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Effectiveness of lay counselor-delivered intervention for trauma-related symptoms in conflict- affected populations: a cluster randomized trial in Iraq

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Abstract

Background: Currently, over 75•9 million people globally are internally displaced. Internally displaced persons are among those most likely to suffer symptoms of trauma. We aimed to explore the effectiveness of a lay counselor delivered thought field therapy intervention in reducing trauma-related symptoms among women residing in a displaced persons camp in the Kurdistan Region of Iraq.

Methods: In this cluster-randomized double-blind controlled study, participants from each of two camps received a one-time intervention of either thought field therapy or relaxation therapy delivered by professionally trained lay counselors. The camps were cluster-allocated to the intervention, and lay counselors were assigned to groups by computer randomization conducted by an independent statistician. Participants were analyzed according to treatment received. No harm was reported.

Results:A total of 109 participants in the thought field therapy group and 102 in the relaxation group completed pretest assessments and received treatment. Posttest assessments were completed by 102 participants in the thought field therapy group and 100 in the relaxation group, and follow-up assessments by 98 and 95, respectively. At baseline, 86•7% of the thought field therapy group scored above the clinical cut-off for post-traumatic stress disorder, decreasing to 39•8% post-intervention and 6•1% at follow-up. In the relaxation group, 72•6% were above the cut-off at baseline, reducing to 50•5% post-test and 37•9% at follow-up.

Conclusion: These findings support the use of thought field therapy as a potential community-based intervention delivered by lay counselors in conflict-affected settings.

Trial Registration : ISRCTN—15345050.

Introduction

According to the United Nations, internally displaced persons (IDPs) are “persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights, or natural or human-made disasters, and who have not crossed an internationally recognized border.”[1] By the end of 2023, the number of IDPs worldwide had reached 75•9 million. Every day, groups of people are on the move forcibly within their own countries and Iraq is no exception. As of the end of 2023, there were 1,124,000 IDPs in the country who had been displaced by conflict and violence.[2]

Massive and systematic population displacements based on ethnicity and civil unrest have been common in Iraq over the last half-century. Following the war of 2003, the collapse of state control, organized crime, and sectarian violence led to further large-scale internal displacement. Further displacements in Iraq followed the attack by the Islamic State in Iraq and Levant (ISIL) in 2014. Ethnic and religious minorities are disproportionately represented in the overall IDP population in Iraq, including

the Kurdistan region of Iraq (KRI). [3] Displacement disrupts access to essential services, including healthcare, and is associated with increased vulnerability to adverse health outcomes.

More broadly, internal displacement typically occurs in settings affected by conflict and violence, where resources, including mental health services, are often already scarce. Displacement affects all individuals, particularly those most vulnerable, such as individuals with disabilities, the elderly, women, and children. [4] A scoping review of studies on IDPs displaced by war and violence [5] found that, across demographics, IDP populations reported higher rates of mental health disorders compared with local non-IDP populations and even international refugee populations.

A cross-sectional survey conducted in the Garmian region of the KRI [6] found that the 100 participants interviewed had experienced an average of 4•4 traumatic events; 92% had experienced oppression due to religion, sex, or ethnicity; and 83% had been exposed to combat situations. There is an urgent need for practical, scalable, and contextually appropriate approaches to address mental health needs in conflict-affected and resource-limited settings. [7, 8] The use of professionally trained lay counselors has been studied as one partial solution. [9—11] While interventions delivered by mental health professionals may achieve strong outcomes, the training and deployment of lay counselors remains a practical and scalable solution in resource-limited and conflict-affected settings. [12] The use of lay counselors has the advantage of building on existing community strengths and strengthening community capacity. [13] Additional advantages include cost-effectiveness, scalability, and feasibility for delivery in low-resource and humanitarian settings. [14]

A 2002 meta-analysis of randomized controlled trials (RCTs) published by the World Health Organization (WHO) demonstrated that lay counselor-delivered mental health interventions in low and middle-income countries (LMICs) can, and often do, achieve a medium to large effect sizes. [9] These authors analyzed 20 RCTs of lay counselor interventions in LMICs; six showed medium effect sizes and five demonstrated large effect sizes. Three of the studies included in the meta-analysis utilized Thought Field Therapy (TFT), the intervention explored in this study. Of the three TFT studies, one demonstrated a medium effect size and two demonstrated large effect sizes. [15—17] TFT involves tapping on specific points on the face, hands, and body while recalling a specific thought or memory that triggers unwanted emotions and/or memories. [18, 19]

Although studies of lay counselor interventions with IDPs living in the KRI have been scarce, one recent study compared eye movement desensitization and reprocessing (EMDR) to trauma focused cognitive therapy in an IDP population living in camps in Northern Iraq. [11] Both treatments were administered up to six times per participant and each group demonstrated significant reductions in symptoms. Additionally, a retrospective case series conducted in the Garmian Region of the KRI found TFT more effective than cognitive behavioral therapy in treating 33 IDPs. [20] The authors found TFT to be more aligned with traditional practices in this region.

Despite emerging evidence supporting lay counselor-delivered mental health interventions, there remains limited comparative evidence on brief, scalable interventions delivered by lay counselors for trauma-

related symptoms in conflict-affected populations, particularly within camp-based settings. Identifying interventions that can be delivered efficiently, with minimal resources, and that are adaptable to unstable humanitarian contexts is essential.

TFT has been explored as a potentially scalable intervention that can be delivered by lay counselors, particularly due to its simplicity, brief delivery format, and prior use in low-resource settings. [9] However, comparative evidence of its effectiveness against other low-intensity interventions in conflict-affected populations remains limited.

In addition, there is limited evidence from cluster randomized designs evaluating such interventions in real-world camp settings. The primary objective of this study was to evaluate the effectiveness of a lay counselor-delivered TFT intervention compared with a relaxation-based approach in reducing trauma-related symptoms among women residing in IDPs camps in the KRI. Secondary objectives included assessing changes in general psychological distress and subjective units of distress following the interventions.

Methods

Study design

This was a cluster randomized controlled trial with blinded outcome assessment conducted in the KRI. Study sites were selected based on predefined criteria, including official camp status, the presence of a sufficient number of eligible participants, and logistical feasibility for conducting the intervention and data collection. The camps served as the units of randomization to minimize the risk of contamination between participants. Given the use of camp-level allocation and the constraints of conducting research in a humanitarian setting, the study is best interpreted as a pragmatic evaluation of intervention effectiveness rather than a formally powered efficacy trial. No formal a *priori* sample size calculation was performed. Instead, the sample size was determined pragmatically based on the number of eligible participants available within the selected camps and the logistical feasibility during the study period.

Study setting

The study was conducted in two IDP camps, Tazadey and Qurato, located in the Garmian administration, Sulaymaniyah province in the KRI. These camps host populations displaced due to conflict, war, and ethnic or religious persecution. The camps are characterized by limited access to healthcare and mental health services, reflecting the broader challenges of service provision in conflict-affected and resource-constrained settings.

Participants

Participants were internally displaced women living in the two selected camps (Tazadey and Quratoo). These camps host individuals forcibly displaced and marginalized within Iraq due to conflict, war, and religious or ethnic persecution.[21] Eligible participants were women aged 24—67 years who were residing in either of the two selected camps, spoke Kurdish or Arabic, and self-reported symptoms consistent with trauma-related distress (e.g., anxiety, anger, flashbacks, intrusive memories, and emotional distress). Exclusion criteria included a diagnosis of severe mental disorders (e.g., schizophrenia, psychosis) severe cognitive impairment or substance dependence.

Participants were recruited through community announcements and coordination with camp administrators. All individuals who met the eligibility criteria and were willing to participate were invited to enroll in the study. Information about the study was provided in participants' native languages, and written informed consent was obtained following a verbal explanation of study procedures. No financial incentives were offered for participation.

Interventions

Participants received one of two interventions delivered by trained lay counselors: Thought Field Therapy (TFT) or a relaxation-based breathing technique. Lay counselors assigned to the TFT group received a two-week training focused on the delivery of TFT for trauma-related symptoms. The intervention involved guiding participants through sequences of tapping on specific acupoints while focusing on distressing thoughts or memories. Participants were also encouraged to practice self-administered tapping techniques. Lay counselors assigned to the comparison group received a two-day training in a relaxation-based intervention using the 4–7–8 breathing technique. This intervention involved instructing participants to inhale for four seconds, hold their breath for seven seconds, and exhale slowly for eight seconds to promote relaxation and emotional regulation. Both interventions were delivered in a single session by trained lay counselors following standardized procedures. Further details of the intervention protocols are provided in the appendices.

Randomization and masking

To prevent cross-contamination, the camps were used as the units of randomization and were cluster randomized using Random Allocation Software. [22] Simple randomization without blocking or stratification was used. A computer-generated allocation sequence with a fixed seed was produced by an independent statistician, and the allocation was concealed until assignment. The two IDP camps were allocated to either the TFT intervention or an active waitlist control group receiving a relaxation-based intervention. Participants in Tazadey Camp received the TFT intervention whereas participants in Qurato camp were assigned to the relaxation group. The study followed CONSORT extension guidelines for cluster randomized studies.

After forming an initial consent form (Appendix A), lay counselors were also randomly assigned to intervention arms using Random Allocation Software [22], resulting in 15 TFT facilitators in TFT group and 15 in the relaxation group. Due to the nature of the interventions, lay counselors were aware of their assigned intervention; however, outcome assessors were blinded to group allocation. Following allocation, counselors received intervention-specific training and provided written informed consent (Appendices B and C).

Procedures

Selected lay counsellors received training specific to their assigned intervention. Counsellors in the TFT group completed a two-week training programme focused on delivering TFT for trauma-related and psychological symptoms. Counsellors in the comparison group completed a two-day training programme in the 4–7–8 breathing technique aimed at promoting relaxation and emotional regulation.

All study participants initially signed a general consent form (Appendix D) and following allocation of camps signed a more specific consent form describing the treatment they would be receiving (Appendices E and F depending on group). The information in the consent forms was also explained to them verbally in their own languages.

All participants completed the PTSD Checklist for DSM-5 *(*PCL-5) [23] (Appendix G), the General Health Questionnaire (GHQ) [24] (Appendix H), and a demographic questionnaire (Appendix I) on their first day of the study. The pretesting was completed over a two-day period by blind assessors who were graduate university students and were blinded to group allocation. Four groups of 25 participants arrived at two-hour intervals each day, allowing two hours of assessment for each group throughout the day. The assignment of participants to the four daily time slots was randomized using the SPSS random number generator (SPSS version 26) [25] ensuring that assessment timing was randomly distributed, without affecting participant allocation. As the participants arrived the first day, they were handed a folder labelled with a number which had been selected randomly by computer. Their pretests, posttests, and follow-up assessments included only their assigned numbers and were stored in their respective folders in a locked file cabinet in the research team office at University of Garmian for the duration of the study.

The study was conducted between May 1 and August 17, 2023 including preparatory activities and training prior to participant enrolment. Pretesting and randomization began on July 8, 2023, followed by post-testing on July 15—17, 2023, and one-month follow-up assessments on August 15—17, 2023.

The lay counselors were given adverse events forms (Appendix J) to report any adverse experiences that might occur as the result of participating in this study and forms to record subjective units of distress (SUDs) immediately before and after the interventions. (Appendix K).

Participants in the Tazadey Camp (allocated to the TFT group) received the TFT intervention by the newly trained lay counselors one day after completing their pretest. On the third and fourth day, each participant was invited to return at the same time of the day for their posttest and, one month later, for

their follow-up assessments. The same assessment schedule was followed in the Quratoo Camp except that lay counselors instructed participants in the relaxation technique.

Outcomes

The primary outcome was the change in PTSD symptom severity, measured using PCL-5 [23], from baseline to post-intervention and one-month follow-up.

The secondary outcome was the change in general psychological distress, measured using GHQ-28 [24], over the same time points.

SUDs were recorded immediately before and after the intervention sessions as an additional outcome measure.

No adverse events were reported.

Statistical Analysis

Scores were analyzed as the mean change from baseline to immediately after the intervention and to a one-month follow-up. Group means and standard deviations were used for aggregation. [25] Analyses examined mean score reductions over time (baseline, post-intervention, follow-up) and effect sizes were calculated using partial η^2 and Cohen's *d*.

Frequency and percentage were used to describe the demographic data that included the main place of residence of the participants. The data related to the initial trauma experience questions were described using frequency and percentage. The mean and standard deviation of variables were calculated in Statistical Package for the Social Sciences (SPSS) version 26 statistical software. [26] The normality of data distribution was examined using the Kolmogorov–Smirnov test [27], and equality of variances was confirmed with Levene's test [26].

Investigating the effectiveness of TFT and comparing time and group interaction was conducted using repeated-measures ANOVA. Analyses accounted for the clustered design at the camp level. Effect sizes were reported as partial η^2 for results and as Cohen's *d* for pairwise comparisons, using conventional thresholds for small, medium, and large effects.

The results of the Kolmogorov Smirnov analysis showed that none of the test statistics were significant at 0•05. Therefore, a parametric test was run for data. Additionally, the Levene's test was used to determine the equality of variances. In this study, Levene's test results for the PTSD variable were not significant at either the pretest (F = 2•28, P = 0•30) or post-test (F = 0•65, p = 0•41). For the GHQ variable, the F value was 0•64 (pretest) and 0•14 (post-test), also not significant at the 0•05 level.

Sphericity was assessed using Mauchly's test of sphericity (Mauchly's W) [26]. In this study, the sphericity assumption was satisfied. Therefore, the main assumptions for repeated-measures ANOVA

(two-way mixed ANOVA), otherwise known as a two-way mixed ANOVA, were met.

As SUD data were ordinal, the Kruskal-Wallis test [28] was used to compare SUD scores.

Results

Two IDP camps located in the KRI were randomly allocated to either the TFT group or the relaxation group. All enrolled participants (109 in the TFT group and 102 in the relaxation group) completed pretest assessments and received the intervention allocated to their camp. A total of seven women in the TFT group did not show for post-testing, and a total of two women in the relaxation group did not attend post-test assessments. Four additional women in the TFT group, and five additional women in the relaxation group did not attend follow-up assessments. A total of 98 women in the TFT group and a total of 95 women in the relaxation group completed the study. (See Fig. 1).

see Fig. 1

Baseline characteristics

Baseline demographic and trauma-related characteristics were broadly similar between the TFT and relaxation groups (Table 1). Comparable between the TFT and relaxation groups. The mean age was 41•47 years (SD 10.33) in the TFT group and 40.05 years (SD 8.82) in the relaxation group. High levels of trauma exposure were reported in both groups, including experiences of abuse, physical assault, witnessing violence, and forced actions against personal will. Only a small proportion of participants in either group had previously sought counselling or psychological treatment. (See Table 1).

Table 1
Baseline characteristics of participants by group

Variable	Relaxation	TFT
Age (years), mean ± SD	40•05 ± 8•82	41•47 ± 10•33
Cases experienced being abused (n/N)	9/98	9/95
Experienced being beaten (n/N)	12/98	17/95
Witnessed others being beaten (n/N)	24/98	30/95
Cases witnessed others being killed (n/N)	9/98	7/95
Heard about others being hit (n/N)	85/98	79/95
Forced to do things one is against (n/N)	7/98	7/95
Already spoken to anyone (e.g., counsellor) about experiences (n/N)	9/98	9/95
Sought treatment for experienced problems (n/N)	4/98	6/95
Region	%	%
Baghdad	35•7	15•8
Al-Qādisiyyah	16•3	15•8
Salāh ad-Dīn	3•1	3•2
Wāsit	33•7	49•5
Al-Muthannā	2•0	1•1
Arbīl	6•1	11•6
Sulaymāniyyah	2•.0	1•1

see Table 1

Primary outcome: PTSD symptoms (PCL-5)

Descriptive statistics indicated a progressive reduction in PTSD symptom severity from baseline to post-intervention and follow-up in both groups (Table 2). In the TFT group, the proportion of participants scoring above the clinical cut-off decreased from 86•7% at baseline to 39•8% post-intervention and 6•1% at follow-up, whereas corresponding reductions in the relaxation group were more modest (72•6% to 50•5% and 37•9%, respectively).Repeated-measures ANOVA demonstrated a significant main effect of time on PTSD symptoms ($p < 0•001$). A significant time × group interaction was observed ($F = 385.12$, $p < 0•001$), with a large effect size (partial $\eta^2=0•66$), indicating a difference in symptom change patterns between the TFT and relaxation groups (Table 3).

Table 2
Descriptive indexes of PTSD and GHQ at baseline, post-intervention, and follow-up

Group	Outcome	Index	Baseline	Post-intervention	Follow-up
TFT (n = 98)	PTSD	Mean ± SD	28.70 ± 4•38	22•75 ± 3•58	18•44 ± 3•27
TFT (n = 98)	PTSD	Below 23, n (%)	13 (13•3)	59 (60•2)	92 (93•9)
TFT (n = 98)	PTSD	Above 23, n (%)	85 (86•7)	39 (39•8)	6 (6•1)
TFT (n = 98)	GHQ	Mean ± SD	45•61 ± 5•26	39•30 ± 4.38	36•75 ± 4•63
Relaxation (n = 95)	PTSD	Mean ± SD	26•12 ± 3•84	24•37 ± 4.02	22•68 ± 4•05
Relaxation (n = 95)	PTSD	Below 23, n (%)	26 (27•4)	47 (49•5)	59 (62•1)
Relaxation (n = 95)	PTSD	Above 23, n (%)	69 (72•6)	48 (50•5)	36 (37•9)
Relaxation (n = 95)	GHQ	Mean ± SD	45•40 ± 5•18	43•88 ± 4•94	42•96 ± 4•19

Table 3
Repeated-measures ANOVA for PTSD and GHQ over time and between groups

Outcome	Effect	Sum of squares	df	Mean square	F	p value	Partial η^2
GHQ	Time	3226•12	1•64	1965•71	1242•80	< 0•001	0•86
GHQ	Time×group	1075•88	1•64	655•53	414•45	< 0•001	0•68
GHQ	Error (within-subjects)	495•80	313•46	1•58			
GHQ	Group	1799•59	1	1799•59	25•95	< 0•001	0•12
GHQ	Error (between-subjects)	13241•82	191	69•32			
PTSD	Time	4554•66	1•55	2923•88	1534•68	< 0•001	0•88
PTSD	Time×group	1142•96	1•55	733•73	385•12	< 0•001	0•66
PTSD	Error (within-subjects)	566•85	297•52	1•90			
PTSD	Group	174•20	1	174•20	4•13	0•04	0•02
PTSD	Error (between-subjects)	8049•19	191	42•14			

Between-group analyses showed a statistically significant overall difference between groups (F = 4•13, p = 0•04); however, the magnitude of this effect was small (partial η^2=0•02). Pairwise comparisons confirmed significant reductions in PTSD symptoms within both groups across all time intervals (all p < 0•05). Effect size estimates indicated moderate and sustained reductions in the TFT group (Cohen's d = 0•59–0•79), whereas reductions in the relaxation group were small across all intervals (d = 0•20–0•39) (Table 4).

Table 4
Pairwise comparisons of PTSD and GHQ scores over time within groups

Outcome	Group	Comparison	Mean difference	SE	95% CI lower	95% CI upper	Cohen's d
GHQ	TFT	Baseline vs post-intervention	6•30*	0•18	5•84	6•76	0•54
GHQ	TFT	Baseline vs follow-up	8•85*	0•20	8•35	9•36	0•66
GHQ	TFT	Post-intervention vs follow-up	2•55*	0•12	2•25	2•85	0•.27
GHQ	Relaxation	Baseline vs post-intervention	1•15*	0•11	1•23	1•79	0•16
GHQ	Relaxation	Baseline vs follow-up	2•43*	0•18	1•98	2•88	0•24
GHQ	Relaxation	Post-intervention vs follow-up	0•91*	0•13	0•57	1•25	0•09
PTSD	TFT	Baseline vs post-intervention	5•94*	0•17	5•52	6•36	0•59
PTSD	TFT	Baseline vs follow-up	10•26*	0•23	9•69	10•83	0•79
PTSD	TFT	Post-intervention vs follow-up	4•31*	0•16	3•92	4•71	0•75
PTSD	Relaxation	Baseline vs post-intervention	1•74*	0•12	1•73	2•05	0•21
PTSD	Relaxation	Baseline vs follow-up	3•44*	0•20	2•95	3•92	0•39
PTSD	Relaxation	Post-intervention vs follow-up	1•69*	0•13	1•37	2•01	0•20

D = Cohen’s d effect size. *p < 0.05.

Secondary outcome: General psychological distress (GHQ-28)

Mean GHQ-28 scores declined over time in both intervention groups (Table 2). Repeated-measures ANOVA showed a significant main effect of time (p < 0•001). A significant time × group interaction was

observed (F = 414•45, p < 0•001), with a large effect size (partial η²=0•68). Between-group differences were statistically significant (F = 25•95, p < 0•001), with a small-to-moderate effect size (partial η²=0•12) (Table 3).

Pairwise comparisons showed that moderate reductions were observed in the TFT group from baseline to post-intervention and from baseline to follow-up (Cohen's d = 0.54–0.66), with smaller changes between post-intervention and follow-up. The relaxation group showed only small effect sizes across all intervals (Table 4).

Subjective Units of Distress (SUD)

Mean SUD scores declined following intervention and at follow-up in both groups (Table 5). No significant difference was observed at baseline; however, significant between-group differences were detected at post-intervention (χ²=78•08, p = 0•001) and follow-up (χ²=132•10, p = 0•001), with participants in the TFT group demonstrating substantially greater reductions in distress. (See Table 5)

Table 5
Subjective Units of Distress (SUD) scores at baseline, post-intervention, and follow-up

Group / comparison	Baseline (mean ± SD)	Post-intervention (mean ± SD)	Follow-up (mean ± SD)
TFT (intervention)	7•95 ± 1•74	2•67 ± 1•62	0•32 ± 0•53
Relaxation	7•38 ± 1•75	5•45 ± 1•78	3•23 ± 1•51
Kruskal–Wallis χ²	3•29	78•08	132•10
p value	0•07	0•001	0•001

(see Table 5)

Discussion

This randomized controlled study with follow-up investigated the effectiveness of TFT as an intervention compared with a relaxation intervention for symptoms of trauma in women living in IDP camps in the Garmian Region of the KRI. The TFT intervention was associated with greater reductions compared with the relaxation intervention.

The findings indicate a substantial reduction in PTSD symptomatology in both intervention groups, with greater improvements observed in the TFT group. At baseline, a high proportion of participants in both groups met the clinical threshold for PTSD (86•7% in the TFT group and 72•6% in the relaxation group). Post-intervention assessments revealed a decline in clinical cases among those who received TFT, with only 39•8% remaining above the cut-off, compared to 50•5% in the relaxation group. This trend continued at follow-up, where the proportion in the TFT group further decreased to just 6•1%, while the relaxation group showed a more modest reduction to 37•9%. These findings suggest that TFT may offer greater

improvements in sustained symptom relief than relaxation techniques alone. Importantly, the relatively high retention rates across post-test and follow-up (ranging from 95 to 102 participants per group) support the consistency of these findings and reinforce the clinical potential of TFT as an intervention for PTSD.

This randomized controlled study provides further evidence that TFT can be effective for treatment of symptoms of trauma in a wide variety of communities affected by conflict and that it can be delivered by trained lay counsellors in community settings.

Our findings are similar to earlier randomized and quasi-randomized trials of TFT in conflict affected or post-disaster settings. In Rwanda, a randomized study with 145 adult genocide survivors found large and statistically significant reductions in PTSD symptoms on multiple trauma symptom inventories after a single TFT intervention, with effects sustained at two-year follow-up. [16] Another similar study found comparable results at posttest and a qualitative follow-up. [15] In Uganda, a randomized trial with 256 volunteers treated by community workers newly trained on TFT showed substantial reductions in PTSD measures one week post treatment, and evidence of sustained effect up to 19 months later. [17]

These findings add to the growing evidence base supporting TFT as a potentially effective and scalable intervention for trauma-related symptoms in conflict-affected settings. When delivered by trained lay counsellors, TFT was associated with symptom reduction, supporting its potential use in resource-limited humanitarian contexts.

Limitations

Limitations in working in underserved communities abound, especially in post-conflict settings. In our case all work was completed by volunteers, with the help of a small grant, but this may not always be feasible. Also, in post-conflict situations conditions can change rapidly. As an example, toward the end of our study, the Iraq Government announced a program to disband IDP camps, and some participants were busy relocating and were therefore unable to complete their follow-up assessment. This also, unfortunately, meant that the waitlist group could not be treated as they were dispersing into other areas. In addition, the use of a small number of clusters and the absence of a formal sample size calculation should be considered when interpreting the findings.

Suggestions for further research

Despite the hardships involved in addressing the mental health needs of underserved populations, this remains a priority area for research. The consequences of untreated trauma can last a lifetime and often affect subsequent generations. [29, 30] More research exploring the use of professionally trained lay counselors to address this global issue is needed, including the testing of various interventions suitable for training lay counselors in low and middle-income countries.

Conclusion

This randomized controlled study provides evidence that in displacement settings, TFT delivered by trained lay counselors was associated with improvements in trauma symptoms, with effects maintained for at least one month. These results add to prior RCTs in Rwanda, Uganda, and elsewhere, supporting the potential role in TFT as a scalable, community-based therapeutic intervention in conflict-affected communities.

Appendices available at: https://doi.org/10.6084/m9.figshare.32257395. [31]

Abbreviations

IDPs
Internally displaced persons
ISIL
Islamic State in Iraq and Levant
KRI
Kurdistan Region of Iraq
WHO
World Health Organization
RCT
Randomized controlled trials
LMICs
Low and middle-income countries
TFT
Thought field therapy
EMDR
Eye movement desensitization and reprocessing
PCL-5
PTSD (Post traumatic stress) Checklist for DSM-5
GHQ
General Health Questionnaire
SUD
Subjective Units of Distress

Declarations

Competing interests

The authors declare no competing interests.

Data availability

Data from this study will be made available from the corresponding author upon reasonable request for research purposes. The data will be provided in anonymized form and will not include personally identifiable information.

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Ethics and Consent to Participate

Ethical approval for this study was obtained from the Research Ethics Committee of the University of Garmian (Approval No. 0105 - 15 November 2022). The study was conducted in accordance with the ethical principles for research involving human participants. All participants received information about the study procedures in their native languages and provided written informed consent prior to participation.

Consent to Publish declaration

Not applicable. No individual identifiable data or images are included in this manuscript.

Author Contribution

PS conceived and implemented the study, coordinated field activities, collected the data, interpreted the findings, and drafted the manuscript. DJ contributed to study design, interpretation of the findings, and critical revision of the manuscript. LT contributed to interpretation of the findings and critical revision of the manuscript. SC supervised the study, secured funding, contributed to study design and interpretation of the findings, and critically revised the manuscript. All authors read and approved the final manuscript.

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References

1. United Nations Refugee Agency. Guiding principles on international displacement [internet]. June 2001 NY p.1 Available from: https://www.unhcr.org/media/guiding-principles-
2. The international displacement monitoring center (IDMC). Global report on internal displacement [Internet]. Geneva, Switzerland 2024. Available from: https://www.internal-displacement.org/global-report/grid2024/
3. Khedir HH. IDPs in the Kurdistan Region of Iraq (KRI): Intractable return and absence of social integration policy. Int Migr. 2021;59(3):145–61. https://doi.org/10.1111/imig.12716.
4. Leus X, Wallace J, Loretti A. Internally displaced persons [Internet]. Emergency and Humanitarian Action Department of the World Health Organization.2001. Geneva, Switzerland. 2001. Available from: https://doc.rero.ch/record/290753/files/S1049023X00025851.pdf
5. Cantor D, Swartz J, Roberts B, Abbara A, Ager A, Bhutta ZA, et al. Understanding the health needs of internally displaced persons: A scoping review. Jamir Health. 2021;4:100071. 10.1016/j.jmh.2021.1000712121,4.
6. Seidi PM, Jaff D, Abas NQ, Chung EO, Wilson MW, Potter H, et al. Mental health status of internally displaced persons in the Garmian Region of Kurdistan, Iraq: a cross-sectional survey. Med Confl Surviv. 2023;217–131. http://doi.org/10.1080/13623699.2023.2188384.
7. Patel V. Where there is no psychiatrist: A mental healthcare manual. Royal College of Psychiatrists; 2011.
8. Sabhlok SR, Pender V, Mauer E, Lipnick MS, Kaur G. Addressing the gaps in mental health care for internally displaced persons. J Glob Health. 2020;10(1):010346. http://doi:10.7189/jogh.10.010346.
9. Connolly SM, Vanchu-Orosco M, Warner J, Seidi PA, Edwards J, Boath E, et al. Mental health interventions by lay counselors: a systematic review and meta-analysis. Bull World Health organ. 2021;99(8):572–82. http://doi:10.2471/BLT.20.269050.
10. Munodawafa M, Mall S, Lund C, Schneider M. Process evaluations of task sharing interventions for perinatal depression in low and middle-income countries (LMIC): A systematic review and qualitative meta-synthesis. BMC Health Serv Res. 2018;18(1):205. http://doi:10.1186/s12913-018-3030-0.
11. Bizouerne C, Dozio E, Dlasso E, Letzelter A, Abuzeid A, LeRoch K et al. Randomized controlled trial: Comparing the effectiveness of brief group cognitive behavioral therapy and group eye movement desensitization and reprocessing interventions for PTSD in internally displaced persons, administered by paraprofessionals in Northern Iraq. ejtd. 2023 Dec 1:7(4):100362–2. https://doi.org/10.1016/j.ejtd.2023.100362

12. Ng LC. Youth Psychotherapy Interventions in low and middle- income countries and throughout the world: Beyond efficacy, towards accessibility. J Am Acad Child Adolesc Psychiatry 2023 Aug:62(8):850–2. http://doi:10.1016/j.jaac.2023.04.006
13. McLeroy KR, Norton BL, Kegler MC, Burdine JN, Sumaya CV. Community-based interventions. Am J Public Health. 2003;93(4):529–33. http://doi.org/10.2105/AJPH.93.4.529.
14. Bolzan LM, Bitencourt CC, Martins BV. Exploring the scalability process of social innovation. Innov Manag Rev. 2019;16(3):218–34. https://doi.org/10.1108/INMR-05-2018-0029.
15. Connolly S, Sakai C. Brief trauma intervention with Rwandan genocide-survivors using thought field therapy [Internet]. Int J Emerg Ment Health. 2011;13(3):161. Available from: https://pubmed.ncbi.nlm.nih.gov/22708146/
16. Connolly SM, Roe-Sepowitz D, Sakai C, Edwards J. Utilizing community resources to treat PTSD: A randomized study using Thought Field Therapy.[Internet]. Afr J Trauma Stress. 2013;3(1):24–32. (Journal no longer existence) Corpus ID: 15136133. Available from: https://pdfs.semanticscholar.org/0451/24087f1fd1c13fdf9b069ad2a47dc7739314.pdf
17. Robson HR, Robson PL, Ludwig R, Mitabu C, Phillips C. Effectiveness of thought field therapy provided by newly instructed community workers to a traumatized population in Uganda: A randomized trial. Curr Res Psychol. 2016;7(1):1–11. http://dx.doi.org/10.3844/crpsp.2016.1.11.
18. Callahan RJ, Trubo R. Tapping the healer within: Using thought field therapy to instantly conquer your fears, anxieties, and emotional distress. Chicago: Contemporary Books; 2001.
19. Irgens A, Dammen T, Nysæter TE, Hoffart A. Thought field therapy (TFT) as a treatment for anxiety symptoms: a randomized controlled trial. Explore 2012 Nov-Dec;8(6):8, 331–338. http://doi:10.1016/j.explore.2012.08.002
20. Seidi PAM, Jaff D, Connolly SM, Hoffart A. Applying cognitive behavioral therapy and thought field therapy in Kurdistan Region of Iraq: A retrospective case series study of mental-health interventions in a setting of political instability and armed conflicts. Explore 2021 Jan-Feb;17(1):84–91. http://doi:10.1016/j.explore.2020.06.003
21. Pham PN, Fozouni L, al-Saiedi A, Coughlin K, Vinck P. Association between distress and displacement settings: A cross-sectional survey among displaced Yazidis in northern Iraq. BMC Public Health 2021;Apr 8;(21): 679. https://doi.org/10.1186/s12889-021-10734-8
22. Asghari M. Random allocation software, Version 1.0 [Internet]. [Computer software]. Isfahan University of Medical Sciences; 2004. Available from: http://mahmoodsaghaei.tripod.com/Softwares/randalloc.html
23. Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, Schnurr PP. The PTSD Checklist for DSM-5 PCL-5). [Internet]. National Center for PTSD. 2013; Available from http://www.ptsd.va.gov
24. Goldberg DP. General Health Questionnaire-12 (GHQ-28). (no date specified). https://doi.org/10.1037/t00297-000
25. Tabachnick BG, Fidell LS. Using multivariate statistics. 7th ed. Pearson; 2019.
26. Field A. Discovering statistics using IBM SPSS Statistics. 5th ed. London: Sage Publication; 2024.

27. Daniel WW. Kolmogorov–Smirnov One-Sample Test: Applied nonparametric statistics. 2nd ed. Boston: PWS-Kent.; 1990. pp. 319–30.
28. Kruskal WH, Wallis WA. Use of ranks in one-criterion variance analysis. [Internet]. J. Am. Stat. Assoc 1952. 47, 583–621. Available from: http://dx.doi.org/10.1080/01621459.1952.10483441
29. Alexandra B, Martina C, Gullaume C. Global Overview 2015. People Internally Displaced by Conflict and Violence. [Internet]. Norwegian Refugee Council. 2015 Available from: https://www.unhcr.org/media/guiding-principles-internal-displacement
30. Global Burden of Disease Collaborative Network. Global burden of disease study 2019 GBD 2019. [Internet] Seattle, United States: Institute for Health Metrics and Evaluation (IHME). 2020 Available from: https://www.healthdata.org/research-analysis/health-by-location/profiles/Iraq
31. Seidi P, Jaff D, Tawfik L, Connolly S. *Effectiveness of lay counselor-delivered intervention for trauma-related symptoms in conflict-affected populations: a cluster randomized study* [data repository]. London: Figshare; 2026. https://doi.org/10.6084/m9.figshare.32257395

Figures

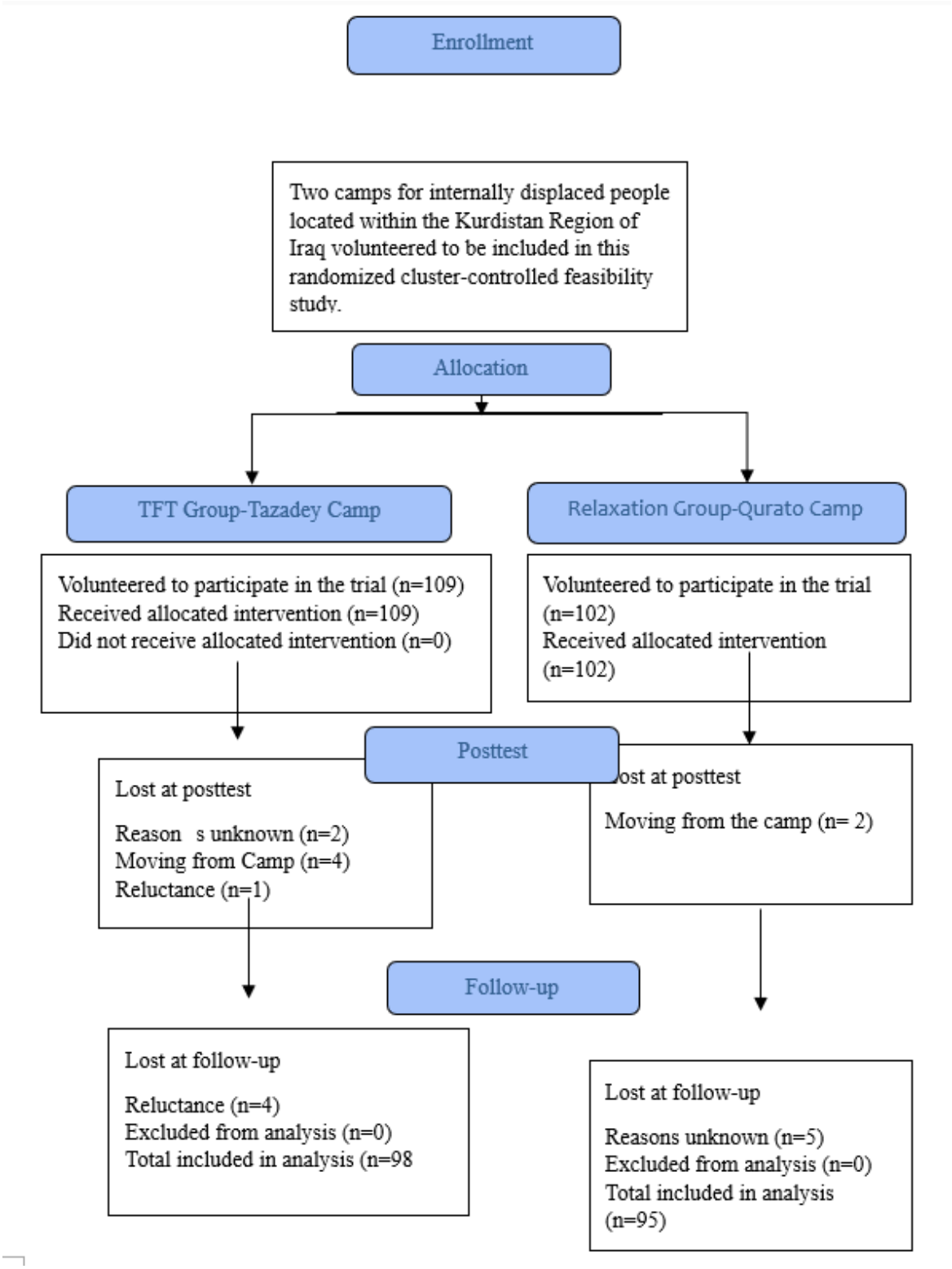


Figure 1

CONSORT Flow