (See also: <i>Main Theme 4: Positive Connection to the Self</i> → <i>New Perspectives</i>).</p> <p>--</p> <p>Thus, this body-centered therapy is especially profitable for people who have suffered physical traumata (e.g. sexual abuse and torture). Those traumatic materials are often stored in the body</p>	35 36 37 37 37 37

		and remembered like the original physical sensations. Consequently, survivors are frequently restricted in recognizing their sensory, emotional, and social necessities. They show symptoms of bodily dissociation, motionlessness, and chronic states of agitation.	
	Isomorphism	Dance is a pre-, or nonverbal medium for identifying, expressing, and letting go of emotions that were otherwise too imprecise, painful, or subconscious to be said aloud. It uses metaphor and surveys the mind, allowing the body to “speak” instead. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Catharsis, Verbalization, Recognition of Emotions</i>).	36
	Reconciliation of Memories	Expressive dance prompts memories, pictures, and mental connections, which excites the progress of reflection on these impressions. (<i>See also: Main Theme 1: Exposure → Gentle Abreaction</i>). -- [...] discovering different themes and metaphors in dancing counters numbness and the suppression and fragmentation of memories.	36 36
	Recognition of Emotions	Dance is a pre-, or nonverbal medium for identifying, expressing, and letting go of emotions that were otherwise too imprecise, painful, or subconscious to be said aloud. It uses metaphor and surveys the mind, allowing the body to “speak” instead. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Catharsis, Isomorphism, Verbalization</i>). -- Trained dance therapists can interpret and bring the clients’ (often tenuous) movements into awareness by mirroring them exaggeratedly. -- Some dancers may also be able to self-identify themselves in the movement of others, which makes them and their psychological and physical problems feel “seen” and understood. (<i>See also: Main Theme 5: Social Connections → Witnessing & Understanding</i>). -- [...] dance therapy is a biopsychosocial process, that promotes the development of self-awareness and -compassion, emotion regulation efficiency, and social skills. (<i>See also: Main Theme 5: Social Connections → Social Stand-in Technique</i>).	36 36 36
	Verbalization	Dance is a pre-, or nonverbal medium for identifying, expressing, and letting go of emotions that were otherwise too imprecise, painful, or subconscious to be said aloud. It uses metaphor and	36

		<p>surveys the mind, allowing the body to “speak” instead. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Catharsis, Isomorphism, Recognition of Emotions</i>).</p> <p>--</p> <p>This [externalization of feelings through body language], in turn, may eventually also contribute to the verbalization of traumatic material in time.</p> <p>--</p> <p>It is advised that each dance therapy session should end with a discussion of new impressions and findings evoked by the movements.</p>	36
	Catharsis	<p>Dance is a pre-, or nonverbal medium for identifying, expressing, and letting go of emotions that were otherwise too imprecise, painful, or subconscious to be said aloud. It uses metaphor and surveys the mind, allowing the body to “speak” instead. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Isomorphism, Verbalization, Recognition of Emotions</i>).</p>	36
Drama Therapy	Body-Mind Connection	<p>Such kinesthetic encounters are associated with a rebounding with the body.</p> <p>--</p> <p>Embodiment, in turn, is understood as the physical expression of feelings, experiences, and/or fragments of one’s personality. Although often used as a means to explore one’s own inner conflicts, the body is also considered the main communication tool between the self and others. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions</i>).</p>	41
	Isomorphism	<p>Play can be characterized as “part of the expressive range which can be drawn on in creating meaning, exploring difficulties, and achieving therapeutic change” (Jones 1991, as cited by Bleuer & Harnden, 2018, p. 169).</p> <p>--</p> <p>Children often use play naturally and instinctively to make sense of their experiences and process them. But also for adults, playing offers a pathway to control traumatic material that does not rely on language alone through metaphors and symbolism.</p> <p>--</p> <p>Performing before an audience holds the potential power of transformation in both the actor/actress and the spectators since actors and actresses are schooled to sense emotions so deeply that they can convey those feelings to the audience. This empathy and sharing of emotion are even stronger when the people audience is permitted to take part in the play actively and become actors/actresses themselves. (<i>See also: Main Theme 5: Social Connections → Witnessing & Understanding</i>).</p>	39
		<p>Children often use play naturally and instinctively to make sense of their experiences and process them. But also for adults, playing offers a pathway to control traumatic material that does not rely on language alone through metaphors and symbolism.</p>	38
		<p>Performing before an audience holds the potential power of transformation in both the actor/actress and the spectators since actors and actresses are schooled to sense emotions so deeply that they can convey those feelings to the audience. This empathy and sharing of emotion are even stronger when the people audience is permitted to take part in the play actively and become actors/actresses themselves. (<i>See also: Main Theme 5: Social Connections → Witnessing & Understanding</i>).</p>	40

		-- Often referred to as ‘aesthetic distance’, the therapeutic tool allows the traumatized person to sense, externalize and accept their traumatic material and their reactions to it without getting emotionally too affected by their PTSD-like symptoms. Pretending to be another (imaginary) being, or to be in another fictional reality facilitates expressing what has happened, what is felt, and what is hoped for. So does the use of metaphors, masks, or the telling of fictional stories. <i>(See also: Main Theme 1: Exposure → Distancing, Objectification & Projection).</i>	40-41
	Recognition of Emotions	They [traumatized people] might also be able to identify themselves with dramatic projections of others. <i>(See also: Main Theme 1: Exposure → Distancing, Objectification & Projection).</i> -- The act of projection allows the client to perceive his/her inner conflicts from another perspective, which, in turn, is hoped to lead to internalization, acceptance, and transformation of the traumatic material and/or its affects. <i>(See also: Main Theme 1: Exposure → Gentle Abreaction).</i> -- “Drama therapy is a rehearsal of life, wherein clients can rewrite past experiences, gain new insight or perspectives in the here and now, and explore future possibilities” (Ventura, 2021, p.11). <i>(See also: Main Theme 4: Positive Connection to the Self → New Perspectives).</i> -- Play in drama therapy is, therefore, seen as a principal method to gain access to traumatic memories, to comprehend, organize, and externalize them as well as to experiment with alternative options, decisions, and reactions to stimuli. -- The theatrical need to sense emotional and physical impressions profoundly runs contrary to the impulses of individuals with PTSD-like symptoms, forming an incentive to become aware of feelings <i>(See also: Main Theme 1: Exposure → Gentle Abreaction).</i> -- In written plays, traumatized actors/actresses are encouraged to reflect intensely on the character’s lines and to find out how he/she interprets the words and what reaction they generate for him/her personally. <i>(See also: Main Theme 1: Exposure → Gentle Abreaction).</i> -- If a drama therapist observes a client’s tentative expression, the professional will augment it with a dramatic maneuver. By doing	39 39 39 39 40 40 41

		<p>that the traumatized person becomes aware of this gesture and can delve deeper into this aspect.</p> <p>--</p> <p>Embodiment, in turn, is understood as the physical expression of feelings, experiences, and/or fragments of one's personality. Although often used as a means to explore one's own inner conflicts, the body is also considered the main communication tool between the self and others. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Body-Mind Connection</i>).</p> <p>--</p> <p>Thus, embodiments performed by outsiders, like therapists or peers, can also have a tremendous and eye-opening effect. Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. (<i>See also: Main Theme 1: Exposure → Gentle Abreaction and Main Theme 5: Social Connections → Witnessing & Understanding</i>).</p>	41
	Verbalization	Obtaining high levels of embodiments in drama therapy is therefore also associated with increased engagement in concurrent talk therapies.	41
Martial Art Therapy	Body-Mind Connection	Every martial art form includes bodywork, which fosters bodily awareness through movements.	45
	Recognition of Emotions	Internal aspects of Asian martial arts allow the performer to cultivate mindfulness and self-awareness, to delve into his/her thoughts, attitudes, moods, and lastly, self-concepts.	45
	Verbalization	Martial arts can furthermore have a positive impact on talk-centered therapy since they do not only foster the verbal interventions by allowing the client to learn more about him/herself, and his/her boundaries to physical touch, but also because the training re-connects the mind with the body and foster mental unification.	42
	Catharsis	The dojo can also be a safe environment to express some traumatic memories physically and emotionally.	46

Table 10: Annex B, Main Theme 3 Text Excerpts sorted by Sub-Themes

Main Theme 4: Positive Connection to the Self			pp.
Art Therapy	Spirituality	Creating something meaningful and somewhat aesthetical reactivates positive emotions and is associated with pleasant and rewarding sensations. More than that, art can visualize positive, hopeful, resilience-enhancing, and even spiritual themes—those affirmative characteristics of making art hold the possibility of finding back to feeling joy and balance and re-connect to one's character before the traumatic event(s). (<i>See also: Main Theme 4: Positive Connection to the Self → New Perspectives</i>).	28
		--	
		Especially concerning spirituality, Brillantes-Evangelista (2013) points out that therapy should not be about the mere disclosure of symptoms, but about facilitating the patient to lead a purposeful and qualitative life. Strengthening spirituality might be a means for some to advance their psychological healing without resulting automatically in clinically measurable symptom improvement. (<i>See also: Main Theme 4: Positive Connection to the Self → Decrease in Symptomatology</i>).	28
		--	
		Lastly, engaging in art encourages mindfulness and spiritual encounters.	31
	--		
In searching for a meaningful way of life, art might also be a touchable container and/or exploration testimony for spiritual beliefs. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Containment</i>).	31		
--			
Symbolizing a memorial for a lost person, for example, has a tremendous impact on a healthy mourning process and the healing process.	31		
New Perspectives	New Perspectives	Engaging in artistic creation can help individuals to make sense of their thoughts and feelings, as well as to develop an alternative and more positive self-perception. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Isomorphism</i>).	26
		--	
		Creating something meaningful and somewhat aesthetical reactivates positive emotions and is associated with pleasant and rewarding sensations. More than that, art can visualize positive, hopeful, resilience-enhancing, and even spiritual themes—those affirmative characteristics of making art hold the possibility of finding back to feeling joy and balance and re-connect to one's character before the traumatic event(s). (<i>See also: Main Theme 4: Positive Connection to the Self → Spirituality</i>).	28
--			
[...] instead of mere 'victims' the clients can turn themselves into 'survivors'.	29		

		-- Art making furthermore encourages being more aware and accepting of the self in a non-judgmental manner. It expands the range of possible reactions to a stressor, equipping the traumatized person with adequate coping strategies for future exposures.	29
		-- Likewise, witnessing peers struggle with similar issues, fears, shame, and traumatic experiences can function as validation and normalization of one's hassles. (<i>See also: Main Theme 5: Social Connections → Witnessing & Understanding</i>).	29
		-- Through illustrations, metaphors, and other embodiments of their experiences, people can gain new interpretations, and discover further meanings of their realities, by immersing themselves consciously in their problems and finding artistic solutions. (<i>See also: Main Theme 1: Exposure → Embodiment</i>).	30
		-- [...] they [traumatized individuals] could make use of constructive alternativism, if they chose to experiment with alternative narratives of their lives. This may inspire them to change their views or actions in their real lives for the newly constructed ones.	30
		-- It is argued on a neuro-scientific level that as long as a "corrective" narrative is sufficiently felt, it is irrelevant to the brain whether the experience is fictional or real; this loophole can be used to create a healing counter-experience, resulting in the fortification of new learnings.	30
		-- Similar to the narrative/constructivist approach, this [seeing oneself from an outsider's perspective] can lead to a re-creation of the person.	30
		-- [...] during the creation of art, people can venture with their future and recall their past, while not running the risk of feeling obligated to these versions.	30
		-- Such ventures do not only make an effort to reconnect the individuals to their pre-conflict and displacement identity and culture but also provide a social support network with people who share and therefore understand the socio-political context of the home country and the migration problems in the host country. (<i>See also: Main Theme 5: Social Connections → Integration Help</i>).	32
	Decrease in Symptomatology	-- These interventions are vastly seen as a promising means to raise the psychological health of PTSD patients, as well as to address the symptoms' roots.	26
		--	

		<p>Next to positive results on intrusive thoughts and hyperarousal, art therapy is said to be especially favorable in treating avoidance behaviors and emotional numbing, which are considered difficult to treat in other treatment methods.</p> <p>--</p> <p>Especially concerning spirituality, Brillantes-Evangelista (2013) points out that therapy should not be about the mere disclosure of symptoms, but about facilitating the patient to lead a purposeful and qualitative life. Strengthening spirituality might be a means for some to advance their psychological healing without resulting automatically in clinically measurable symptom improvement. <i>(See also: Main Theme 4: Positive Connection to the Self → Spirituality)</i>.</p>	26
	Improved Self-Esteem	<p>Being able to enclose, contain, and manipulate artistic representations of the unspeakable traumatic memories may produce a sensation of empowerment, agency, and regained control and mastery over one's emotions and reactions. <i>(See also: Main Theme 3: Awareness, Expression & Control of Emotions → Containment)</i>.</p> <p>--</p> <p>The traumatized person builds up confidence in his/her capability to communicate internal and externally strong emotions in a healthy, proper, and non-shattering form.</p> <p>--</p> <p>When Art Therapy is modeled as a group intervention, additional positive effects on the healing process are observed: experiencing that the created art is seen, understood (regardless of cultural and linguistic differences), and even valued by others without judgment within a safe space improves self-esteem. <i>(See also: Main Theme 5: Social Connections → Witnessing & Understanding)</i>.</p> <p>--</p> <p>Likewise, helping new group members to settle into the therapy routine and to show them already created part works, can evoke a sense of accomplishment and self-esteem in the senior group members. <i>(See also: Main Theme 5: Social Connections → Integration Help)</i>.</p> <p>--</p> <p>Lastly, as the patient is free in his/her choice of material/techniques, the depth and speed of the trauma exposure, they experience a heightened feeling of security and run a lowered risk of symptoms worsening or re-traumatization. <i>(See also: Main Theme 1: Exposure → Gentle Abreaction)</i>.</p>	29
		<p>The traumatized person builds up confidence in his/her capability to communicate internal and externally strong emotions in a healthy, proper, and non-shattering form.</p> <p>--</p>	29
		<p>When Art Therapy is modeled as a group intervention, additional positive effects on the healing process are observed: experiencing that the created art is seen, understood (regardless of cultural and linguistic differences), and even valued by others without judgment within a safe space improves self-esteem. <i>(See also: Main Theme 5: Social Connections → Witnessing & Understanding)</i>.</p> <p>--</p>	29
		<p>Likewise, helping new group members to settle into the therapy routine and to show them already created part works, can evoke a sense of accomplishment and self-esteem in the senior group members. <i>(See also: Main Theme 5: Social Connections → Integration Help)</i>.</p> <p>--</p>	29
		<p>Lastly, as the patient is free in his/her choice of material/techniques, the depth and speed of the trauma exposure, they experience a heightened feeling of security and run a lowered risk of symptoms worsening or re-traumatization. <i>(See also: Main Theme 1: Exposure → Gentle Abreaction)</i>.</p>	31
Music Therapy	Spirituality	Moreover, many cultures perceive music to hold healing qualities.	35

	New Perspectives	Making music also gives the traumatized individual a sense of normality. The knowledge, that one can achieve a form of ordinariness after all he/she has been through, can boost resilience. -- It also can give displaced people back a sense of cultural identity.	32 35	
	Decrease in Symptomatology	Positive psychological and emotional results can be obtained by active (playing and composing music) and passive use of music (listening to songs and compositions). -- [...] concentration and organization skills were enhanced, while psychopharmaceutical and substance dependency decreased and hallucinations of traumatic material became less frequent thanks to music therapy. -- Making music may also be an effective tool in cases of anhedonia and muted or numbed emotional experiences. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions</i>). -- Other resources like connection to the self, openness to new experiences, and the ability to establish trusting relationships are also activated by playing music.	32 33 34 35	
		Improved Self-Esteem	Practicing music alone or within a group enhances self-esteem while diminishing self-perceptions of hopelessness and insignificance. -- This [enhanced self-esteem and diminished self-perceptions of hopelessness and insignificance] is achieved by (re-)learning instruments, the shared enjoyment of music (within a group), and the acquired control over one's emotions.	34 34
			Dance Therapy	Improved Physical Condition

		<i>Control of Emotions</i> → <i>Body-Mind Connection and Main Theme 4: Positive Connection to the Self</i> → <i>Improved Self-Esteem</i>).	
	Spirituality	<p>Dance – in various forms – has been used over different cultures and centuries as a healing ritual, or spiritual and sacred expression.</p> <p>--</p> <p>Modern-day Dance Therapy is still closely related to these ancient socio-cultural techniques from around the world, without categorizing and thus reducing its multicultural roots.</p> <p>--</p> <p>Focusing on the already-existing and constructive coping strategies, Dance Therapy tries to strengthen the client’s spiritual, somatic, and psychological power. With this bolstered resilience, it is hoped that clients can regulate into their window of tolerance where they can integrate new learnings without getting retraumatized when confronted with their past. (See also: <i>Main Theme 1: Exposure</i> → <i>Gentle Abreaction and Main Theme 4: Positive Connection to the Self</i> → <i>Decrease in Symptomatology</i>).</p> <p>--</p> <p>It [dance] furthermore fosters spiritual experiences, communication skills, and creativity. Especially the latter is associated with higher levels of flexibility, resilience, and personal growth. (See also: <i>Main Theme 5: Social Connections</i> → <i>Social Stand-in Technique</i>).</p>	<p>35</p> <p>35</p> <p>38</p> <p>38</p>
	New Perspectives	The enhancement of sensorial and emotional awareness as well as the learned self-care and the active handling of psychopathological symptoms can contribute to welcoming being alive and present anew. (See also: <i>Main Theme 3: Awareness, Expression & Control of Emotions</i> → <i>Body-Mind Connection</i>).	37
	Decrease in Symptomatology	<p>[‘Dance Movement Therapy’] has professional standards and is defined as “[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual” (ADTA. 2020, n.p.). (See also: <i>Main Theme 3: Awareness, Expression & Control of Emotions</i> → <i>Body-Mind Connection and Main Theme 5: Social Connections</i> → <i>Social Stand-in Technique</i>).</p> <p>--</p> <p>This method provides the patient with adequate coping skills, which can also be utilized to counter other, previously unidentified problems in the future.</p> <p>--</p> <p>Moving the body intentionally freely might be healing for those who were for some reason immobilized during the traumatic event(s) they suffered and got stuck in a fear freeze. (See also:</p>	<p>35</p> <p>36</p> <p>36</p>

		<p><i>Main Theme 4: Positive Connection to the Self → Improved Physical Condition).</i></p> <p>--</p> <p>Mental health impairments like depression, anxiety, hypervigilance, and/or chronic physical pain can be lessened significantly.</p> <p>--</p> <p>Focusing on the already-existing and constructive coping strategies, Dance Therapy tries to strengthen the client's spiritual, somatic, and psychological power. With this bolstered resilience, it is hoped that clients can regulate into their window of tolerance where they can integrate new learnings without getting retraumatized when confronted with their past. (<i>See also: Main Theme 1: Exposure → Gentle Abreaction and Main Theme 4: Positive Connection to the Self → Spirituality).</i></p>	38
			38
	Improved Self-Esteem	<p>Moreover, dancing might help to form interpersonal boundaries, rebuild a healthy sense of intimacy and trust, and generally improve social skills and confidence in oneself. (<i>See also: Main Theme 5: Social Connections → Social Stand-in Technique).</i></p> <p>--</p> <p>In other words, engaging in dance therapy has positively impacted the dancers' relation to themselves and their bodies. The patients report higher perceptions of empowerment, self-pride, and improved motor coordination and awareness of physiological sensations, and their connected physical expressions. This may be because they notice that they can perform more and more movement and can therefore claim and control their bodies (again). (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Body-Mind Connection and Main Theme 4: Positive Connection to the Self → Improved Physical Condition).</i></p>	37
			37
Drama Therapy	Spirituality	<p>Comparable to ancient shamanic transcendental practices, drama therapy allows for mental journeys, awake dreaming, and shape-shifting through role fluctuations within its trance-like play space.</p>	39
	New Perspectives	<p>"Drama therapy is a rehearsal of life, wherein clients can rewrite past experiences, gain new insight or perspectives in the here and now, and explore future possibilities" (Ventura, 2021, p.11). (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions).</i></p> <p>--</p> <p>Switching roles within an improvised scene delineates how other people react in the same situation, presenting further options and alternative responses.</p> <p>--</p>	39
			40

		<p>Moreover, this technique can be employed to strengthen resources by literally holding happy or proud memories in front of the client's eye.</p> <p>--</p> <p>The knowledge that they are all battling similar obstacles in life allows them to tie into a working group, providing a safe space for the free expression of traumatic material. It equips the group members with shared affirmation, fortitude, and aspiration.</p>	41 41- 42
Martial Art Therapy	Improved Physical Condition	<p>Comparable to most other sports, martial arts build up physical fitness, aerobic capacity, and cardiovascular function, as well as mind-body coordination, flexibility, attention, strength, and balance through disciplined physical activity.</p> <p>--</p> <p>Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (<i>See also: Main Theme 2: Grounding & Relaxation → Anchoring and Main Theme 4: Positive Connection to the Self → Spirituality and Main Theme 5: Social Connections → Social Stand-in Technique</i>).</p>	42 42
	Spirituality	<p>The motrice actions of the martial artist can only be understood in their physical, spiritual, and social aspects through a double epistemology. It therefore requires both theoretical and practical knowledge to understand a particular movement in its full complexity.</p> <p>--</p> <p>Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (<i>See also: Main Theme 2: Grounding & Relaxation → Anchoring and Main Theme 4: Positive Connection to the Self → Improved Physical Condition and Main Theme 5: Social Connections → Social Stand-in Technique</i>).</p> <p>--</p> <p>Furthermore, East Asian philosophies like Zen Buddhism, which are basic to many martial arts, advocate the renunciation of attachment – as does psychotherapy in a sense when it comes to letting go of dysfunctional thought patterns.</p> <p>--</p> <p>This meditational training and thus the increased spiritual fitness was documented to be an effective coping mechanism, especially in dealing with feelings of guilt and shame. During the occurrence of flashbacks, the awareness methods are expected to increase calmness, focus, and awareness of one's body and surroundings have been practiced previously.</p>	42 42 43 43- 44

	New Perspectives	<p>These classes also provide an opportunity to re-script the painful memory in a safe environment.</p> <p>--</p> <p>Moreover, martial arts allow victims of interpersonal trauma (i.e., men-made trauma) to reenact and alter the violent event(s) they endured. The potential realization that they are no longer helpless in such situations can lead to an increased sense of empowerment in certain situations. They, therefore, feel safer after the training in self-defense methods. <i>(See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</i></p>	44
	Decrease in Symptomatology	<p>Generally, the existing literature shows consistency in the fact that practicing martial arts can enhance not only physical but also mental and social well-being. Figueiredo (2009) describes combat sports and martial arts as a “bonanza [of] biopsychosocio-axiological wealth” (Figueiredo, 2009). <i>(See also: Main Theme 5: Social Connections → Social Stand-in Technique).</i></p> <p>--</p> <p>These sports are portrayed as a gold mine of rich mixtures of values, biological, psychological, and social ingredients. <i>(See also: Main Theme 5: Social Connections → Social Stand-in Technique).</i></p> <p>--</p> <p>[...] Brazilian Jiu-Jitsu is promising in decreasing PTSD symptomatology and improving comorbidities like depression, anxiety, and substance abuse.</p> <p>--</p> <p>They [the patients] furthermore benefitted from reduced feelings of pain, fear, and anxiety in a stigma-free environment.</p> <p>--</p> <p>Many chronic trauma symptoms like mood disturbances, anxiety, depression, weariness, aggression, and rage are measurably alleviated by practicing (internal) martial arts.</p> <p>--</p> <p>Engaging in this kind of physical activity stimulates the production of serotonin, norepinephrine, endorphins, and dopamine, leading to enhanced mood, diminished pain, and reduced stress.</p> <p>--</p> <p>Likewise, the same techniques of creating ‘a calm mind’ can be used to identify falsely perceived threats and the triggered physical reactions. <i>(See also: Main Theme 2: Grounding & Relaxation → Anchoring).</i></p> <p>--</p> <p>Relevant literature on Aikido and t'ai chi proves that practicing martial arts does enhance concentration.</p> <p>--</p>	42
			42
			43
			43
			45
			45
			45
			46

	<p>Moreover, studies concluded that by practicing t'ai chi, sleep disturbances (e.g., due to nightmares) can be decreased.</p> <p>--</p> <p>The neatly structured, disciplined, mindful, and respectful nature of martial arts lessons might assist the refugee in building healthy coping mechanisms and resilience.</p> <p>--</p> <p>On the contrary, they [several studies] found elevated frustration levels of martial arts practitioners through their training.</p>	46
	<p>The neatly structured, disciplined, mindful, and respectful nature of martial arts lessons might assist the refugee in building healthy coping mechanisms and resilience.</p> <p>--</p> <p>On the contrary, they [several studies] found elevated frustration levels of martial arts practitioners through their training.</p>	46
	<p>On the contrary, they [several studies] found elevated frustration levels of martial arts practitioners through their training.</p>	46
Improved Self-Esteem	<p>Several studies do furthermore agree that the performance of martial arts leads to increased levels of prosocial behavior, self-esteem and concentration, and an elevated feeling of empowerment. (<i>See also: Main Theme 5: Social Connections → Social Stand-in Technique</i>).</p> <p>--</p> <p>In succeeding in overcoming these challenges, the fighter/client realizes his/her strength, resilience, and hardiness. This experienced growth is further strengthened by the fact that the hurdle was taken based on free will despite feelings of cognitive dissonance.</p> <p>--</p> <p>Because of the newly learned ability to defend oneself physically and the social support from peers, many patients feel empowered and can potentially modify their fear structures which are associated with the trauma. (<i>See also: Main Theme 5: Social Connections → Witnessing & Understanding</i>).</p> <p>--</p> <p>Being capable of fighting panic attacks and flashbacks and remaining “present”, enables PTSD-suffering persons to feel secure enough to confront themselves with activities they would have otherwise avoided. (<i>See also: Main Theme 2: Grounding & Relaxation → Anchoring</i>).</p> <p>--</p> <p>In learning to engage respectfully with others and especially with oneself, martial arts hold the possibility to increase self-compassion and reduce negative self-statements.</p> <p>--</p> <p>The patient can experience peer support from other martial artists and find newfound trust in his/her ability to set boundaries and to defend himself/herself physically. This leads to a sense of empowerment and a turndown in self-blame, self-loathing, and stigmatization. (<i>See also: Main Theme 5: Social Connections → Social Stand-in Technique</i>).</p> <p>--</p> <p>Moreover, martial arts allow victims of interpersonal trauma (i.e., men-made trauma) to reenact and alter the violent event(s) they</p>	42
	<p>In succeeding in overcoming these challenges, the fighter/client realizes his/her strength, resilience, and hardiness. This experienced growth is further strengthened by the fact that the hurdle was taken based on free will despite feelings of cognitive dissonance.</p>	43
	<p>Because of the newly learned ability to defend oneself physically and the social support from peers, many patients feel empowered and can potentially modify their fear structures which are associated with the trauma. (<i>See also: Main Theme 5: Social Connections → Witnessing & Understanding</i>).</p>	44
	<p>Being capable of fighting panic attacks and flashbacks and remaining “present”, enables PTSD-suffering persons to feel secure enough to confront themselves with activities they would have otherwise avoided. (<i>See also: Main Theme 2: Grounding & Relaxation → Anchoring</i>).</p>	44
	<p>In learning to engage respectfully with others and especially with oneself, martial arts hold the possibility to increase self-compassion and reduce negative self-statements.</p>	45
	<p>The patient can experience peer support from other martial artists and find newfound trust in his/her ability to set boundaries and to defend himself/herself physically. This leads to a sense of empowerment and a turndown in self-blame, self-loathing, and stigmatization. (<i>See also: Main Theme 5: Social Connections → Social Stand-in Technique</i>).</p>	45
	<p>Moreover, martial arts allow victims of interpersonal trauma (i.e., men-made trauma) to reenact and alter the violent event(s) they</p>	45

		<p>endured. The potential realization that they are no longer helpless in such situations can lead to an increased sense of empowerment in certain situations. They, therefore, feel safer after the training in self-defense methods. <i>(See also: Main Theme 4: Positive Connection to the Self → New Perspectives).</i></p> <p>--</p> <p>Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly. <i>(See also: Main Theme 2: Grounding and Relaxation → Anchoring, Main Theme 5: Social Connections → Social Stand-in Technique).</i></p>	45
--	--	--	----

Table 11: Annex B, Main Theme 4 Text Excerpts sorted by Sub-Themes

Main Theme 5: Social Connections			pp.
Art Therapy	Witnessing & Understanding	<p>When Art Therapy is modeled as a group intervention, additional positive effects on the healing process are observed: experiencing that the created art is seen, understood (regardless of cultural and linguistic differences), and even valued by others without judgment within a safe space improves self-esteem. <i>(See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</i></p> <p>--</p> <p>Likewise, witnessing peers struggle with similar issues, fears, shame, and traumatic experiences can function as validation and normalization of one's hassles. <i>(See also: Main Theme 4: Positive Connection to the Self → New Perspectives).</i></p>	29 29
	Social Stand-in Technique	The group setting may also serve as a steppingstone out of social isolation back into a community, and into confiding and functional relationships .	29
	Integration Help	<p>Moreover, patients do not have to worry about possible reactions of disgust, aversion, or retaliation by an interlocutor while artistically expressing their dark past.</p> <p>--</p> <p>Seeing others already enthusiastically engaging in the therapy facilitates getting involved in the healing treatment. Likewise, helping new group members to settle into the therapy routine and to show them already created part works, can evoke a sense of accomplishment and self-esteem in the senior group members. <i>(See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</i></p> <p>--</p> <p>Such ventures do not only make an effort to reconnect the individuals to their pre-conflict and displacement identity and culture but also provide a social support network with people who share and therefore understand the socio-political context of the home country and the migration problems in the host country. <i>(See also: Main Theme 4: Positive Connection to the Self → New Perspectives).</i></p>	27-28 29 32

Music Therapy	Witnessing & Understanding	The empathetic musical or verbal response of peers to his/her story helps the individual open up to himself/ herself and others. The musical interpretation and replay of the emotions and stories of his/her peers, make the client feel deeply understood, in a way that words alone cannot mediate.	34	
	Social Stand-in Technique	Being part of a music group is associated with feelings of belonging and social connection. Group music therapy is, therefore, an adequate means to direct tendencies of avoidance, detachment, and social isolation of the client, even for participants who do not want or cannot verbally engage. -- This stand-in social technique can be carried out with “baby steps”: at the beginning, not even eye contact is needed to hear one’s own music harmoniously blending into the music of the whole group. -- In an astonishingly short amount of time, a connection between group members and a feeling of community can be obtained. Within this newly created safe space, music facilitates speaking about topics related to trauma but also independent ones. -- Music Therapy also practices fundamental social skills like frustration management, acceptance of help, and compliance with instructions. Moreover, music-making trains prosocial and reciprocal interactions such as active listening and participation, practicing patience, and taking turns. These learnings of how to function within a group are not limited to combat PTSD symptoms and will benefit the patients, who are often socially impaired, in all life situations.	33 33-34 34	
		Integration Help	Music is meaningful to all people, regardless of their demographic characteristics, and particularly to those in critical situations. -- Music therapy may furthermore be seen as an alternative to some who fear the stigmata of ‘normal’ psychological treatments. -- It [hitting drums] has also proven to be suitable to provoke depressive clients to take part in the activity. -- Music is part of all cultures. Therefore, this form of creative and symbolic emotional outreach is receivable for others, regardless of possible language barriers.	32 32 34 35
		Witnessing & Understanding	Some dancers may also be able to self-identify themselves in the movement of others, which makes them and their psychological and physical problems feel “seen” and understood. Mirroring others’ movements also fosters kinesthetic empathy, which (re-)connects the dancer to other human beings. (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions</i>).	36
Dance Therapy	Social Stand-in Technique	[‘Dance Movement Therapy’] has professional standards and is defined as “[...] the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual” (ADTA, 2020, n.p.). (<i>See also: Main Theme 3: Awareness, Expression & Control of Emotions → Body-Mind Connection and Main Theme 4: Positive Connection to the Self → Decrease in Symptomatology</i>). --	35	

		<p>Another effect that unites a group of dancers is “muscular bonding”. This term de-scribes the visceral link between members of a group who perform rhythmic movements together. It is often used to foster camaraderie and sodality in military contexts.</p> <p>--</p> <p>In this context, dancing might help to form interpersonal boundaries, rebuild a healthy sense of intimacy and trust, and generally improve social skills and confidence in oneself. (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</p> <p>--</p> <p>[...] dance therapy is a biopsychosocial process, that promotes the development of self-awareness and -compassion, emotion regulation efficiency, and social skills. (See also: Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions)</p> <p>--</p> <p>It [dance] furthermore fosters spiritual experiences, communication skills, and creativity. Especially the latter is associated with higher levels of flexibility, resilience, and personal growth. (See also: Main Theme 4: Positive Connection to the Self → Spirituality).</p>	37
			37
			38
			38
	Integration Help	<p>The importance of language skills fades into the background, while cultural resources and family backing can be bolstered.</p> <p>--</p> <p>Moreover, reclaiming and rebuilding a safe space of familiar (dance) rituals is highly reassuring for forced immigrants because it gives them back a sense of belonging and community.</p>	38
			38
Drama Therapy	Witnessing & Understanding	<p>Being witnessed in expressing the traumatic event(s) and the effects of it, are core elements of drama therapy. The artistic interpretation can be witnessed by an audience, by the therapist, by peers, or only by oneself. Performing before an audience holds the potential power of transformation in both the actor/actress and the spectators since actors and actresses are schooled to sense emotions so deeply that they can convey those feelings to the audience. This empathy and sharing of emotion are even stronger when the people audience is permitted to take part in the play actively and become actors/actresses themselves. (See also: Main Theme 3: Awareness, Expression & Control of Emotions → Isomorphism).</p> <p>--</p> <p>Experiencing another person to mirror back (three-dimensionally and with his/her whole body) their thoughts and emotions leads traumatized people not only to feel deeply understood and seen but is furthermore helpful in getting empathically familiarized with the expression of this inner reality and to acknowledge and own it. (See also: Main Theme 1: Exposure → Gentle Abreaction and Main Theme 3: Awareness, Expression & Control of Emotions → Recognition of Emotions).</p>	40
			41
Martial Art Therapy	Witnessing & Understanding	<p>Because of the newly learned ability to defend oneself physically and the social support from peers, many patients feel empowered and can potentially modify their fear structures which are associated with the trauma. (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</p>	44
	Social Stand-in Technique	<p>Several studies do furthermore agree that the performance of martial arts leads to increased levels of prosocial behavior, self-</p>	42

	<p>esteem and concentration, and an elevated feeling of empowerment. (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</p> <p>--</p> <p>Being part of a group as well as engaging physically and respectfully with others promotes social well-being.</p> <p>--</p> <p>Generally, the existing literature shows consistency in the fact that practicing martial arts can enhance not only physical but also mental and social well-being. Figueiredo (2009) describes combat sports and martial arts as a “bonanza [of] biopsychosocio-axiological wealth” (Figueiredo, 2009). (See also: Main Theme 4: Positive Connection to the Self → Decrease in Symptomatology).</p> <p>--</p> <p>These sports are portrayed as a gold mine of rich mixtures of values, biological, psychological, and social ingredients. (See also: Main Theme 4: Positive Connection to the Self → Decrease in Symptomatology).</p> <p>--</p> <p>Many martial arts consist of four elements: physical exercise, mindfulness practice, meditation, and social interplay. (See also: Main Theme 2: Grounding & Relaxation → Anchoring and Main Theme 4: Positive Connection to the Self → Improved Physical Condition, Spirituality).</p> <p>--</p> <p>Also, most martial arts (in particular the external ones) include necessarily physical touch with another human. The homo sapiens is a highly social being, to touch and being touched is essential for our well-being. However, people suffering from interpersonal trauma often avoid social touch. Practicing an external form of martial arts may favor the circumstances to find the way back to normalized physical contact. (See also: Main Theme 1: Exposure → Gentle Abreaction).</p> <p>--</p> <p>In learning to engage respectfully with others and especially with oneself, martial arts hold the possibility to increase self-compassion and reduce negative self-statements. (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</p> <p>--</p> <p>The patient can experience peer support from other martial artists and find newfound trust in his/her ability to set boundaries and to defend himself/herself physically. This leads to a sense of empowerment and a turndown in self-blame, self-loathing, and stigmatization. (See also: Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</p> <p>--</p> <p>Asian martial arts, in particular, teach their practitioners to be at peace and in harmony with themselves and their social surroundings. The perception of health and life satisfaction as well as self-esteem rises accordingly. (See also: Main Theme 2: Grounding and Relaxation → Anchoring and Main Theme 4: Positive Connection to the Self → Improved Self-Esteem).</p> <p>--</p> <p>Particularly for adolescents, the sense of belonging is important. Practitioners of this age furthermore benefit deeply from the inherent physical aggressive play.</p>	42
		42
		42
		42
		44
		45
		45
		45
		46
Integration Help	Meeting the same people, at the same place at the same time to do the same thing, reminds one vaguely of group therapy. Shared meaning is created, by following a set etiquette, rituals, and	43

		<p>maybe even wearing the same clothes. This, in turn, leads to social group building.</p> <p>--</p> <p>[...] those sports may especially benefit refugees since being part of a club or dojo may give displaced persons a feeling of belonging, inclusion, and community as well as an opportunity for social integration and put their German language skills into practice.</p>	46
--	--	--	----

Table 12: Annex B, Main Theme 5 Text Excerpts sorted by Sub-Themes