



Available online at  
**ScienceDirect**  
 www.sciencedirect.com

Elsevier Masson France  
**EM|consulte**  
 www.em-consulte.com



# Global initiative for stress and trauma treatment - traumatic stress relief training for allied and para-professionals to treat traumatic stress in underserved populations: A case study



Adeline Papat<sup>a,b,\*</sup>, Anne Dewailly<sup>b,c</sup>, Fanny Guidot<sup>b,d</sup>, Yvonne Duagani<sup>e</sup>, Elizabeth Kawesa<sup>f</sup>, Rolf Carriere<sup>g</sup>, Femke Bannink Mbazzi<sup>c,h</sup>

<sup>a</sup> *Un Instant Pour Soi, Toulouse, France*

<sup>b</sup> *Trauma Aid France, Cannes et Clairan, France*

<sup>c</sup> *Psychology Practice, The Surgery, Kampala, Uganda*

<sup>d</sup> *Centre de Psychothérapie Intégrative, Paris, France*

<sup>e</sup> *Kinshasa University, Faculty of Psychology and Education, Democratic Republic of Congo*

<sup>f</sup> *CoRSU Rehabilitation Hospital, Kisubi, Uganda*

<sup>g</sup> *GIST-T, Geneva, Switzerland*

<sup>h</sup> *Ghent University, Faculty of Psychology and Educational Sciences, Ghent, Belgium*

## ARTICLE INFO

### Article History:

Received 28 January 2021

Revised 25 April 2021

Accepted 3 May 2021

Available online xxx

### Keywords:

Adaptive information processing

Allied professionals

Paraprofessionals

Traumatic stress

East Africa

## ABSTRACT

Low and Middle Income Countries (LMICs) face a shortage of mental health professionals to cope with the burden of traumatic stress (TS). In an attempt to build capacity amongst allied and paraprofessionals, the Global Initiative for Stress and Trauma Treatment developed a four-day AIP-informed training package (Traumatic Stress Relief). In this paper, we study the feasibility and acceptability of this training package in East Africa.

Information about the knowledge and self-efficacy were collected before and after training from 47 participants from Rwanda, DRC, and Uganda. In addition, oral and written feedback from the training sessions, as well as supervision notes of subsequent meetings with participants were analysed.

Results showed that all participants found the TSR training acceptable and useful to support them in treating and referring clients with TS symptoms. Some 77% (7/9) of TSR stabilisation techniques were applicable, including the Safe/Calm Place, the Container, the Butterfly Hug Technique, Deep Breathing, the Three-minute Meditation and Grounding. Those that were not adopted included Guided Pendulation and Balanced Breathing. The tools provided to measure TS and psychological resources were not culturally adapted and often difficult to complete. The group protocols need adaptations to be better implemented.

Most of the participants themselves were found to have high levels of TS, hence we recommend that training programmes include TSR intervention for participants prior to their own training.

In conclusion, the TSR training is feasible and acceptable for allied and paraprofessionals in East Africa. With further cultural adaptations, it can form a suitable trauma-intervention for LMICs.

© 2021 Elsevier Masson SAS. All rights reserved.

## 1. Introduction

To contribute to bridging the gap in Mental Health (MH) care for persons suffering from traumatic stress (TS) in Low and Middle

Income Countries (LMICs), we tested the feasibility and acceptability of a standardized training package based on the Adaptive Information Processing (AIP) model, designed for allied and paraprofessionals, in the Great Lakes Region of East Africa.

### 1.1. The burden of trauma

The World Mental Health Surveys on Trauma and PTSD collected data from over 68,000 respondents in 24 countries in six continents and found that 70.4% experienced life traumas, with an average number of 3.2 traumas reported per respondent (Kessler et al., 2017). In a recent meta-analysis, Hoppen and Morina (2019) estimated that 354 millions adult war survivors suffer from PTSD or major depression in the general

*Abbreviations:* BHT, Butterfly Hug Technique; BHP, Butterfly Hug Protocol; BLS, Bilateral Stimulation; DRC, Democratic Republic of Congo; DRC-Rw, Democratic Republic of Congo and Rwanda; GIST-T, Global Initiative for Stress and Trauma Treatment (website: <https://gist-t.org>); G-TEP, Group Traumatic Episode Protocol; IGTP, Integrative Group Treatment Protocol; LMICs, Low and Middle Income Countries; MH, Mental Health; ToT, Training of Trainers; TS, Traumatic Stress; TSR, Traumatic Stress Relief; WSP, WorkSheet Protocol

\* Corresponding author. Adeline Papat, Un Instant Pour Soi, Toulouse, France.

E-mail address: [adeline.papat@gmail.com](mailto:adeline.papat@gmail.com) (A. Papat).

population. Prior exposure to traumatic events is a significant risk factor for future trauma-related disorders, due to a cumulative effect (McFarlane, 2010), particularly physical and sexual violence. Other risk factors for trauma include childhood adversities and having a history of psychopathology (Kessler et al., 2017). More recently, the Covid-19 pandemic and the ensuing lockdowns have triggered extra sources of ongoing stress, including coping with traumatic grief, increased poverty and heightened domestic violence (Vigo et al., 2020). Trauma reduces productivity, compromises education and development, and increases the probability of violence, abuse and renewed trauma (Ainamani, Elbert, Olema, & Hecker, 2017; Aydin, 2017; Crombach & Bambonyé, 2015; Hall & Olf, 2016; Olf et al., 2020; Purgato & Olf, 2015; Rieder & Elbert, 2013; Verhey, Gibson, Brakarsh, Chibanda, & Seedat, 2018). It also causes other disorders such as anxiety, depression, somatic disorders (McFarlane, 2010). Combining the different sources of TS, which are direct violence like warfare and interpersonal, cultural violence like racism or apartheid, structural violence like poverty, and natural violence including disasters (Galtung, 1990) and their outcomes, Carriere (2020) estimated that around one billion people were suffering from TS-related disorders worldwide.

As exposure to traumatic stressors has a cumulative effect and represents a major risk factor to develop future trauma-related disorders, there is an urgent need to reduce the traumatic loads of cumulative or ongoing events.

### 1.2. Treatment of traumatic stress

Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) and Eye Movement Desensitization and Reprocessing (EMDR) are the recommended therapies for treating PTSD by WHO (ISTSS, 2018; WHO, 2013). These therapies are implemented by well trained MH professionals (Tol, Barbui, & van Ommeren, 2013) and the treatment gap is huge in many LMICs: almost 75% of people affected by MH disorders do not have access to the treatment they need (Lund et al., 2012; WHO, 2018).

TF-CBT includes relaxation, stabilisation, long exposure repeated exercises and homework between sessions, which allow the response of fear to shut down (Foa, Keane, Friedman, & Cohen, 2009).

EMDR therapy is guided by the *AIP model* (F. Shapiro, 2001, 2018). It is a model of pathogenesis, health and change, which proposes that memory networks are the basis of perceptions, attitudes, and behaviours. The memory networks depend on the way previous experiences were processed by the information processing system (IPS). The IPS is an innate system which processes information from the experiences into pre-existing memory networks. When fully processed, the information is stored in adaptive memory networks, at the basis of mental health. When incorrectly processed, information is stored in maladaptive memory networks, which are at the basis of pathology. Inadequately processed adverse experiences can be triggered by any internal and external stimulus. Unprocessed information, such as a traumatic memory, can be processed again, providing the person has adequate resources and adaptive memory networks to connect to. The bilateral stimulations (BLS) help the unprocessed information become associated with adaptive memory networks. This lowers negative feelings and beliefs, allowing for new adaptive behaviours, thoughts, feelings and perceptions (F. Shapiro, 2001, 2018).

Research on early interventions after a potentially traumatic event showed interesting results in alleviating risks on developing clinical conditions, with a superiority of EMDR early interventions (Shapiro & Maxfield, 2019). Jarero & Artigas (2018) underline that ongoing traumatic events with no post-trauma safety period seem to behave like recent events with no consolidation time. They suggest that the use of AIP-informed interventions designed for acute trauma and ongoing TS situations could benefit people who have been "through prolonged, repeated, or multiple traumatic events or circumstances" (p.7). Musisi (2004) described such situations in Africa.

### 1.3. EMDR therapy and AIP-informed interventions in Africa

In her overview of EMDR training and therapy in Africa, Zimmermann (2014) suggested to use AIP-informed group protocols or interventions, which could be provided by paraprofessionals to take care of large groups of traumatized people and fill the gap between needs in trauma treatment and the availability of MH professionals.

In an attempt to contribute to bridging the gap in MH care of TS in LMICs, a few initiatives to train paraprofessionals to take care of traumatized people were undertaken. In a review of the paraprofessional delivered trauma-focused psychological interventions for adults, 14 RCTs studies (Xiong, Wozney, Olthuis, Rathore, & McGrath, 2019) were found of which two took place in Uganda, one in each of Rwanda, DRC and Kenya. Four of these used TF-CBT informed approaches (Narrative exposure therapy, PM+), and one used Thought Field Therapy (cognitive, emotional and acupuncture points technique). Only one out of 14 used the AIP model which was implemented in Bolivia (Jarero, Rake, & Givaudan, 2017). There were encouraging results from the use of selected paraprofessionals in providing the AIP-informed group protocol called Integrative Group Treatment Protocol (IGTP). No feed-back on the AIP-informed approach provided by paraprofessionals is available for Africa. However, EMDR was taught to MH professionals in Africa and this training provided valuable information.

Various cultural issues have been raised about teaching and use of EMDR in African countries. Zimmermann (2014) reported about the shame of psychological suffering, fear of being cursed, language issues, the therapists themselves being traumatised, the prevalence of complex trauma, culturally-dependant cognitions and emotional expression as cultural issues that need to be taken into account. The use of eye movement can be perceived as witchcraft or some other forbidden practice. The assessment of frequencies and intensities using numbers was reported as an issue (Zimmermann, 2014). The supervision process can be impaired by technical problems and not all of the professionals have the same knowledge and background on trauma and stabilisation (Zimmermann, 2014). In their recent study about adaptation of the standard EMDR protocol in Sub-Saharan Africa, Bannink Mbazzi et al. (2021) recommended the following adaptations: different wording of the protocol text to make it consistent with the cultural representation, including «good place» instead of «safe place», as the word «safe» can be triggering or meaningless in a constantly unsafe environment, and the words «pot, pit, basket, bag» instead of «container»; stimulation choice, as eye movements can be perceived as witchcraft, simplification of the SUD and VOC scales by drawing of faces, colors, thermometer or hands movement. Finally, religious references were recommended to be used in resourcing and cognitions. Hartung (2017) underlined the importance of taking into account the cultural practices, customs, and the concept of MH when teaching EMDR as well as including indigenous healing traditions in EMDR therapy. For instance, drumming could be a resourceful and stabilising practice.

Each language gives a perception of the world and not all the concepts and uses exist in every language, as emotion for instance. Spierings (2004) warned about the attention paid to the body sensations, as it often triggers the person. As the body never lies, when the time comes to focus on the body in silence, with no other task, traumatic memories can pop up out of avoidance and be reactivated. Moreover, members of collectivist societies do not represent themselves and the world in the same way as European and American individuals (Camilleri & Vinsonneau, 1996). In Bantu culture, relationships are central in defining the human being: «relations amongst people, relations with the living and the non-living, and a spiritual existence that promotes love and harmony amongst peoples and the communities» (Chilisa, Major, Gaotlhobogwe, & Mokgolodi, 2016, p. 317). Also, keeping a positive mindset no matter what happens and the beliefs that something bad could happen if one focuses on bad things were reported in persons of different Bantu tribes (from Congolese psychologists).

As far as EMDR-group protocols are concerned, the IGTP (Jarero & Artigas, 2012) was used in DRC to relieve women who were sexually assaulted and had high PTSD scores (Allon, 2015). After two sessions, they had less pain symptoms. In their study, the questionnaires were translated by fluent speakers and read out for the women who could not read and the numbers on the scales were replaced by descriptive words. When drawing or holding a pen was not possible, the helpers drew what was described by the women. One of the phases of this protocol, called Body Scan, was removed, as the therapists found that the women could not identify where they felt emotions in their body. A special adaptation of IGTP for ongoing traumatic stress (IGTP-OTS) (Jarero & Artigas, 2017) was successfully used in a group of adolescent Eritrean refugees to reduce PTSD anxiety and depression symptoms one month after an intensive treatment of six sessions (Smyth-Dent, Fitzgerald, & Hagos, 2019).

#### 1.4. Global initiative for stress and trauma treatment (GIST-T) traumatic stress relief (TSR) training

Trauma has worldwide commonalities in symptomatology (Yehuda & LeDoux, 2007), but there is no universal treatment which can be offered by paraprofessionals. GIST-T (2019) developed a standardized training package based on the AIP model, called Traumatic Stress Relief (TSR), designed for allied and MH paraprofessionals, in an attempt to provide universal access to and culturally relevant trauma treatment for all (Carriere, 2014).

AIP-informed group interventions such as IGTP and G-TGP, when used by MH professionals, were established earlier as safe and efficient group treatment protocols in reducing PTSD and anxiety symptoms (Shapiro & Maxfield, 2019). These protocols are relevant to use during ongoing complex trauma, to treat both recent and longer-term distressing memories with ongoing consequences. It was found that these protocols could be a great help to relieve traumatised people (Jarero & Artigas, 2018). AIP-informed approaches have significant advantages compared to protocols not based on the AIP model (Roberts, 2019). The reasons for this are as follows:

- AIP-informed approaches do not require talking about the traumatic experience; they respect privacy, and are non-invasive and culturally sensitive. Also, they prevent vicarious trauma, trauma triggered from others, as well as avoid shame related to breaking taboos about openly discussing MH issues.
- AIP informed group protocols can be administered on consecutive days and do not require homework. Thereby, they lessen the risk of discontinuation of treatment compared to other interventions that require weekly therapy sessions and homework.
- The use of group protocols may reduce the stigma associated with MH services and help normalize psychosocial support. They include built-in safety and containment procedures and allow support for a large number of people.

Whilst IGTP and G-TGP are offered by MH specialists, TSR is meant for training allied health professionals and paraprofessionals. Unlike in EMDR therapy, the TSR intervention is not a full traumatic memory reprocessing. It aims at stabilising and reducing the traumatic load of the most recent events, and reinforcing coping and resilience. The TSR Part 1, with stabilisation exercises, increases positive memory networks by creating a positive life experience. This leads to positive feelings in the body and the experience of the management of state change. It also widens the emotional window of tolerance and prepares for desensitization. TSR Part 2, with the AIP-informed group protocols, decreases the load of TS.

In their White Paper, Blenkinsop et al. (2018) defined allied professionals as «medical professionals, including doctors, nurses, midwives who come in frequent contact with traumatized people» (p.6). In the TSR program allied professionals are not authorised to perform TSR

actions unless they are trained and supervised by a MH professional. The paraprofessionals in the field of MH are «trained, skilled and supervised caregivers (but not licensed MH professionals), including religious counsellors, voluntary health workers, trusted community caregivers and elders, and others» (p.6). In this paper, we will use the word «paraprofessionals» to refer to both allied and paraprofessionals.

The TSR training was developed to prepare MH professionals to train and supervise frontline paraprofessionals to provide a TS relief AIP-informed intervention called TSR, to relieve TS and improve resilience in crisis situations in LMICs. This training package was elaborated based on a consensus framework produced by an expert workshop in December 2018 and followed by a test training session in June 2019. The first Training of Trainers (ToT) was held in September 2019 and conducted by an expert in purposeful learning which is «not about what you think you taught, but about what people take away and are able to put into practice» (page 7 (Lupton-Bowers, 2019)). Twenty therapists were trained to organize and provide TSR training to paraprofessionals and frontline workers in LMICs. New recommendations were taken from this group to issue a Field Test Training Package, which is studied in this paper.

This training includes an experiential pedagogy to allow participants to deeply learn the content and skills in the shortest time. It involves strategies to regulate the level of energy to optimize concentration and learning. This is done through energisers and varied types of activities. The TSR training package consists of theoretical aspects, powerpoint presentations and scripted activities to preserve fidelity when studying the different training sessions and places in the world and allows for an evaluation process. An overview of the training content is displayed in Fig. 1. The knowledge and skills provided enable those trained to care for themselves and support their colleagues in highly stressful situations as well as help the traumatized population to stabilise and benefit from TS load reduction. The training package goes along with a set of questionnaires to assess TS and adaptation disorders, called «the beneficiary file» (see Appendix A). The purposes of this file are threefold: (a) to screen the beneficiaries to provide them either individual stabilisation exercises, group stabilisation exercises and/or group protocols, or referral to a MH professional; (b) to assess their evolution for appropriate action; and (c) to gather data for research on the effects of TSR intervention on the beneficiaries' MH.

The TSR training is conducted in two parts which are set out below, followed by supervision sessions.

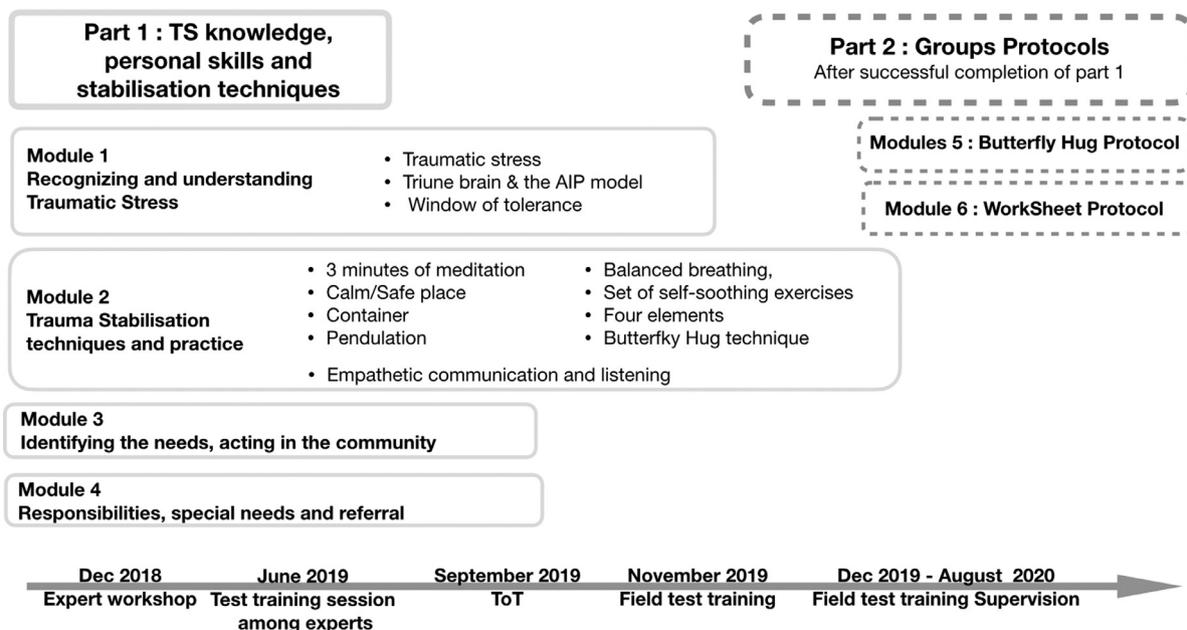
##### 1.4.1. TSR training Part 1

In the first part, participants learn about TS and how to deal with it.

Participants learn what causes and triggers TS, how to recognize symptoms of TS, and the use of screening tools to assess the level of TS to determine the appropriate action (individual intervention, group intervention or referral to a MH professional). These tools are displayed in Appendix A. Participants are provided with knowledge on the AIP model, BLS, the window of tolerance, and the importance of stabilisation and self-care. They also learn to recognize dissociation and how to help people with grounding exercises, while waiting for referral. They are taught listening skills, including empathetic communication and active listening, cultural and community awareness, and arrangements for support and referral.

The training is practically-based with participants learning and practicing stabilisation techniques through exercises and demonstrations. They use the Subjective Unit of Distress Scale (SUDs), which is a commonly used scale in CBT and EMDR, ranging from 0 to 10 to assess the subjective level of distress at any time, before and after a stabilisation or grounding exercise. It is presented as a visual scale with faces and colors, accessible to all literacy levels.

The stabilisation exercises are described below. They are initially planned to be taught in the same afternoon. In this case study, the trainers made the pedagogical choice to mix times of theory and times of practicing the stabilisation exercises.



**Fig. 1.** TSR Field-Test Training Content. Note. This figure shows the content of the TSR training package: Part 1 includes four modules, and Part 2 includes two group protocols. The timeline underneath gives a view of the process in building, testing and delivering the TSR training package, including supervisions.

**The Three-Minute Meditation** is a short guided meditation exercise, which is carried out with the eyes closed. It focuses on feeling what is happening in the body, observing breathing and listening to the noises around, without changing anything.

**The Guided Pendulation** aims at developing a relationship between different parts of ourselves, for example negative and positive or weak and strong parts. The person focuses their attention on their body, lets their thoughts and feelings in and focuses on uncomfortable feelings in the body. They assess their SUD and then find a neutral or pleasurable place in the body and focus on it. Then they focus back on the uncomfortable spot and back again to the neutral or pleasurable place, and then assess their SUD again.

**The Balanced Breathing** comes from Yoga practice. During this exercise, the breath is visualized as a beautiful light, colour or another visual. The person is led to imagine breathing in through one nostril, and breathing out through the other, and then changes sides. Breathing in is accompanied by imagining that it fills in the same side of the body whilst breathing out empties the opposite side of the body. The person repeats this about 10 times, until they feel complete and then visualizes breathing through both nostrils.

**The Butterfly Hug Technique (BHT)** is a calming form of BLS that reduces distress and helps to strengthen positive features. The arms are crossed, thumbs are interlocked while the palms of the hands are gently put on the top of the chest. The tip of the middle finger is just under the collar bone. With the eyes closed or half closed, the person taps their chest with alternating hands. The person breathes slowly and deeply and simply observes what goes through their mind and body.

**The Container Exercise** helps people to create an imaginary storage in which to place disturbing memories until the person is ready to face them. The person is invited to imagine something that can contain disturbing memories, thoughts or feelings, something that is strong, that has an opening/closing feature that the person controls; and that is not something that they use in their life for other purposes. Once they have made a visual image of their container, they are invited to identify thoughts, feelings or memories that they want to put aside for a moment, and let them flow into the container.

**The Safe/Calm Place** exercise increases access to positive memories, and creates an inner space to have a break from disturbing memories. The person is invited to think about a pleasant experience or place where they have been or wish to be. Then they focus on the

sights, smells and sensations of that place. That image and the positive feelings from it are given a cue word that comes to represent it.

**A Set of Self-Soothing Exercises** is a series of calming exercises, which last three to five minutes each. The first one is abdominal breathing or deep breathing. The second is a concentration exercise in which the person mentally repeats “I know I am inhaling. . . I know I am exhaling” along with their breathing movements. The third one is connecting to a pleasant memory and letting the good sensations from this go through the body.

**The Four Elements Exercise** helps ground, feel calm and controlled, and connected to oneself and the others, using the metaphor of the four elements: earth, air, water and fire. The first step (earth) is grounding through focusing on the floor beneath one’s feet. The second step (air) is deep breathing. The third step (water) is switching on the relaxation response by creating more saliva and keeping the mouth humid. The fourth step (fire) is imagining a pleasant place or activity.

**The Grounding techniques** allow the person to focus on the present to get unstuck from traumatic memories. The physical techniques are such as touching and describing objects, focusing on the feeling of the contact with the floor or with the chair, tasting a drink, running cool or warm water on the hands, or focusing on breathing in and out. The psychological techniques are such as describing the current environment, describing a daily activity, creating an image of comfort, reciting a poem or lyrics of a song, counting backwards, or saying the alphabet.

The knowledge and skills derived from the training are checked with a short open ended questionnaire at the end of this part, which participants answer in pairs.

1.4.2. TSR training Part 2

The second part of the training teaches two AIP informed group-intervention protocols, adapted for paraprofessionals: the Butterfly Hug Protocol (BHP), inspired by the IGTP (Jarero & Artigas, 2012) and the Worksheet Protocol (WSP), derived from the G-TEP (E. Shapiro, 2017). Participants use paper and pencils and do not need to talk about the difficult memory they are working on in the session. Both of these protocols include eight phases or steps which are described in Table 1. They both include screening to select the beneficiaries who can safely benefit from group protocols; a preparation phase entailing grounding, stabilising exercises, a connection to a positive experience; being in touch with the bad times, processing with BLS; a future template; a

**Table 1**  
TSR Group protocols phases/steps.<sup>a</sup>

BHP Content of the phases	WSP Content of the steps
<p><b>Phase 1: Screening</b> of the potential beneficiaries and <b>referral</b> for those in need</p> <p><b>Phase 2: Preparation</b> of participants explanation of the protocol procedures, teaching the SUDs, and a Set of Self-Soothing Exercises</p> <p><b>Phase 3: Assessment</b> The beneficiaries are invited to run a movie of the traumatic event, from before it started until present time or even to the future, to notice their body sensations and feelings and then draw it. While they look at their drawing, they are asked to assess their SUD.</p> <p><b>Phase 4: Reprocessing</b> The beneficiaries do the BHT at their own pace, until they feel in their body that it has been enough. Then they look at their previous drawing, observe what they feel and draw it. They assess their SUD and perform the BHT and so on for a total of four cycles.</p> <p><b>BHP</b> <b>Content of the phases</b></p> <p><b>Phase 5: Future Vision</b> Beneficiaries draw an honest vision of how they see themselves in the future, give it a title or description and perform BHT.</p> <p><b>Phase 6: Body Scan</b> The beneficiaries are invited to remember their most disturbing drawing, observe their feelings and do BHT.</p> <p><b>Phase 7: Closure</b> The beneficiaries do their favourite self-soothing exercise. Information on the after-effects is provided.</p> <p><b>Phase 8: Reassessment and Follow-up</b></p>	<p><b>Preliminaries:</b> Intake interview, first <b>screening and referral</b>.</p> <p><b>Step 1: Preparation and Safety</b> The beneficiaries assess their SUD before and after the Four Elements Exercise. They draw their calm/safe place in box 1 "Present Safety" and do BHT. The SUD before/after allows another screening.</p> <p><b>Step 2: "Start of bad times"</b> The beneficiaries recall the bad event, draw or write something about it, write the date of beginning of the disturbing events, and assess their SUD.</p> <p><b>Step 3: "Good Memory"</b> The beneficiaries recall a memory of when they felt good about themselves. They draw or write something to represent it, do BHT, give it a name and do other BHT.</p> <p><b>Step 4: "Future Hope"</b> The beneficiaries express their hope for the future.</p> <p><b>WSP</b> <b>Content of the steps</b></p> <p><b>Step 5: "Finding what still disturbs and distancing bad or disturbing memories"</b> The beneficiaries find their first point of disturbance (PoD), then draw or write something to represent it, and assess their SUD. Then they do nine sets of BLS, by following their hands with their eyes on the sheet of paper. The hand goes from the box 1 "present safety" to the PoD. They assess their SUD every three sets. The rhythm of the BLS is given by the leader of the protocol. The same process is repeated for a second PoD.</p> <p><b>Step 6: "Overall checking and strengthening positive beliefs"</b> Beneficiaries review the past until present time and assess their SUD. They confirm or change their hope for the future and rate its validity with a positive visual scale. While thinking of that hope, they do BHT.</p> <p><b>Step 7: Closure</b> The beneficiaries do the Four Elements Exercise and the Container Exercise if needed. Information on the after-effects is provided.</p> <p><b>Step 8: Reassessment and follow-up</b></p>

<sup>a</sup> The BHT is described in chapter 1.4.1

closure phase that includes a stabilising exercise; and further reassessment and follow-up phase. The BHP requires crayons and A4 sheets of paper as session materials, the WSP requires A3 sheets of paper, with colour-printed frames of the protocol.

### 1.4.3. Supervision

After completing the training, the trainees continue to participate in supervision sessions, conducted by TSR trainers or psychologists trained in EMDR, GTEP and/or IGTP who participated in TSR training. The supervision forms part of the training - both on call and on a regular basis - and is held according to what is more relevant to the setting of work of the participants.

### 1.5. Study objectives

This study aims at assessing the feasibility and the acceptability of the TSR training in three East-African countries: DRC, Rwanda and Uganda, with a training population of psychiatrists, psychologists, counsellors, psychosocial assistants, social workers and somatic nurses. We intend to explore whether the TSR training and intervention is culture-sensitive enough to allow the participants to acquire relevant knowledge and skills on TS relief and explore what they use in their professional life from this package.

## 2. Method

### 2.1. Research design overview

Following the TSR-ToT, two training sessions were organized: the first was 12–15 November 2019 in Rwanda with DRC and Rwanda (DRC-Rw) participants, and the second was 18–22 November 2019

in Uganda. In this descriptive study, data was collected using pre and post training assessments and questionnaires, group discussions, trainers and facilitators' observational notes and feedback from supervision sessions.

### 2.2. Researchers' description

The team of researchers included six psychologists: a Congolese, a Ugandan and four Europeans, of which three have been living in Africa for more than 10 years. Three of the European psychologists are TSR trainers and one is a facilitator. They are EMDR clinicians working in the field and have a special interest in the safety and cultural appropriateness of any intervention delivered to their trainees and clients. All are working in multicultural contexts and have received training on intercultural psychology.

### 2.3. Participants

The training sessions involved 47 participants in total, 27 in the first session (RDC-Rw group) including 19 MH professionals and eight paraprofessionals, and 20 in the second session (Uganda group), including 19 paraprofessionals. The mean age is 34,5 years old, ranging from 25 to 60. As some of the content of the TSR Part 1 was supposed to be in the background knowledge the psychologists and the psychiatrists, at one stage, the group was split up: while the paraprofessionals went through the whole Part 1, the MH professionals were trained in more specialized matter. The groups gathered again for Part 2.

The participants in DRC care for survivors of massacres, armed conflict, sexual violence, urban assault, kidnapping, murder, and Ebola survivors. In Rwanda, participants are engaged in providing

**Table 2**  
Participants Basic Demographics and Background.

	First session: DRC-Rw MH pro group (N=19)	First session: DRC-Rw para (N=8)	Second session: Uganda group (N=20)
<b>Profession</b>	17 psychologists, 2 psychiatrists.	1 counsellor, 5 psycho-social assistants, 2 nurses.	8 head nurses, 3 counsellors, 6 social workers, 1 physiotherapist, 1 public health specialist, 1 psychologist.
<b>Years of work experience</b>			
Less than 5 years	52,6% (10/19)	12,5% (1/8)	60% (12/20)
5–10 years	10,5% (2/19)	25% (2/8)	20% (4/20)
More than 10 years	21% (4/19)	62,5% (5/8)	–
Unknown	15,8% (3/19)		20% (4/20)
<b>Context of work</b>			
NGO	42% (8/19)	37,5% (3/8)	–
Refugee camp	5% (1/19)	–	–
Hospital	47% (9/19)	62,5% (5/8)	84% (16/20)
Research institute	5%(1/19)	–	16% (4/20)
Proportion of the participants working with the following groups of beneficiaries			
	First session: DRC-Rw MH pro group (N=19)	First session: DRC-Rw para (N=7)	Second session: Uganda group (N=20)
Adults only	16% (3/19)	–	15% (3/20)
Both adults and children	84% (16/19)	100% (7/7)	85% (17/20)
Survivors of gender based violence	89,5% (17/19)	100% (7/7)	55% (11/20)
Victims of war crimes and torture	53% (10/19)	43% (3/7)	55% (11/20)
Refugees or displaced persons	47% (9/19)	57% (4/7)	30% (6/20)
Victims of the genocide	10,5% (2/19)	14,3% (1/7)	–
Chronic illness and disabilities	58% (11/19)	43% (3/7)	80% (16/20)

care for survivors and children of the genocide. In Uganda, participants of the training work with children with disabilities, whilst others work with young sex workers in different research studies and hospital settings. Those working at the hospital treat children in rehabilitation after surgery for osteomyelitis, amputations, and burns. Many of the children have suffered exclusion and discrimination due to their disability. The research counsellors work with young sex-workers who have faced various situations of sexual and physical abuse. In all three countries, participants worked with people living with HIV/AIDS.

Table 2 shows details of the participants' background and of the beneficiaries they take care of.

#### 2.4. Researcher-participants relationship

The trainers and facilitators were also part of the research team. To be consistent with an Afrocentric approach (Chilisa et al., 2016), and to reduce bias linked to hierarchical perception and the need to match expectations, the field-test aspect of the training was emphasized and the participants were therefore involved as evaluators of the training. The need for genuine feedback to improve it for further sessions was pointed out by the trainers. Also, the written qualitative evaluation of the training was anonymous.

#### 2.5. Recruitment process

Participants were invited to participate by their employers and through a professional network. Both training sessions were organized to respond to a request of training in trauma care, in partnership with health care centers in DRC and Uganda. The training was open to all staff working with clients who lived with potentially traumatic experiences. The participants applied through their head of unit or supervisor. They were informed about the TSR training content and pilot prior to and during training, and voluntarily agreed to participate and also take part in the assessment that

followed. No research clearance was requested as this was a direct training evaluation rather than an evaluation of the actual intervention with the eventual beneficiaries. During the training, an assessment of PTSD risk was made. Those who had high scores on the PCL5 or ITQ were asked to report themselves to the trainers, in order to be provided with an intervention of TS relief and stabilisation and be referred. This also allowed to check whether they could participate in the Part 2 group protocol practices as beneficiary or only as leader or facilitator.

#### 2.6. Data collection

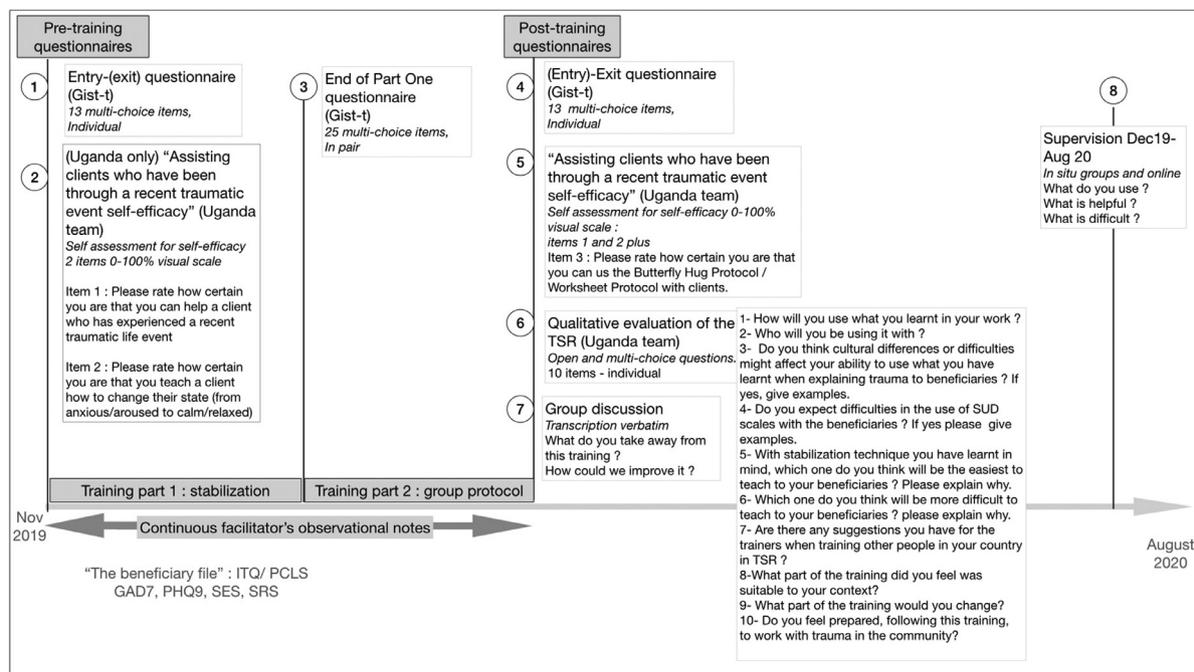
A detailed overview is presented in Fig. 2, showing the steps in collecting the data, as well as the items of the qualitative questionnaires. Information about acceptability was provided through the qualitative evaluation of the TSR training, facilitators notes, group discussion and feedback from supervision. Using different channels of collecting feedback was important: some participants felt more comfortable writing comments anonymously, whilst others preferred to have a direct discussion.

The facilitators made observational notes for each training activity for further analysis: the aim was to detect what worked well and what didn't.

All participants answered an entry and exit questionnaire about TS and TSR knowledge. The TSR Entry-Exit questionnaire (pre and post training) was designed by GIST-T. The right answers are coded in the trainer's manual. The questions are exactly the same, introduced by a different sentence: Pre: «What do you already know or understand about TS before this training?», post: «what do you know or understand about TS now you have completed the TSR training?»

The post Part 1 test is a 25-item multiple choice questionnaire that can be filled in pairs, using the manual, about TS and stabilisation.

The self-assessment «Assisting clients who have been through a recent traumatic event self-efficacy», includes two pre and post training items, plus one post training item, on a continuous visual scale from 0 (cannot at all) to 100 (highly certain can do). The self



**Fig. 2.** Data Collection. Note. This figure gives a view of the steps in collecting the data, as well as the items of the qualitative questionnaires.

assessment of self-efficacy was not available at the beginning of the first session in DRC-Rw and is missing from the analysis.

The qualitative evaluation for TSR training participants includes open questions plus an input of multiple choice questions to help to provide answers, about both parts of the training and general comments on the training.

At the end of the training, a group discussion was held. This discussion was transcribed word for word.

In total, three group supervision sessions were held in Uganda between December 2019 and March 2020, whilst ten online supervision sessions (with two to four participants in each) were held for the DRC and Rwanda participants between December 2019 to August 2020. Fourteen participants joined online supervision from one to four sessions, despite technical difficulties encountered due to poor internet connection, which is a common problem in the region. The group supervision reports were drafted by the supervisors. The topics were about the techniques the participants actually use, and the ones they don't in their daily practice; the cultural adjustments that they made to make a technique usable if needed; how they implemented what they have learnt in they daily practice; how they use the group protocols; what the outcomes were after using the techniques learnt in the training; and answer their questions about how to improve using one technique or another. The supervisors also checked whether the trainees have correctly applied the group protocols and the techniques.

### 2.7. Data analysis

To assess if there is a significant difference in knowledge (Entry-Exit test) and self-efficacy (Uganda group) regarding TS and stabilisation before and after training, we compared pre-post training results with a Wilcoxon test, using Tanagra software. The rows with missing data were excluded. The Wilcoxon test was selected as the sample size was too small to use a parametric test. For the variables with a group size over 8, we computed Mann-Whitney tests to make comparisons between the groups.

The answers to qualitative questionnaires were thematically analysed for each group of participants, which are: DRC-Rw MH professionals (DRC-Rw MH pro), DRC-Rw paraprofessionals (DRC-Rw para) and Uganda paraprofessionals.

The answers to the open questions were labelled using predefined categories agreed by three coders following the thematic analysis. The supervisors made a synthesis of their sessions, reporting the salient information, which was in turn coded in categories.

## 3. Findings/Results

### 3.1. Feasibility of the intervention

#### 3.1.1. Level of TS in participants

Participants were asked to report themselves if their ITQ or PCL-5 scores were significant for risk of clinical PTSD in order to enable the trainers to provide special care. About 20% (10/48) of the participants had clinical scores of PTSD; most of the others had subclinical scores. High levels of avoidance were noted. A psychologist explained that “listening to or focusing on the body is not in the Bantu culture and education, which indirectly pushes one to feel good whatever the situation is. That gives room for avoidance, and cumulative trauma”. The trainers took extra time to stabilise and prepare participants with clinical scores and organised referral after the training session. Despite the extra preparation, three participants were overwhelmed during the experiential demonstration of BHP and had to stop. They were provided with specialised individual care by the facilitators outside the group session.

#### 3.1.2. Entry-Exit questionnaire

The mean scores of the pre and post-training results are displayed in Table 3.

Analysis of the scores from the Wilcoxon tests for paired sample on the Entry Exit questionnaire indicate that the post-training scores were significantly higher than pre-training scores in each of all of the three groups, RDC-Rw MH pro,  $z=3,72; p < .001$ ; RDC-Rw para,  $z=2,52, p =0.011$ ; Uganda group,  $z = 3,59; p < .001$ . No significant difference was found between the groups.

Whether participants are MH professionals or non-specialized, they learnt and progressed on knowledge and skills about TS.

#### 3.1.3. End-of-part-1 questionnaire

On the End-of-part-1 questionnaire, 93% (26/28) of the paraprofessionals altogether and 47% (9/19) of DRC-Rw MH-pro answered

**Table 3**  
Feasibility – Main Outcomes.

Questionnaire	Group Participants	n	Pre-training score		Post-training score	
			M	SD	M	SD
<i>Entry-Exit Results</i>						
	DRC-Rw MH pro	18	39,09	20,51	76,49**	14,21
	DRC-Rw para	8	37,26	18,47	79,81*	7,05
	Uganda	20	32,48	19,97	68,16**	8,78
<i>End Of Part 1</i>						
	DRC-Rw MH pro	19			74,95	7,69
	DRC-Rw para	8			85	5,29
	Uganda	20			83,8	6,5
	All paraprofessionals	28			84,14	6,2
	All participants	47			80,4	8,2
<i>Feeling of Self-Efficacy</i>						
Question 1: How certain are you that you can help a client who has experienced a recent traumatic event ?						
	DRC-Rw MH pro	19			73,3	13,4
	DRC-Rw para	7			70	10
	Uganda	17	45,9	11,75	81,8**	8,1
	All participants	43			77,5	11,43
Question 2: How certain are you that you can teach a client how to change their state ?						
	DRC-Rw MH pro	19			78,4	11,2
	DRC-Rw para	7			68,6	9
	Uganda	17	47,05	10,4	84,7**	10,46
	All participants	43			79,5	11,6
Question 3/4: How certain are you that you can use the group protocol with clients ?						
	DRC-Rw MH pro	19			75,5	15,4
	DRC-Rw para	7			71,4	9
	Uganda	18			75,5	11,5
	All participants	43			74,8	12,82

Note. \*p < .01, \*\* p < .001.

over 75% of the questions correctly. The lower results of the MH professionals group compared to paraprofessionals groups altogether ( $U = 91,5$ ;  $p < .001$ ) can be explained by the fact they did not follow the full TSR training (as mentioned in the method section).

This indicates that the TSR training facilitated an increase in knowledge about TS.

### 3.1.4. Self-Efficacy

The self-efficacy questionnaires were completed by the Uganda group pre and post training while the DRC-Rw group could complete post training questionnaires only.

The sense of self-efficacy to help a person with recent traumatic events increased significantly from 45,9% to 81,8% between pre and post training ( $z = 3,65$ ;  $p < .001$ ). Self-efficacy to teach a patient to change state increased from 47,05% to 84,7% before and after the training ( $z = 3,66$ ;  $p < .001$ ). The three groups' rates of feeling of self-efficacy were similar at the end of the training. The confidence with teaching a patient to change state was slightly lower for the DRC-Rw para group, which had a triggering experience of the exercise called Guided Pendulation. The sense of self-efficacy to use the group protocols is similar between the groups, with a mean of 74,8% ( $SD = 12,82$ ). In total 79% (34/43) of the participants rate their confidence to use the group protocol above 70%.

### 3.2. Acceptability of the intervention

Overall, the participants rated the intervention as an acceptable method to reduce traumatic stress in their client population. Recognizing TS symptoms and severity was reported to be useful, as well as empathetic communication and the stabilisation techniques. Participants reported the need to first train with family members and trained colleagues before providing TSR intervention to clients. In Uganda the trained participants provided TSR sessions to 87 members of staff of CoRSU hospital, whilst also practicing techniques with hospital patients. In all the three countries, TSR techniques were utilised as additional therapy techniques in sessions by the counsellors, psychosocial assistants and MH professionals. Participants explained

that the response to the TSR sessions were positive, with staff and patients appreciating the exercises. The sessions enabled participants to learn about self-care and a few techniques to help them reduce their distress. The training also provided insight into the necessity for more self care for staff in the Uganda group participants.

#### 3.2.1. Cultural issues

More than half of the participants, 47% (11/23) of the DRC-Rw and 70% (14/20) of the Uganda participants, expected cultural differences or difficulties to implement TSR intervention with their clients by the end of the training. The expected difficulties mentioned were mostly related to communication and cultural appropriateness of the techniques. Participants indicated that they expected difficulties in explaining trauma and the TSR intervention and techniques to clients due to language barriers; low level of literacy amongst their clients; and cultural beliefs about gender, age, MH, and witchcraft.

#### Language barriers, low level of literacy of most of their clients.

Some participants mentioned that it is difficult to translate the concepts of TS into their local language, as there are not always words for these. Although the TSR training has adapted materials for use with people who cannot read, write, or use numbers, participants explained that clients may also not be used to scale representation and rating feelings and symptoms on these. The DRC-Rw paraprofessionals and the MH professionals who did not expect these problems explained that they are either used to intervening amongst populations with low level of literacy and often speak a common language, or are used to adapting techniques to different cultures.

**Beliefs about gender, age, MH, and witchcraft.** These beliefs may interfere in communicating the TSR model effectively. Participants mentioned a lack of recognition of the importance of MH and cultural difficulties to engage in MH care activities. Some participants mentioned it would be difficult to engage men in TSR exercises:

*«men are expected to be strong, so allowing one to go through this process would be seen as a sign of weakness»* (Nurse, Uganda).

Some participants mentioned that older persons may consider the exercises as a game and not take the techniques seriously (DRC-Rw).

In Uganda, participants mentioned that the age of the person delivering the TSR intervention is important, especially older persons might have a preference for older counsellors.

Also, the TSR intervention might be seen as a luxury, as many clients are struggling with daily survival. One of the participants said:

«*We have a saying: an empty belly has no ears* » (MH professional, DRC).

Half of the participants (8/16) mentioned that clients mostly attribute MH problems to witchcraft and would rather seek support from traditional healers and herbal medicine. Clients may not need or want to use what is perceived as «Western», or imported. Also, they may think that the TSR techniques are magic or witchcraft, because they involve closing the eyes without praying.

A psychologist from DRC reported using steps in psycho-education to allow better acceptance of the TSR intervention. First, he said, is to help the person to recognize and understand the pain: the situation, difficulty, and emotion, and then introduce the self-soothing techniques as «*you can soften your pain yourself*».

### 3.2.2. The SUD scale (described in Section 1.4.1)

A small number of participants (6/38) expected difficulties in the use of the SUD scale. The main difficulty cited was the cultural context and low level of literacy of their clients. Talking about ways to solve these challenges participants suggested, for example: «*We could use a wooden ladder to help the people who are not used to numbers and paper*». Other participants considered the SUD scale easy and simple enough to use as a visual scale. After training, the SUD scale was sometimes used by the participants to understand the level of distress the patient or client was experiencing, but hardly used before and after a technique to assess the change of state.

Some participants suggested using a positive scale to assess the inner state, which would measure well-being rather than the disturbance.

### 3.2.3. The «beneficiary file» (Appendix A)

The beneficiary file was found very long and difficult to answer during training. Most of the participants in Uganda found the questionnaires too much work and did not feel they were culturally appropriate. The lack of translations of tools in local languages was reported as a major difficulty. The MH professionals had been exposed to the questionnaires and started translating in local languages and used them whenever they could. They mostly found difficulties in more rural communities. The TSR supervisors with DRC-Rw para found that the first 9 ITQ questions and the Short Resilience Scale might be the easiest to use and give enough useful information, however, there is a need to improve the assessment of TS levels to make it easier and faster for paraprofessionals and culturally more relevant.

### 3.2.4. Stabilisation techniques

The participants found the learnt techniques useful and easy to use and teach as long as they understood them, experienced positive effects and that they are easy to use in daily life. Table 4 displays the main difficulties and adaptations found for each technique described in Section 1.4. Overall, techniques required time to explain to the beneficiaries and needed several sessions to take effect. Somatic care nurses reported time to be an issue in implementing the longest techniques (the Four Elements Exercise; Set of Self-Soothing exercises; Balanced Breathing). There were difficulties in applying techniques that needed the participants to close their eyes. A possible solution was to keep the eyes open, focusing on a specific point, and explain that it helps both concentration and breathing.

At the end of training, the stabilisation techniques that were perceived as the easiest to use and teach included the Safe/calm Place,

Grounding, the Four Elements Exercise, Balanced Breathing and the Container Exercise. Some participants confused the names of the techniques, mixing up Guided Pendulation with Balanced Breathing.

After training, the most commonly used techniques were the Safe/Calm Place, the Container Exercise, the BHT, the Three-Minute Meditation, Deep Breathing (from a Set of Self-Soothing Exercises and the air of the Four Elements Exercise) and Grounding. The choice of a technique depended on the nature of the clients, scenario, and time available for the parties involved. The Four Elements Exercise and Balanced Breathing actually need a long time to implement. The Four Element exercise is partly used in Uganda and is used in the first step of the WSP in DRC and in Rwanda, as taught during training.

The Safe/Calm Place is perceived as giving strength to persons. Facilitators observed that it seemed easier to draw a safe calm place than asking participants to just think of it. Sometimes, the supervisors had to reframe the «calm/safe» place as being a «safe/calm place inside oneself» which is constant, and not a real place in present time. Difficulties mostly occurred because of the word «safe», in situations where safety is not applicable and people cannot go far from where the danger lies.

The Container Exercise was perceived as very helpful in training and in the workplace, «*clients with a lot of problems find it useful to store them for a while*». Also, it was found easy to do with cultural adaptation and psycho-education. Trainees suggest choosing objects that are used in the daily environment - objects that can close and contain things safely. Some have photographs or pictures in their offices to help the beneficiary choose their container, such as a wicker basket, a pot etc.

The BHT was very much appreciated because it gives relief and empowerment: «*it allows myself to heal what is hurt inside. Like lulling a baby to sleep... Like I can myself soften its pain*».

The Guided Pendulation was not rated highly by participants. It was perceived as difficult to apply and was not actually used. It has complicated steps and can be very triggering because focusing on negative sensations activates bad memories very quickly. This was the case when done with the RDC-Rw para group. The trainer used other stabilising interventions but these were not enough. One of the participants eased the situation by proposing a very powerful dance and song grounding exercise, which was meant to take what is bad out and throw it away to be transformed by nature. The Guided Pendulation was better experienced in the Uganda group, as the trainers took a longer time in the good sensations phase, which was seen as helpful.

### 3.2.5. Group protocols

The group protocols are described in chapter 1.4.2. and set out in Table 1.

**The WSP (DRC-Rw group only):** Although the whole WSP is long, it was an overall good experience and the participants could feel the benefit from it. Trainees emphasized the importance of the good knowledge of the protocol, perceived as very powerful, and the preparation of the beneficiaries and of Emotional Protection Team members. Around 30% (6/20) reported they would train more with the ones who understood it well, and it is what they actually did.

After training, the WSP was used by participants with their clients with the following adaptations in place: adaptation in Swahili; adding a sheet of paper when more processing was needed; conducting the protocol in several sessions to make it possible to complete within the beneficiaries time available; and closing with a positive stabilisation exercise after completing the WSP. The sentence «I can get help» was removed because it was understood as getting material help. Participants live in a context of extreme poverty and insecurity. A new sentence to replace «I can get help» that participants suggested was: «I can stay close to God or the church», because this fuels hope and a feeling of support. Step 4 was found to be very helpful in discovering positive memories and changing the focus from negative experiences.

**Table 4**  
Acceptability of the stabilisation techniques.

Technique Used/Not used	Description	Cultural challenges	Difficulties	Adaptations
<i>Overall</i>		Closing the eyes (when applicable) may be related to witchcraft practices		Keeping the eyes open, while staring a point to help focus
<i>Safe/Calm Place</i> Used	Pleasant place or experience, with nice sensory details, where to take a break	Imaginary feature or moving away from present can be difficult	The word "safe" can be triggering	Reframe in a "happy" or "calm" place, inside oneself, not a real place in the present
<i>Grounding</i> Used	Physical or psychological techniques to focus on the present	None		
<i>Four Elements</i> Used in DRC within the WSP, partially in Uganda	Earth: contact with the chair, Air: deep breathing, Water: saliva in the mouth, Fire: imaginary place	None	Long time to implement	Use only when enough time is available or only focus on one or two elements
<i>Balanced Breathing</i> Not used	Breathe through one nostril to fill in one side of the body, the body, then empty the other side and fill it in by breathing through the other nostril	Needs a lot of concentration. Some participants could not get the imaginary one-side breathing, and felt they had to be able to check that the beneficiary does it well	Long time to implement	Not available
<i>BHT</i> Used	Hands across the chest, alternately tapping while breathing deeply	None		
<i>Container</i> Used	Imaginary storage to place disturbing thoughts, feelings or memories	The concept itself needs to be adapted to something more concrete. Will to throw the things away while stored	Imagining can be difficult.	Use stories, objects from daily environment. Label it with a word that is more meaningful in the culture
<i>The Three-Minute Meditation</i> Used	Observing body and breath	None		
<i>Pendulation</i> Not used	Back and forth from one uncomfortable to a neutral part of the body	Focusing on body triggers bad memories, SUD assessments are difficult	Complicated steps, hyperarousal of participants	Take longer focusing on the positive sensation and make a connection to the safe place
<i>A Set of Self Soothing Exercises</i> Partially used: mainly abdominal breathing and concentration	Abdominal breathing, plus concentration on the breathing, plus a good memory	None	Time to implement the full set	Use only one of the exercises of the set

However, some of the trainees could not deliver it because there needed to be two peers, and as they work alone, the safety criteria would not be met.

**The BHP (Uganda only):** The SUD scores at the end of the session ( $M = 2,88$ ,  $SD = 1,45$ ) were lower than those at the beginning ( $M = 5,55$ ;  $SD = 1,64$ ) of the BHP for the 18 participants who completed the BHP. They were higher than at the end of phase 4 ( $M = 1,5$ ;  $SD = 1,06$ ) for 12 out of 18 participants. However, the feedback from the participants indicated that the BHP was perceived as a very long process, rendering it difficult to accept. Assessing the SUD every time was tiring, so was being confronted with the difficulties. Some of them said that at one stage, doing the group protocol was so hard that they pretended to participate and stopped processing. Focusing on body sensations was triggering. The first steps of processing were uncomfortable before participants started to feel better. Indeed, three of the participants had to stop because they were overwhelmed. The phase 6 - revisiting of the worst image and body scan - triggered many participants again and brought discouragement, whereas they were feeling good with phase 5 - future vision - because they all had a positive image in that group. Participants suggested it would have been helpful to stop the exercise at Phase 5. Phase 7 invited the participants to do their "favourite self-soothing exercise", however, trainees could not perform the stabilisation exercises on their own, and the trainers had to guide the participants through a Set of Self-Soothing Exercises.

In terms of feedback from participants, the BHP provoked the largest number of the suggestions to improve the TSR training. In all, 50% (10/20) of the participants provided suggestions on how to revise the BHP. Forty percent (8/20) recommended shortening it; 15% (3/20) proposed better adapting it for use with clients who could not write or draw, for example by using smileys and numbers-stickers. One

participant suggested to only keep the drawing of the future vision, because it was perceived as hopeful. After training, the BHP was not used in its entirety by participants.

### 3.2.6. Overall evaluation of duration and content

Overall, the participants of the training were satisfied but also tired. During training, the participants were quickly relaxed with the stabilisation exercises, therefore the trainers chose to alternate these exercises with theory rather than doing several exercises in a row.

The content was dense and the participants reported that they would have needed more time, or lighter days to digest information, deal with questions, and try at work to learn deeper before learning a new technique. They suggested planning a refresher session.

## 4. Discussion

### 4.1. Significance of the results

The design of the TSR training, built with consciousness of cultural adaptability, allowed the participants to learn about TS and the AIP model both theoretically and practically. The AIP model was helpful and accepted, providing the explanations were relevant to the culture. The importance of cultural relevance in the use of the AIP model has earlier been highlighted by [Bannink Mbazzi et al. \(2021\)](#). The participants gained confidence in recognizing TS symptoms, when to refer, what to do, and what not to do. However, it was a lot to take in, even though the content was designed to maximize the learning. The levels of traumatic loads were moderate to high, consistent with earlier reports of participants in other studies of trauma in DRC, Rwanda, and Uganda ([Musisi, 2004](#); [Zimmermann, 2014](#)). Trainees easily

drifted off and got under activated so alternating theory and practice to keep a good concentration and energy level was important. This rapid hypoactivation, and the short span of concentration observed could be accounted for by the moderate to high levels of traumatic loads, making the experience very demanding.

Most of the participants practised TSR techniques with colleagues or with their family members before providing the TSR intervention to patients. They integrated what made sense to them in their practice: they provided chosen TSR techniques to groups of colleagues for self-care and stress relief, to the patients - individually or in groups - according to their current practice and the available time. The techniques and knowledge were new and psycho-education was needed to accept this intervention towards colleagues and clients/patients.

The techniques were used and taught by the participants only if the experience was good and the technique understood both theoretically and experientially, simple and easy to use in daily life and quick enough to implement in work. The cultural acceptability of the exercises such as Safe/Calm Place, Deep-Breathing, the Three-Minute Meditation and BHT may be linked to the resemblance with moments of prayers or contemplation, which is congruent with their usual social functioning. Grounding techniques could be playful, daily pragmatic activities. The Container Exercise had to be adapted with a name change, and allow reference to daily objects rather than the use of imaginary containers. This is in line with the cultural adaptation suggestions made to resourcing exercises in African countries by [Bannink Mbazzi et al. \(2021\)](#).

Furthermore, the lower results of the MH professionals at the End-of-part-1 questionnaire compared to the paraprofessionals' suggest that they would benefit from taking the full TSR training. Also, training them along with the paraprofessionals may reinforce the team cohesion, and they would also have a common view that would be useful for supervision, continuous training, and referral purposes in the area of work. Thus the AIP model could be a common reference and frame of intervention to MH professionals and paraprofessionals.

Some participants started to translate the tools and easily communicated questions on possible adaptations of the WSP, which needs to be further developed.

The WSP was appreciated and was used whenever the trainees could, with adaptations to comply with the time availability and the fatigability of the survivors. The DRC-Rw group participants were already aware of trauma and were expecting to learn new tools to help their traumatized patients, older children and themselves. During the session, they also experienced that it was powerful, and felt better throughout the process, which was encouraging. The instruction of the WSP proposes to write or draw whatever is difficult, and when drawing or writing is not possible, a simple dot in the box is enough; the idea is to have something to represent what is difficult and focus on it. Unlike the IGTP-OTS ([Jarero & Artigas, 2017](#)), which was successfully used in Erytrean refugees ([Smyth-Dent, Fitzgerald, & Hagos, 2019](#)) and invites to draw whatever emerges for phase 3, the BHP phase 3 emphasizes observing emotions and body sensations and then asks to draw the feelings, not the event. This way to invite to express feelings rather than «whatever emerges» may be too confronting. Most of the adults did not typically draw which made it difficult for some to engage and high levels of avoidance were noted. When people are asked to focus on body sensations in silence, with no other task, it is common for traumatic memories to pop up and be reactivated. [Spierings \(2004\)](#) mentioned this same process when using the Body Scan with refugees in her daily practice. Also, the IGTP-OTS requests to collect the drawing at the end of phase 5 - Future Vision - whereas in the BHP, the instructions are to collect the drawings at the end of phase 7. Therefore, when participants were asked to think of the most disturbing drawings in phase 6, they turned the sheet of paper and actually saw it, which triggered them again. An adaptation is needed to lead to a lighter but efficient way to contact what is hard, without too much emphasis

on body sensations to avoid triggering, and to allow for a sense of relief to be experienced.

The assessment forms of the «beneficiary file» were reported to be too long and therefore in need of adaptation. Some participants have started to translate them into local languages, however, they still need to be adapted for persons who have low levels of literacy and for ease of use by paraprofessionals in their settings of work. Earlier, [Zimmermann \(2014\)](#) and [Bannink Mbazzi et al. \(2021\)](#) discussed the challenges of the use of Likert scaled measures that miss cultural adaptations and translations.

The SUD scale was less difficult to use than previously mentioned in the literature ([Bannink Mbazzi et al., 2021](#); [Zimmermann, 2014](#)), as it was already taught and presented as a visual scale with coloured faces/smiley on laminated cards and the corresponding numbers underneath (E. [Shapiro, 2017](#)). However, asking for the degree of disturbance was uncomfortable and sometimes caused some confusion. As some participants suggested, it would be of interest to think of an assessment scale that measures the well-being rather than the disturbance.

#### 4.2. Limitations

When the DRC-Rw group was split, it resulted in sizes of groups that would not allow for comparisons with statistical tests. Also, not all the groups could fill in the pre-training questionnaires so we lacked some data. The qualitative questionnaire was designed standard for both groups, although they did not have the exact same content (different group protocol and some of the stabilisation techniques). Therefore, labelling of the questions appeared confusing, and participants answered questions that they were not meant to. Also, what was said in conversations and what was expressed non-verbally was different from what was written. This can be an effect of the need to comply with what is thought to be expected, in respect of hierarchy and not to create shame or discomfort to the trainer. Although the trainers tried to lower the impact of hierarchy, and encourage free talk, it seems that not everybody could allow themselves to do so. A cooperative evaluation could be encouraged, starting from the participants point of views and needs on each component of the training. Further research is needed on what parts need to be culturally adapted in order to build an evaluation process which is more consistent with an Afrocentric approach, as proposed by [Chilisa et al. \(2016\)](#).

#### 4.3. Future cultural adaptations for a better acceptability

The cultural differences pointed out are in line with observations cited by [Zimmermann \(2014\)](#): the difficulty with numbers and low levels of literacy, the need to translate and adapt the concepts and exercises into local languages, and the relation between eye closure and witchcraft practices. Some participants felt uncomfortable with closing their eyes while practising stabilisation exercises. This can be overcome by allowing participants to keep their eyes open, while focusing on a specific point to help focus on the exercise without causing fears about witchcraft.

Psycho-education was found to be a good way to introduce these new techniques and knowledge, however, it would be useful to closely link TSR concepts to MH representations in the communities, to better adapt the exercises to the people and their culture and find ways together, using an Afrocentric design ([Chilisa et al., 2016](#)). In line with [Hartung \(2017\)](#) recommendations, cultural acceptability could be improved by linking traditional beliefs and customs about healing and the TSR and AIP model, including inputs of traditional healers. Traditional practices such as dance, songs, drums, story-telling might be very useful stabilisation and grounding tools. For instance, in DRC, an art-therapist had a song accompanied with movements meaning that the bad things are transformed and go away. The body movements were themselves stabilising and the

song text was powerful. This could be implemented as one of the energiser activities or ice-breakers and could become an extra grounding exercise. Also, every training day started with a prayer in Uganda, which should be considered as an important part of the training programme and resource. Storytelling could be an activity during which the group creates a story of victory that would become a healing metaphor adapted to the culture.

Also, more role-play exercises with examples from their daily work would help participants to adapt the TSR intervention to their field of work with case studies taken from a daily situation that the participants meet. This would help to anticipate some of the pain points when delivering TSR.

To be more accepted in the communities and easily used in settings applicable to paraprofessionals work, we recommend developing or improving assessment tools towards culturally acceptable concepts, meaningful in accordance to the culture, in line with the recommendations of Chilisa et al. (2016), and Tol et al. (2013).

It could be useful to develop a group protocol that does not need pen and paper or drawing abilities and that is, in itself, containing. It would connect with what is important in the culture, the community of the living and non-living, with room for spirituality. One could imagine that a group narrative step could be done, while participants who have been involved in the same event practise BLS (eg. by taking small and fast walking steps or alternately tapping on their thighs or snapping fingers). That would allow a lighter connection to the trauma history, making sure there are resilience elements in this story.

Taking into account that the participants are themselves traumatized, therefore have concentration troubles, providing for a trauma treatment session before delivering training could be implemented. It could be useful to provide a TSR session to the future participants (themselves being the beneficiaries), which would have the dual effect of 1) experiencing the TSR intervention; 2) releasing them from TS.

**5. Conclusion**

The TSR training package including content and teaching techniques and activities were feasible and acceptable for the participants of Uganda, Rwanda and DRC to acquire new skills and knowledge on trauma, stabilisation and TS relief, screening and referral. The Safe/Calm Place, Grounding techniques, Breathing techniques, BHT (as long as the eyes can be opened) and a culturally adapted Container (a container they daily use) are acceptable tools. The following adaptations would need to be made to make the full training package more acceptable: the Four Elements Exercise and Balanced Breathing need to be shortened; group protocols and evaluation tools need to be culturally adapted and translated to answer to the needs of a largely low level of literacy population from a different cultural background. The Guided Pendulation triggered bad memories and should be taken out of the training package, as it does not have a stabilising effect. Incorporating more body movement techniques, less pen and paper, and integrating existing treatments and what is perceived to usually work in the communities to treat trauma is recommended. New exercises which comply with the AIP model and are culturally acceptable could be designed to improve the acceptability and wider use of TSR in East Africa.

**Funding acquisition**

Adeline Papat, Anne Dewailly, Fanny Guidot.

The training sessions described in this paper were supported by Trauma Aid France.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Declarations of Competing Interest**

None.

**Acknowledgments**

We thank the training participants of CoRSU Rehabilitation Hospital, the MRC/UVRI & LSHTM Uganda Research Unit EBIE and ZETRA studies, the ones from Panzi Hospital, Riposte Ebola, ASPLC, Mamas for Africa, the Ministry of Health of Rwanda, AVBV/Liwoha, Never Again Rwanda and Mumporeze Initiative for their participation and active involvement; Davide Naggi, CEO, and Juliet Babiryre, Head of Nursing, for hosting and organizing the training at CoRSU hospital, offering a training space, training materials, and lunch and refreshments during the training in Uganda; Marc Ombeni, Head of the Psychosocial branch of Panzi Hospital, Jeannine Uwera, coordinator of the Rwanda group for organizing the training in Kamembe, Rwanda; Trauma Aid France who supported the training, travel and accommodation of the trainers in Uganda and Rwanda; and Paul Turner for the English language edits.

**Appendix A : Beneficiary file**

*A1. Red flags (BHP) (Jarero & Artigas, 2019)*

Look for any 'red flags'	Do any individuals, or their relatives parents or friends, report any of the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Dis-orientation</li> <li><input type="checkbox"/> Psychosis (bizarre thoughts or behaviour)</li> <li><input type="checkbox"/> Self-harm</li> <li><input type="checkbox"/> Suicidal or homicidal talk or plans</li> <li><input type="checkbox"/> Extreme aggression</li> <li><input type="checkbox"/> Problematic alcohol or drug use</li> <li><input type="checkbox"/> 'Dissociation' (complete lack of emotional response)                         <ul style="list-style-type: none"> <li>o Detached from reality</li> <li>o Not 'here' (living in a dream world)</li> <li>o Not aware</li> <li>o Moments of not remembering what has just happened</li> <li>o Not knowing how they got to where they are</li> </ul> </li> </ul> Give particular attention to anyone in the group of candidates who shows visible signs – in his/her face or behaviour – of any of these mental conditions If anyone shows any of these signs, refer them to a mental health professional. Don't accept them into the group for the Butterfly Hug protocol. Instead, practice grounding exercises.
--------------------------	---

*A2. Protocol intake form (WSP) (Shapiro, 2019)*

Beneficiary's name	Today's date
Beneficiary's contact details	Beneficiary's personal details
Address	Age
Tel	Family status
email	Education (no. years)
	Employment (Working/Not working)
Date of trauma	Time since trauma
Recent traumatic incident or incidents	
Medication Yes/No	Specify & when started
Physical injury Yes/No	Specify type & severity
Level of functioning (compared to usual)	
Previous psychological treatment	Specify
Yes/No	
Previous trauma history	
Event	Date/year
Event	Date/year
Event	Date/year
Preparation	(Poor) 1 .....5 (Excellent)
Severity Motivation Strengths	
Comments	

A3a. International trauma questionnaire - ITQ (Cloitre et al., 2018)

**Instructions:** Please identify the experience that troubles you most and answer the questions in relation to that experience.

Brief description of the experience	When did it occur? (circle one)
	a. less than 6 months ago
	b. 6 to 12 months ago
	c. 1 to 5 years ago
	d. 5 to 10 years ago
	e. 10 to 20 years ago
	f. more than 20 years ago

Below are a number of problems that people sometimes report in response to traumatic or stressful life events. Please read each item carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
P1. Having upsetting dreams that replay part of the experience or are clearly related to the experience?	0	1	2	3	4
P2. Having powerful images or memories that sometimes come into your mind in which you feel the experience is happening again in the here and now?	0	1	2	3	4
P3. Avoiding internal reminders of the experience (for example, thoughts, feelings, or physical sensations)?	0	1	2	3	4
P4. Avoiding external reminders of the experience (for example, people, places, conversations, objects, activities, or situations)?	0	1	2	3	4
P5. Being "super-alert", watchful, or on guard?	0	1	2	3	4
P6. Feeling jumpy or easily startled?	0	1	2	3	4

In the past month have the above problems:

P7. Affected your relationships or social life?	0	1	2	3	4
P8. Affected your work or ability to work?	0	1	2	3	4
P9. Affected any other important part of your life such as parenting, or school or college work, or other important activities?	0	1	2	3	4

Below are problems that people who have had stressful or traumatic events sometimes experience. The questions refer to ways you typically feel, ways you typically think about yourself and ways you typically relate to others. Answer the following thinking about how true each statement is of you.

How true is this of you?	Not at all	A little bit	Moderately	Quite a bit	Extremely
C1. When I am upset, it takes me a long time to calm down.	0	1	2	3	4
C2. I feel numb or emotionally shut down.	0	1	2	3	4
C3. I feel like a failure.	0	1	2	3	4
C4. I feel worthless.	0	1	2	3	4
C5. I feel distant or cut off from people.	0	1	2	3	4
C6. I find it hard to stay emotionally close to people.	0	1	2	3	4

In the past month, have the above problems in emotions, in beliefs about yourself and in relationships

C7. Created concern or distress about your relationships or social life?	0	1	2	3	4
C8. Affected your work or ability to work?	0	1	2	3	4
C9. Affected any other important parts of your life such as parenting, or school or college work, or other important activities?	0	1	2	3	4

A3b. The PTSD Checklist for DSM-5 - PCL-5 (Weathers et al., 2013)

In the past month, how much were you been bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behaviour, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being "superalert" or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

A4. Generalized Anxiety Disorder - GAD 7 (Spitzer, Kroenke, Williams, & Lowe, 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?(circle your answer)	Never	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

Total Score GAD7 =

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all  Somewhat difficult  Very difficult  Extremely difficult

A5. Patient Health Questionnaire - PHQ-9 (Kroenke & Spitzer, 2002)

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Never	Several days	Over half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

Total Score PHQ9 (add columns) =  
 If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?  
 Not difficult at all O Somewhat difficult O Very difficult O Extremely difficult O

A6. Brief Resilience Scale - BRS (Smith et al., 2008)

Please respond to each item by marking one box per row		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BRS1	I tend to bounce back quickly after hard times.	<input type="checkbox"/>				
		<input type="checkbox"/>				
		1	2	3	4	5
BRS2	I have a hard time making it through stressful events.	<input type="checkbox"/>				
		<input type="checkbox"/>				
		5	4	3	2	1
BRS3	It does not take me long to recover from a stressful event.	<input type="checkbox"/>				
		<input type="checkbox"/>				
		1	2	3	4	5
BRS4	It is hard for me to snap back when something bad happens	<input type="checkbox"/>				
		<input type="checkbox"/>				
		5	4	3	2	1
BRS5	I usually come through difficult times with little trouble.	<input type="checkbox"/>				
		<input type="checkbox"/>				
		1	2	3	4	5
BRS6	I tend to take a long time to get over set-backs in my life.	<input type="checkbox"/>				
		<input type="checkbox"/>				
		5	4	3	2	1

Total score BRS=

A7. General Self-Efficacy (Schwarzer & Jerusalem, 1995)

	Not at all true	Hardly true	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough.	1	2	3	4
2. If someone opposes me, I can find the means and ways to get what I want.	1	2	3	4
3. It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4
4. I am confident that I could deal efficiently with unexpected events.	1	2	3	4
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4
6. I can solve most problems if I invest the necessary effort.	1	2	3	4
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4
8. When I am confronted with a problem, I can usually find several solutions.	1	2	3	4
9. If I am in trouble, I can usually think of a solution.	1	2	3	4
10. I can usually handle whatever comes my way.	1	2	3	4

For adults and adolescents  
 TOTAL SCORE General Self Efficacy =

References

Ainamani, H. E., Elbert, T., Olema, D. K., & Hecker, T. (2017). PTSD symptom severity relates to cognitive and psycho-social dysfunctioning - a study with congolese refugees in Uganda. *European Journal of Psychotraumatology*, 8(1). <http://doi.org/10.1080/20008198.2017.1283086>.

Allon, M. (2015). EMDR group therapy with women who were sexually assaulted in the Congo. *Journal of EMDR Practice and Research*, 9(1). <http://doi.org/10.1891/1933-3196.9.1.28>.

Aydin, C. (2017). How to forget the unforgettable? On collective trauma, cultural identity, and mnemotechnologies. *Identity*, 17(3), 125–137. <http://doi.org/10.1080/15283488.2017.1340160>.

Bannink Mbazzi, F., Dewailly, A., Admasu, K., Duagani, Y., Wamala, K., Hazvinei, A. V., et al. (2021). Cultural adaptations of the standard EMDR protocol in 5 African countries. *Journal of EMDR Practice and Research*, 15(1), 29–43.

Blenkinsop, C., Carriere, R., Farrell, D., Luber, M., Maxfield, L., Nickerson, M., et al. (2018). Eye Movement Desensitization and Reprocessing Early Intervention (EMDR EI) [White paper]. *EMDR early intervention and crisis response summit conference organizing committee*. 2018. <http://emdrearlyintervention.com/wp-content/uploads/2018/04/White-Paper-9-April-2018-FinalRev.pdf>.

Camilleri, C., & Vinsonneau, G. (1996). *Psychologie et cultures: concepts et méthodes*. Armand Colin.

Carriere, R. C. (2014). Scaling up what works: Using EMDR to help confront the world's burden of traumatic stress. *Journal of EMDR Practice and Research*, 8(4), 187–195. <http://doi.org/10.1891/1933-3196.8.4.187>.

Carriere, R. C. (2020, May). Violence and trauma: is trend destiny? [Conference Presentation]. *Conference breaking the cycle of violence: EMDR integrated interventions that provide recovery from past and prevent future interpersonal violence*.

Chilisa, B., Major, T. E., Gaotlhobogwe, M., & Mokgolodi, H. (2016). Decolonizing and indigenizing evaluation practice in Africa: Toward African relational evaluation

- approaches. *Canadian Journal of Program Evaluation*, 30(3), 313–328. doi:10.3138/cjpe.30.3.05.
- Cloitre, M., Shevlin, M., Brewin, C. R., Bisson, J. I., Roberts, N. P., Maercker, A., et al. (2018). The international trauma questionnaire: Development of a self-report measure of ICD-11 PTSD and Complex PTSD. *Acta Psychiatrica Scandinavica*, 138(6), 536–546. doi:10.1111/acps.12956.
- Crombach, A., & Bambonyé, M. (2015). Intergenerational violence in Burundi: Experienced childhood maltreatment increases the risk of abusive child rearing and intimate partner violence. *European Journal of Psychotraumatology*, 6. doi:10.3402/ejpt.v6.26995.
- Foa, E. B., Keane, T. M., Friedman, M. J., & Cohen, J. C. (2009). *Effective treatments for PTSD: practice guidelines from the international society for traumatic stress studies* (2nd ed.). New York: The Guilford Press ISBN 9781462543564.
- Galtung, J. (1990). Violence can start at any corner in the direct-structural-cultural violence triangle and is easily transmitted to the other corners. *Journal of Peace Research*, 27(3), 291–305.
- GIST-T. (2019). *Traumatic stress relief (TSR), materials for training frontline non-therapist personnel - field test version*. Geneva: GIST-T.
- Hall, B. J., & Olf, M. (2016). Global mental health: Trauma and adversity among populations in transition. *European Journal of Psychotraumatology*, 7(1). doi:10.3402/ejpt.v7.31140.
- Hartung, J. (2017). Teaching and learning EMDR in diverse countries and cultures: When to start, what to do, when to leave. In M. Nickerson (Ed.), *Cultural competence and healing culturally based trauma with EMDR therapy: Innovative strategies and protocols* (pp. 323–340). Springer Publishing Company.
- Hoppen, T. H., & Morina, N. (2019). The prevalence of PTSD and major depression in the global population of adult war survivors: A meta-analytically informed estimate in absolute numbers. *European Journal of Psychotraumatology*, 10(1). doi:10.1080/20008198.2019.1578637.
- ISTSS. (2018). *Posttraumatic stress disorder prevention and treatment guidelines methodology and recommendations*. [https://istss.org/getattachment/Treating-Trauma/New-ISTSS-Prevention-and-Treatment-Guidelines/ISTSS\\_PreventionTreatmentGuidelines\\_FNL.pdf.aspx](https://istss.org/getattachment/Treating-Trauma/New-ISTSS-Prevention-and-Treatment-Guidelines/ISTSS_PreventionTreatmentGuidelines_FNL.pdf.aspx).
- Jarero, I., & Artigas, L. (2012). The EMDR integrative group treatment protocol: EMDR group treatment for early intervention following critical incidents. *Revue européenne de psychologie appliquée*, 62(4), 219–222. doi:10.1016/j.erap.2012.04.004.
- Jarero, I., & Artigas, L. (2018). AIP model-based acute trauma and ongoing traumatic stress theoretical conceptualization. *Iberoamerican Journal of Psychotraumatology and Dissociation*, 10(1), 1–10. version. 3. [revibapst.com](http://revibapst.com). 2020.
- Jarero, I., Rake, G., & Givaudan, M. (2017). EMDR therapy program for advanced psychosocial interventions provided by paraprofessionals. *Journal of EMDR Practice and Research*, 11(3), 122–128. doi:10.1891/1933-3196.11.3.122.
- Jarero, I., Ignacio, Artigas, Lucina, & GIST-T. (2019). *Butterfly Hug Protocol for the Frontline. TSR Guide for Frontline Non Therapist Personnel (ToT Test Version)*. (p. 17). Geneva, Switzerland: GIST-T.
- Jarero, I., & Artigas, L. (2017). <https://emdrfoundation.org/toolkit/igtg-ongoing.pdf>
- Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Benjet, C., Bromet, E. J., Cardoso, G., et al. (2017). Trauma and PTSD in the WHO World Mental Health Surveys. *European Journal of Psychotraumatology*, 8. doi:10.1080/20008198.2017.1353383.
- Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*, 32(9), 1–7. doi:10.3928/0048-5713-20020901-06.
- Lund, C., Tomlinson, M., De Silva, M., Fekadu, A., Shidhaye, R., Jordans, M., et al. (2012). PRIME: A programme to reduce the treatment gap for mental disorders in five low- and middle-income countries. *PLoS Medicine*, 9(12). doi:10.1371/journal.pmed.1001359.
- Lupton-Bowers, P. (2019). *Designing and facilitating purposeful learning*. Training of Trainers, Ferney-Voltaire, France. PLB Consulting Ltd.
- McFarlane, A. C. (2010). The long-term costs of traumatic stress: Intertwined physical and psychological consequences. *World Psychiatry*, 9, 3–10. doi:10.1002/j.2051-5545.2010.tb00254.x.
- Musisi, S. (2004). EDITORIAL. Mass trauma and mental health in Africa. *African Health Sciences*, 4(2), 80–82.
- Olf, Miranda, Bakker, Anne, Frewen, Paul, Aakvaag, Helene, Ajdukovic, Dean, Brewer, Douglas, Wagner, Anne, & Ulrich Schnyder Global Collaboration on Traumatic Stress. (2020). Screening for consequences of trauma – an update on the global collaboration on traumatic stress. *European Journal of Psychotraumatology*, 11(1), 1–9. doi:10.1080/20008198.2020.1752504.
- Purgato, M., & Olf, M. (2015). Global mental health and trauma: The current evidence and the long road ahead. *European Journal of Psychotraumatology*, 6. doi:10.3402/ejpt.v6.30120.
- Rieder, H., & Elbert, T. (2013). The relationship between organized violence, family violence and mental health: Findings from a community-based survey in Muhanga, Southern Rwanda. *European Journal of Psychotraumatology*, 4(SUPPL). doi:10.3402/ejpt.v4i0.21329.
- Roberts, A., & GIST-T. (2019). Why AIP-informed approaches. Ed, *Traumatic stress relief (TSR), materials for training frontline non-therapist personnel - field test version* Ed. Geneva, Switzerland: GIST-T.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, M. Johnston (Eds.), *Measures in health psychology: a user's portfolio. causal and control beliefs* (pp. 35–37). Windsor, UK: NFER-NELSON.
- Shapiro, E. (2017). In J. Moench (Ed.), *EMDR Group Traumatic Episode Protocol (G-TEP) Manual (7th edition)*. <https://emdrresearchfoundation.org/toolkit/gtep.pdf>.
- Shapiro, E., & Maxfield, L. (2019). The efficacy of EMDR early interventions. *Journal of EMDR Practice and Research*, 13(4). doi:10.1891/1933-3196.13.4.291.
- Shapiro, Elan, & GIST-T. (2019). *Worksheet Protocol for the Frontline Annex. TSR Guide for Non-Therapist Personnel (ToT Test version)*. (p. 67). Geneva, Switzerland: GIST-T.
- Shapiro, F. (2001). *Eye movement desensitization and reprocessing. basic principles, protocols, and procedures* (2nd edition). New York: Guilford Press.
- Shapiro, F. (2018). *Eye movement desensitization and reprocessing. basic principles, protocols, and procedures* (3rd edition). Guilford Press ISBN 9781462532766.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. doi:10.1080/10705500802229272.
- Smyth-Dent, Kelly, Fitzgerald, Jocelyn, & Hagos, Yibeyin (2019). A Field Study on the EMDR Integrative Group Treatment Protocol for Ongoing Traumatic Stress Provided to Adolescent Eritrean Refugees Living in Ethiopia. *Psychology and Behavioral Science*, 12(4), 1–12 555842. doi:10.19080/PBSIJ.2019.12.555842.
- Spierings, J. (2004). *Working with EMDR in the treatments of clients with other (sub)cultures and religions: Multi-culti EMDR*. [Conference presentation]. EMDR Europe-Association Conference.
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine*, 166, 1092–1097. doi:10.1001/archinte.166.10.1092.
- Tol, W. A., Barbui, C., & van Ommeren, M. (2013). Management of Acute Stress, PTSD, and Bereavement: WHO Recommendations Managing Acute Stress, PTSD, and Bereavement Viewpoint. *JAMA*, 310(5), 477–478. doi:10.1001/jama.2013.166723.
- Verhey, R., Gibson, L., Brakarsh, J., Chibanda, D., & Seedat, S. (2018). Prevalence and correlates of probable post-traumatic stress disorder and common mental disorders in a population with a high prevalence of HIV in Zimbabwe. *European Journal of Psychotraumatology*, 9(1). doi:10.1080/20008198.2018.1536286.
- Vigo, D., Patten, S., Pajer, K., Krausz, M., Taylor, S., Rush, B., et al. (2020). Mental Health of Communities during the COVID-19 Pandemic. *Canadian Journal of Psychiatry*. doi:10.1177/0706743720926676.
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD checklist for DSM-5 (PCL-5)*. <https://www.ptsd.va.gov/>
- WHO. (2013). *Guidelines for the management of conditions specifically related to stress*. Geneva: World Health Organization.
- WHO. (2018). *mhGAP operations manual: Mental Health Gap Action Programme (mhGAP)*. World Health Organization Licence: CC BY-NC-SA 3.0 IGO.
- Xiong, T., Wozney, L., Olthuis, J., Rathore, S. S., & McGrath, P. (2019). A Scoping Review of the Role and Training of para-professionals Delivering Psychological Interventions for Adults with Post-traumatic Stress Disorder. *Journal of Depression and Anxiety*, 8(3), 1–6, 342. doi:10.35248/2167-1044.19.8.342.
- Yehuda, R., & LeDoux, J. (2007). Response variation following trauma: A translational neuroscience approach to understanding PTSD. *Neuron*, 56(1), 19–32. doi:10.1016/j.neuron.2007.09.006.
- Zimmermann, E. (2014). EMDR humanitarian work: Providing training in EMDR therapy to African clinicians. *Journal of EMDR Practice and Research*, 8(4), 240–247. doi:10.1891/EMDR.8.4.