TCI-MASSAGE

TCI-Massage Research Study Results Summary: A Mixed-Methods Randomized Controlled Trial

Introduction

Forced migrants experience disproportionately high rates of chronic pain, posttraumatic stress disorder (PTSD), anxiety, depression, and sleep disturbances. These conditions are often prompted by exposure to war, persecution, torture, forced displacement, family separation, and ongoing stressors following resettlement. Despite this substantial burden, evidence remains limited regarding interventions that address both physical and psychological distress among culturally and linguistically diverse forced migrant populations. Research has demonstrated benefits of massage therapy for chronic pain, mental health, and sleep in general populations and some subpopulations, such as veterans. However, little is known about how massage-based interventions can be adapted and implemented effectively for forced migrants and torture survivors, particularly for people from diverse cultural and linguistic backgrounds.

This document summarizes findings from a study on a massage-based intervention developed for forced migrants experiencing chronic pain and mental health symptoms, drawing on results from a mixed-methods randomized controlled trial, including participant experience interviews and an online survey of staff.

The TCI-Massage Intervention

Trauma-Informed and Culturally Responsive Integrated Massage Therapy (TCI-Massage) was developed by CVT specifically for forced migrants and torture survivors experiencing chronic pain. The intervention consists of ten weekly massage sessions delivered within an integrated trauma rehabilitation setting. TCI-Massage combines therapeutic massage with trauma-informed principles, culturally responsive practices, somatic education, and self-massage instruction. Companion documents describing the TCI-Massage components, trauma-informed practices, and somatic education protocol in detail are available online.*

Key Findings

- **TCI-Massage improved both physical and psychological health.** Participants receiving TCI-Massage plus care as usual had significant improvements in chronic pain, anxiety, depression, and PTSD symptoms compared with care as usual only.
- **Benefits extended beyond the treatment period.** Improvements in pain and mental health symptoms were maintained at least three months after treatment.
- **Participants gained practical tools to manage pain and distress outside of treatment sessions.** Interviews highlighted greater body awareness, breath practices, self-compassion, self-massage, and other strategies that participants used independently in daily life.
- **TCI-Massage fit well within comprehensive trauma rehabilitation.** Clinic staff viewed the intervention very positively, reported improvements in clients' physical and mental health, and described strong cultural fit and care coordination.

* www.cvt.org/what-we-do/advancing-research/tci-massage/

The CENTER for VICTIMS of TORTURE

Study Overview and Methods

This document summarizes findings from three study methods: (1) a randomized controlled trial (RCT), (2) participant experience interviews, and (3) an online survey of clinic staff.

Randomized Controlled Trial (RCT)

We conducted an RCT with a waitlist design at the Center for Victims of Torture to evaluate whether TCI-Massage reduced pain and psychological distress among adult forced migrants experiencing chronic pain (N = 55). Participants were randomly assigned to either TCI-Massage + care as usual (CAU) or CAU only. CAU for both groups included access to psychotherapy, social work services, and medical services such as nursing or primary care. The CAU-only group received TCI-Massage after the study comparison period. Study outcomes included chronic pain, anxiety, depression, PTSD symptoms, and sleep quality. This design allowed us to estimate the effect of TCI-Massage above and beyond the effects of CAU. Full results from the RCT will be published in a peer-reviewed journal.

Experience Interviews

The waitlist design meant that all participants ultimately received TCI-Massage. This allowed us to conduct in-depth interviews about the massage experience with nearly all participants at the end of their treatment (N = 52). The interviews explored participants' reasons for enrolling, perceived changes in pain, physical functioning, sleep, and emotional well-being, as well as their experiences of safety, communication, and therapeutic relationships during massage. Participants were also asked about their use of self-massage and other home practices, cultural and language considerations, logistical aspects of participation, and satisfaction with the intervention. We present key themes that emerged from the interviews, along with illustrative quotes.

Online Staff Survey

We also administered a quarterly online survey during the study to clinic staff who provided collaborative care to study participants. The survey was completed by psychotherapists, social workers, community health workers, and interns, resulting in 22 completed surveys. The survey addressed staff impressions of the intervention, its cultural fit for clients, and staff experiences coordinating care with massage therapists. We present summary graphs for survey items, along with illustrative quotes from open-ended responses.

The three methods provide different types of evidence. The RCT measured changes in health outcomes and estimated the effect of TCI-Massage compared with care as usual. The interviews provided participants' perceptions and explanations of their experiences, while the staff survey addressed staff impressions of clients' experiences, cultural fit, and care coordination.

Randomized Controlled Trial (RCT) Results Summary

Participants who received TCI-Massage showed statistically significant and clinically meaningful improvements in chronic pain, anxiety, depression, and PTSD symptoms compared with participants who received CAU alone. Improvements across these outcomes were maintained three months after treatment, indicating that benefits persisted beyond the immediate intervention period.

Participants who received TCI-Massage also experienced statistically significant improvements in sleep quality from baseline to the end of treatment. However, the difference in improvement between the TCI-Massage and CAU groups was not statistically significant. Descriptively, participants receiving TCI-Massage showed greater improvement in sleep quality than those receiving CAU alone.

The study also demonstrated strong participant engagement. More than 80% of participants received at least the minimum dose of seven massage sessions, and more than one-third completed all ten sessions. The RCT findings provide evidence that TCI-Massage can improve pain and psychological symptoms when integrated into trauma rehabilitation services for culturally and linguistically diverse forced migrant populations.

Participant Interviews: Reported Experiences

Participant experience interviews highlighted two ways participants experienced TCI-Massage: (1) providing relief across areas including pain, sleep, mobility, social functioning, and emotional well-being, and (2) equipping them with skills and tools that supported recovery and increased their confidence in managing their own symptoms and well-being. Participant accounts were consistent with the RCT findings and provided insight into how participants perceived the changes they experienced, including the perceived pathways connecting improvements in pain, sleep, mood, and functioning. The following themes and quotes illustrate participants' descriptions of how TCI-Massage affected their health and daily lives.

TCI-Massage provided relief across multiple areas of participants' lives, including pain, mental health, sleep, and participation in daily activities. Participants frequently described pain relief as connected to improvements in sleep, mood, physical functioning, and daily life.

PAIN	All interviewees reported at least some reduction in pain associated with TCI-Massage.	→	"It actually improved my pain. It was the day that I came in, I was virtually at a 9 [out of 10], and... by the end of the massage, I was at about 2."
	Some participants compared the pain relief they experienced after massage to the effects of pain medication.	→	"In the beginning afterwards, it felt like I had taken pain medication. ... the pain right after had calmed and then also with the exercises at home... the pain would lessen. And then, with time, the pain had disappeared in my body."
FUNCTION	Greater ease of movement and improved flexibility supported participants' ability to engage in daily activities.	→	"I was unable to bend down and touch my feet but by the time I [finished massage], I was able to do that, which for me was really... it was just like magical."
	Increased ability to complete household and other daily activities with less pain.	→	"It makes me flexible to go about my daily activities like the house chores to sweep the house, clean the dishes, and arrange the bed at least I'm doing that without any pain."
SLEEP	Better sleep, including deeper sleep, longer sleep duration, and fewer nighttime awakenings.	→	"Before... my sleep was light. Any noise during the night, I could wake up, but now, I deeply sleep. I even have to put alarm so that it can help me to wake up in the morning."
	Pain relief helped participants sleep more comfortably through the night.	→	"I had changes all around my arm. I had a lot of pain in it, but I couldn't even sleep like throughout the night..., but now I'm able to... sleep all night without having any of those pains. Like it's all gone."
MOOD	Improved mood and well-being.	→	"Yes, I can say that, in this sense, the massage has also strengthened my mood... I felt more calm, in my own skin... it strengthened my mood and my confidence."
	Pain relief contributed to improvements in mood and emotional well-being.	→	"[Massage] brought me back to my normal mood, you know, like zero pain always in a good mood."

Participants emphasized the value of the somatic education included in TCI-Massage, which gave them skills they could use outside of treatment sessions. Breath awareness, noticing bodily sensations, and self-compassion provided practical strategies for responding to pain and distress and supporting their well-being.

Breath awareness helped participants respond to difficult emotions.

→ "There were times that maybe my mood is low I learned that I could like kind of pamper myself, I could do the deep breathing."

Noticing bodily sensations helped participants better understand their bodies and recognize and respond to pain.

→ "Massage helped me understand my body and what I should do to avoid certain pains .... I know my body better than I used to."

Self-compassion helped participants respond to distress with greater care, reduce self-blame, and recognize their own strength and capacity.

→ "I appreciate it, I appreciate the love. I appreciate them teaching me how to, like, do self-care. I appreciate them teaching me to not blame myself. To know that I can do it, to know that I am that strong woman."

Practical strategies increased participants' confidence in managing pain and distress independently.

→ "I knew that normally when I have a body pain, I just have to like look for medications that can straighten out my body but now I think I'm free from that those medications, but there are just literally things that I can like do I will help me for the day and the week. Why not the month and the year?"

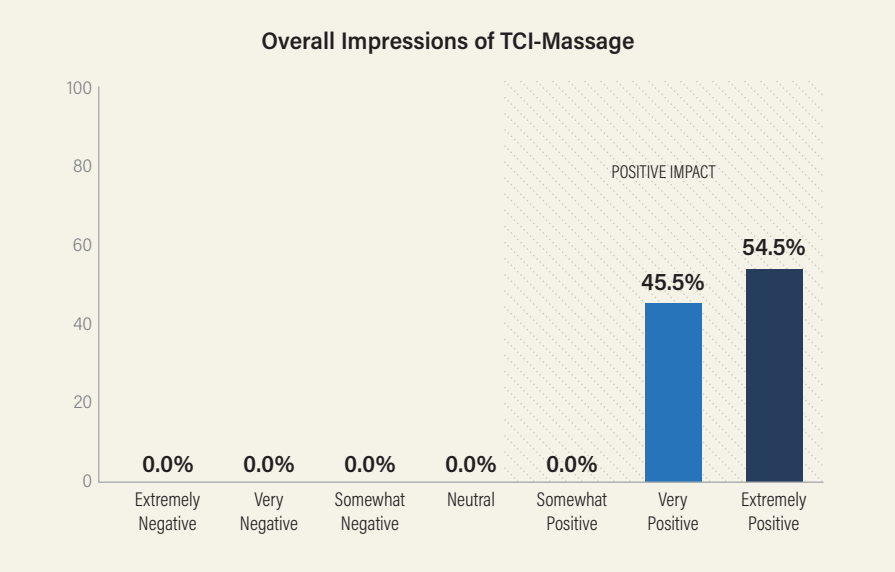
Tangible tools, such as tennis balls and eye pillows, helped participants continue self-care practices outside of massage sessions.

→ "It is something that is like almost getting to be like part of me, whenever I feel my muscles not relaxed. I usually use my tennis ball to relax."

Staff Survey: Perceptions and Observations

Overall, clinic staff viewed TCI-Massage as a welcome addition to trauma rehabilitation services and reported that it supported improvements in clients' physical and mental well-being. The graphs below summarize responses to closed-ended survey items, accompanied by illustrative quotes. Staff perceptions were broadly consistent with the RCT findings and participant experience interviews. The survey responses provide complementary information about staff-observed changes, cultural fit, and care coordination, not independent measures of treatment effectiveness.

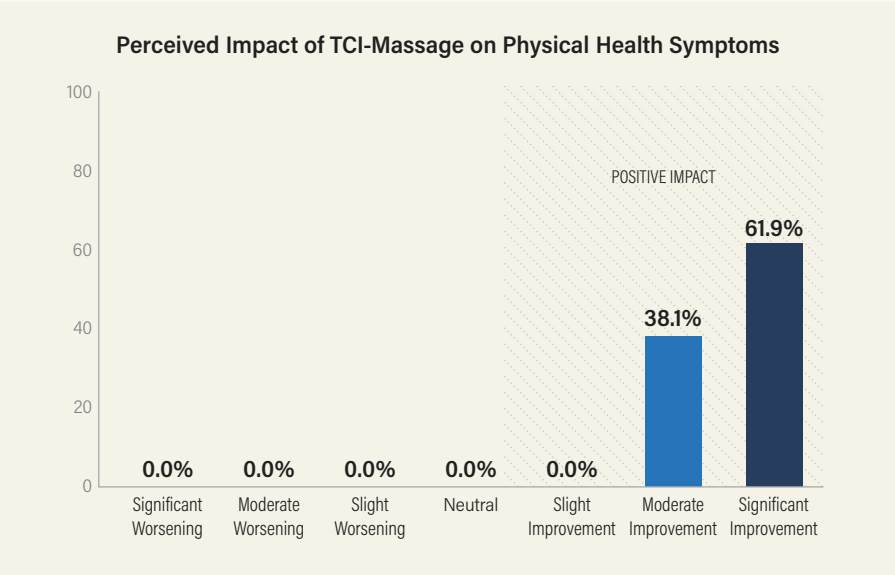
All staff survey responses rated TCI-Massage as very or extremely positive.



> "Clients have shared that their services have been very beneficial. Having bodywork services available to clients from providers who are trauma-informed and passionate about serving torture survivors, has been a significantly impactful intervention that I hope could continue … going forward.

> "It was a great, immediately, clearly sought after, and understood intervention that complemented my clinical care.

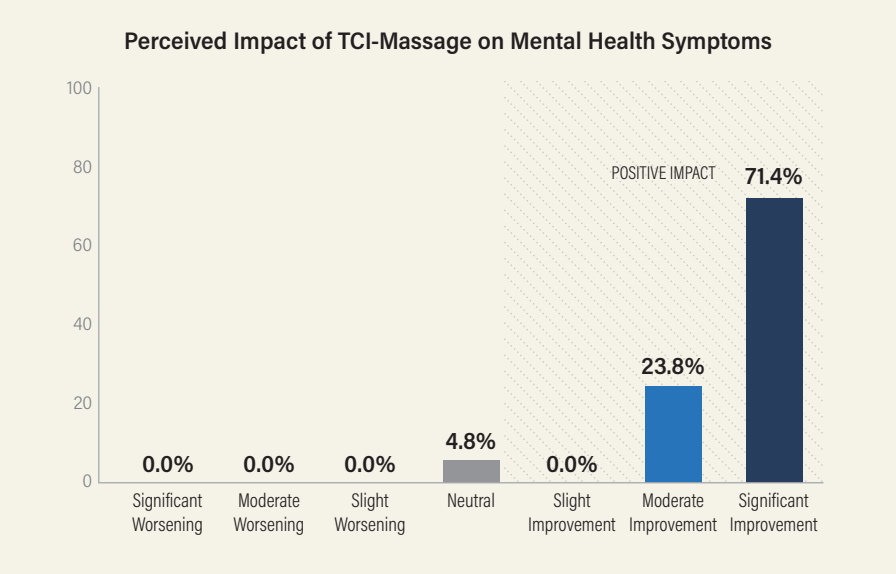
All staff survey responses indicated moderate or significant improvements in clients' physical health symptoms.



> "There has been significant decrease in reporting of chronic pain. Clients have also noticed improved sleep, relaxation, and connection with their bodies. In addition, decreased tension, injury, and somatic symptoms like migraines or stomach aches.

> "Clients have definitely reported decreases in physical pain symptoms and a greater attunement to their body.

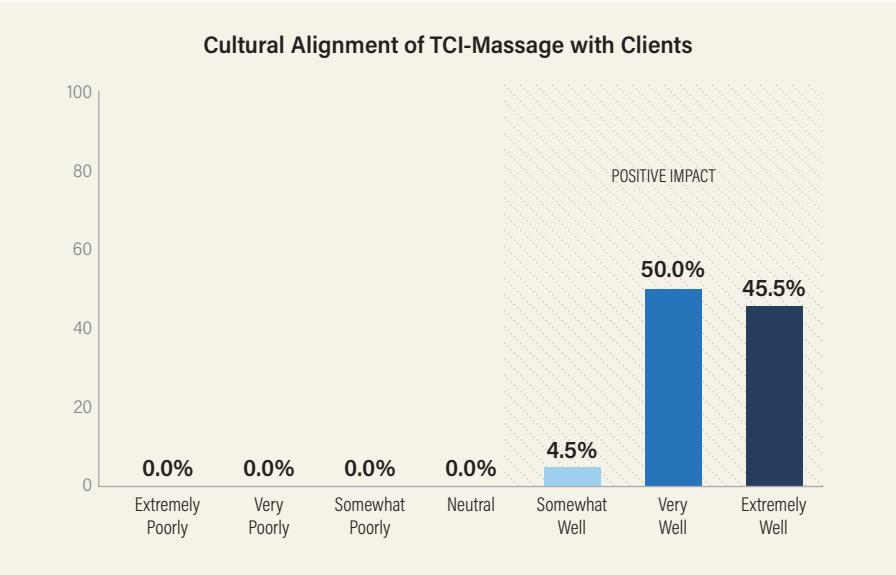
Nearly all staff survey responses indicated moderate or significant improvements in clients' mental health symptoms.



> "I think my clients are better in-tune with their bodies and able to regulate when mental health symptoms arise. They are more in-tune to their breath and coping strategies. It helps them feel less anxious and more relaxed.

> "Clients have spoken of changes in their chronic pain and when they are not reminded of the pain, they are able to stop being triggered as often by the pain caused by torture.

Staff viewed TCI-Massage as culturally well aligned with clients, while highlighting the importance of gender matching.

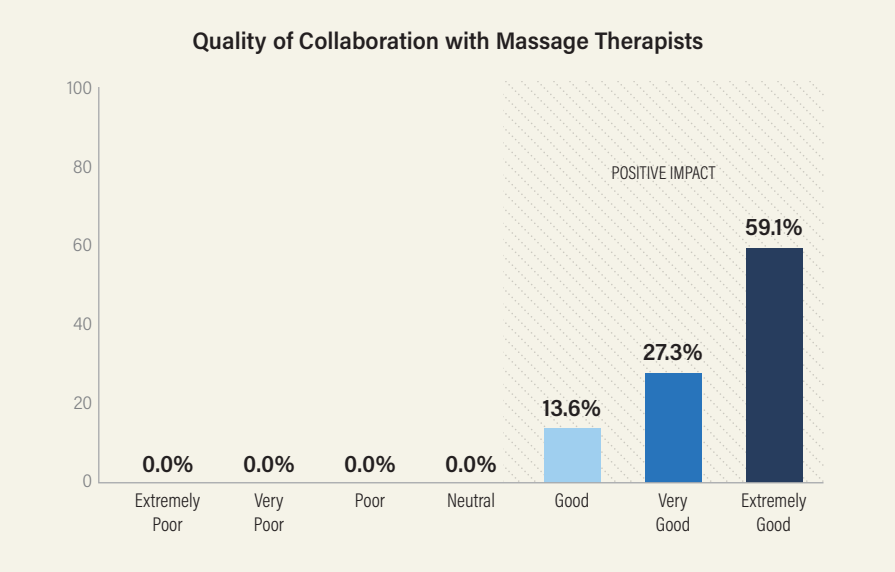


> "Seeing it as a more 'medical approach' to their healing is helpful especially with clients that experience high levels of stigma related to mental health services.

> "No one has ever had any critiques. Many very conservative clients appear to enjoy massage and have no comments or articulated apprehension about it.

> "Culturally my clients prefer to get gender specific therapist. Male client would prefer to work with a male therapist and vice versa.

All staff survey responses rated collaboration with massage therapists as good, very good, or extremely good, supporting the feasibility of integrating TCI-Massage into trauma rehabilitation care.



> "The massage therapists were very good about communicating with me about clients. I felt very involved in their massage journeys.... This is such an important, beautiful intervention, and I think it's helping clients a lot.

> "Love to have this option for clients to receive trauma-informed, body-based care. Talk therapy has lots of limits, massage therapy is a very valuable option for treating pain of all kinds.

Practical Recommendations

Findings from this study suggest that TCI-Massage is a valuable component of trauma rehabilitation for forced migrants. We suggest that trauma rehabilitation programs and other providers serving forced migrants consider doing the following:

1. **Integrate TCI-Massage into comprehensive trauma rehabilitation** alongside psychotherapy, social work services, medical care, and other relevant supports, so that physical and psychological needs can be addressed through coordinated care.

   Evidence for recommendation: The RCT found that TCI-Massage improved pain and mental health symptoms above and beyond care as usual, and staff reported strong collaboration with massage therapists and described TCI-Massage as complementing their clinical care.

2. **Incorporate somatic education, breath awareness, self-compassion, self-massage, and other practical strategies** into massage and other treatments to help participants recognize and respond to pain, tension, and stress outside of treatment sessions.

   Evidence for recommendation: Participants described leveraging greater body awareness, breathing practices, self-compassion, self-massage, and other strategies to manage pain and distress independently, and staff also observed greater body awareness and use of coping strategies among clients.

3. **Provide staff or volunteer massage therapists with training** specific to working with trauma survivors and culturally and linguistically diverse populations. Training should address trauma-informed approaches to massage, cultural considerations related to touch and communication, and effective partnership with interpreters.

   Evidence for recommendation: Staff rated TCI-Massage as highly culturally aligned with clients, and participants emphasized the value of individualized care, clear communication, language-matched services or interpretation, flexibility in treatment approaches, and respect for personal and cultural preferences.

4 **Build choice into massage delivery** by inviting clients to communicate preferences related to touch, clothing, therapist gender, positioning, pressure, the treatment environment, and other aspects of the session. Supporting client choice can strengthen comfort, safety, and cultural responsiveness.

Evidence for recommendation: Staff rated TCI-Massage as highly culturally aligned and identified therapist gender as an important preference for some clients. Participant interviews also highlighted the importance of safety, ongoing communication, and physical and emotional comfort within the massage experience.

5 **Provide simple tools to support home practice.** Low-cost resources such as tennis balls, eye pillows, massage lotion, and clear self-massage instructions can make it easier for participants to continue self-care practices outside of treatment sessions.

Evidence for recommendation: Participants described using tools provided through TCI-Massage and practices learned during the intervention to manage physical tension, pain, and discomfort between sessions.

6 **Make body awareness a therapeutic goal** across trauma rehabilitation. Create opportunities across disciplines for clients to notice bodily sensations, recognize patterns of pain and tension, and develop strategies for responding to physical and emotional distress.

Evidence for recommendation: Participants described better understanding their bodies, recognizing pain and tension, and using that awareness to respond to and manage symptoms. Staff similarly observed greater body awareness and use of breath and other coping strategies among clients.

The evidence for TCI-Massage is promising, and we want to support people in putting what we have learned into practice. For massage therapists, that means learning how trauma-informed principles and TCI-Massage approaches can strengthen work with trauma-affected clients. For trauma rehabilitation programs, it means considering how massage therapy can become part of holistic, multidisciplinary care. Other clinicians may also be able to incorporate selected practices, such as simple self-massage techniques and body-awareness strategies, into the support they already provide. We hope practitioners and programs will consider how these practices fit within their own settings. If you are interested in TCI-Massage, have questions about applying these approaches, or want to explore opportunities to bring this work into your practice or program, we hope to hear from you.

Learn more about the research: cvt.org/what-we-do/advancing-research/