SAVONIA
University of Applied Sciences

THESIS – MASTER'S DEGREE PROGRAMME
SOCIAL SERVICES, HEALTH AND SPORTS

ASSESSMENT OF TORTURE SURVIVORS WHO SUFFER FROM CO-MORBID PERSISTENT PAIN

A descriptive literature review of used assessment tools and key themes to consider

AUTHOR/S Pieta Myllykangas

SAVONIA UNIVERSITY OF APPLIED SCIENCES

THESIS
Abstract

Field of Study
Social Services, Health and Sports

Degree Programme
Master's Degree Programme in Global Public Health

Author(s)
Pieta Myllykangas

Title of Thesis
Assessment of Torture Survivors who suffer from Co-Morbid Pain - A descriptive literature review of used assessment tools and key themes to consider

Date	27.03.2025	Pages/Number of appendices	69

Client Organisation /Partners
Helsinki Deaconess Foundation, Center for Psychotraumatology, Lotta Carlsson

Torture is a heinous crime impacting not only the individual but also the community and society. Torture can result in physical and mental health problems, decreased functioning in all aspects, and decreased quality of life. It is not uncommon that torture rips the self-esteem and dignity of the victim. It is not only the traumatic act of torture itself that causes distress to the individual. There is more stress related to the environment where the acts occur, as well as post-migration stress if the person can relocate to another country.

Pain is one of the most common symptoms that Survivors of Torture (SoT) describe, in addition to mental health symptoms of post-traumatic stress disorder (PTSD), depression, and anxiety. Pain is not only about nociception, but there are additional factors at play—individual aspects, such as environment, beliefs, and co-morbidities, also impact it. An increased symptom load has been observed among SoT individuals, resulting in a decreased quality of life and loss of overall functioning. Treatment and rehabilitation success often focus on the intensity of pain before and after, which is assessed using various tools.

This thesis aims to describe the assessment methods used with SoTs suffering from co-morbid paid and to determine the role of quality of life or health-related quality of life in the current literature. The purpose was to study the assessment tools, aims, and methods and build reassemble themes to determine the approach intentions behind the chosen assessment. The background organization for the thesis process was the Helsinki Deaconess Foundation, Center for Psychotraumatology. It is a psychiatric clinic that assesses, treats, and rehabilitates torture victims and their family members. Additionally, they provide education and consultation. The purpose is also to ensure that the medicolegal rights of the SoT are actualized.

The thesis is a descriptive literature review, and thematic analysis has been used. The literature was retrieved from PubMed and CINAHL Ultimate as well from an additional review article by Dee et al. 2020. The final analysis included 14 sources. In the thematization process, seven themes were constructed: Symptom Management and Coping Strategies, Symptom Interference and Daily Functioning, Understanding Individual's Background and Trauma History, Social Participation and Integration, Diagnostic Properties and Symptom Characteristics, Physiological Measures and Functional Assessment, and The Role of Quality of Life.

The results showed that the assessment processes of survivors of torture are mainly focused on the interference of the symptoms, diagnostic features, and collecting personal information about the person. What was in the minority was the assessment focused on symptom management. This means that the person's coping and self-efficacy were not the focus point. Furthermore, the included literature showed that the quality of life for this patient group is low; however, none of the assessment tools or methods specifically focused on evaluating this factor.

Further studies should focus on the quality of life and health-related quality of life of survivors. Additionally, the assessment process should incorporate more patient-centered coping strategies rather than focusing solely on the illness and clinicians' perspectives.

Keywords
Torture, pain, persistent pain, PTSD, symptom load, assessment, functioning, quality of life

CONTENTS

1 INTRODUCTION 6
2 TORTURE – THE HEINOUS CRIME AGAINST HUMANITY 7
  2.1 Forms of Torture 7
  2.2 Istanbul Protocol 8
  2.3 Adverse Health Effects due to Torture and Pain 9
3 CHRONIC PAIN IN TORTURE VICTIMS 10
  3.1 Biopsychosocial Model of Pain 11
  3.2 Chronic Pain and Torture 11
4 POST-TRAUMATIC STRESS DISORDER 13
  4.1 Complex Post-Traumatic Stress Disorder 13
    4.1.1 Post-Traumatic Stress Disorder and Torture 14
5 SYMPTOM ASSESSMENT 15
  5.1 Symptom Assessment of Torture Victims 16
  5.2 Evaluation of Pain 17
  5.3 Importance of Functioning 17
    5.3.1 International Classification of Functioning 18
  5.4 Quality of Life and Health-Related Quality of Life 19
6 PURPOSE AND OBJECTIVES 20
7 IMPLEMENTATION OF THE LITERATURE REVIEW 21
  7.1 Inclusion and Exclusion 21
  7.2 Implementation 22
  7.3 Content Analysis and Thematization 25
8 THEMATIC ANALYSIS AND RESULTS 28
  8.1 Symptom Management and Coping Strategies 28
  8.2 Symptom Interference and Daily Functioning 30
  8.3 Understanding Individual’s Background and Trauma History 32
  8.4 Social Participation and Integration 34
  8.5 Diagnostic Properties and Symptom Characteristics 37
  8.6 Physiological Measures and Functional Assessment 39
  8.7 The Role of Quality of Life 41
9 CONCLUSION 43

9.1 Discussion and Development Suggestions 44
9.2 Reliability and repeatability of literature retrieval 49
REFERENCES 50
APPENDIX 1: DETAILED INFORMATION ABOUT THE INCLUDED LITERATURE 57
APPENDIX 2: CATEGORIES OF THE TOOLS 58
APPENDIX 3: DESCRIPTION OF THE TOOLS FOUNDED 60
Body Awareness Scale - Experiences 60
Body Maps: locations, number, and amount of pain 60
Body Mass Index 61
Brief Pain Inventory 61
Central Sensitization Inventory 61
Clinician-Administered Post-Traumatic Stress Syndrome Scale for DSM-5 61
Disability Rating Index 62
Fibromyalgia 18 tender points 62
General Self-Efficacy Scale 63
German Pain Coping Questionnaire 63
Grip Strength 64
Hamilton Rating Scale for Depression 64
Harvard Trauma Questionnaire 64
Hopkins Symptoms Checklist- 25 64
Hospital Anxiety and Depression Scale 64
Korean Oswestry Disability Index 65
Korean Version of the Posttraumatic Diagnosis Scale 65
Margolis Pain Diagram 65
Mini International Neuropsychiatric Interview 65
The Norwegian Pain Association´s Minimum Inventory for Pain Patients 65
Numeric Rating Scale 66
Patient Health Questionnaire - 9 66
Patient Specific Functional Scale 66
Pelvic Floor Distress Inventory Questionnaire 66
Pittsburg Sleep Quality Index 67
Posttraumatic Diagnostic scale 67

Standing Balance Test 67
Short-form McGill Pain Questionnaire 68
Visual Analogue Scale 68
Wong-Baker FACES® Pain Rating Scale 68
World Health Organisation Disability Assessment Schedule 2.0 69

LIST OF FIGURES

Figure 1: Factors related to the development of chronic pain (Mills et al. 2019) 10
Figure 2: Inclusion and Exclusion Criteria 22
Figure 3: Flowchart of the Inclusion and Exclusion Process for articles retrieved from PubMed 23
Figure 4: Flowchart of the Inclusion and Exclusion Process for articles retrieved from CINAHL Ultimate 24
Figure 5: Flowchart of the Inclusion and Exclusion Process for articles retrieved from Dee et al. 2020 25
Figure 6: Example of thematization process 27
Figure 7: Example of a body map (OpenClipart 2021) 60
Figure 8: Example of location of the tender points. (Tender points fibromyalgia 2012, CCO) 63
Figure 9: Wong-Baker FACES ® (Wong-Baker Faces Foundation 2020) 69

1 INTRODUCTION

The persistent pain of the torture victims is one of the biggest and under-studied issues that negatively affect every part of their lives, causing constant struggle and difficulties in multiple aspects of living. (Amris et al. 2019, 2.) The purpose of torture is to cause severe and possibly life-threatening physical and mental pain or threat to the victim. Additionally, state officials often commit it to prevent accountability and justice. Usually, the perpetrators get no punishment because they can avoid proper juridical or health services for the victims. These facts make torture a heinous crime that profoundly affects the victim, and it also destroys families and communities. Torture affects victims' dignity, mental and physical health, possibilities towards the future, and feelings of safety, trust, and self-control. (UN Convention against Torture 1984)

Many of the torture victims do not survive the torture, but those who do suffer from enduring consequences from social, physical, and psychological aspects. Board et al. (2020) describe that in addition to restricted physical function and disability, over 80% of the victims suffer from persistent pain after torture. Victims often report pain in general or widespread musculoskeletal pain, headache, pelvic pain, and foot pain about the torture method. (De C Williams & Baird 2016, 319-320)

From the psychological point of view, victims’ symptoms often include depression, anxiety, and post-traumatic stress disorder (PTSD). These physical and psychological difficulties are making forced migration and displacement even harder. Furthermore, victims of torture, among other refugees and asylum-seekers, can experience discrimination, fear related to deportation or persecution, isolation, language difficulties and barriers, culture shock, and uncertainty of basic needs such as employment or housing. (Board et al. 2020) In many cases, the torture victims migrate without their loved ones, increasing anxiety and fear.

The thesis aims to provide the reader with a better understanding of persistent pain in torture victims, the biopsychosocial model of pain, and PTSD. In addition, the thesis discusses the importance of focusing on the overall quality of life, improving the feeling of safety and the process of adapting to the new environment, and having support as factors highly recognized as being related to persistent pain. The effects of torture on the global health point of view will be presented in the theory part of the thesis. The thesis also describes the Istanbul Protocol, as collaboration was conducted with an employer working on the Istanbul Protocol project in Finland.

2 TORTURE – THE HEINOUS CRIME AGAINST HUMANITY

A legal and internationally agreed definition of torture according to The Convention Against Torture, article one states that "*any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in, or incidental to lawful sanctions"*. (UN Convention against Torture 1984)

The purpose of torture is to cause physical and physiological damage to its victims. It is known that marginalized people are often victims of ill-treatment. Torture is known to be related to political interests, sexual orientation, and religion, to mention only some of the reasons. In some cases, torture is being used as part of war tactics, so it is enough to be in the wrong place at the wrong time. (APT 2025)

Even though more than 170 countries have prohibited torture and forms of ill-treatment by ratifying the International Covenant on Civil and Political Rights, almost all of those countries are parties to the United Nations Convention against Torture. (Amnesty International 2023) Still, torture is used globally, and most of the victims never get justice, and states have failed to offer services to torture victims. Nowadays, more and more refugees are fleeing from their countries. Milewski et al. (2023) describe that according to the UN Refugee Agency, in 2021, 32% of the 63 190 submissions for resettlement were survivors of violence and torture.

The target countries' health care, social services, and law services are encountering those people, and the knowledge of how to investigate or evaluate the possibility of torture is lacking for many reasons. Because of this, providing proper services, support, and rehabilitation for the victims is difficult. Additionally, torture victims might not be able to tell what has happened to them because of shame, fear, and lack of trust in services or because of language and cultural barriers. Moreover, they might not understand their symptoms and how the torture is affecting them. (Milewski et al. 2023, 1-2.)

2.1 Forms of Torture

Torture is sometimes categorized as physical or psychological, but the methods often involve components that harm both aspects. This is because the mind and body are inseparable. For example, putting the body through extreme conditions will inevitably affect and cause serious harm to the mind. (El-Khoury et al. 2020, 500-506) Moreover, after the physical wounds have healed, the most sustained effects often impact the mind and behavior and cause physical symptoms.

Physical forms of torture are most often described in studies and most often acknowledged because they sometimes, but not always, leave visible signs. Forms of physical torture found in literature can be, for example, suspension, blunt force trauma, beating, forcing or restricting movements and binding, burning and using electricity, penetration, suffocation and asphyxiation, starvation and dehydration, and foot whipping or falanga. (Milewski et al. 2023, 6)

Psychological torture is a set of methods or practices that are used to result in pain or suffering without causing direct physical violence to the victim. It can be practices that aim to break down the personality and senses or cause threats or fears. The severity of the practices and how they impact victims are related to victims’ gender, health, age, religious beliefs, and any other vulnerability. In studies, practices such as death threats, solitary confinement, forcing the victim to witness other people’s torture, and many kinds of deprivation techniques such as sleep or sensory stimulus, sexual humiliation, or using known phobias are described as forms of psychological torture. (El-Khoury et al. 2020)

It is also essential to acknowledge and take into consideration when trying to define the methods of torture and if the victim is suffering symptoms of torture that often the situation of, for example, incarceration can itself have elements of torture such as extreme overcrowding, temperatures, sensory deprivation, lack or over usage of lighting and prohibiting the victims from basic hygiene or sleep facilities for long periods can cause severe harm to mind and body. Often, the uncertainty of one's own and loved ones' safety, as well as the uncertainty of fate, causes psychological damage. These conditions usually lead to exploitation if the victims' vulnerabilities are known. (El-Khoury et al. 2020)

2.2 Istanbul Protocol

The Istanbul Protocol is defined as a “manual on the effective investigation and documentation of torture and other cruel, inhuman, or degrading treatment or punishment. The Istanbul Protocol sets out international standards on how effective legal and medico-legal investigations into allegations of torture or ill-treatment should be conducted.” (OHCHR 2022) The first edition was published in 2001 by the Office of the United Nations High Commissioner for Human Rights.

The Istanbul Protocol (IP) is called a manual of minimum standards for ensuring effective investigation and documentation of ill-treatment and torture. The Istanbul Protocol contains a series of Istanbul principles, promoted in the resolutions of the General Assembly and the former Commission on Human Rights in 2002. Countries were called to use them to fight against ill-treatment and torture and to make sure victims have the possibility to have quality and equal laws and health care services. The IP should be routinely used as a guideline and count as a point of reference when measuring the effectiveness of the investigation of cruel, inhumane, and degrading treatment and torture or punishment. (OHCHR 2022)

More than 170 countries have prohibited torture, and states claim that they are promoting and acting according to international human rights and humanitarian law. Unfortunately, torture and ill-treatment are practiced constantly. Additionally, often, the persecutors can get away without punishment, and the social or health care professionals do not recognize the symptoms of inhuman treatment and torture. The IP states that with effective investigation and documentation, it is possible to collect evidence of torture so that perpetrators can face justice. The victim's symptoms would be recognized, and proper treatment and support would be offered. The IP provides information on torture and guidance for appropriate assessment from a medico-legal and documentation point of view. Regardless of being a manual, it provides minimum standards for states and professionals about facts that should be taken into consideration in the particular context of investigating possible torture. IP has been used for more than 20 years in a broad range of anti-torture activities, including advocacy, training and capacity-building, policy reform, prevention, and treatment and rehabilitation of torture survivors. (OHCHR 2022)

2.3 Adverse Health Effects due to Torture and Pain

Currently, it is known that pain and pain-related diseases are the leading cause of disability, causing disease burden globally. (Mills et al. 2019, e273) In addition, it is known that the risk factors for developing pain conditions also affect other diseases, both mental and physical, adding co-morbidities and increasing not only the suffering of the individual but also the economic burden to the states. They increase morbidity and mortality. Increased absences from work related to pain and mental health issues globally or the increased risk of youth with these conditions ever being able to attain the working life, the global burden of disease keeps getting higher. To provide an example, the United States spends more than 100 billion dollars annually on healthcare expenses associated with pain management and opioid use disorders. The costs are higher than cancer, diabetes, and heart diseases put together. (Dydyk & Conermann 2024, 2)

When traumatic experiences such as torture are the reason for pain or pain-related diseases and mental health issues, more aspects come into consideration. At the moment, we know that pre- and post-immigration stress and integrating into a new society might be risk factors for mental health problems, substance abuse, and organized crime, so it is not only the individual, family, or community suffering we need to consider. Providing quality treatment and assessment, as well as improving possibilities for migration and increasing the sense of safety, is important from a global health perspective. (Alegría et al. 2017)

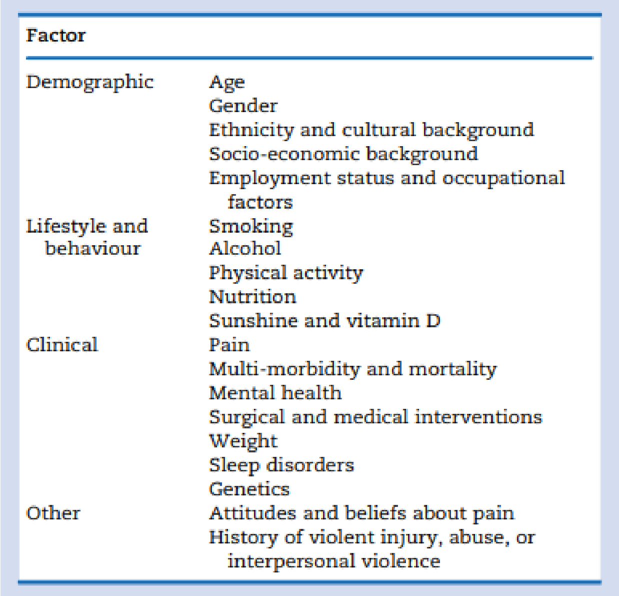
3 CHRONIC PAIN IN TORTURE VICTIMS

Pain, especially chronic or persistent pain, has been one of the top interests in rehabilitation and medicine for the past decade. In medical history, chronic pain has been treated as a mechanical stimulus in and from the body, and very little attention has been given to psychological, social, environmental, or cognitive factors. This idea about separating the mind (psyche) from the body (soma) is called dualism and has been how medical sciences have worked for ages. The idea comes from Descartes, a philosopher who lived in the 1600s (Internet Encyclopedia of Philosophy n.d.). Nowadays, it is known that mind and body cannot be separated; they work together as an inseparable unit.

Acute pain is an unpleasant response to tissue trauma or/and related inflammatory processes and has a purpose in healing. Acute pain also plays a role in survival, protecting the person. After the acute period has passed, it is stated that there is no role for pain, and it becomes a harm and disease itself (Cohen et al. 2021, 2083). The International Classification of Diseases, 11th edition (World Health Organization, 2019), states that the acute phase is less than three months, but there is no clear threshold. Usually, pain is chronic or persistent if the pain occurs after the average healing period related to that specific reason has passed.

Comparing acute and chronic pain, the latter contains little evolutionary purpose. Pain affects functioning, cognition, and emotions when it becomes a disease and problem. Chronic pain has been associated with alterations in the central and peripheral nervous systems. Patients with chronic pain often make coping strategies that limit their lives in several ways when they are desperately trying to control the pain symptoms at the cost of loss in quality of life. (Cohen et al. 2021, 2083-2084.)

The predisposing factors and consequences of chronic pain are well known. Multiple factors are associated with physical, social, and psychological aspects. In the review by Mills et al. (2019), a table of factors is presented:



Factor	
Demographic	Age
	Gender
	Ethnicity and cultural background
	Socio-economic background
	Employment status and occupational factors
Lifestyle and behaviour	Smoking
	Alcohol
	Physical activity
	Nutrition
	Sunshine and vitamin D
Clinical	Pain
	Multi-morbidity and mortality
	Mental health
	Surgical and medical interventions
	Weight
	Sleep disorders
	Genetics
Other	Attitudes and beliefs about pain
	History of violent injury, abuse, or interpersonal violence

Figure 1: Factors related to the development of chronic pain (Mills et al. 2019)

It is essential to know that promoting resiliency, such as emotional support systems and good health, can promote healing and reduce the risk of chronic pain. It has been studied that, like other diseases, promoting quality of life and adequate pain management may reduce the neuroplastic changes associated with chronic pain. (Seminowicz 2011)

The prevalence rates of chronic pain vary from 11% to 40%, and it has become a global health problem, causing suffering for the person and an economic burden. Not surprisingly, the disability rates related to chronic pain are higher in low-income countries. (Cohen et al. 2021, 2082-2083)

To develop treatment, prevention, and rehabilitation plans, chronic pain and pain-related conditions need to be understood better in the broader context of social, biological, physical, and psychological points of view. The topic is related to epidemiology, risk factors, and demographics and affects many of the population. (Mills et al. 2019)

3.1 Biopsychosocial Model of Pain

The biopsychosocial model of pain explains present physical symptoms by integrating biological, psychological, and social factors and can be applied to all types of pain, including both acute and chronic. Additionally, this model contains the knowledge that the symptoms have bidirectional movements. For example, pain can cause mental health or sleeping issues, but also, sleeping issues or mental health problems are risk factors for persistent pain or can increase existing pain. (Cohen et al. 2021, 2082). The biopsychosocial model of pain can be traced all the way back to the 80s, and despite the idea of a holistic understanding of stressors affecting pain that has been around for the past 40 years, it is debatable how the model is applied in clinical settings and assessment of patients (Nicholas 2022).

The model integrates nociception, emotions, behavior, attitudes, culture, and social aspects together. Understanding the model of pain and the factors affecting the pain is not enough. It is essential to understand the flipside and how promoting elements such as resilience, good health, and changing behavior can promote healing and possibly even reduce the disability and suffering related to pain. (Cohen et al. 2021)

3.2 Chronic Pain and Torture

Widespread and chronic pain is one of the most defining features of torture victims. Studies show that 83% of torture survivors suffer from PTSD. Even though the data focus on selected populations in, for example, rehabilitation centers, the high prevalence can be found in literature and clinical work. Unfortunately, the pain is often dismissed, and professionals tend to focus on other physical health, mental health, or social and welfare issues. The features and characteristics related to how a person experiences pain are not understood. This can lead to issues with assessment, treatment, or rehabilitation. (Amris et al. 2019, 1-2)

Torture victims often describe pain in body parts such as the head, feet, joints, spine, and pelvic area. Usually, the pain is widespread and appears in more than one body part. Additionally, victims have reported pain symptoms in the intestinal or urogenital systems or pain in the cardio-respiratory system. Symptoms may be related to the chosen torture method, but not always. Pain symptoms overlap with clinical symptoms of psychological distress and sometimes are dismissed because of this. (Amris et al. 2019, 2)

It is known that with pain, co-morbidities often appear, such as post-traumatic stress disorder, anxiety, and depression. In addition to pain itself, torture victims frequently have altered pain perception, such as increased sensitivity to stimuli or allodynia. (Tsur et al. 2020) The Istanbul protocol describes the importance of remembering the correlation of symptoms when there are no visible signs of torture. Some torture methods do not leave signs but can cause severe tissue damage that can be found only with thorough investigation in health care. (OHCHR 2022)

One of the reasons why persistent pain and other suffering that the victim is going through might be dismissed are cultural or social factors and what meanings physical or physiological symptoms have. Issues may be related to cultural, religious, value, and language barriers. For these reasons, professionals need to keep in mind that torture does not have the same impact on all victims and that victims of ill-treatment cannot always describe the events. It is essential to be aware of the cultural implications and background when making notions or diagnoses of health from the Western point of view. For example, it is argued that some mental health diagnoses, e.g., PTSD, fail to assess culture-related contextual factors closely related to what suffering means for an individual from a non-Western background. (Amris et al. 2019, 2)

4 POST-TRAUMATIC STRESS DISORDER

Post-traumatic stress disorder (PTSD) is a health condition that develops after traumatic experiences. The experience can be self-related, but also witnessing or being afraid of something significant such as a natural disaster, sexual or violent assault, serious accident, terrorist act, and so on can be cause for developing PTSD. Post-traumatic stress disorder affects all aspects of human health and life. The triggering memories from the past are expected to affect the present moment. Without support and care, it is hard to understand the symptoms and how they decrease the feeling of safety and being in control of the victim's own life. Sometimes, PTSD causes avoidance behavior, but it is also expected that, especially at the beginning of the symptoms, the person might not even recognize the triggering things. People with PTSD are at risk of adverse behavior of substance abuse, and PTSD often co-exists with mental and physical conditions such as chronic pain, depression, and anxiety. The prevalence of PTSD globally in the general population, according to the World Health Organisation (WHO), is about 3,9%, and people who are known to experience traumatic events are higher at 5,6%. (World Health Organization 2024)

Symptoms vary, and they can be defined as positive and negative. Negative symptoms mean something is lacking, for example, emotion, memories, self-esteem, feeling in contact with one's body (dissociation), and experiencing a loss of interest in things or people. Often, people describe a lack of sensations in the body and nervous system. Positive symptoms mean that there is something additional and abnormal related to PTSD. The person, for example, can have flashbacks or distressing thoughts, trouble controlling emotions and behavior, aggressive or desperate outbursts, self-destruction or even suicide attempts, increased bodily sensations such as pain, heart rate, blood pressure, and increased muscle tension and activation of the nervous system. (World Health Organization 2024). Additionally, PTSD can lead to reckless or risky behavior (Contractor et al. 2017, 1). In the 11th revision of the International Statistical Classification of Diseases and Related Health Problems, known as the ICD-11, the focus is on a cluster of symptoms: re-experiencing the traumatic event, avoidance behavior, and a persistent feeling of threat. (Bovin et al. 2021, 1-2)

There are no straightforward answers to what causes PTSD. It is known that psychological resilience protects us from it, but it is essential to understand that everyone can get it. Individuals react differently to severe and unexpected events where the person loses control. Furthermore, contextual factors such as postmigration processes and psychopathology plays a role. (Lechner-Meichsner et al. 2024)

4.1 Complex Post-Traumatic Stress Disorder

Complex post-traumatic stress disorder (CPTDS) is a relatively new official diagnosis for symptoms related to traumatic events. ICD-11 describes (Bovin et al. 2021) that people with CPTSD have more significant functional impairment in everyday life than those with PTSD. Additionally, it states that these individuals have often experienced multiple traumatic events. The length of the symptoms can also lead to the definition of CPTSD. Childhood abuse, especially repeated, prolonged violence and torture or slavery, are events in one´s life that, in most cases, lead to CPTSD. (Lechner-Meichsner et al. 2024, 2)

The process of adding CPTSD to medical diagnoses has already been going on for several decades, but it has been challenging to differentiate the symptoms. However, after long work, the WHO was able to do this, and CPTSD was added to psychiatric diagnoses in 2018 when the new ICD-11 was published. The diagnostic symptom clusters of PTSD were narrowed to re-experiencing in the present, avoidance of traumatic reminders, and a sense of current threat. Those three are also part of CPTSD, but three additional symptom groups were added: emotion regulation difficulties, relationship difficulties, and negative self-concept. They are all related to disturbances in self-organization. (Maercker 2021)

4.1.1 Post-Traumatic Stress Disorder and Torture

In the Lechner-Meichsner et al. systematic review (2024), it was stated that even up to almost 80% of treatment-seeking refugees suffered symptoms of PTSD and up to 57% of CPTSD. Compared to the general population, these numbers are many times higher. Not surprisingly, factors such as trauma exposure and sociodemographic variables have a role in torture victims developing PTSD or CPTSD. Additionally and importantly, findings from studies showed that difficulties with postmigration significantly impact the development of the disorder and the severity of symptoms.

PTSD sometimes occurs with depression or psychotic depression and hallucinations. (Rathke et al. 2020, 4-5). As one can imagine, the more co-morbidities the victim has, the more difficulties with everyday life and with migration, and the more difficult it will become to survive the impacts of torture entirely. That will not only cause suffering for the individual but also increase costs and make it more challenging to find ways to help the victim find safety, create a home, and live in a new state.

5 SYMPTOM ASSESSMENT

The assessment aims to collect important information about symptoms to guide the proper intervention and monitor the response. McColl (2004, iv49) describes a few main qualities that need to be considered when deciding the tools and methods for assessment. Assessment must be valid, reliable, unbiased, responsive to change, and distinctive. Additionally, it is essential to consider who makes the assessment, for what purpose, and under what method and timing. Furthermore, if the person suffers from complex and multiple symptoms, this will impact the assessment methods and must be taken into account. (McColl 2004, iv49)

Attention to assessment methods and tools can impact the quality and reliability of the response. The timeframe of symptoms needs to be clearly defined; if the timescale is too long, it might impact how the respondent can clearly remember the symptoms, and if it is too short, it might not give an accurate impression of the situation and reveal possible day-to-day variation (McColl 2004, iv50). In addition to the timescale of the symptoms, the frequency and duration of the assessment need to be considered as a balance between sufficient and regular symptom assessment versus how much straining the evaluation is. McColl refers to this as the balance between what is feasible and what is desirable.

McColl (2004, iv50-52) also pointed out that there is no single optimal strategy when respondents have multiple symptoms. It depends on the context of how many and for what purpose the assessment is done. Due to the subjectivity of symptoms, self-reporting is better than clinicians' assessment in ruling out assumptions. Furthermore, when an assessment tool is designed for diagnostic purposes, it might not be helpful when considering the effectiveness of treatment or evaluating the interference in a person's life. The key aims of evaluation still need to be considered regardless of whether multiple or only one symptom is assessed. When making an assessment, it is essential to understand that validity and reliability are not universal, and an assessment should be made from the respondent's perspective. If, for example, the assessment tool or questionnaire is adapted for use in the USA and the language is English, it will not be advised to use it for a refugee from a different culture and language. (McColl 2004, iv51)

There is an increased focus on cost-effectiveness and productivity in health care. Many countries are facing a change in the population pyramid and need to undergo healthcare reforms. Rossen et al. (2015, 248-250) point out that many countries, especially Western ones, have implemented standardized assessment and treatment packages or tools. The purpose is to make cost-effective assessments, use resources more productively, and coordinate treatment more efficiently. Standardization has some risk factors when thinking about patients suffering complex and persistent symptoms, coming from different cultures, and would require thorough assessment and possibly need multiple types of support. Additionally, the immigration phase can exclude some services and delay the intervention for many years.

Sekhon et al. (2017) state that acceptability also plays a role in intervention and assessment from a patient's perspective. Healthcare interventions can be complex and bureaucratic, with numerous components, and sometimes it is challenging for the person to understand why a particular action is taken. If the patient accepts the assessment or the evaluation, it can impact how the treatment recommendation is followed and the clinical outcome. Furthermore, market-oriented healthcare systems and occupational health services may have different resources and interests when treating or assessing patients' symptoms. Multifaceted services have changed from the idea of the passive patient to a more active client or consumer perspective. (Rademakers et al. 2011) This has its pros and cons. Despite the key aims of the assessment, some care providers might have more freedom regarding how thorough an assessment is made and how expensive diagnostic examinations are, for example, used. This might impact the acceptability and the idea of quality if the consumer believes the symptoms have been thoroughly investigated. (Rademakers et al. 2011)

5.1 Symptom Assessment of Torture Victims

Culture and background can have a more powerful impact on the situation than is expected. Furthermore, culture not only influences the assessment situation but also how a person can describe the symptoms and if there are, for example, inhuman or degrading actions behind them. Especially mental health symptoms can have vast differences in how they are acceded to or understood by refugees or survivors of torture victims' country of origin than in Western countries where these people often immigrate or seek asylum. (Raghavan 2018, 586)

Raghavan (2018, 586) describes how misunderstandings of cross-cultural differences sometimes impact prognosis and even diagnosis, especially in mental health problems. Universal applications of diagnostic criteria such as International Classification of Diseases (ICD) or assessment tools and a lack of studies from non-Western populations can have a biased impact on the assessment situation. Moreover, clinicians often do not have enough knowledge of the assessment of people from different cultures or the guidelines for assessing torture survivors. Additionally, standardized protocols or insufficient time to spend on the assessment situation can impact the results.

Distress and symptoms of trauma in populations from varying cultures need to be assessed with sensitivity and an understanding of language barriers, beliefs, and attitudes. Even if interpreters are used, studies have shown that there are still linguistic issues if the interpreter does not have enough competence in specific situations, such as an assessment of symptoms. Additionally, this can lead to wrong diagnosis and treatment, difficulties in committing to care, and lower acceptability. The interpreter's role is to provide straightforward translation, build understanding between different cultures, their traditions or customs, and beliefs, and build trust. (Raghavan 2018, 587-588)

Raghavan (2018, 589-590) presents five-point criteria for evaluating the (mental health) symptoms of a person whose culture is different. There should be content equivalence, semantic equivalence, technical equivalence, criterion equivalence, and conceptual equivalence. Content equivalence means that each item needs to be relevant from the perspective of the culture. Technical equivalence refers to the method of gathering the data or information. The methods must be considered if it is familiar or understandable to the respondent. Conceptual equivalence means construct validity. This means that despite the fact that the same aspect of the assessment or evaluation might differ, the base still needs to be constructed and measured the same way regardless of culture. Cross-cultural equivalence and semantic validity refer to the proper use of culturally normative data and the proper validation and translation of existing tools.

With a better understanding and practices in the assessment of culturally different populations, a more wholesome and clear idea of the torture survivors' symptoms and situation can be gathered. This can lead to better treatment outcomes by facilitating sufficient support (Raghavan 2018, 593)

5.2 Evaluation of Pain

Pain is an individual experience with many variables affecting it. The best standard for measuring pain seems to be self-reporting. Most commonly, sensory intensity is assessed using a numeric scale, visual scale, or, for example, simple face drawing, depending on the person whose pain is being evaluated. Additionally, the timeframe, particular sensations, or features related to the pain are often asked. This is so that the professional can know what type of pain the person may describe. As is known, especially with chronic pain, the regular patterns or features of specific pain mechanisms do not apply. The more precise the reason for pain and the shorter the timeframe, the better the person can describe it. (Fillingrim et al. 2016, 1-2)

Fillingrim et al. (2016) state that when assessing pain, four essential factors must be asked: pain intensity, perceptual qualities, location of pain, and temporal features. In addition, while doing pain assessment either by self-report or using other methods such as imaging, laboratory, skin biopsy, etc., to support the possible diagnosis, it is vital to find out psychological, social, and physical aspects such as how the pain impacts everyday life. With proper and thorough pain assessment, the right treatment can be planned.

What is often lacking from the pain assessment is asking the person about the co-morbidities, what kind of impact it has on people's everyday living, and what factors are currently easing the pain. Sometimes, the pathophysiology of pain is the leading aspect, and other factors are dismissed. This can lead to a situation where the treatment focuses only on decreasing the assumed pain stimulus, and the different factors increasing or maintaining the pain are forgotten. (Mills et al. 2019)

5.3 Importance of Functioning

Despite functioning sometimes being more thought to be related to a person's physical abilities, it refers to a more wholesome perspective. Functioning is related to people’s psychological, social, and physical capacities needed to cope with everyday life and live a meaningful life. This means that function needs to be considered in terms of work or school, hobbies and leisure time, and the ability to take care of oneself and close oneself. Additionally, environmental factors and the ability to move around must be considered. It can also be said that functioning can be thought of as a balance between an individual's goals in everyday life, factors related to the environment where the person is operating, and the capacity to cope and act. (THL 2023)

Since functioning is related to many aspects of an individual's life, it can be negatively or positively impacted. Functioning can be supported by many physical, social, environmental, economic, and psychological factors. The responsibility should be divided among the individual, society, and others. (THL 2023)

In addition to using classifications separately, many assessment tools are focused on evaluating the symptoms of one disease or diagnosis, like anxiety or depression, or they measure only one dimension of functioning, such as physical functioning. Assessment of functioning should also incorporate the biopsychosocial model and evaluate the impact of different factors on a person's ability to function and participate comprehensively in their own life and environment. With adequate abilities to function, the individual can live meaningful lives and be part of society, which is also related to better productivity. (THL 2023) Supporting functioning also means less burden to society and individuals.

5.3.1 International Classification of Functioning

The World Health Organization (WHO) presented the International Classification of Functioning, Disability, and Health (ICF) in 2001 at the World Health Assembly. To summarize, it is a classification of health and health-related factors or domains. (ICF n.d.) The ICF contains important components to consider when considering health or disability. Those are body functions, which include physio-and psychological functions, body parts, and activities, which are tasks and activities performed by the individual and participation and involvement in day-to-day situations. (Kostanjsek et al. 2010, 1475-1476)

WHO describes that since an individual's health, disability, and functioning are always dependent on context, the ICF also incorporates the environment into the classification. ICF is a classification and a concrete framework for assessing health and disability. The framework can be used for individuals and populations (ICF n.d.).

WHO also has two other classification frameworks for assessing health: the International Classification of Diseases (ICD) and the International Classification of Health Interventions (ICHI). The ICHI reports or analyses different health interventions that can be used in multiple fields of health care or study (ICHI 2024). The ICD describes the symptoms or conditions from a biomedical point of view and is often used as a criterion for diagnosis. Unfortunately, these classifications are often used separately, and assessment tools lean more toward either. With a better understanding and joint use of ICF and ICD, there could be positive synergy when assessing a person's health and function and developing more thorough interventions. Additionally, changing thinking from disease or diagnosis to impacts and interference in a person's life would be significant. (Kostanjsek et al. 2010, 1475-1476)

5.4 Quality of Life and Health-Related Quality of Life

Quality of life (QoL) can have different meanings depending on the situation. This causes difficulties in scientific and assessment studies (Fallowfield 2023). Theofilou (2023) also states that it is too simple to think that quality of life is synonymous with well-being because both are difficult to determine and are impacted by individual features. For example, a person who cannot walk from birth can think very differently about its relation to QoL or well-being compared to someone who loses the ability to walk due to illness later in life.

It is known that QoL also incorporates the biopsychosocial model and needs to be considered from many aspects. The quality of life is often thought of from a health or illness perspective and is called Health-Related quality of life (HRQol). For example, illness can affect many levels of a person's functioning and many aspects of coping in day-to-day life. HRQoL is multidimensional, and the assessment of QoL should evaluate physical, functional, psychological, emotional, occupational, and social elements (Fallowfield 2023).

As in many other circumstances, when evaluating HRQoL, the assessment is unilateral and focuses on only one aspect. This may give a minimal picture of how illness impacts an individual's life, for example, if only physical aspects of illness are assessed. Additionally, Fallowfield (2023) describes that with multidimensional assessment, it can be estimated not only the current situation but also other levels. For example, what other services or treatments are needed to improve QoL, and is current treatment causing issues in different aspects of a person's life? For instance, sometimes medications have such complex adverse effects that they cause difficulties, for example, on the ability to think and work. Additionally, multidimensional assessment can improve the ability to focus on the right things and provide the most needed services, using healthcare and individual resources best. (Fallowfield 2023)

There is a difference between the objective and subjective ideas of Qol, especially HRQoL. Theofilou (2013) describes that it is essential to differentiate the clinician's and individual's perceptions. Moreover, the culture might impact the aspects of QoL that are more essential and approachable. This can be crucial for aiding the decision-making and participating the individual in the treatment process. It is additionally known that individuals with better QoL at the start of the treatment are more prone to better treatment outcomes. (Fallowfield 2023).

6 PURPOSE AND OBJECTIVES

The objective of the thesis is to increase the knowledge about the assessment qualities when working with torture victims who suffer from pain and to increase the understanding that measuring only the intensity of the pain is not reliable. Despite our knowledge about persistent pain and the fact that pain is often related not only to physical damage but also affects people's minds and other aspects of their lives, assessments are still frequently done with the idea of how much the pain has decreased or what kind of assessments are the best for diminishing the pain. Especially while working with people suffering from complex trauma that has affected every aspect of life, it is crucial to find out if this aspect is seen and used in study circumstances.

The purpose is to find out how the knowledge of pain is noticed in studies when trying to find out the best ways to help torture victims with pain from the wholesome aspect. Hopefully, the thesis will help implement more holistic and broader ways of evaluating the circumstances and capacity of torture victims, which can lead to more holistic rehabilitation. Moreover, essential elements of assessment and responses might occur when making this thesis and literature review.

The thesis objectives are to answer the following questions:

- Besides the Visual Analogue Scale (VAS) and Numeric Rating Scale (NRS), what other assessment tools or evaluation forms are used to measure the effectiveness of the rehabilitation/treatments with torture victims suffering persistent pain?

- Have the included studies measured or assessed the quality of life or functioning of the torture victims suffering from pain?

- Do the studies mention improving the overall quality of life as a goal of rehabilitation or intervention, or are they naming decreasing pain the primary target?

The thesis will be a descriptive literature review. Thematization will describe the patterns found from the studies, which could provide important information about aspects to notice during the assessment of torture victim who suffers from persistent pain and possibly which tools are best to use with this patient group.

7 IMPLEMENTATION OF THE LITERATURE REVIEW

According to King and He (2005, 667), a descriptive review aims to determine whether literature related to the limited and specified research topic reveals patterns or themes and to what extent these patterns are relevant to pre-existing theories, findings, propositions, or methodologies. An essential aspect of descriptive review is that it follows transparent processes, and each step is systematic. For example, the search phase, inclusion and exclusion, and screening can be followed and reassessed. The author, doing the descriptive review, self-determines the important inclusion and exclusion criteria, which can include, for example, publication year or language.

For the descriptive review, the author searches suitable literature and uses each study unit to form a complete database for identifying patterns or trends related to the study question. Additionally, the author might hope that the descriptive review provides a sufficient theoretical framework, points out possible problems, and inspires future research close to the topic. (Pare & Kitsiou 2017)

This thesis presents a descriptive literature review grounded in these theoretical frameworks. The process started with finding interesting fields and thinking about the topic. Then, the process truly began with writing the theoretical part and reviewing the literature for it. Even though the first topic did not make it to the final process, the work that was done did not go to waste but instead influenced the current topic related to assessing methods of torture victims suffering from co-morbid pain. Furthermore, this work investigates pain assessment in the holistic frame, so records that only focused on limited pain intensity assessment methods were excluded.

7.1 Inclusion and Exclusion

The inclusion and exclusion phase of the literature review defines what frames need to be considered to find suitable records or units from a wide range of available materials. The inclusion and exclusion criteria are the authors' predetermined rules to help decide which records are chosen for the work. For the descriptive literature review, the literature search must be firmly defined so that those records may be relevant to the topic and study questions. Additionally, it is essential to consider the search material's reliability and make the literature search from considered databases to suit that purpose. This not only helps the author but also increases the transparency and replicability. (Pare & Kitsiou 2017)

In this current thesis, which is a descriptive literature review, the study question already sets frames that the literature needs to relate to torture victims who suffer from pain and that the records are associated with the assessment of that patient group. Because of this, the other patient groups suffering from pain were excluded, and if the pain was not described among the symptoms. Only literature that was available in English was included in this thesis. The inclusion and exclusion criteria are presented in Figure 2.

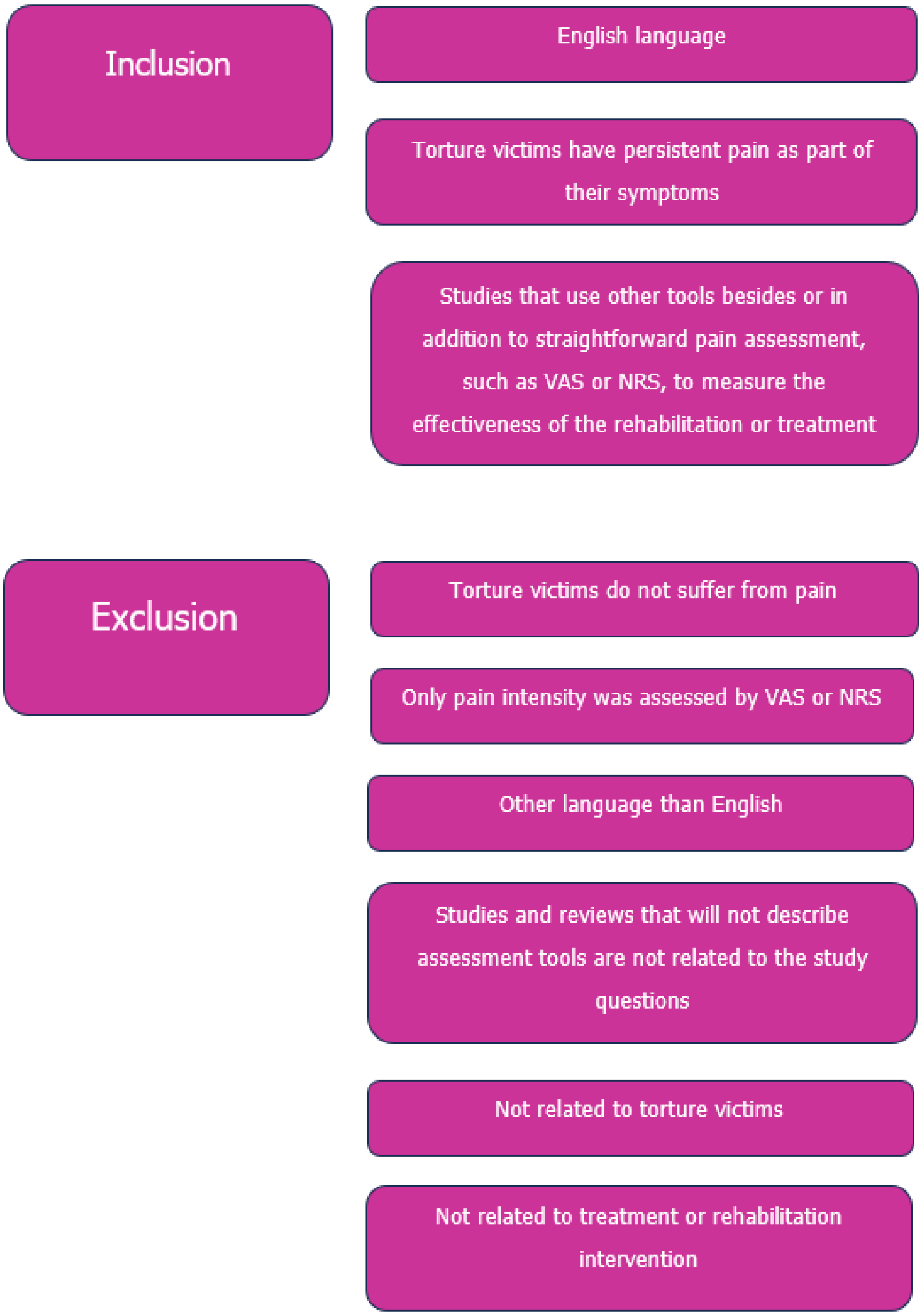


Figure 2: Inclusion and Exclusion Criteria

7.2 Implementation

The literature retrieval for this descriptive literature review was made from PubMed and CINAHL Ultimate. The keywords and phrases were designed with assistance and guidance from the Savonia Library staff to ensure that they were already confined to the topic and study questions. The purpose was to identify all records mentioning torture-related pain, assessment methods, and tools related to assessment. Because it was already known that there are a limited number of studies related to torture-related pain, the search was done using as broad keywords as possible, and the screening was mainly done by hand.

For the PubMed database, keywords (Torture OR Torturing) AND ("Chronic Pain"[tw] OR "persistent pain"[tw] OR "long term pain"[tw]) were used. The PubMed retrieval provided 77 results, from which five were excluded due to not being in English. Additionally, further investigation showed that 46 had irrelevant titles, or reading the abstract revealed that they did not suit the purposes. Twenty-six records went to further reading. Twenty-four records were excluded because they did not relate to the study questions or inclusion criteria. Many of those were excluded due to them describing another patient group than torture victims, the pain was not mentioned as a symptom, or they were not focused on the assessment of the torture victims. Some of the studies investigated the relationship between PTSD and pain. Additionally, several records were literature reviews presenting the current studies related to torture and pain but not providing any results about assessment tools or methods. Additionally, one record was excluded because it was a review providing duplicate references that already came from the literature retrieval. Furthermore, a decision was made to exclude a descriptive summary of the Torture Symposium because it did not provide enough precise details that could be incorporated into this literature review. After the whole process, seven studies were selected for the final work. The flowchart of the selection process is presented in Figure 3.

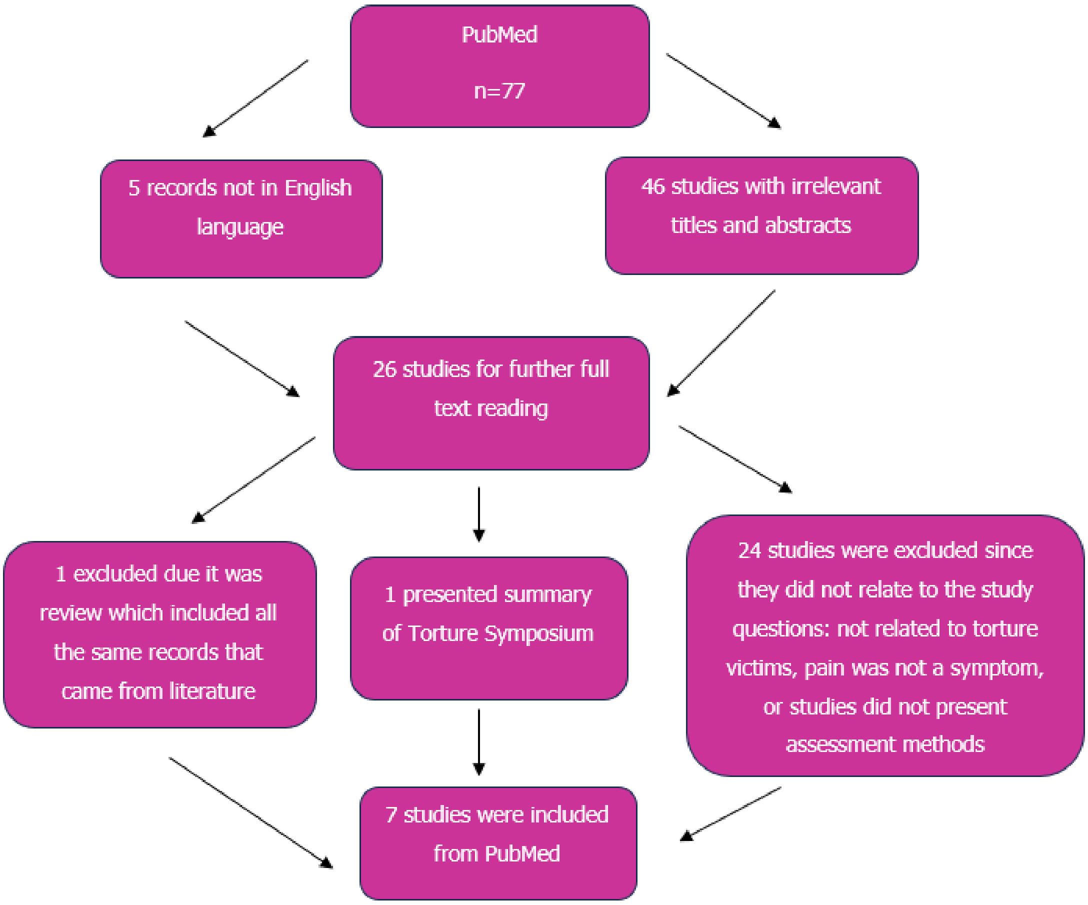


Figure 3: Flowchart of the Inclusion and Exclusion Process for articles retrieved from PubMed

Keyword for CINAHL was: (Torture OR torturing) AND ("Chronic pain" OR "persistent pain" OR "long term pain"). From CINAHL Ultimate, the total amount of records that followed those search words was 33. None of them were excluded based on language since they were in preferred language. Again, most of the retrieved literature was excluded due to irrelevant titles and abstracts. Additionally, one topic came up twice, and 4 records were excluded for not being relevant for purposes of not relating to torture victims or they summarized ongoing studies related to torture, to mention a couple of reasons. Eight records were selected for further reading. This phase revealed that among these, there were three duplicates with a PubMed search. Two more records were still excluded because the other did not have a fully published article, and the other did not relate to any intervention. After the full process, three studies were selected for the final work. The flowchart of the selection process is presented in Figure 4.

Figure 4: Flowchart of the Inclusion and Exclusion Process for articles retrieved from CINAHL Ultimate

Additional studies (n=4) were concluded because they were found in one of the reviewed articles from PubMed and answered the study questions. Moreover, finding more material for the thematization process felt important because the total amount from PubMed and CINAHL Ultimate was relatively narrow (n=10). The study, from which four additional records were collected, was a scoping review by Dee et al. (2020). The flowchart of that selection process is presented in Figure 5.

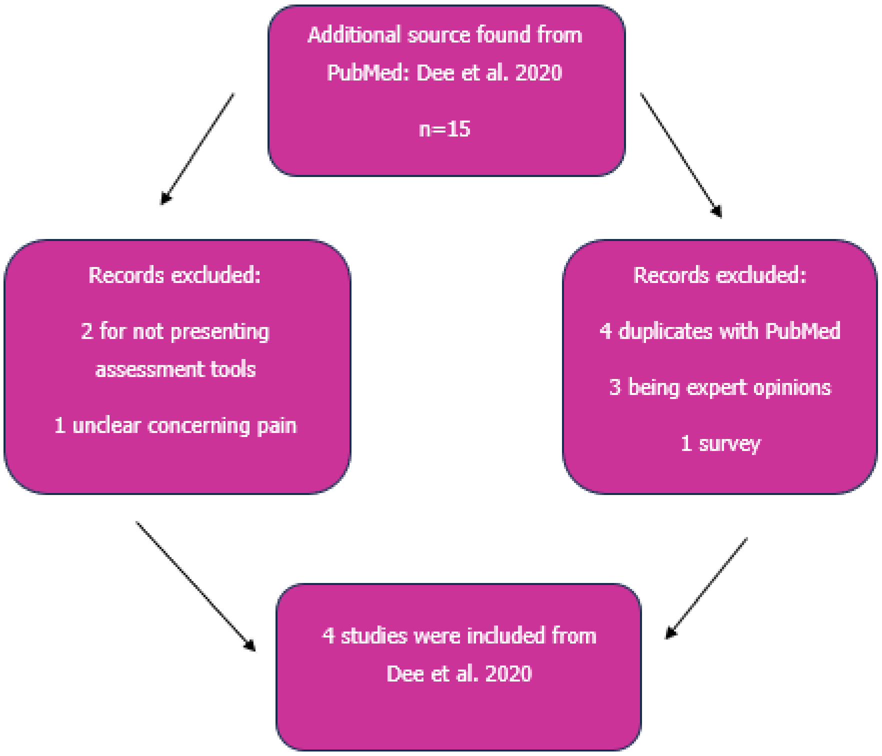


Figure 5: Flowchart of the Inclusion and Exclusion Process for articles retrieved from Dee et al. 2020

Conclusively, n=14 met the inclusion criteria, answered the study questions, and were selected for the final phase. Although one of the articles (Liedl et al. 2011) has been retrieved, it was included in this literature review. The decision was made since the data related to the study was not compromised, and the same article has also been used in other published reviews (Baird et al. 2017; Dee et al. 2020).

7.3 Content Analysis and Thematization

The purpose of thematic analysis (TA) is to provide a deeper and more thorough understanding of the chosen topic in the context of the qualitative data: the people's actions and experiences. TA allows the researcher to build a complex and holistic outlook from the data. This means finding codes from the insight that goes beyond numbers. Therefore, TA is a data analysis strategy that aims to identify, analyze, and report themes within data. TA is commonly used in qualitative research. (Castleberry & Nolen 2018, 807-808) In this case, TA was used in the descriptive literature review because it is a helpful strategy for addressing qualitative data and broad research questions, and with TA, it is possible to find the most important themes related to your study questions by compiling the information into more usable forms.

Thematic analysis has different phases: compiling, disassembling, reassembling, interpreting, and concluding. As mentioned, compiling means that, in some way, the data is collected and organized or transformed into a more usable form regarding the research question and chosen method. Disassembling means separating the data and finding relevant groups or themes. This requires finding the features, for example, from the sentences and phrases in the literature that are essential concerning the research topic and coding them. After coding comes the reassembling phase; it is an active phase where the researchers map which aspects relate to each other, the topic, and the research question. This way, the themes arise from the qualitative data. The themes can be further divided into sub-themes depending on the study question. (Castleberry & Nolen 2018, 808-810).

According to Yin (2015), the interpreting phase should be incorporated into the first three phases of TA. Interpretation means that the researcher starts to conclude from the data, then from the codes, and finally from the themes that have been built. Since the themes are abstract, the purpose of the interpretation is to provide results for the researcher and the reader. The reader should be able to understand somehow how the interpretations are made. Yin (2015) states that the reader should be able to see the process's beginning, middle, and end.

The final phase of the thematic analysis (TA) involves concluding the interpretations of data, codes, and themes concerning the researchers' study questions. Every research project should start with a study question, and the complete analysis aims to answer that question. The concluding phase describes whether and how the question was answered and whether the data analysis process modified the question somehow. (Castleberry & Nolen 2018, 812).

The TA was used in this thesis process. The compiling phase consisted of retrieving literature and finding factors related to the assessment of torture victims who suffer from chronic pain. Fourteen records were chosen for further analysis, and seven main themes emerged from those records in the disassembling and reassembling phases. All seven themes answered the question of what types of tools or methods are used in the assessment process of survivors of torture (SoT) who have comorbid persistent pain and what the purpose of using that assessment method is. Figure 6 presents examples of the thematization process: the beginning (the original expression), the middle (the reduced expression), and finally, the theme.

Original Expression	Reduced Expression	Theme
"In painful situations, they learned to respond with coping strategies (e.g. perceived self-competence or counter activities) instead of being overwhelmed by their pain".	Assessing factors beyond pain reduction and enhancing self-efficacy	Symptom Management and Coping Strategies
"All patients perceived clear activity limitations according to the DRI…The two groups with foot pain displayed sensory dysfunction and suffered more extensive activity limitations".	Assessing how the symptoms are affecting in everyday life and functioning	Symptom Interference and Daily Functioning
"The effectiveness of the treatment demonstrated in this study may also be attributed to the fact that aspects of treatment are adapted to be relevant to the culture and context of the population"	Assessing the person in his or her language. Being sensitive about the cultural background, torture, and understanding the life situation.	Understanding the Individuals Background and Trauma History
"Depending on the safety measures in place in the country to which survivors have fled, such as whether or not they have UN-protected status or aspects relating to their socioeconomic status and security of their housing, SoT have various degrees of feeling safe in their overall environments".	Understanding the role of financial and legal stability and social relationships in rehabilitation.	Social Participation and Integration
"The Norwegian Pain Association's Minimum Inventory for Pain Patients (NOSF-MISS) was used to assess factors such as pain intensity (BPI), physical functioning, health-related quality of life, sleep difficulties, and financial struggles."	Assessing and differentiating the symptoms	Diagnostic Properties and Symptom Characteristics
"In the balance test, the control group did not show difference between before and after the intervention, whereas the experimental group showed significant improvement in balance."	Using functional and physiological measures in the assessment	Physiological Measures and Functional Assessment
"Low physical function and an impact on quality of life were also reported."	Evaluating the broader impact of pain on life satisfaction and well-being	The Role of Quality of Life

Figure 6: Example of thematization process

8 THEMATIC ANALYSIS AND RESULTS

Seven themes emerged from the thematic analysis. These themes described the key purpose of the assessment of the torture survivor (SoT) who suffered chronic pain plus possibly other symptoms that were related to the study questions. These seven themes are: 1. Symptom Management and Coping Strategies, 2. Symptom Interference and Daily Functioning 3. Understanding the Individual's Background and Trauma History, 4. Social Participation and Integration, 5. Diagnostic Properties and Symptom Characteristics, 6. Physiological Measures and Functional Assessment, and 7. Role of Quality of Life in Assessment.

The purpose is to provide a more thorough answer to the study question of what types of tools and assessment methods are used and how these themes are reflected in the chosen literature. Appendix 1 presents the chosen literature in a table, providing detailed information about each study. Appendix 2 visually categorizes the concrete tools mentioned in the chosen literature. Furthermore, Appendix 3 describes most of the tools mentioned in the included literature and presented in Appendixes 1 and 2.

In addition to understanding what was assessed and what was typical in the process, this thematic analysis also describes whether the full assessment included the main themes and whether assessment tools and methods could be considered most suitable for this patient group. Furthermore, understanding the themes can help develop the assessment process of SoT. The themes are presented with quotations from retrieved literature that were analyzed, followed by the results.

8.1 Symptom Management and Coping Strategies

The first key theme that emerged in the literature was how survivors of torture (SoTs) manage their symptoms and whether they have sufficient coping skills. Symptom management extends beyond merely reducing pain. It was visible that symptom management connects with enhancing self-efficacy, provides resources, and fosters behavioral changes that improve resilience.

"Secondary outcome measures evaluated physical functioning, sleep quality, and general self-efficacy." (Gamle et al. 2020, 58)

"Participants' coping strategies, pain and mental health status, and physiological reactivity were assessed before and after the intervention and at a 3-month follow-up." (Liedl et al. 2011, 234)

"Additionally, many also concentrated their treatment on relieving symptoms and did not include concepts of empowerment, prevention, or self-reliance as part of their treatment." (Karrer et al. 2020, 47)

"At the end of the treatment, Joseph announced: 'I found myself in the project, as well as the way towards becoming independent, and I now know how to ease my own pain'."(Dibaj et al. 2017, 21)

Symptom management seemed important because the literature revealed a lack of skills in coping with the symptoms. In addition, the sole purpose of many interventions was to either provide treatment that helps with the symptoms or to provide tools, resources, and education for the SoT to manage their symptoms, especially the pain.

Several studies, using varying methods and tools, assessed self-efficacy and coping strategies as part of symptom management. Some examined overall self-efficacy, while others specifically evaluated patients' abilities to cope with symptoms. In many cases, the primary focus was on how these factors influenced the perceived severity of symptoms.

Wang et al. (2016) used the World Health Organisation Disability Assessment Schedule 2.0 (WHODAS 2.0) to assess the respondents' ability to function and manage symptoms. Liedl et al. (2011) focused on coping and pain management, emphasizing that SoTs often lacked the necessary skills and tended to avoid activity, leading to maladaptive musculoskeletal changes. They assessed functioning through the Global Assessment of Functioning and Clinical Global Impression Scale, while the German Pain Questionnaire (FESV) measured pain-related coping strategies. Similarly, Gueron et al. (2021) used the broader version of the Disability Rating Index (DRI), where Part D emphasizes coping and outlook.

Negron (2016) integrated interviews after each visit to assess how participants applied self-help techniques learned in sessions. This study also explored whether individuals could reduce their reliance on pain medication to promote symptom relief through self-management and manual therapy. Gamble (2020) similarly investigated self-efficacy and physical functioning using open-ended functional questions, the Patient-Specific Functional Scale (PSFS), and the General Self-Efficacy Scale (GSES). In these studies, home practice and its outcomes were frequently discussed.

The role of body awareness and empowerment in symptom management was highlighted by the Dee et al. (2024) review, which identified these factors as crucial components of coping and self-efficacy. Karrer et al. (2020) took a more structured approach, developing a pilot Danish pain school to educate physiotherapists in the country where torture had taken place. Their program aimed first to teach physiotherapists and then patients about pain-related dysfunctional behaviors, promoting improved self-care, day-to-day functioning, and resilience. One of their tools, BAS-E, included questions about functioning and coping. Karrer et al. also emphasized that many studies on SoTs still primarily focus on measuring symptom intensity rather than addressing self-efficacy and symptom management.

Symptom management and coping strategies were assessed at different points in the rehabilitation process: before, during, and after interventions. In some cases, these themes emerged organically through open feedback from torture survivors and professionals. In others, the necessity of assessing symptom management was noted in discussions or as a factor requiring further investigation in future research. Interestingly, in some studies, symptom management was a secondary outcome, with the primary goal being something else, as seen in Gamble et al. (2020).

8.2 Symptom Interference and Daily Functioning

The second central theme from the literature is symptom interference, which was visible in all included studies. Symptom interference refers to how symptoms impact a person's life and how much they affect overall functioning. In the literature, symptom interference often included aspects of symptom load that increased the level of interference or how much disability symptoms cause in daily life. This is particularly important for SoTs, who frequently experience multiple negative synergy symptoms. Additionally, the literature revealed the relationship between assessing symptom intensity or severity and symptom interference, focusing on how intense SoTs experience their symptoms, such as pain.

"Persons identify important activities they are unable or having difficulty performing as a result of their problem. Then they rate (on an 11-point scale) the current level of difficulty associated with each activity with '0' representing 'unable to perform' and '10' representing 'able to perform at prior level'." (Gamble et al. 2020, 67)

"We questioned patients about pain levels at each visit but always opted for their ease and comfort over the rigid collection of pain level scales. On follow-up visits, we often found that while patients would report that they were 'better' for several days after the treatment, their pain scale levels were still high." (Highfield et al. 2011, 437)

"Setting aside how pain is assessed, the present study adds to a small but growing body of literature suggesting that traumatized refugees with PTSD and comorbid pain are more symptomatic overall and function less well on a day-to-day basis (Rometsch-Ogioun el Sount et al. 2019)." (Nordin & Perrin 2019, 7)

"It is of interest to compare the symptom-load between different patient groups, including groups of chronic pain patients and psychiatric patients, so as to better understand similarities and differences, with improving treatment as the ultimate purpose." (Harlacher et al. 2016, 75-76)

One key aspect of symptom interference was its relationship with disability and sleep disturbances. The literature revealed that disability and functioning are often assessed synonymously. In some cases, disability assessments were linked to specific torture methods, such as falanga, as seen in Prip et al. (2020), where victims of falanga reported higher levels of disability in daily activities.

The literature showed the importance of assessing symptom intensity and severity, which also connects to diagnostic tools and pain assessment. The primary reason for assessing intensity and severity was to illustrate the complexity of SoTs' symptoms. However, the purpose of these assessments varied among studies. Some focused on identifying the most significant stressors contributing to symptom interference or burden. In contrast, others aimed to evaluate the relationship between physical symptoms and torture methods, mental health conditions, or co-morbidities. SoTs often experience multiple mental health issues, such as PTSD, depression, and anxiety, which leads to the use of multiple assessment tools.

Symptom load and co-morbidity were consistently present throughout the literature in the context of symptom interference. Multiple diagnostic tools and symptom assessments were necessary, or the studies examined the interaction between symptoms to determine the most impactful stressors. The literature emphasized the importance of assessing co-morbidity from a bio-psycho-social perspective, as symptoms affect physical and mental health and influence an individual's ability to function in social settings and work and adapt to a new environment, particularly for SoTs if they are immigrants. Furthermore, the research highlighted the relevance of symptom load and co-morbidity in understanding SoTs' experiences, developing effective treatments, and comparing results across different patient groups.

Dee et al. (2024) analyzed literature focusing on these aspects as part of a scoping review. They found that disability, sleep disturbances, symptom intensity and severity, and comorbidity were consistently assessed using multiple tools.

Wang et al. (2016) evaluated how intensely participants experienced pain over the past week using the Wong-Baker Faces scale. Additionally, they used the Margolis Pain Diagram to assess pain location and intensity, while the Short-Form McGill Pain Questionnaire (SF-MPQ) measured pain severity and related disability. Their intake criteria required both a pain and mental health diagnosis. This meant that there were co-morbidity and symptom load in each participant.

Liedl et al. (2011) designed interventions specifically for torture victims with PTSD and co-morbid pain. They noted that randomized controlled trials (RCTs) were not conducted for this patient group, even though PTSD and pain frequently co-occur in SoTs. Instead, pain and mental health symptoms were often studied separately. At intake, nearly 90% of participants had major depressive disorder or PTSD, and all suffered from pain. Pain intensity was measured using a Verbal Rating Scale (VRS) from 0-6. While the intervention did not significantly reduce pain intensity, it seemed to improve participants' ability to cope with symptoms.

Gamble (2020) used a symptom checklist, a body chart to evaluate pain distribution, and open-ended questions to assess the impact of symptoms on sleep. However, the study did not provide detailed results about this matter. Highfield (2011) employed the Wong-Baker Faces scale for pain intensity assessment. Despite mentioning co-morbidity and symptom load, those were not evaluated. Sleep and energy were also discussed in the treatment sessions during each visit.

Kim and Yu (2015) used mental health and pain questionnaires, acknowledging the high symptom load and co-morbidity among participants. Disability-related pain symptoms were measured using the Korean version of the Oswestry Disability Index (KODI), while pain intensity was assessed with a Visual Analogue Scale (VAS).

One of the primary purposes behind the Harlacher (2018) study was to investigate the symptom load, such as pain, in addition to co-morbid mental health problems in this patient group compared to other patient groups. The Disability Rating Index (DRI) was used to assess pain-related disability. Similarly, Prip et al. (2010) used DRI alongside a VAS (0-100) for pain intensity evaluation and a Margolis Pain Diagram for mapping painful sites. Gueron et al. (2021) additionally used DRI and the

Pelvic Distress Tool, which assesses the impact of pelvic floor symptoms on functioning and quality of life.

Negron (2016) asked about pain intensity using VAS at each visit, both before and after treatment. Participants were also asked to describe their experiences in words and indicate how long any improvements lasted.

Nordin and Perrin (2019) investigated the relationship between pre-treatment pain and mental health, especially PTSD. They used the Hopkins Symptoms Checklist (HSCL-25) to evaluate how much mental health symptoms have caused interference with everyday life. They also used the Margolis pain diagram to evaluate how many pain locations the participants have and the Brief Pain Inventory (BPI) to assess pain severity and interference. BPI additionally has questions about the usage of pain medication, questions about health-related quality of life, and evaluates financial struggles due to symptoms. WHODAS 2.0 was used to assess disability and functioning.

Karrer et al. (2020) used BPI to evaluate pain severity and interference but did not assess mental health co-morbidity in their study. Their symptom load assessment primarily focused on the number of pain locations. Dibaj et al. (2017) also used BPI, alongside a Numeric Rating Scale (NRS) for pain intensity and the Posttraumatic Diagnostic Scale (PDS) for PTSD symptoms.

Kashyap et al. (2019) utilized the Patient Health Questionnaire (PHQ-9) for depression severity and interference and the Harvard Trauma Questionnaire (HTQ) for PTSD symptoms. They also explored the relationship between pre- and post-migration stressors and their impact on pain and mental health. Results indicated that securing stable immigration status was associated with reduced PTSD and chronic pain symptoms.

8.3 Understanding Individual’s Background and Trauma History

The third central theme in the literature is understanding the individual’s background and trauma history, a critical aspect of the assessment process. Unlike other areas, there are no precise tools or standardized processes for gathering information about an individual’s background. In some cases, demographic data collection was a routine part of identifying the SoT as an individual. This theme included cultural and language considerations, demographics, health status, and trauma history. Additionally, the immigration phase was crucial in determining the services available to the SoT and whether the individual qualified for a study or intervention.

"Since to be treated at the RCT patients must be recognized as refugees by the state, or have another type of leave to remain…" (Harlacher et al. 2016, 76)

"The assessment used a set of self-reported standard questionnaire…for a structured interview, with a general checklist to collect data on demography, trauma and medication history and emotional problems." (Wang et al., 2016, 5)

"My son died in my arms, I cannot forget the image of my son dying…they arrived at our home, beat us and killed my son because we belong to a different ethnic group. My arms, my shoulders, my back are very painful and weak." (Negron 2017, 58)

"Another limitation is that pre-migration trauma exposure was measured as the number of reported traumatic events, with a maximum of five. Therefore, if individuals experienced more than five traumatic events, any events after the fifth was not recorded or analyzed. Further, each traumatic event measured 'equally traumatic', while studies suggest that some interpersonal trauma can have worse psychological sequelae." (Kashyap et al., 2019, 571)

Assessing individual factors appeared to have a hierarchy. If an individual factor was critical to medical symptoms or service accessibility, it was assessed. However, certain important aspects, such as sexual orientation, were often omitted. While demographics and immigration processes were routinely checked, cultural aspects were acknowledged in some cases but did not always impact how symptom assessments were conducted. This suggests that assessments were sometimes structured from a researcher rather than a patient-centered perspective.

The literature widely collected information about age, sex (binary), immigration or asylum status, and country of origin. These demographic factors were often extracted from electronic patient records, intake criteria, or interviews. The immigration or asylum process was highlighted as a post-migration stressor, capable of worsening physical and emotional health. Some studies also explored whether age or sex influenced intervention outcomes. Additionally, rarely did the studies call for more inclusive gender identity and sexual orientation assessments, recognizing that these factors can be significant stressors for SoTs.

The literature consistently assessed cultural background, language, and individual history to ensure symptom assessments and interventions were conducted culturally and language-sensitively. This included using validated questionnaires and interpreters to facilitate understanding. Some studies noted the importance of country of origin, particularly concerning torture methods, as certain techniques are more prevalent in specific regions.

Despite this recognition, resource limitations or study designs sometimes prevented adequate cultural or linguistic accommodations, potentially impacting the reliability of assessments. When cultural and language factors were accounted for, validated assessments were often used, and interpreters were included to ensure accuracy.

Beyond basic demographic data, assessments sometimes included torture or trauma history. However, assessments were often structurally designed rather than highly individualized because the included literature primarily consisted of studies. Some interventions incorporated individual adaptations despite the assessment process being the same for everyone if the participant agreed to each step.

Assessments often investigated the number of traumatic events an individual had endured, whether these events were personally experienced, witnessed, or affected close family members. In some cases, the assessments explored the relationship between specific torture methods and resulting symptoms, particularly pain symptoms or disability.

The literature highlighted that the number and type of traumatic events could impact symptom severity and complexity. Furthermore, studies acknowledged that SoTs often experience symptoms long before receiving help, which can increase the overall burden of illness. In response, some assessments incorporated timeframe evaluations to understand the progression of symptoms and suffering.

Assessing torture methods by country of origin was also helpful in identifying trends in torture-related physical and psychological conditions. This information helped practitioners determine the potential impact of specific forms of torture on health outcomes.

Individual information was often collected at the beginning of treatment or upon entry to treatment centers. Each study in the literature described some form of individual data collection or adjustments based on the participant group. When language and cultural aspects were known, appropriate validated assessment questionnaires and interpreters could be used.

Several studies demonstrated unique approaches to assessing individual characteristics. Wang et al. (2016) modified physiotherapy exercise duration based on the participant’s condition and ensured validated tools were used for the Kosovo population. Liedl et al. (2011) emphasized validated questionnaires and professional interpreters, incorporating back-translation for accuracy. Negron (2016) used interpreters if necessary and collected demographics from electronic patient records. Kim and Yu (2015) used Korean versions of the pain and trauma questionnaire to ensure cultural sensitivity.

Gamble et al. (2020) studied prisoners and required highly qualified professionals to ensure cultural and contextual appropriateness. The study design minimized stress by having psychotherapists collect background and psychiatric data while physiotherapists focused on medical and physical assessments. They translated and back-translated tools where possible but noted that full validation was not always achievable. Harlacher et al. (2018) and Nordin & Perrin (2019) used interpreters and translated questionnaires, prioritizing validated assessment tools.

Interestingly, only Dibaj et al. (2017) explicitly stated that participants were assessed according to the Istanbul Protocol (IP). Many other studies included participants from rehabilitation centers specializing in torture treatment, suggesting that IP assessments may have been conducted but were not explicitly mentioned.

8.4 Social Participation and Integration

The fourth theme that emerged from the literature was social participation and integration. It additionally included aspects of housing, employment, and participation in society. In the included literature, the aspects of this theme were, in some cases, related to the goals for different interventions.

"At the baseline, 21.4% of participants in both groups were in paid employment (5 out of 15 men and 1 out of 13 women), and their mean monthly income was around 115 Euro". (Wang et al., 2016, 7)

"We will explore the impact of the presence of stable housing, employment, perceived social support, and chronic pain on changes in symptom severity after 6-months of treatment; while controlling for pre-migration trauma exposure and change into more secure immigration status". (Kashyap et al. 2019, 566)

"…effects were observed for the WHODAS 2.0 subscale measuring participation in society". (Nordin & Perrin 2019, 6)

"In addition, all patients except for patient 5 reported financial struggles related to their health problems. Three patients had fewer financial struggles at the final follow-up". (Dibaj et al. 2017, 25)

All these aspects are also related to the feeling of having meaning and safety, which are both impacted by torture and pre- and post-migration stressors. Symptoms of pain and mental health can make it challenging to be able to work or participate in society, and with low income, it can be more challenging to find housing. Again, these factors have negative synergy. Literature pointed out that in some cases, it could be more meaningful from the point of an individual to focus on these three aspects instead of putting resources only to relieve symptoms. According to the literature, this could be one aspect when considering the burden of illness on society and the individual.

Interestingly, family and social connections were rarely mentioned in the literature, and in many cases, it was unclear whether participants had family members in the same country. Some studies pointed out the importance of community and peers. In some examples, the intervention happened in a group, but the assessment did not evaluate the meaning of the peer support. In most cases, whether the participants had family in the same country was unknown.

In most studies, symptom interference was described as being linked to participation, integration, and symptom coping. It was believed to be important to increase symptom management to improve holistic well-being and social participation, but it was seldom assessed. Most of the studies underlined the importance of the multidimensional aspect of the treatment to impact social aspects.

Dibaj et al. (2017) described using BPI in their study to evaluate the financial struggles related to pain. It also evaluates how pain symptoms interfere with their relationships or their capability to work. Additionally, in the interview, questions were asked about living conditions, social networks, and how long the SoT had been in Norway. In their case description, Dibaj et al. open the person's social participation, education, or employment situation and describe if they have family living together with them. In the case descriptions, they additionally discuss the situation at the end of the intervention.

Karrer et al. (2020, 44) pointed out in their study's theory that symptoms and stressors such as poverty might cause problems on many levels in SoT's life. Additionally, they describe that avoidance of others can have a negative impact. They also used BPI in their study.

Kashyap et al. (2019) investigated how pre- and post-migration stressors impact pain and mental health and influence social integration. It was concluded that having stable housing and employment had a positive impact on decreased pain experience and PTSD. They also noted that securing stable legal status was associated with reduced psychological distress, and only with secure status is integration possible. Additionally, they describe that assessing more social services and not having chronic pain was associated with reduced PTSD symptoms. Employment, housing, and social and service support data were collected during service encounters.

In the Prip et al. (2010) study, one of the inclusion criteria for the participants was having physical, mental, and social problems. The assessment process did not include tools or methods for evaluating social aspects such as participation. In the discussion, they described how long waiting times of asylum processes negatively influence many aspects of SoT's life.

In the Negron (2016) study, the intervention and assessment occurred in the Wellbeing and Self-Care Center (WSCS), which provides multidimensional and multiprofessional care for SoT's. This means that the problems related to social participation and integration were acknowledged, but the study design itself focused on physiotherapy treatment alleviating pain, and other aspects were not assessed.

Highfield et al. (2011) did not assess this theme but described how Somali women brought their friends and family to the acupuncture treatment session. They also argued if the clinic and possibly this type of treatment fulfilled the need for socialization and community and impacted the treatment results in that way. Harlacher et al. (2018) mention that 50% of their RTC participants were on family or group-based therapy interventions. Additionally, they described that the majority did not have good Danish skills, and it had been years since the torture because the participants needed to be acknowledged as refugees by the state.

Wang et al. (2016) recognized the importance of improving social participation and daily functioning. They assessed income and employment rates. The monthly wage rose 45-137% during the intervention, and the employment rate rose 15%.

Liedl et al. (2011) acknowledged and described the issues and risks that SoTs might have that impact social participation and integration. Their study focused on increasing coping with symptoms and believed it could have a positive impact on social aspects. They used the Clinical Global Impression Scale and Global Assessment of Functioning and described how these tools evaluate social factors as well.

Nordin and Perrin's (2019) theory explained the issues of integration and social participation well. Additionally, their intervention focused on addressing these matters, among other goals, and the multidimensional and multi-professional treatment was well-structured. They even described that in their intervention, there was the possibility of meeting a social counselor to become more active in their social network and society. They used WHODAS 2.0 in their assessment protocol, which evaluates social participation as one domain.

The Disalibity Rating Index (DRI) was used in the Gueron et al. (2020) study. The basic DRI has questions related to functioning, but in the Gueron et al. study, a wider version was used, and part C was described as containing questions about social participation.

8.5 Diagnostic Properties and Symptom Characteristics

The fifth theme from the literature was Diagnostic Properties and Symptom Characteristics. One key element in symptom assessment is determining the disease or type of nociception behind the symptom from a Western medical perspective. The purpose is to obtain a diagnosis and determine the best possible treatment methods, such as medication. One aspect of this assessment involved evaluating physical signs directly related to symptoms or as secondary effects. The included literature's diagnostic properties and symptom characteristics were primarily related to assessing mental health conditions and pain.

"Thus, the clinical picture is one of localized or diffuse pain in the muscles, joint pain, and neurological complaints, mainly in the form of disturbances of sensations and radiating pain, as well as irritable symptoms of the organs, the same picture seen in chronic muscle pain syndromes." (Kim & Yu 2015, 2763-2764)

"Pain severity and pain interference were assessed using the nine-item, short-form version of the Brief Pain Inventory (BPI) (Cleeland & Ryan, 1994). Item 1 asks whether the person has experienced any pain over the past week. They are then presented with a two-dimensional representation of the human body (front and rear projections) and asked to shade in areas. The next four items assess the worst, least, average, and current pain interference… Two items assess medication use and the degree of relief from pain when using the medication. Item 9 asks the respondent to rate interference from pain…" (Karrer et al. 2020, 49)

"Before treatment and at the follow-up assessments, we administered the Clinical-Administered PTSD Scale (CAPS) to diagnose and assess severity levels of PTSD, and the Hamilton Rating Scale for Depression (HRDS) to evaluate the severity of depression." (Dibaj et al. 2017, 16)

"We used the structured MINI to assess psychiatric disorders according to the fourth edition of the DSM-IV-TR… The MINI assesses all the symptoms listed in the symptom criteria for DSM-IV-TR and ICD-9-CM for major 15 Axis I diagnostic categories, one Axis II disorder, and for suicidal tendency. Its diagnostic algorithms are consistent with the DSM-IV-TR and ICD-9-CM." (Liedl et al. 2011, 236-237)

One key element related to assessing pain is understanding how to intervene with it, how the person can manage the symptoms, and understanding the cause and mechanism of the pain. Pain is related to experience, so assessing different features related to experience is crucial to finding out the treatment. In the literature, it was not always evident in some cases how the original pain assessment was made due to the study design. In many cases, the participant had already been diagnosed with a widespread chronic pain condition, and the assessment focused more on how the symptoms impacted SoT's life. Furthermore, assessing pain was reported as important to rule out other conditions not related to torture, like osteoarthritis or brain injury.

Pain assessment in the included literature primarily relied on pain questionnaires and visual tools to determine pain, such as the location and intensity of the symptoms. Some studies also incorporated questions about additional features, such as radiating pain, numbness, or swelling, which were evaluated through interviews or questionnaires. However, medical examinations were rarely included, as many studies focused more on understanding pain symptoms than conducting in-depth medical diagnostics. In some instances, assessments aimed to understand specific symptoms related to torture methods such as falanga. The assessment of pain characteristics is also discussed in detail in the following theme: Physical and Functional Evaluations.

The retrieved literature extensively assessed mental health symptoms. Interestingly, the focus was often on classification and diagnosis rather than the impact of symptoms on daily functioning. It was important for the assessment tools to align with the International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria. Additionally, many studies described whether the SoT still met the diagnostic criteria for specific conditions such as PTSD or depression in follow-up assessments.

The literature frequently uses assessment tools to evaluate symptoms through their characteristics. Mental health assessments were particularly structured around ICD and DSM frameworks. In several studies, outcome measures specifically described whether participants continued to meet the diagnostic criteria for PTSD, anxiety, or depression. Some studies also gathered symptom characteristics and tracked changes through interviews conducted during treatment sessions. In addition to formal diagnoses, emotional disturbances and social functioning were also assessed. Many mental health tools incorporated questions about social isolation and interpersonal relationships. Although the assessments focused on ICD and DSM frameworks, the tools themselves included questions on the impact of symptoms on overall functioning, with some requiring a specific level of disability to meet diagnostic criteria.

Wang et al. (2016, 3) described that the inclusion criteria for their study were to fulfill the diagnostic criteria of DSM-IV of comorbid pain and one of the affective disorders: PTSD, depression, or anxiety. The mental health symptoms were also measured in the outcome assessments. In addition, emotional aspects such as anger, aggressiveness, inferiority complex, social isolation, and phobias towards police or military were assessed. Wang et al. used in their assessment protocol tools that follow and go together with the DSM-IV: Harvard Trauma Questionnaire (HTQ)-part 2 and Hopkins Symptom Checklist-25 items (HSCL-25).

Liedl et al. (2011) used multiple mental health assessment tools aligned with DSM-IV and ICD-9, including the Patient Posttraumatic Diagnostic Scale (PDS), HSCL-25, and the Mini International

Neuropsychiatric Interview (MINI). They also measured pain duration and intensity on a scale of 0 to 100.

Negron's (2016) health assessment-related questions were not fully opened, but the number of painful sites and pain's impact on sleeping were evaluated at baseline, in addition to distress or anxiety. The questionnaire also included questions about how long the pain has lasted and whether the pain is severe, moderate, or mild.

Nordin and Perrin (2019) used the Harvard Trauma Questionnaire (HTQ), which evaluates symptoms of PTSD according to the Diagnostic and Statistical Manual of Mental Health (DSM) and overlaps with ICD-11. Gambles et al.'s (2020) study used the Kurdish-validated version of HTQ and HSCL-25. Pain was also evaluated based on the idea of central sensitization. The physiotherapist also made objective evaluations. The main aim of the assessment was to see how the intervention affected mental health and nociplastic pain.

Highfield et al. (2011) asked the participants to evaluate where they felt the pain (body map) and what intensity (VAS or Wong-Baker FACES) each time. Additionally, they interviewed how the participants felt after the previous session and how long the changes lasted.

Dibaj et al. (2017) used the Norwegian Pain Association's Minimum Inventory for Pain Patients (NOSF-MISS) to assess pain-related factors. Additionally, they used HRDS to evaluate depression and CAPS for assessing PTSD. Kim and Yu (2015) used PDS-K, the Korean version of PDS. In Harlacher et al.'s (2018) study, HADS was used to measure anxiety and depression.

8.6 Physiological Measures and Functional Assessment

The sixth theme emerging from the literature was assessment methods other than self-report questionnaires or interviews, meaning Physiological Measures and Functional Assessments. This type of assessment was often used in conjunction with study design to obtain more detailed information about functional abilities, health, and symptoms or to rule out other conditions. Additionally, functional testing was used to evaluate the outcome of the intervention.

"A magnetic resonance imaging study of plantar structures reported that the centre portion of the aponeurosis was significantly thicker in falanga victims than in controls. In a recent study, we chose to assess sensory function in the battered feet of falanga victims, rather than focusing on structure. We found clear signs of nerve injury and of chronic neuropathic pain in falanga victims' feet compared to those of a method, non-tortured, control group." (Prip et al. 2010, 569)

"Electromyographic (EMG) activity at the pain site was recorded using disposable surface electrodes placed bilaterally over the corresponding muscles (in most cases, the trapezius muscles). In addition, heart rate (HR) was assessed by a sensor fixed on the first phalanx of the ring finger of non-dominant hand." (Liedl et al. 2011, 239)

"The assessment measures perception of pain, posture, joint range of motion, strength, nerve involvement, medical history, ruling out "red flag issues" in need of medical attention, and balance. At this time, those with injuries, such as moderate to severe pelvic organ prolapse, anal fissures or severe tears or issues such as gangrene, severe hypertension, pre-eclampsia, breast cancer, and untreated fractures are also referred for medical care." (Gueron et al. 2020, 34)

"Physical health outcome measures were chronic pain symptoms, body mass index (BMI), handgrip strength and standing balance." (Wang et al. 2016, 5)

In the included literature, the primary method of assessment was self-report questionnaires. This was especially true considering the assessment of mental health, pain characteristics, and functioning. Many studies lacked a description of how, for example, the complete medical evaluation had been made or how the diagnosis of persistent or chronic pain had been determined. Physical symptoms often need devices for a thorough examination, e.g., x-rays, laboratory tests, and MRI, and the possibility of medical care and professional evaluation. This is especially difficult in conditions where SoT are not entitled to complete medical care or the resources in the location are lacking, e.g., camps, penitentiaries, and in some poor countries. In the included literature, it was occasionally pointed out that the assessment process included a standard physiotherapist evaluation, but it was not opened any further.

Gueron et al.'s (2021) study included a functional physiotherapist assessment that included testing perception of pain, posture, range of motion, strength, nerve involvement, medical history, checking the "red flags," and testing balance.

Liedl et al. (2011) also used physiological measures of EMG at the painful muscle area and heart rate (HR) sensors to determine possible changes in hypervigilance. They assessed the HR to see the activity in resting, stressful, or painful situations. The results did not significantly change from baseline to follow-up.

In Wang et al. (2016) study, the physical and functional assessments were also evaluated as outcomes of the intervention, including BMI, handgrip strength, and balance. Additionally, the intervention included heart rate variability (HRV) biofeedback for relaxation training. Also, Kim and Yu (2015) used balance testing in their study. Their participants had lower chronic back pain.

Prip et al. (2010) assessed pain symptoms, sensory disturbances, and function limitation after falanga in the participants' feet. Additionally, they were interested in pain characteristics and used tender points testing, VAS, and DRI. The foot assessment included interviews about sensory disturbances and pain. The interview included questions about whether the participants had pain in walking or in strain and if there was pain in rest. Additionally, a sensory test was done according to the design of the previous Prip et al. study (2008). To mention some examples, the sensory testing included features such as how the participant reacts to light touch, thermal sensations, or if there is allodynia or tactile dysaesthesia.

8.7 The Role of Quality of Life

The Quality of Life was the seventh theme that emerged from the literature. As the visibility of quality of life (QoL) was presented as study questions, it was essential to see at what level the QoL or health-related QoL (HrQoL) was visible in the included literature and if there were assessment methods focused on this matter. The literature showed that the theoretical framework mainly discussed the quality of life. While many studies acknowledged the reduced QoL among SoTs, explicit QoL assessments were uncommon.

"Torture can result in impaired functional mobility, reduced quality of life, and persistent pain". (Dee et al. 2024, 113)

"The outcomes of this trial make us clearly aware of the complexity of the physical, psychological. familial, and social factors related to better functioning and quality of life" (Wang et al. 2016, 14)

"The approach to manage persistent pain cannot be directed only at reducing pain; it must also focus on increasing opportunities to rebuild lives and develop potentialities". (Negron 2017, 64)

"For the present study, physiotherapy was combined with NET in an effort to alleviate emotional distress and pain, as well as to increase quality of life and functioning, in survivors of torture presenting pain and PTSD". (Dibaj et al. 2017, 15)

Almost every record chosen for this thesis mentioned that the QoL of torture survivors has been known to be lower, but it was not familiar to assess it. Additionally, it was common to underline how important the QoL aspect is in the studies' conclusion. No specific tools for assessing QoL or HQol were used in the studies. The Brief Pain Inventory incorporated a question about how the symptom (pain) interferes with the feeling of having meaning in life, and that tool was used in three studies.

Wang et al. (2016, 2) pointed out in their study that according to previous torture-related RCT studies, the QoL has not been a focal point in addition to not focusing on the bio-psycho-social functioning. The participants in the Wang et al. study reported improvement in daily functioning and social life in their comments and found a purpose in life.

Despite Liedl et al. (2011) being interested in assessing and trying to increase coping skills and functioning, they did not mention the quality of life in their study, and the tools used are mainly focused on other aspects. Kashyap et al. (2019) also did not evaluate the quality of life. They used the description of improving wellbeing in the article, and the aim was to study the stressors impacting pain and mental health and the relationship between them.

Negron (2016) does not assess the quality of life but states that the goal of the intervention was to make "life less terrible and to bring hope." Gamble et al. (2020) did not mention or assess quality of life. Their study aimed to increase functioning, coping, and self-efficacy and decrease symptoms.

Kim and Yu (2015) did not mention the quality of life, which was not included in the assessment. Also, studies of Prip et al. (2008) and Highfield et al. (2011) did not evaluate quality of life.

Harlacher does not use tools to investigate quality of life. In conclusion, it is also questioned if the currently used assessment and treatment methods are adequate to evaluate whether this patient group lives a satisfying life (2016, 83). Dee et al. (2024) also mention that the SoT has reduced quality of life, but the themes they created do not specify this.

Dibaj et al. (2017) used a Brief Pain Inventory (BPI), which includes questions about pain-related quality of life: the question is the enjoyment of life, and it is evaluated on 0-10 scale where zero means that pain does not interfere the enjoyment of life and 10 means that pain completely interferences. Additionally, Nordin and Perrin (2019) and Karrer et al. (2021) used BPI in their study. None of these three used specific QoL assessments. Karrer et al. additionally asked to evaluate overall health.

Furthermore, Negron et al. (2017) and Nordin & Perrin (2019) pointed out that the primary purpose of the interventions and assessment of SoT should be symptom management, especially functioning and quality of life (QoL). Pain or other symptom evaluation should come as second, or the relationship between functioning and QoL should be pointed out.

9 CONCLUSION

The objective of the thesis was to increase the knowledge about the assessment qualities when working with torture victims who suffer from co-morbid persistent pain and to increase the understanding that measuring only the intensity of the pain is not reliable. The background organization on this process was the Helsinki Deaconess Foundation´s Center for Psychotraumatology.

The purpose was to find out how knowledge of pain is noticed in studies when trying to find the best ways to help torture victims with co-morbid pain from a wholesome perspective. Furthermore, the visibility of quality of life and functional abilities in the assessment process was evaluated. The thesis also aims to create developmental ideas for the assessment process to become more holistic.

Of the seven themes that emerged from the literature, three— symptom interference and daily functioning, understanding individuals’ background and trauma history, and diagnostic properties and symptom characteristics—were widely covered in the included literature. The themes of symptom management and coping strategies, social participation and integration, physiological measures and functional assessment, and the role of quality of life in the assessment were less visible despite the included literature pointing out the importance of these aspects.

Less than half of the assessments evaluated coping, self-efficacy, or symptom management. The professionals often monitored the management or changes in symptom-related dysfunctional behavior during the intervention, and the results were described in the conclusion. In some cases, the case examples and quotes from the participants included information about their attitudes and behavior, which often improved during the intervention.

The literature covered symptom interference, symptom characteristics, and diagnostic properties. Most of the tools used displayed the severity, intensity, and amount of disability caused by the symptoms. In many cases, the assessment was self-reported, and the evaluation was numeric based. Visual tools were sometimes used, such as body diagrams or images of happy and sad faces. All of the literature pointed out the symptom load and co-morbidity of the SoTs, and often, the assessment was made from an interdisciplinary perspective.

The assessment related to understanding the individual was also thoroughly covered. Background and demographic information was gathered from the electronic files, interviews, or questionnaires at the beginning of the process. The language and country of origin seemed to be especially important information. With that knowledge, adequately validated tools or interpreters could be used. Interestingly, in some cases, the usage of interpreters was described as “if needed,” which seems rather vague considering the aspects of the participants' understanding, the open questions used, and the complex psychoeducation in the intervention like in Harlacher et al. (2018) and Negron (2017) studies. The immigration phase was additionally vital information to gather in the included literature because, in many cases, the treatment cannot start if the immigration process is in progress.

The included literature described social participation and integration but did not widely assess them. The symptom's impact on all levels of functioning and daily activity, such as social participation, was widely acknowledged. The processes assessed SoTs' situations regarding housing, employment, or financial situation, and in some cases, the studies aimed to determine the relationship between these and symptoms. What was lacking was the role of social relationships, family, or peers.

Several approaches were used when thinking about pain assessment. Often, the focus in the literature was on the pain-related disability, interference, and severity of the pain. Multiple studies assessed the pain load by gathering information about how many body parts were painful and at what intensity. Additionally, the literature revealed that the pain was often already described as persistent and widespread, and only some examples of medical investigations were presented. In many studies, it was unclear whether and how proper medical assessments were conducted before participants entered the study. In the minority of cases, the intervention was entirely designed to evaluate the intensity of the symptoms. In most of the included literature, the pain experiences' relationship to other stressors and co-morbidities was acknowledged.

The included literature also highlighted the possibility of symptom-related functional assessment and sensory testing. One study assessed the potential of central sensitization, which is common in persistent pain. The pain assessment tools also incorporate questions about medication usage, which can often be the only thing that SoT believes will impact the pain. Additionally, the included literature did not thoroughly describe how and where the physiological evaluations were made and if, for example, brain injuries or fractures were ruled out.

Most of the included literature mentioned decreased quality of life after torture, but less frequently, the assessment covered it. Brief Pain Inventory included a question about pain-related quality of life, meaning that HQoL was evaluated with that tool. None of the included literature used specific assessment methods to evaluate the quality of life.

The results suggest that assessments should move beyond pain measurement and symptom reduction to a broader rehabilitation framework that incorporates mental health, social participation, and long-term well-being.

9.1 Discussion and Development Suggestions

The International Association for the Study of Pain (IASP) recommends that treatment of persistent pain that does not relate to malignancy in torture survivors should contain an interdisciplinary approach, pain education, self-management, and behavioral aspects. The recommendation for SoT's suffering from persistent pain is similar to IASP guidelines for pain rehabilitation (IASP 2021).

The literature included describes well how pain is a multidimensional problem. This means that if persistent pain and other medical reasons are behind the symptoms, they have been entirely excluded through proper medical evaluation. Future studies should focus more on symptom interference with the full spectrum of functioning and coping rather than the pain symptom itself. It seems irrelevant to understand how many locations the pain is experienced in the body, but instead, how the person can live a meaningful life with the symptoms.

Concerning proper medical investigation, the included literature did not describe whether the Istanbul Protocol (IP) had been used at any point in the SoT process besides Dibaj et al. (2017), who mentioned IP in the study. The included literature, on some level, described that the participants had been medically evaluated at some point, but the protocols varied. Additionally, since it was unclear if IP had been used, it means that it is unclear whether the signs of torture had been properly assessed or if the SoTs had been offered legal services. In the future, the visibility of the Istanbul Protocol in the assessment should be clearer to make sure that minimum standards of the evaluation are covered.

The biopsychosocial model of pain is, at the moment, the most used framework for understanding and treating pain. This means that the individual's life situation affects the pain experience on multiple levels: psychological, social, and physical. Additionally, the beliefs, attitudes, and context have a meaning. It would not only be wise to increase management and coping from the individual's quality of life perspective but also from an economic standpoint – the more active, confident, and able the individual feels, the less burden it is for the individual or society. When and if the individual can find and utilize own resources, the symptoms have less meaning in an individual's life, or the meaning of a warning signal or sign of disability decreases. Additionally, from the perspective of safety and PTSD, it is crucial that the SoT is able to learn tools to feel safe in own body and life. The included literature, in most cases, acknowledged this in the form of intervention and theory. The assessment often focused on measuring the amount or interference of the symptoms. In the future, more assessment methods and study designs focusing on symptom management should be conducted.

Many assessment types and methods overlap within the themes, so it is impossible to strictly divide the assessment type or category. Tools are focused on evaluating disability and interference or severity, but they can also have questions about symptom characteristics and load or co-morbidities such as sleep. The base of the assessment is almost always to find out what is bothering the individual and how. Additionally, many assessment methods related to diagnostic properties have questions about disability-related symptoms. Furthermore, the theme of immigration impacts and overlaps many of the themes.

Almost all of the included literature presented an interdisciplinary study design or discussed the importance of it in the conclusions. That meant that the assessment was made in most cases in several phases with different professionals, each focusing on the primary area they aimed at, such as helping with trauma symptoms or increasing activity and function to help with pain symptoms. In some of the studies, the health assessments had been made prior to the study via medical professionals. Additionally, some studies presented the possibility of guiding the SoT to different services depending on what comes up in the assessment, such as social services. Thinking about multidimensional and multiprofessional strategies with this patient group is crucial. When the difficulties are related to every aspect of SoT’s life, the assessment and rehabilitation should focus on the relationship between symptoms and the life situations and emphasize the factors impacting the recovery. For this, different professionals should work together and communicate better. When the assessment is more multidimensional, then the assessment will be more coherent with the International Classification of Functioning (ICF) framework.

It was pointed out in the included literature that the possibility of participants evaluating symptoms worse needs to be acknowledged in the assessments. It takes years before SoT can get services and help, so it is possible that they can evaluate the symptoms worse in fear of losing the help in their still complex situation. This is because so many things are still insecure, or the stress about not having employment or housing impacts the pain, for example. One of the reasons for this possible hypothesis is the disconnection in the treatment process. Not all services are always available in the same place, but depending on the assessment results, the SoT is referred to the following professional. It would be interesting to evaluate SoT symptom severity and quality of life between individuals who can participate in interdisciplinary services vs. services where one professional refers you next, depending on the needs.

It was also pointed out in each of the studies that SoTs with substance abuse problems or psychotic issues were excluded from the studies. The risk of suffering from substance abuse and severe psychiatric conditions is high in this patient group due to symptom load and pre- and post-migration stressors. It also impacts how the SoT can integrate into society. In future studies, it would be interesting to see where and how these patients are treated and discuss the risk of SoTs suffering these conditions when the bureaucracy is time-consuming and the services are so shattered.

One crucial aspect mentioned but not assessed in the included literature was the beliefs, attitudes, and expectations of the SoT. Some cultures believe that the symptoms can be due to misfortune or that they do not have the same understanding about, for example, PTSD as in the Western medical field. A better understanding of the needs and beliefs could ease the symptoms and what the SoT believes would be necessary. In the best cases, this could beneficially make the process shorter and more efficient. Of course, changing dysfunctional beliefs and behavior and offering education must be part of the interventions. It would be interesting to study what methods the SoT would incorporate into their treatment if they could choose or impact the results. For example, would they choose a specific sport or type to increase physical activity? Would it even be that the SoT would feel like more active participants in the process if they had more freedom of choice, and would it add coping? Additionally, would they prefer more individual or group interventions? It is known that some cultures are more profound and social, and in Western countries, individualism increases. In worse cases, this can lead to a scenario where the close ones or the community does not participate in SoTs treatment process.

Relating to motivation, attitudes, and being an active participant in the process is focusing on goal attainment of the assessment and treatment process. Because of the designs of the included literature, the authors composed the goals of the interventions. Gueron et al. (2020) mention that their interventions were constantly monitored and focused on supporting goal attainment. This suggests that the goals were discussed with the participant. When considering the motivation of the person suffering from torture-related symptoms, it would be essential to let the SoT set the goals and monitor them. That way, the emphasis of the process would naturally flow more into coping and focus less on the illness or clinicians' perspective. In the future, it would be beneficial to evaluate how setting one's goals would impact the results.

An essential aspect to consider in future studies is how words may impact the SoT. For example, many assessment tools focus on measuring disability. Disability is always a lack of something when the word functioning has an intrinsic meaning of self-efficacy. For example, the questions themselves are more related to how much something interferes with specific functions instead of asking how the respondent feels they can manage in those situations. This means it should be acknowledged if the assessment is made from the illness perspective rather than evaluating the respondent's resources and ability to function. Considering this perspective in the assessment process would be necessary, especially if the symptoms relate to a traumatic event. Making the assessment more resource- and behavioral-oriented and focusing on management skills would show that recovery can happen due to a person's actions.

A critical aspect of the chosen literature was the lack of women or other genders. Furthermore, in most of the included studies, it was impossible to identify whether the person belonged to the LGBTQ group. In the future, the focus should be on studies where this is possible, gathering information on torture impacts on minorities such as women and LGBTQ persons and making interventions specifically designed for them.

One additional future target group to notice is also the people outside of working age. Often, this age group members are fit enough and have the economic resources to escape from the country where torture takes place. Still, the elders and, for example, children can be more vulnerable and face the horrors without the ability to migrate. In the future, more studies should focus on this group. Also to include social aspect and safety, more family based interventions should be made.

It is challenging to evaluate if the included literature covers the quality of life assessment. As described, many of the studies did not have it as a factor, or they did not use specific tools that would have given self-reported estimations about the feelings of participants' quality of life. Although QoL was not a factor in the outcome, many of the themes in the assessment were related to functioning, management, and overall participation, which can lead to better QoL in addition to having fewer symptoms. It is still crucial to evaluate the QoL instead of making assumptions, and it suggested that future research would study the relationship between QoL and, for example, experiencing less interference with pain and mental health symptoms. Future research should focus on integrating QoL as a primary outcome in assessment and rehabilitation strategies to ensure a comprehensive approach to care. Tools such as the 36-item Short Form Health Survey (SF-36), the Quality of Life Scale (QOLS), and the World Health Organisation’s Quality of Life Questionnaire (WHOQOL-BREF) should be studied more with this specific patient group.

An essential aspect when making the assessment is always to choose the tools that it is best for the individual from the perspective of factors related to the person and that it measures what is supposed to be measured. In the chosen literature, reliability and validity were thoroughly thought out in most cases but severely lacking in some. In some cases, it was clear that the tools were not valid for that patient group, and insufficient support was offered, meaning the SoTs and the assessment were unreliable.

Highfield et al., (2011) stated that it was difficult for the participants to understand more detailed tools, so they used the body map, VAS, and Wong-Baker for those who did not understand English well. Additionally, they interviewed the participants during the visit. This means that the patient group was not well acknowledged. Additionally, the results of discussion in the sessions about how they felt the intervention contradicted the measured outcome of VAS. Another example of problems with using tools in the assessment is Kim et al. (2015). They could use assessment tools validated for the Korean population (PSD-K and KODI), but the article did not clarify whether the chosen tools were also validated for SoTs. Furthermore, in some of the chosen literature, the writer had chosen both validated tools and tools whose validity is unclear, not only from the perspective of the symptoms in the chosen patient group but also from the language and culture point of view. This was the case in Gamble et al. (2020). They used HTQ and HSCL-25, which have validated Kurdish versions. They also used three other tools in the study: the Patient Specific Functional Scale, the Pittsburgh Sleep Quality Index, and the General Self-Efficacy Scale. Those three were internally translated but not validated. Wang et al. (2016) decided in their study to use assessment tools that were all validated in the patient and population group in the earlier collaboration that they had in Kosova. This meant that their tools were suitable to use. Moreover, they used tools that recognized the ICF (WHODAS 2.0) and the comorbidity aspect related to pain and mental health (SF-MPQ). The problem in their study was the usage of the Wong-Baker FACES, which is mainly proven valid and reliable in the context of children with chronic pain.

These are just some examples of validity and reliability problems in the assessment. Additionally, resources, time, language, and culture-related aspects caused issues in the assessment setting. In future studies, it is important to think more carefully about these aspects and how the results might be biased. Considering the assessment and the probability of co-morbidity, it is important to consider whether the chosen tool only assesses the pain severity or if the assessment process also notices the biopsychosocial aspect and the patient group.

Regarding co-morbid pain in this patient group, the BPI and WHODAS 2.0 tools seem interesting and emerged positively from the included literature. Nordin and Perrin (2019) were the only ones using both. The WHODAS 2.0 tool also covered the ICF framework in the assessment process. In the future, more assessment tools such as these should be found, and their validity with torture victims should be evaluated. Using these two tools would not exclude the usage of other symptom, illness, or torture-related assessment tools or methods. Furthermore, using functional tools in the assessment process should be studied more. It could give more detailed individual information and be more understandable to the participants. Moreover, the assessment methods can be easily combined during the treatment process.

Assessing patients, regardless of whether they are SoT or another patient group, is always contextual. Considering the chosen literature, 13 out of 14 records were clinical studies, meaning the assessment methods and tools were designed for that specific use. In clinical work, the assessment might live more with what is found instead of committing to using only specific methods and tools. In the future, it would be interesting to interview professionals working with this patient group to learn about their assessment experiences. Additionally, a phenomenological study about patients' experiences would give more detailed information and possibly take the orientation to a less professional or illness perspective.

Additionally, “grey literature” and DIGNITY should be used in future reviews to increase the sample size and find more information about the topic from databases with clinical and developmental experience, even though the literature has not been published in databases like PubMed or CINAHL Ultimate.

9.2 Reliability and repeatability of literature retrieval

The thesis process followed the steps of thematic analysis: compiling, disassembling, reassembling, interpreting, and concluding. The process is visible in the final result. Additionally, the keywords and phrases for the literature retrieval were designed with assistance and guidance from Savonia Library staff to ensure that they were already confined to the topic and study questions. The inclusion and exclusion phases are visualized and opened for the reader. PubMed and CINAHL Ultimate are considered reliable and commonly used.

Results must be considered cautiously due to design limitations such as small sample size. Additionally, it is hard to consider assessment methods when the literature has different study designs and variations in collecting the demographics and health status. It is possible that relevant literature was not included in this review. For example, the DIGNITY database was not used, which would possibly have provided more information about the matter. The Danish Institute Against Torture (DIGNITY) is an independent human rights and development organization founded in Copenhagen in 1982. DIGNITY is one of the world’s first anti-torture NGOs and specialized treatment centers for torture survivors. They offer rehabilitation for torture victims, act to prevent torture and violence and document serious human rights violations so the perpetrators can be held accountable. Their goal is to enhance and provide knowledge to people working in the matter in partner countries (DIGNITY, 2024). DIGNITY invests in developing and publishing research related to torture and prevention in a multidisciplinary way, and it keeps the most extensive library on the topic today. Furthermore, only CINAHL Ultimate was used, which rules out some of the literature that could have been found if other databases inside of CINAHL had been used. For example, SocINDEX provided at least one interesting article by Harlacher et al. (2019) that would have met the inclusion criteria.

Further limitations can include author biases, time, and resources. It was impossible to familiarize each used assessment tool question by question, so some tools in the included literature might have questions about QoL or HQoL. Also, other misinterpretations may have been made due to language limitations—the author is not a native English speaker. Additionally, the author's background working as a physiotherapist with pain patients could impact the thesis process.

Importantly, it is essential to understand that when one exclusion criterion ruled out studies where pain is assessed concisely, focusing only on one aspect, such as pain intensity, the results were already oriented in the bio-psycho-social assessment.

REFERENCES

Alegría, M., Álvarez, K., & DiMarzio, K. (2017). Immigration and mental health. *Current Epidemiology Reports*, *4*(2), 145–155. https://doi.org/10.1007/s40471-017-0111-2 (Accessed 20 January 2025)

Amnesty International. (2023, September 18). *Torture - Amnesty International*. https://www.amnesty.org/en/what-we-do/torture/ (Accessed 02 June 2024)

Amris K, Jones LE, Williams ACC. Pain from torture: assessment and management. Pain Rep. 2019 Oct 28;4(6):e794. Doi: 10.1097/PR9.0000000000000794. PMID: 31984299; PMCID: PMC6903341. (Accessed 14 October 2024)

Association of the prevention of torture: APT. (2025). What is Torture? https://www.apt.ch/torture-prevention/what-torture (Accessed 17 January 2025)

Baird, E., De C Williams, A. C., Hearn, L., & Amris, K. (2017). Interventions for treating persistent pain in survivors of torture. *Cochrane Library*, *2019*(2). https://doi.org/10.1002/14651858.cd012051.pub2 (Accessed 27 January 2025)

Bertilsson, I., Melin, J., Brogårdh, C., Opheim, A., Gyllensten, A., Björksell, E., & Hammarlund, C. S. (2024). Measurement properties of the Body Awareness Scale Movement Quality (BAS MQ) in persons on the autism spectrum: A preliminary Rasch analysis. *Journal of Bodywork and Movement Therapies*, *38*, 464–473. https://doi.org/10.1016/j.jbmt.2024.01.004 (Assessed 15.8.2024)

Board D, Childs S, Boulton R. Torture-survivors' experiences of healthcare services for pain: a qualitative study. Br J Pain. 2021 Aug;15(3):291-301. doi: 10.1177/2049463720952495. Epub 2020 Sep 9. PMID: 34377457; PMCID: PMC8339948 (Accessed 02 June 2024)

Bovin, M. J., PhD, National Center for PTSD, Friedman, M. J., Brewin, M., Camden, A. A., Weathers, F. W., PhD, American Psychiatric Association, & World Health Organization. (2021). Literature on DSM-5 and ICD-11: An update. In M. J. Friedman, D. Kruidenier, & H. Smith (Eds.), PTSD Research Quarterly (Vol. 32, Issue 2) [Journal-article]. National Center for PTSD. (Accessed 02 June 2024)

Breivik, H., Borchgrevink, P., Allen, S., Rosseland, L., Romundstad, L., Hals, E. B., Kvarstein, G., & Stubhaug, A. (2008). Assessment of pain. *British Journal of Anaesthesia*, *101*(1), 17–24. https://doi.org/10.1093/bja/aen103 (Assessed 15.8.2024)

Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning*, *10*(6), 807–815. https://doi.org/10.1016/j.cptl.2018.03.019 (Accessed 2 February 2025)

Cohen, S. P., Vase, L., & Hooten, W. M. (2021). Chronic pain: an update on burden, best practices, and new advances. *Lancet*, *397*(10289), 2082–2097. https://doi.org/10.1016/s0140-6736(21)00393-7 (Accessed 02 June 2024)

Contractor, A. A., Weiss, N. H., Dranger, P., Ruggero, C., & Armour, C. (2017). PTSD's risky behavior criterion: Relation with DSM-5 PTSD symptom clusters and psychopathology. *Psychiatry Research*, *252*, 215–222. https://doi.org/10.1016/j.psychres.2017.03.008 (Accessed 21 October 2024)

De C Williams AC, Baird E. Special Considerations for the Treatment of Pain from Torture and War. Curr Anesthesiol Rep. 2016;6(4):319-326. doi: 10.1007/s40140-016-0187-0. Epub 2016 Oct 25. PMID: 27942252; PMCID: PMC5124052. (Accessed 02 June 2024)

Dee, J. M., Gell, N., Van Eeghen, C., & Littenberg, B. (2024). Physical therapy for survivors of torture: A scoping review. *Torture*, *34*(1), 113–127. https://doi.org/10.7146/torture.v34i1.138985 (Accessed 17 July 2024)

DIGNITY - Danish Institute Against Torture. (2024, April 24). *DIGNITY - Danish Institute Against Torture - Home*. https://www.dignity.dk/en/ (Accessed 02 June 2024)

Dibaj, I., Halvorsen, J. Ø., Kennair, L. E. O., & Stenmark, H. I. (2017b). An evaluation of combined narrative exposure therapy and physiotherapy for comorbid PTSD and chronic pain in torture survivors. *Torture Journal*, *27*(1). https://doi.org/10.7146/torture.v27i1.26534 (Accessed 30 July 2024)

Dixit A, Lee M. Quantification of Digital Body Maps for Pain: Development and Application of an Algorithm for Generating Pain Frequency Maps. JMIR Form Res. 2022 Jun 24;6(6):e36687. doi: 10.2196/36687. PMID: 35749160; PMCID: PMC9232214 (Accessed 16 February 2025)

Dydyk, A. M., & Conermann, T. (2024, May 6). Chronic pain. StatPearls - NCBI Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK553030 (Accessed 02 June 2024)

El-Khoury, J., Haidar, R., & Barkil-Oteo, A. (2020). Psychological torture: Characteristics and impact on mental health. *International Journal of Social Psychiatry*, *67*(5), 500–506. https://doi.org/10.1177/0020764020961800 (Accessed 02 June 2024)

Fallowfield, L. (2009). What is quality of life. *Health economics*, *1*(8), 1-8. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=b5eb4bdf371b1752a3a9bc5a323a350c41809840 (Accessed 17 January 2025)

Fillingim RB, Loeser JD, Baron R, Edwards RR. Assessment of Chronic Pain: Domains, Methods, and Mechanisms. J Pain. 2016 Sep;17(9 Suppl):T10-20. doi: 10.1016/j.jpain.2015.08.010. PMID: 27586827; PMCID: PMC5010652. (Accessed 02 June 2024)

Gamble, A., Ahmed, A. M. A., Rahim, S. H., & Hartman, J. (2020). The effects of a combined psychotherapy and physiotherapy group treatment program for survivors of torture incarcerated in an adult prison in Kurdistan, Iraq: A pilot study. *Torture Journal*, *30*(2), 58–76. https://doi.org/10.7146/torture.v30i2.119199 (Accessed 18 October 2024)

Gueron, L. J. P., Amoyi, A., Chao, W., Chepngetich, J., Kibet, J. J., Nyambok, S., & Wesonga, J. (2021b). Group physiotherapy with survivors of torture in urban and camp settings in Jordan and Kenya. *Torture Journal*, *30*(3), 27–42. https://doi.org/10.7146/torture.v30i3.121785 (Accessed 18 October 2024)

Harlacher, U., Nordin, L., & Polatin, P. B. (2018). Torture survivors' symptom load compared to chronic pain and psychiatric in-patients. *Torture*, *26*(2), 11. https://doi.org/10.7146/torture.v26i2.108204 (Accessed 22 July 2024)

Harlacher, U., Polatin, P., Taing, S., Phana, P., Sok, P., & Sothera, C. (2019). Education as treatment for chronic pain in survivors of trauma in Cambodia: results of a randomized controlled outcome trial. *DOAJ (DOAJ: Directory of Open Access Journals)*. https://doi.org/10.4119/unibi/ijcv.655 (Accessed 23 July 2024)

Harvard Program in Refugee Trauma. (n.d.). Harvard Trauma Questionnaire | https://hprt-cambridge.org/screening/harvard-trauma-questionnaire (Assessed 15.8.2024)

Harvard Program in Refugee Trauma. (n.d.). Hopkins Symptom Checklist (HSCL) https://hprt-cambridge.org/screening/hopkins-symptom-checklist (Assessed 15.8.2024)

Health Editorial Team. (2024, July 23). *9 Fibromyalgia pain points*. Health. https://www.health.com/condition/chronic-pain/18-points-used-to-diagnose-fibromyalgia (Assessed 15.8.2024)

Highfield, E. S., Lama, P., Grodin, M. A., Kaptchuk, T. J., & Crosby, S. S. (2011b). Acupuncture and traditional Chinese medicine for survivors of torture and refugee trauma: A Descriptive report. *Journal of Immigrant and Minority Health*, *14*(3), 433–440. https://doi.org/10.1007/s10903-011-9538-6 (Accessed 18 June 2024)

International Association for the Study of Pain. (2021, July 12). *Chronic pain as a consequence of torture: Management - International Association for the Study of Pain (IASP)*. International Association for the Study of Pain (IASP). https://www.iasp-pain.org/resources/fact-sheets/chronic-pain-as-a-consequence-of-torture-management/ (Accessed 16 February 2025)

International Classification of Functioning, Disability and Health (ICF). (n.d.). https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health (Accessed 20 January 2025)

International Classification of Health Interventions (ICHI). (2024, January 22). https://www.who.int/standards/classifications/international-classification-of-health-interventions (Accessed 20 January 2025)

Internet Encyclopedia of Philosophy. (n.d.-b). Descartes, Rene: Mind-Body Distinction. https://iep.utm.edu/descartes-mind-body-distinction-dualism/ (Accessed 17 January 2025)

International Society for Traumatic Stress Studies, Clinician Administered PTSD Scale, (n.d.). https://istss.org/clinical-resources/adult-trauma-assessments/clinician-administered-ptsd-scale/ (Assessed 18.8.2024)

Jeon, C., Kim, D., Kim, D., Lee, H., & Park, H. (2005). Cross-cultural adaptation of the Korean version of the Oswestry Disability Index (ODI). *Journal of Korean Society of Spine Surgery*, *12*(2), 146. https://doi.org/10.4184/jkss.2005.12.2.146 (Accessed 17 February 2025)

Karrer, A., Hansen, A. K. V., Nordin, L., & Oestergaard, M. D. (2021). Acceptability of a physiotherapeutic pain school treatment in trauma-affected populations in the Middle Eastern & Northern African region. *Torture Journal*, *30*(3), 43–60. https://doi.org/10.7146/torture.v30i3.122375 (Accessed 19 October 2024)

Kashyap, S., Page, A. C., & Joscelyne, A. (2019b). Post-migration treatment targets associated with reductions in depression and PTSD among survivors of torture seeking asylum in the USA. *Psychiatry Research*, *271*, 565–572. https://doi.org/10.1016/j.psychres.2018.12.047 (Accessed 18 July 2024)

Kim, H. J., & Yu, S. H. (2015). Effects of complex manual therapy on PTSD, pain, function, and balance of male torture survivors with chronic low back pain. *Journal of Physical Therapy Science*, *27*(9), 2763–2766. https://doi.org/10.1589/jpts.27.2763 (Accessed 15 October 2024)

Kim, W., Jung, Y., Roh, D., Kim, D., Chae, J., & Park, J. E. (2022). Development of Korean version of PTSD checklist for DSM-5 (K-PCL-5) and the short form (K-PCL-5-S). *Psychiatry Investigation*, *19*(8), 661–667. https://doi.org/10.30773/pi.2022.0092 (Assessed 15.8.2024)

King, W. R., & He, J. (2005). Understanding the role and methods of Meta-Analysis in IS research. *Communications of the Association for Information Systems*, *16*. https://doi.org/10.17705/1cais.01632 (Accessed 27 January 2025)

Kostanjsek, N., Rubinelli, S., Escorpizo, R., Cieza, A., Kennedy, C., Selb, M., Stucki, G., & Üstün, T. B. (2010). Assessing the impact of health conditions using the ICF. *Disability and Rehabilitation*, *33*(15–16), 1475–1482. https://doi.org/10.3109/09638288.2010.527032 (Accessed 17 January 2025)

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9. *Journal of General Internal Medicine*, *16*(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x (Assessed 15.8.2024)

Liedl, A., Müller, J., Morina, N., Karl, A., Denke, C., & Knaevelsrud, C. (2011a). Retracted: Physical Activity within a CBT Intervention Improves Coping with Pain in Traumatized Refugees: Results of a Randomized Controlled Design. *Pain Medicine*, *12*(2), 234–245. https://doi.org/10.1111/j.1526-4637.2010.01040.x (Accessed 22 July 2024)

Lechner-Meichsner F, Comtesse H, Olk M. Prevalence, comorbidities, and factors associated with prolonged grief disorder, posttraumatic stress disorder and complex posttraumatic stress disorder in refugees: a systematic review. Confl Health. 2024 Apr 16;18(1):32. doi: 10.1186/s13031-024-00586-5. PMID: 38627778; PMCID: PMC11020800. (Accessed 02 June 2024)

Maercker, A. (2021). Development of the new CPTSD diagnosis for ICD-11. *Borderline Personality Disorder and Emotion Dysregulation*, *8*(1). https://doi.org/10.1186/s40479-021-00148-8 (Accessed 17 January 2025)

McCarthy, S. (2008). Post-Traumatic Stress Diagnostic Scale (PDS). *Occupational Medicine*, *58*(5), 379. https://doi.org/10.1093/occmed/kqn062 (Assessed 18.8.2024)

McColl, E. (2004). Best practice in symptom assessment: a review. Gut, 53(suppl_4), iv49–iv54. https://doi.org/10.1136/gut.2003.034355 (Accessed 19 January 2025)

Milewski, A., Weinstein, E., Lurie, J., Lee, A., Taki, F., Pilato, T., Jedlicka, C., & Kaur, G. (2023). Reported methods, distributions, and frequencies of torture globally. JAMA Network Open, 6(10), e2336629. https://doi.org/10.1001/jamanetworkopen.2023.36629 (Accessed 14 October 2024)

Mills, S. E., Nicolson, K. P., & Smith, B. H. (2019). Chronic pain: a review of its epidemiology and associated factors in population-based studies. *British Journal of Anaesthesia*, *123*(2), e273–e283. https://doi.org/10.1016/j.bja.2019.03.023 (Accessed 02 June 2024)

MINI. (2024, May 6). Harm Research. https://harmresearch.org/mini-international-neuropsychiatric-interview-mini/ (Assessed 15.8.2024)

Morales-Brown, L. (2022, December 23). *What to know about the Wong-Baker pain scale*. https://www.medicalnewstoday.com/articles/wong-baker-pain-scale (Assessed 15.8.2024)

Negron, A. (2017). Supporting asylum seekers and refugees who suffer chronic pain: an experience. *International Journal of Migration, Health and Social Care*, *14*(1), 55–67. https://doi.org/10.1108/ijmhsc-02-2016-0011 (Accessed 17 July 2024)

Nicholas, M. K. (2022). The biopsychosocial model of pain 40 years on: time for a reappraisal? *Pain*, *163*(S1), S3–S14. https://doi.org/10.1097/j.pain.0000000000002654 (Accessed 17 January 2025)

Nordin, L., & Perrin, S. (2019b). Pre-treatment pain predicts outcomes in multimodal treatment for tortured and traumatized refugees: a pilot investigation. *European Journal of Psychotraumatology*, *10*(1). https://doi.org/10.1080/20008198.2019.1686807 (Accessed 23 June 2024)

OpenClipart, Male Anatomy Front and Back line art (2021, May 1). https://openclipart.org/detail/267821/male-anatomy-front-and-back-line-art (Accessed 16 February 2025)

Paré, G., & Kitsiou, S. (2017, February 27). Chapter 9 Methods for literature reviews. Handbook of eHealth Evaluation: An Evidence-based Approach - NCBI Bookshelf. https://www.ncbi.nlm.nih.gov/books/NBK481583/ (Accessed 27 January 2025)

Paschali, M., Lazaridou, A., & Edwards, R. R. (2019). Clinical and research tools for pain assessment. In Springer eBooks (pp. 55–65). https://doi.org/10.1007/978-3-030-27447-4_6 (Assessed 15.8.2024)

Physiopedia, (n.d.) Central Sensitisation inventory.https://www.physio-pedia.com/Central_Sensitisation_Inventory (Assessed 15.8.2024)

Physiopedia, (n.d.). Grip strength. https://www.physio-pedia.com/Grip_Strength (Assessed 15.8.2024)

Physiopedia. (n.d.). Numeric Pain Rating Scale. https://www.physio-pedia.com/Numeric_Pain_Rating_Scale (Assessed 15.8.2024)

Physiopedia. (n.d.). Pelvic Floor Distress Inventory (PFDI - 20). https://www.physio-pedia.com/Pelvic_Floor_Distress_Inventory_(PFDI_-_20) (Assessed 15.8.2024)

Physiopedia. (n.d.). Single leg stance test. https://www.physio-pedia.com/Single_Leg_Stance_Test (Assessed 16.8.2024)

Physiopedia. (n.d.). Short-form McGill pain questionnaire. https://www.physio-pedia.com/Short-form_McGill_Pain_Questionnaire (Assessed 15.8.2024)

Physiopedia. (n.d.). Visual Analogue scale. https://www.physio-pedia.com/Visual_Analogue_Scale (Assessed 15.8.2024)

Pray R, Riskin S. The History and Faults of the Body Mass Index and Where to Look Next: A Literature Review. Cureus. 2023 Nov 3;15(11):e48230. doi: 10.7759/cureus.48230. PMID: 38050494; PMCID: PMC10693914. (Assessed 15.8.2024)

Prip, K., & Persson, A. L. (2008). Clinical findings in men with chronic pain after falanga torture. *Clinical Journal of Pain*, *24*(2), 135–141. https://doi.org/10.1097/ajp.0b013e31815aac36 (Accessed 14 February 2025)

Prip, K., Persson, A. L., & Sjölund, B. H. (2010b). Self-reported activity in tortured refugees with long-term sequelae including pain and the impact of foot pain from falanga – a cross-sectional study. *Disability and Rehabilitation*, *33*(7), 569–578. https://doi.org/10.3109/09638288.2010.493597 (Accessed 23 July 2024)

Rademakers, J., Delnoij, D., & De Boer, D. (2011). Structure, process or outcome: which contributes most to patients' overall assessment of healthcare quality? BMJ Quality & Safety, 20(4), 326–331. https://doi.org/10.1136/bmjqs.2010.042358 (Accessed 19 January 2025)

Raghavan, S. S. (2018). Cultural considerations in the assessment of survivors of torture. *Journal of Immigrant and Minority Health*, *21*(3), 586–595. https://doi.org/10.1007/s10903-018-0787-5 (Accesses 20 January 2025)

Rathke, H., Poulsen, S., Carlsson, J., & Palic, S. (2020). PTSD with secondary psychotic features among trauma-affected refugees: The role of torture and depression. *Psychiatry Research*, *287*, 112898. https://doi.org/10.1016/j.psychres.2020.112898 (Accessed 02 June 2024)

Rossen, C. B., Buus, N., Stenager, E., & Stenager, E. (2015). Patient assessment within the context of healthcare delivery packages: A comparative analysis. *International Journal of Nursing Studies*, *53*, 248–259. https://doi.org/10.1016/j.ijnurstu.2015.08.002 (Accessed 19 January 2025)

Salen, B. A., L^Nygren, E. V. S., & Nordemar, R. (1994). The disability rating index: An instrument for the assessment of disability in clinical settings. *Journal of Clinical Epidemiology*, *47*(12), 1423–1435. https://doi.org/10.1016/0895-4356(94)90086-8 (Accessed 17 February 2025)

Shahid, A., Wilkinson, K., Marcu, S., & Shapiro, C. M. (2011b). Pittsburgh Sleep Quality Index (PSQI). In *Springer eBooks* (pp. 279–283). https://doi.org/10.1007/978-1-4419-9893-4_67 (Assessed 15.8.2024)

Sharp, R. (2015). The Hamilton rating scale for Depression. *Occupational Medicine*, *65*(4), 340. https://doi.org/10.1093/occmed/kqv043 (Assessed 15.8.2024)

Scheidegger, A., Jäger, J., Blättler, L. T., Aybek, S., Bischoff, N., & Holtforth, M. G. (2023). Identification and characterization of pain processing patterns among patients with chronic primary pain. *Clinical Journal of Pain*, *39*(8), 414–425. https://doi.org/10.1097/ajp.0000000000001130 (Assessed 17.8.2024)

Schwarzer, R., & Jerusalem, M. (1995). General Self-Efficacy Scale [Dataset]. In *PsycTESTS Dataset*. https://doi.org/10.1037/t00393-000 (Accessed 17 February 2025)

Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. BMC Health Services Research, 17(1). https://doi.org/10.1186/s12913-017-2031-8 (Accessed 19 January 2025)

Seminowicz DA, Wideman TH, Naso L, Hatami-Khoroushahi Z, Fallatah S, Ware MA, Jarzem P, Bushnell MC, Shir Y, Ouellet JA, Stone LS. Effective treatment of chronic low back pain in humans reverses abnormal brain anatomy and function. J Neurosci. 2011 May 18;31(20):7540-50. doi: 10.1523/JNEUROSCI.5280-10.2011. PMID: 21593339; PMCID: PMC6622603. (Accessed 02 June 2024)

Shahid, A., Wilkinson, K., Marcu, S., & Shapiro, C. M. (2011). Brief Pain Inventory (BPI). In *Springer eBooks* (pp. 81–88). https://doi.org/10.1007/978-1-4419-9893-4_13 (Assessed 15.8.2024)

Sterling, M. (2007). Patient specific functional scale. *Australian Journal of Physiotherapy*, *53*(1), 65. https://link.gale.com/apps/doc/A208452674/HRCA?u=anon~e6b4ae0&sid=googleScholar&xid=027505de (Assessed 15.8.2024)

Stern, A. F. (2014). The hospital anxiety and Depression scale. *Occupational Medicine*, *64*(5), 393–394. https://doi.org/10.1093/occmed/kqu024 (Assessed 15.8.2024)

Tender points fibromyalgia.svg - Wikimedia Commons. (2012, September 14). https://commons.wikimedia.org/wiki/File:Tender_points_fibromyalgia.svg (Accessed 17 February 2025)

Theofilou, P. & Health & Quality of Life Research Group. (2013). Quality of Life: Definition and Measurement. In *Europe's Journal of Psychology* (Vols. 9–1, pp. 150–162). https://doi.org/10.5964/ejop.v9i1.337 (Accessed 17 January 2025

THL. (2023, July 12). *What is functioning?.* Finnish Institute for Health and Welfare (THL), Finland. https://thl.fi/en/topics/functioning/what-is-functioning- (Accessed 17 January 2025)

Tsur, N., Defrin, R., Shahar, G., & Solomon, Z. (2020). Dysfunctional pain perception and modulation among torture survivors: The role of pain personification. Journal of Affective Disorders, 265, 10–17. https://doi.org/10.1016/j.jad.2020.01.031 (Assessed 02 June 2024)

UN General Assembly, Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, United Nations, Treaty Series, vol. 1465, p. 85, 10 December 1984, https://www.refworld.org/legal/agreements/unga/1984/en/13941 (Accessed 17 January 2025)

UN Office of the High Commissioner for Human Rights (OHCHR), Manual on the Effective Investigation and Documentation of Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment ("Istanbul Protocol"), 2004, HR/P/PT/8/Rev.1, available at: https://www.refworld.org/docid/4638aca62.html (Accessed 17 January 2025)

Wang, S., Bytyçi, A., Izeti, S., Kallaba, M., Rushiti, F., Montgomery, E., & Modvig, J. (2016). A novel bio-psycho-social approach for rehabilitation of traumatized victims of torture and war in the post-conflict context: a pilot randomized controlled trial in Kosovo. *Conflict and Health*, *10*(1). https://doi.org/10.1186/s13031-016-0100-y (Accessed 17 July 2024)

Wong-Baker FACES Foundation. (2020, April 28). *Home - Wong-Baker FACES Foundation*. https://wongbakerfaces.org/ (Assessed 15.8.2024)

World Health Organisation. (2019). *International statistical classification of diseases and related health problems* (11th ed.). https://icd.who.int/ (Accessed 17 January 2025)

World Health Organisation (2010). Measuring health and disability: Manual for WHO Disability Assessment Schedule WHODAS 2.0. World Health Organization. (Assessed 15.8.2024)

World Health Organisation: WHO. (2024). *Post-traumatic stress disorder*. https://www.who.int/news-room/fact-sheets/detail/post-traumatic-stress-disorder (Accessed 17 January 2025)

Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford publications. (Accessed 2 February 2025)

APPENDIX 1: DETAILED INFORMATION ABOUT THE INCLUDED LITERATURE

Author and year	**Assesment tools**	**Method**	**Assesment Frequency**	**Intervention type**
Wang et al. 2016	Harvard Trauma Questionnaire (HTQ) part II Hopkins Symptoms Checklist -25 items (HSCL-25 Short-form McGill Pain Questionnaire (SF-MPQ) Wong-Baker FACES® Pain Rating Scale World Health Organisation Disability Assessment Schedule 2.0 12 items (WHODAS 2.0) BMI Handgrip Standing Balance test Margolis Pain Diagram (pain location) Employment rate Income rate Emotional well-being: anger, inferiority complex, social isolation and police/military phobia during past 14days Qualitative interview: satifaction to treatment, daily functioning, social life, purpose of life	RCT	Pre intervention and 3,6,9 month	CBT + exposure + breathing +biofeedback PT group multivitamin
Negron (2018)	VAS Usage of pain medication Qualitative report: Improvement and frequency of improvement, how they feel about intervention Monitoring the self-help WSCS: Mental health symptoms: anxiety, depression, PTSD, sleep disturbance, distress (N/A how)	Case study	VAS before and after therapy session Usage on medication each encounter WSCS after each encounter/session Self-help after each encouter/session	Heath advice Pain education Manual therapy Training self-help techinques
Highfield et al. 2011	VAS Wong-Baker FACES® Pain Rating Scale Body picture to point out pain location and mark the intensity Qualitative report/interview	Descriptive report	Before and after each session	Traditional chinese acupuncture with adjunctive treatments suchs as cupping, breathing, electro acupuncture, massage and movement exercise
Kashyap et al. 2019	Client demographics: age, gender and immigration status Trauma exposure: number of reported traumatic events 0-5 Treatment informartion: number of mental health, social and legal services Housing, employment, chronic pain, perceived social support (yes/no) Patient health questionnaire-9 (PHQ-9) Harvard Trauma Questionnaire (HTQ)	Cross-sectional longitudal study	Before treatment/during intake 6 months follow-up	n/a
Liedl et al. 2011	Mini International Neuropsyciatric interview (MINI) Post-traumatic stress diagnostic scale (PDS) Harvard Trauma Questionnaire (HTQ) German Pain Coping Questionnaire (FESV) Hopkins Symptoms Checklist- Anxiety Electromyography (EMG) Heart rate (HR) Diary: pain experience and wellbeing	Comparative study	Before and after the treatment BF during every session Diary each day	Biofeedbeck + CBT + Physical activity (strething, endurance training and muscle strenght) Biofeedback + CBT
Harlacher et al. 2018	Disability Rating Index (DRI) Hospital Anxiety and Depression scale (HADS)	RCT	Before entry to treatment	n/a
Nordin & Perrin, 2019	Harvard Trauma Questionnaire (HTQ) Hopkins Symptom Checklist - anxiety and depression WHO Disability Assessment Schedule (WHODAS 2.0) Number of pain location - pain drawing Brief Pain Inventory (BPI)	Pilot investigation	at referral, pre- and post treatment at 9 months follow-up	Multidisciplinary treatment program: weekly sessions with medical doctor, clinical psychologist, physiotherapist and social councellor
Prip et al. 2010	Disability Rating Index (DRI) Visual Analogue Scale (VAS) Pain Drawing (pain distribution posterior + anterior) Screening of tender points in body (fibromyalgia criterion) Interview about pain and sensory disturbances in their feet Clinical examination of sensory function in the feet	Cross-sectional Study	Before entry to rehabilitation	n/a
Dibaj et al. 2017	Clinical Administered PTSD scale (CAPS) Hamilton Rating Scale for Depression (HRSD) Post-traumatatic diagnostic scale (PDS) The Norwegian Pain Association´s Minimum Inventory for Pain Patients (NOSF-MISS) The MINI International Neuropsychiatric Interview (MINI) Numeric Rating Scale (NRS) Brief Pain Inventory (BPI)	Case Series design study	Pre-treatment Baseline assessments 1week and 3 weeks Follow up 3 and 6 months One item from BPI, NRS, PDS after each session	narrative exposure therapy and physiotherap
Gample et al. 2020	Central Sensitization Inventory (CSI) Patient Specific Functional Scale (PSFS) Pittsburg Sleep Quality Index (PSQI) General Self Efficicacy Scale (GSES) Harvard Trauma Questionnaire (HTQ) Qualitative report and feedback Health status Social status Hopkins symptom Checklist (HSCL-25) Open ended interview of symptoms and functioning Body chart Medical screening checklist Symptom checklist	RCT	pre and post treatment	10 weekly group sessions of physiotherapy and psychoterapy One additional check-up for physio and psychoterapist
Gueron et al. 2020	Disability Rating Index (DRI) Body Image for pain locations Pelvic floor distress tool Physiotherapy assessment: perception of pain, posture, ROM, Strenght, nerve involvement, medical history, ruling out red flags	Observational secondary analysis, compared outcomes of survivors of torture to refugees without torture	Pre and post treatment (baseline) Follow-up: 2 weeks, 3 and 9 months	Group physiotherapy 1x/week 10 weeks
Karret et al. 2020	Brief Pain Inventory (BPI) Body image for number f pain locations Body awareness scale (BAS-E) Self rated health	Survey + Observational study pre and post treatment	Pre-and post treatment	Physiotherapy pain school: 60min x 10 sessions individual or 90 minutes with brake in the middle if in the group
Kim and Yu 2015	Visual Analogue Scale (VAS) Korean Oswestry Disability Index (KODI) PDS-K for Post-traumatic Stress Disorder Balance (Balance System SD (Biodex Inc,USA)	RCT	Pre- and post intervention	complex manual therapy 90min 2x/week for 8 weeks home exercises for 90 minutes a session 3 times per week
McCuen Dee et al. 2024	Depending on a study presented	Scoping review	Depending on a study	Depending on a study

APPENDIX 2: CATEGORIES OF THE TOOLS

Pain	SF-MPQ
	Wong-Baker FACES® Pain Rating Scale
	Margolis Pain Diagram
	VAS
	Body Maps (locations, number of sites and amount of pain)
	Usage of pain medication
	Chronic pain yes/no
	Diary: pain experience and wellbeing
	BPI
	Fibromyalgia tender points
	Interview about pain and sensory disturbances in the feet
	NOSF-MISS
	NRS
	Physiotherapy assessment: perception of pain, nerve involvement
	KODI
Mental health	HTQ
	HSCL-25
	PHQ-9
	MINI
	HADS
	PDS
	PDS-K
	CAPS
	HRDS
	Interview about emotional well-being: anger, inferiority complex, social isolation and police/military phobia during past 14days
Functioning and disability	WHODAS 2.0
	Standing balance test
	Balance static and dynamic evaluted wih Balance System SD
	Monitoring the self-help
	DRI
	PSFS
	Open ended interview of symptoms and functioning
	Physiotherapy assessment: posture, ROM, Strenght,
	Qualitative interview about daily functioning
Sleep	BDQI

Health	Grip Strenght
	Health Status
	Self-rated Health
Body Awareness	BAS-E
Self Efficacy	GSES
Social Aspects	Income
	Employment
	Immigration status
	Housing yes/no
	Perceived social support yes/no
	Social status
	Client demographics: age, gender, country of origin
Medical Assessment	BMI
	EMG
	HR
	Clinical examination of sensory function in the feet
	Medical screening checklist
	Symptom checklist
	Physiotherapy assessment: medical history, ruling out red flags
Other	Qualitative interview: satifaction to treatment, social life, purpose of life
	Qualitative report: Improvement and frequency of improvement, how they feel about intervention, feedback
	Client demographics: age, gender, country of origin
	Trauma exposure: number of reported traumatic events
	Treatment informartion: number of mental health, social and legal services
	CSI
	Pelvic floor distress tool

APPENDIX 3: DESCRIPTION OF THE TOOLS FOUNDED

Body Awareness Scale - Experiences

The Body Awareness Scale Movement Quality and Experience (BAS MQ-E) assessment tool has three parts related to the Basic Body Awareness Therapy (BBAT) method.

The first part of the complete BAS MQ-E tool is for the professional to evaluate, but the second and third parts can be used separately. Those two parts of the tool (BAS-E) evaluate the respondents' experiences, perceptions, and functions concerning body awareness in their everyday lives. The second part is a self-report questionnaire where each question is scored from 0 to 3, where 0=no problems and 3=extreme problems. The third part is an interview about how the person experiences the BBAT movements. The complete assessment tool is advised to be used as a whole because it is stated that respondents' experiences about body awareness cannot be assessed using only numeric values, but qualitative information is equally important. The tool has shown reasonable validity in a couple of studies related to pain disorders, anxiety disorders, schizophrenia, and psychosis. (Bertilsson 2024)

Body Maps: locations, number, and amount of pain

Body maps or charts are simple pictures of the human body outlined from different angles. Usually, at least the front and back are visualized, but the image from the sides is sometimes also used. Body maps can be part of questionnaires or used as an own. Clients mark the pain in the picture according to the instructions. Sometimes, the type of pain, e.g., stinging or burning, is marked with different colors or marking types, or the number of painful sites is calculated, making the marking more straightforward. In some cases, the clients can mark their number of the severity of pain in the location they have chosen. Body maps are relatively easy to use and understand. Nowadays, 3D computer-based tools are available. (Dixit & Lee 2022)

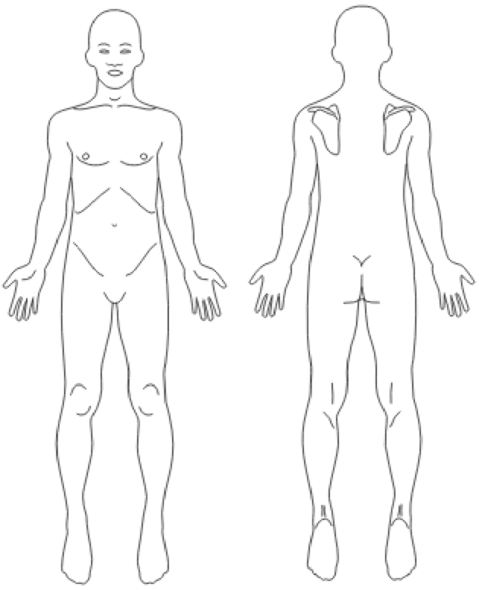


Figure 7: Example of body map (OpenClipart 2021)

Body Mass Index

Body Mass Index is a widely and commonly used tool for screening weight and height ratios, providing a number used primarily to determine if the client is obese. The roots of BMI go back to 1830 to a mathematician interested in the idea of a "normal man." The BMI became known better in the 70s when population studies and data were produced to support the formula of healthy men: weight divided by height squared. BMI does not measure the amount of adipose tissue or muscle mass, and the original studies backing the formula and idea only concluded men from specific ethnical backgrounds. Regardless, nowadays, BMI exists in almost all electronic medical records, and guidelines are used to assess various disease risks. It even sets limits on when someone can access a specific medical procedure. (Pray & Riskin 2023)

Brief Pain Inventory

The Brief Pain Inventory (BPI) is currently one of the most used assessment tools for pain. With the questions of BPI, respondents will evaluate the severity of their pain and how it affects their functioning. The severity of pain is assessed at its "worst," "least," "average," and "now" (current pain). The interference is screened with seven questions about general activity, walking, work, mood, enjoyment of life, relations with others, and sleep. The interference part of the tool is also designed to screen related emotions. Originally, BPI was used for cancer pain, but it has been used in several other pain conditions and hundreds of studies. (Shadid et al. 2011)

Central Sensitization Inventory

The Central Sensitization Inventory (CSI) is a self-report tool for identifying and evaluating symptoms related to Central Sensitization or related syndromes (e.g., fibromyalgia, whiplash injury, TMD, chronic migraine). It consists of two parts. The first has 25 questions related to identifying CS, and the latter is possibly related to the co-morbidities mentioned above, plus depression and anxiety. Only part A is scored, and the respondent answers on a scale of 0-4, never-always. In part B, respondents circle each diagnosis they have. CSI has been studied for high reliability and has been translated into several languages. The studies reported contradictory results, conserving the validity of the tool. Initially, the tool was designed for clients suffering from chronic pain conditions. (Physiopedia n.d)

Clinician-Administered Post-Traumatic Stress Syndrome Scale for DSM-5

The Clinician-Administered Post-Traumatic Stress Syndrome Scale for DSM-5 (CAPS-5) is an assessment tool used to evaluate and make categorical PTSD diagnoses. Additionally, the tool provided the possibility to evaluate the severity of the symptoms in different timeframes, depending on which version and in what use the tool is used.

The questions are designed to screen the severity or intensity of the symptoms and how they interfere with social or occupational settings, the duration of symptoms, and how the symptoms may have changed since the previous CAPS evaluation. It also has questions that evaluate the possibility of dissociation (depersonalization and derealization).

The CAPS-5 is an interview-type tool recommended for use only by clinicians who are experts in PTSD symptoms. The scoring depends on the timeframe version used (past month, past week, or worst month/lifetime) and the purpose of the assessment. CAPS-5 has high internal consistency, reliability, and validity. (International Society for Traumatic Stress Studies n.d.)

Disability Rating Index

The Disability Rating Index (DRI) is a self-report designed in the 1990s to assess disability and functioning. It includes 12 questions, which are evaluated using VAS. The 12 items are divided into three sections: everyday basic activities of daily life, more demanding daily physical activities, and work-related or more vigorous activities. DRI is used to evaluate clients' activity and participation limitations. (Salen et al. 1994)

Fibromyalgia 18 tender points

Fibromyalgia tender points are 18 bilateral points (9 on each side of the body) that are hypersensitive to pressure. The point area is small, about coin size, and these points are found between the bottom of the skull and the medial side of the knee. Clinicians used tender points to diagnose fibromyalgia some years back. If there were >11 tender points from 18, it meant the client might have FM. Nowadays, tender points are not used as diagnostic tools. It is advised to screen for fibromyalgia with other assessment tools and questions related to widespread symptoms related to FM. Tender points can be tested in addition. (Health Editorial Team 2024)

In the study (Prip et al. 2010), the pressure for testing was 4kg, and participants evaluated the tenderness on a scale of 0 to 4. Additionally, the professionals looked for signs of pain due to pressure, e.g., jumping and changes in the face.

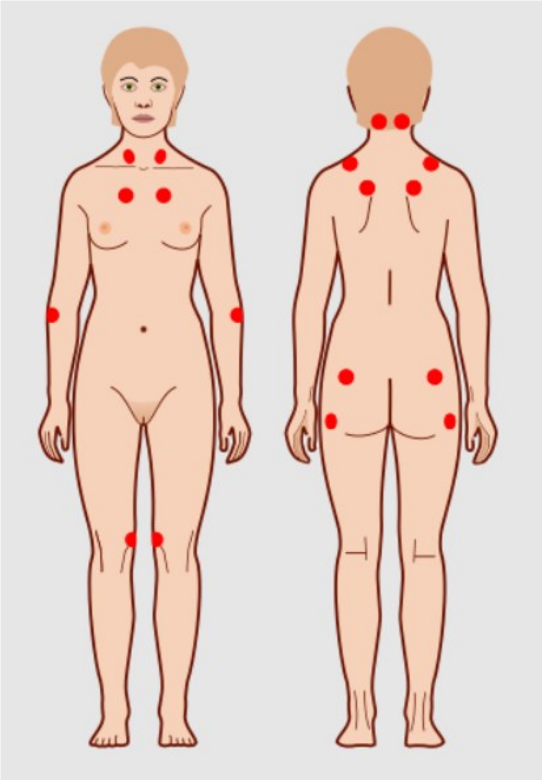


Figure 8: Example of location of the tender points. (Tender points fibromyalgia 2012, CCO)

General Self-Efficacy Scale

The General Self-Efficacy Scale (GSES) was initially designed in the late 1970s to evaluate the ability to cope with daily problems or adapt to more severe stressful situations. It is designed for adults but can be used for respondents over 12 years old. The tool is available in more than 30 languages. It is recommended that GSES be used with other screening tools. The tool has ten self-report questions with a four-point scale. (Schwarzer & Jerusalem 1995)

German Pain Coping Questionnaire

German Pain Coping Questionnaire FESV or FESV-BM is commonly used and recommended by the German Section of the International Study of Pain for assessing different aspects related to pain processing. FESV contains 38 questions related to three themes: cognitive pain coping, behavioral pain coping, and pain-related mental interference. Additionally, each theme has subthemes for cognitive coping: action planning, cognitive restructuring, and competence experience; for the behavioral coping component, mental distraction, counteractive activities, and relaxation techniques; and the component of pain-related mental interference, pain-related helplessness and depression, pain-related anxiety, and pain-related anger. Respondents evaluate how they agree with the claims on the tool with a scale of 0-6, where 0=not at all true and 6=completely true. The validity and reliability of this tool have been tested to be good. (Liedl et al. 2011, Scheidegger et al. 2023)

Grip Strength

Grip strength measures muscular strength or maximum force from the forearm muscles by gripping a designed dynamometer. It is stated that grip strength is related not only to upper extremity muscle force but also to health, higher life expectations, and upper body strength. (Physiopedia n.d.)

Hamilton Rating Scale for Depression

The Hamilton Rating Scale for Depression (HRDS or Ham-D) is a widely used scale for assessing depression symptoms of the respondent's past week used in a clinical environment and by the clinician. The original version consisted of 17 items, but several other versions with more or fewer questions are also available. The tool is used with semi-structured interviews and takes up to 30 minutes to complete. Scoring varies depending on the version that is used. Often, it is required that more than 20p indicate moderate or severe depression symptoms. The scale has been translated into several languages. (Sharp 2015)

Harvard Trauma Questionnaire

The Harvard Trauma Questionnaire (HTQ) was designed by the Harvard Program in Refugee Trauma. It is a checklist questionnaire that screens symptoms and events related to trauma. HTQ is currently available in six versions that have been modified concerning specific cultures or events, such as the war in Croatia or the Kobe earthquake in Japan. The HTQ consists of four different parts that are sometimes used indivudally. For example, in their study, Wang et al. used only part II which includes an open-ended question that screens respondents for a subjective description of the most traumatic event or event that they experienced. Part IV is related to the diagnostic elements of PTSD according to the DSM-IV, plus additional possible symptoms. (Harvard Program in Refugee n.d.)

Hopkins Symptoms Checklist- 25

The Hopkins Symptoms Checklist (HPCL-25) is a well-known and widely used instrument that dates back to the 1950s. It has 25 questions related to symptoms of anxiety (part I) and depression (part II). The questionnaire is available in multiple languages. (Harvard Program in Refugee n.d.)

Hospital Anxiety and Depression Scale

The Hospital Anxiety and Depression Scale (HADS) measures anxiety and depression. HADS focuses on non-physical symptoms of anxiety and depression. It is stated to be easy and quick to use with seven questions and has become a popular tool. However, it does not include enough questions to link it to diagnostic criteria, so depending on its use, a more thorough assessment needs to be done for diagnostic purposes. Additionally, HADS does not screen for the risk of suicide or self-harm.

HADS is recommended to be used for screening development during treatment or intervention. The HADS questionnaire has been validated in many languages, countries, and settings. (Stern 2014)

Korean Oswestry Disability Index

The Oswestry Disability Index (ODI) assesses the severity of the impact of low back pain on the respondent's functioning. The KODI is the Korean version of that questionnaire. The KODI is not only translated into different languages, but its cross-cultural adaptation qualities have also been evaluated and recognized as internally consistent and reliable. (Jeon et al. 2005)

Korean Version of the Posttraumatic Diagnosis Scale

The Korean version of the PDS is called PDS-K. It was translated and validated in the late 1990s. It has four different parts evaluating different aspects of PTSD symptoms. (Kim et al. 2022)

Margolis Pain Diagram

The Margolis pain diagram is a visual tool for self-assessment of pain. It shows a picture of the body from the front and back, highlighting areas that correspond to a percentage of the human body. The subjects color the areas where they are experiencing the pain, and the extension and distribution are evaluated. (Paschali et al. 2019)

Mini International Neuropsychiatric Interview

The Mini International Neuropsychiatric Interview (MINI) was designed as a brief, structured diagnostic assessment tool for the 17 most common psychiatric disorders in DSM-III-R, DSM-IV, DSM-5, and ICD-10. There are several versions of MINI, but the standard MINI, or the adult version, requires the most time and effort. The MINI has been translated into more than 70 languages and studied for its reliability and validity. (MINI 2024)

The Norwegian Pain Association´s Minimum Inventory for Pain Patients

The Norwegian Pain Society has created its assessment tool for screening pain symptoms and pain interference in respondents' lives. The Norwegian Pain Association´s Minimum Inventory for Pain Patients (NOSF-MISS) is a four-page 31 items screening tool that is stated to cover the recommendation of The mission of the Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials (IMMPACT) but also includes questions about coping with pain, health-related quality of life, catastrophizing, economy, social security, and screens if there are ongoing processes (juridical or compensation) related to the condition. In the NOSF-MISS, questions and items from other assessment tools have been combined. It, for example, includes a body map and NRS evaluation, as well as questions for the BPI and SF-36, among others. Additionally, it is used to screen respondents' ratings of improvement and satisfaction with treatment. (Breivik et al. 2008)

Numeric Rating Scale

The Numeric Rating Scale (NRS), sometimes called the Numeric Pain Rating Scale (NPRS), is an assessment tool for pain that uses numeric evaluation for the amount of experienced pain during, for example, the past 24 hours or the average amount. There are multiple ways of using NRS, but the most common is to ask the respondent to choose a number that describes pain intensity from 0 to 10, where 0 is no pain, 10 is the worst possible pain, and five is moderate. Often, the scale can be additionally visual. NRS is easy and fast to use but is frequently criticized for being too simple, considering the complexity of pain disorders. NRS has been stated to be reliable and valid and can be used in several cultures and languages. (Physiopedia n.d.)

Patient Health Questionnaire - 9

The Patient Health Questionnaire (PHQ) is adapted from the PRIME-MD diagnostic instrument for common mental disorders. The full PHQ assessed eight mental disorders. The PHQ-9 is the depression module from the full questionnaire and measures depression symptoms. The scores for each question of the nine DSM-IV criteria are “0” (not at all) to “3” (nearly every day). The PHQ-9 can be used individually. The PHQ has good reliability and validity. (Kroenke et al. 2001)

Patient Specific Functional Scale

The Patient Specific Functional Scale is a self-measuring tool for identifying and evaluating activities important to the respondent, which is recognized as limited due to condition problems. First, the respondent names up to five activities and then rates the difficulty on NRS 0 to 10, 0=being unable to perform the activity and 10=able to perform the activity at the same level as before the injury or problem now occurring. The PSFS is reliable, valid, and suitable for many populations, cultures, and languages. Additionally, PSFS has been credited for participating with the respondent and naming the issues from their life instead of providing preset options. (Sterling 2007)

Pelvic Floor Distress Inventory Questionnaire

The Pelvic Floor Distress Inventory (PFDI) and the shorter version, the Pelvic Floor Distress Inventory Questionnaire-20 (PFDI-20), is a tool for female respondents suffering from pelvic symptoms. It has questions from three different questionnaires: Urinary Distress Inventory-6 (UDI-6), Pelvic Organ Prolapse Distress Inventory-6 (POPDI-6), and the Colorectal-Anal Distress Inventory-8 (CRADI-8). The questions are yes/no type, but if “yes” is marked, the respondent must use a Likert scale to evaluate the interference the problem has caused. PFDI-20 has high reliability and validity. While the tool evaluates the severity and type of pelvic floor problems or conditions, it also assesses how they affect the quality of life. (Physiopedia n.d.)

Pittsburg Sleep Quality Index

The Pittsburg Sleep Quality Index (PSQI) was initially designed for psychiatric patients to identify and evaluate their sleeping problems, which are often related to these conditions. PSQI is a self-reporting tool with 19 questions. The questions are divided into seven subcategories: subjective sleep quality, sleep latency, duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. The questions are a combination of open-ended and Likert-scale. The score for each question varies from 0 to 3. The reliability and validity of the tool have been proven relatively high. The PSQI has five questions for someone sleeping in the same room with the respondent, e.g., another patient in the clinical ward or a family member/spouse. (Shadid et al. 2011)

Posttraumatic Diagnostic scale

The Post-traumatic Stress Diagnostic Scale (PDS) is an easy-to-use and brief tool assessing PTSD symptoms. The questions are self-reported and designed for adults and adolescents aged 13 years and older. The tool is linked to the DSM-IV criteria for PTSD. The PDS has 49 items in various parts. Some of the questions are rated from 0-4. PDS has high validity and reliability and is commonly used not only in clinical usage but also in research. (McCarthy 2008)

Standing Balance Test

Balance can be measured in multiple ways. One of the most common is one leg standing as long as possible without taking support and holding the position. In addition, the static balance of one-leg standing also measures postural control. Balance changes can be related to neurological or musculo-skeletal problems. There are several variations of this simple test. The test can be called the Stork, Flamingo, Standard Balance test, or Single Leg Stance, to mention just a few names. The raised leg can be held against the inner part of the knee of the supporting leg or be held so there is no contact with the supporting leg. Additionally, the knee flexion is sometimes instructed to stay on a 90-degree ankle. The eyes can be open or closed. Additionally, there are variations where the position of the arms is maintained on the hips or crossed on the chest. (Physiopedia n.d.)

The study of Wang et al. (2016) did not describe how the non-supporting leg or arms were positioned, but it was said that if the participant could hold their position for more than the 30s, it was considered a successful outcome.

Short-form McGill Pain Questionnaire

Before the McGill Pain Questionnaire (MPQ), which dates back to the 1970s, pain was mainly assessed by intensity. MPQ brought words to the table. The purpose is to screen different qualitative aspects of the pain experience (sensory, affective qualities, and intensity). The short version of the same questionnaire (SF-MPQ) only included the sensory and affective quality questions that can be rated from 0-3 on a scale of 0, meaning none, and three being severe. Additionally, SF-MPQ screens the average pain experience using a visual analog scale (VAS), and the latest version includes seven more words related to neuropathic pain, totaling 22 words. The questionnaire also has a Pain Rating Index from 0, no pain, to 5, excruciating pain. The different parts of the questionnaire can be scored in several ways. The questionnaire has been translated into almost 30 languages, and reliability and validity depend on the language. (Physiopedia n.d., Harlacher 2019)

Visual Analogue Scale

The Visual Analogue Scale (VAS) is commonly a straight 10cm line, and it commonly has the words “no pain” on the left end and “worst imaginable pain” on the right end. Clients are asked to place a mark on the line to describe the amount of pain they are experiencing. The distance of the mark is measured from the left end of this number, which states the severity of pain on a scale of 0-10. VAS is a widely used, relatively simple tool for health professionals and clients to understand and a cheap tool. It has been validated and shown to be sensitive to the changes in pain experience. VAS has been criticized for being too simple, considering the complex nature of pain and especially pain disorders, and lacking the qualitative aspect. (Physiopedia n.d.)

Wong-Baker FACES® Pain Rating Scale

The Wong-Baker FACES® Pain Rating Scale dates back to the early 1980s and uses images of faces, numbers, and words to help people self-assess the severity or intensity of the pain they experience. The tool contains six images of faces, the range of which changes from happy to crying. The scale for numeric and words ranges from 0 no hurt to 10 hurts worst. Initially, the tool was developed for children, but it can be used with adults. (Morales-Brown 2022)

Figure 9: Wong-Baker FACES ® (Wong-Baker Faces Foundation 2020)

World Health Organisation Disability Assessment Schedule 2.0

World Health Organisation (WHO) has designed a standardized instrument for measuring health and disability according to the International Classification of Functioning, Disability and Health (ICF). The World Health Organization Disability Assessment Schedule (WHODAS 2.0) is a tool designed for use both pre- and post-intervention. Studies have shown that WHODAS 2.0 is a valuable tool for assessing health and disability in the general population. The questions cover six themes of functioning. They are cognition: understanding and communicating; mobility: moving and getting around; self-care: hygiene, dressing, eating, and staying alone; getting along and interacting with other people; life activities: domestic responsibilities, leisure, work, school; and participation: joining in community activities. This tool comes in different versions, such as 12- and 36-question options. It is recommended that the broader tool be used to get better information about the problems related to functioning. (WHO 2010)