
**Integrating a trauma-informed psychological intervention
for PTSD among PLWH on the Friendship Bench in Zimbabwe:
A mixed methods formative study.**

By

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the degree of Doctor of Philosophy in Medical Science (Psychiatry)
at the Faculty of Health Sciences at Stellenbosch University***

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Statement of original authorship

This thesis is presented in fulfilment of the requirements for the degree of Doctor of Philosophy (PhD) with Stellenbosch University. Academic supervisors were Prof Soraya Seedat and Dr Jonathan Brakarsh. The work on which the thesis is based is original research and has not, in whole or in part, been submitted for another degree at this or any other university. The contents of this doctoral thesis are entirely the work of the candidate, who conceptualised and carried out the research project. The five co-authored journal articles included in this thesis are directly based on the research project, and constitute work for which the candidate was the lead author and the academic supervisor was the second author or last author. The inclusion of papers is outlined in the preface of this thesis, and the role of each author described in the introduction to each paper.

Ruth Verhey

December 2018

Declaration

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own and is original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Ruth Verhey

December 2018

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Contribution of lead and co-authors

With regard to chapters 2 through 6 the nature and scope of my contribution were as follows:

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Declaration by co-authors:

The undersigned hereby confirm that

1. The declaration above accurately reflects the nature and extent of the contributions of the candidate and the co-authors to chapters 2 through 6.
2. No other authors contributed to chapters 2 through 6 besides those specified above.
3. Potential conflicts of interest have been revealed to all interested parties and that the necessary arrangements have been made to use the material in chapters 2 through 6 of this dissertation.

Declaration with signature in possession of candidate and supervisor.

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Dedication

This work is dedicated to all those who found the courage to speak out, seek help and learned to look after their mental health, some of us took the longer and more complicated way.

Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-retroviral Therapy
ARV	Anti-retroviral medication
AUD	Alcohol use disorder
CAPS-5	Clinician-Administered PTSD Scale for DSM-5
CBT	Cognitive Behavioral Therapy
CHW	Community Health Worker
CI	Confidence interval
CMD	Common mental disorders
DSM IV	Diagnostic and Statistical Manual of Mental Disorders, 4th edition
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
FB	Friendship Bench
GAD-7	Generalized anxiety disorder questionnaire
HAART	Highly Active Anti-Retroviral Therapy
HIC	High-income country
HIV	Human Immunodeficiency Virus
HREC	Health Research Ethics Committee
ICD-10	International Statistical Classification of Diseases and Related Health Problems 10th Revision
ICD-11	International Statistical Classification of Diseases and Related Health Problems 11th Revision
IPV	Interpersonal violence
LEC-5	Life Events Checklist – 5
LHW	Lay Health Worker
LMIC	Low- and middle-income country
mhGAP	Mental Health Gap Action Treatment
MRCZ	Medical Research Council of Zimbabwe
MNS	Mental, neurological and substance use disorders
NPV	Negative predictive value
PCL-5	Posttraumatic stress disorder Check List-5
PHC	Primary health care
PHQ-9	Patient Health Questionnaire

PLWH	People living with HIV and AIDS
PPV	Positive predictive value
PST	Problem Solving Therapy
PTSD	Posttraumatic stress disorder
PTSS	Posttraumatic stress symptoms
ROC	Receiver operator curve
SSQ-14	Shona Symptom Questionnaire-14
SUD	Substance use disorder
TB	Tuberculosis

Preface

This doctoral thesis includes journal articles that are published or under review. All papers are linked to the thesis research question. They form a single-themed, cohesive body of work.

All papers were submitted to different journals in the referencing styles required by the respective journals. Papers 1 and 3 (chapter 2 and 4) appear as published in their respective journals. For the purpose of uniformity of this thesis the other chapters were consistently re-formatted.

The following five papers are included as part of this thesis:

1. Verhey, R., Chibanda, D., Brakarsh, J. and Seedat, S., 2016. **Psychological interventions for post-traumatic stress disorder in people living with HIV in Resource poor settings: a systematic review.** *Tropical Medicine & International Health*, 21(10), pp.1198-1208.
2. Verhey, R., Chibanda, D., Vera, A., Manda, E., Brakarsh, J. and Seedat, 2018. **Perceptions of HIV-related trauma in People living with HIV in Zimbabwe's Friendship Bench program: A qualitative analysis of counsellors' and clients' experiences.** In press in *Transcultural Psychiatry*.
3. Verhey, R., Chibanda, D., Gibson, L., Brakarsh, J. and Seedat, S., 2018. **Validation of the posttraumatic stress disorder checklist-5 (PCL-5) in a primary care population with high HIV prevalence in Zimbabwe.** *BMC Psychiatry*, 18(1), p.109.
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5. Verhey, R., Chibanda, D., Gibson, L., Brakarsh, J. and Seedat, S., 2018. **Prevalence and correlates of Posttraumatic Stress Disorder and common mental disorders in lay health workers working in the Friendship Bench Program in Zimbabwe.** Under review with the *Community Mental Health Journal*

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Summary

Introduction: Posttraumatic Stress Disorder (PTSD) and other Common Mental Disorders (CMD), such as depression and anxiety disorders, are highly prevalent in people living with HIV (PLWH). In Zimbabwe, an effective and culturally acceptable task-shifted psychological intervention for CMD, the Friendship Bench (FB), is offered in primary health care facilities (PHC). We found high levels of PTSD comorbidity among FB beneficiaries with CMD in preliminary studies and therefore sought to enhance the existing program by including a trauma-informed care component. Finding a strategy for such an inclusion has been the focus of this PhD thesis.

Method: Formative work included a systematic literature review that was carried out first to establish knowledge about existing programs addressing PTSD in PLWH. Secondly, a qualitative study to explore the counseling experiences of clients and counselors with regards to PTSD-symptomatology was undertaken. It used a thematic content approach to analysing semi-structured interviews with beneficiaries (n=10) and lay health workers (LHWs) (n=5) that were conducted with an interview guide. Thirdly, the PTSD Checklist (PCL-5) was validated against the Clinician-Administered PTSD Scale (CAPS-5). Finally, we established prevalence and factors associated with PTSD in PHC clients (n=204) and LHWs (=183) through a cross-sectional study.

Results: There is a dearth of evidence-based interventions in low- and middle-income countries (LMIC) with identified interventions being from high-income countries (HIC). The qualitative study identified the term *kufungisisa kwenjodzi* (excessive thinking due to trauma) as the local equivalent for PTSD/HIV-related PTSD. Traumatic events were defined as circumscribed incidents and ongoing pervasive experiences while LHWs recognized PTSD Symptoms. Clients described receiving psychological support as helpful.

The PCL-5 cut-off of ≥ 33 yielded a sensitivity and specificity of 74.5% (95%CI: 60.4-85.7) and 70.6% (95%CI: 62.7-77.7), respectively, and good internal consistency (Cronbach's alpha = 0.92).

The prevalence of PTSD amongst PHC clients, of whom 91 (44.6%) were HIV-positive, using the PCL-5, was 40.7% (n=83), and of those 69.5% (n=57) had comorbid CMD as measured with the Shona Symptom Questionnaire (SSQ14 ≥ 9) (OR 6.48 (95%CI [3.35-12.54])). Results showed that PTSD was associated with recent negative life events (past six months) (OR 3.73 95%CI [1.49-9.34]) and chronic illness (OR 2.07 95%CI [1.15-3.72]). Amongst the FB counselors (n=182), the survey found a low prevalence of PTSD of 6% (n=11) and of CMD of 11% (n=17).

Discussion: To our knowledge there are no task-shifted PTSD approaches for PLWH in LMICs. PTSD symptomatology and its conceptualization can be defined using cultural idioms of distress. The high prevalence of HIV-related PTSD and comorbidity with other CMD emphasizes the need for a trauma-informed intervention. Furthermore, the low rates of PTSD and CMD among LHWs suggests that it is feasible to train them to deliver trauma-informed care.

This thesis recommends a trauma-informed approach that includes basic screening for trauma exposure, followed by questions about the main symptom clusters with incorporation of emotional regulation skills. It concludes with an algorithm for a trauma-informed FB component to address the needs of those suffering from PTSD and CMD and makes recommendations for future research.

Opsomming

Inleiding: Posttraumatische stresversteuring (PTSV) en ander Algemene Geestesversteurings (AGV) soos depressie en angsvesteurings, is hoogs algemeen in mense wat met MIV leef (MMML). In Zimbabwe word 'n effektiewe en kultureel-aanvaarbare taakverskuifde sielkundige ingryping vir AGV, die sogenaamde Friendship Bench (FB), in primêregesondheidsorg (PGS)-fasiliteite aangebied. Ons het hoë vlakke van PTSV-medemorbiditeit onder FB-begunstigdes met AGV in voorlopige studies gevind en daarom probeer om die bestaande program te verbeter deur 'n trauma-ingeligte sorgkomponent in te sluit. Om 'n strategie vir só 'n insluiting te vind, het die fokus van hierdie PhD-proefskrif gevorm.

Metodes: Die formatiewe werk sluit in 'n sistematiese literatuuroorsig wat eerste gedoen is ten einde kennis daar te stel oor bestaande programme wat PTSV in MMML aanspreek. Tweedens is 'n kwalitatiewe studie onderneem om die beradingservarings van kliënte en beraders ten opsigte van die PTSV-simptomatologie te ondersoek. Dit het 'n tematieseinhoud-benadering gebruik vir die ontleding van semi-gestruktureerde onderhouds wat aan die hand van 'n onderhoudsgids met begunstigdes (n=10) en lekegesondheidswerkers (LGW) (N=5) gevoer is. Dertens is die PTSV-kontrolelys (PKL-5) teenoor die Klinies-gedadministreerde PTSD-skaal (KAPS-5) bekragtig. Ten slotte het ons die voorkoms en faktore geassosieer met PTSV in PGS-kliënte (n=204) en LGW's (n=83) deur middel van 'n dwarsnitstudie bepaal.

Resultate: Daar is 'n gebrek aan bewys-gebaseerde intervensies in lae- en middelinkomstelende (LMIL) met geïdentifiseerde intervensies slegs uit hoë-inkomstelende (HIL). Die kwalitatiewe studie het die term kufungisisa kwenjodzi (oormatige denke weens trauma) geïdentifiseer as die plaaslike ekwivalent vir PTSV-/MIV-verwante PTSD. Traumatische gebeure is omskryf as beperkende insidente en volgehoue omvattende ervarings namate LGW's die PTSV-simptome herken het. Kliënte het die ontvangs van sielkundige steun as nuttig beskryf.

Die PKL-5-afsnypunt van ≥ 33 het 'n sensitiwiteit en spesifisiteit van onderskeidelik 74,5% (95% vertroubaarheidsinterval [VI]: 60,4-85,7) en 70,6% (95% VI: 62,7-77,7) opgelewer, asook goeie interne konsekwentheid (Cronbach se alfa=0.92).

Die voorkoms van PTSV onder PGS-kliënte, waarvan 91 (44,6%) MIV-positief was, met die gebruik van die PKL-5 was 40,7% (n=83), en daarvan het 69,5% (n=57) medemorbiede AGV gehad, gemeet met die Shona-simptoomvraelys (SSV14 \geq 9) (OF 6.48 (95% VI [3.35-12.54])). Resultate het getoon dat PTSV verband hou met onlangse negatiewe lewensgebeure (afgelope ses maande) (OF 3.73

95% VI [1,49- 9.34] en chroniese siekte (OF 2.07 95% VI [1.15-3.72]). Onder die FB-beraders (n=182) het die opname 'n lae voorkoms van PTSV, naamlik 6% (n=11) en van AGV, naamlik 11% (n=17) gevind.

Bespreking: Sover ons kennis strek, is daar geen taakverskuifde PTSV-benaderings vir MMML in LMIL'e nie. PTSD-simptomatologie en die konseptualisering daarvan kan omskryf word deur kulturele idiome van nood te gebruik. Die hoë voorkoms van MIV-verwante PTSV en medemorbiditeit met ander AGV beklemtoon die behoefte aan 'n trauma-ingeligte intervensie. Verder dui die lae syfers van PTSV en AGV onder LGW's dat dit haalbaar is om hulle op te lei om trauma-ingeligte sorg te lewer.

Hierdie proefskrif beveel 'n trauma-ingeligte benadering aan wat basiese sifting vir trauma-blootstelling insluit, gevolg deur vrae oor die hoofsimptoomgroepe met die insluiting van emosioneleregulering-vaardighede. Dit sluit af met 'n algoritme vir 'n trauma-ingeligte FB-komponent om die behoeftes van diegene wat aan PTSV en AGV ly aan te spreek en voorsien aanbevelings wat toekomstige navorsing betref.

CHAPTER 1

1.1) Introduction

This chapter gives an overview of the thesis by highlighting the rationale and significance of this body of research. The chapter goes on to outline the study objectives followed by a brief introduction to Posttraumatic Stress Disorder (PTSD) and the existing Zimbabwe Friendship Bench (FB) program where this research work is embedded. In Zimbabwe, the term common mental disorders (CMD), which includes depression and anxiety, has traditionally excluded a focus on PTSD despite earlier work suggesting that PTSD-like symptoms are prevalent among those affected by depression and anxiety, particularly those who have comorbid CMD and HIV. Understanding the magnitude of CMD in PLWH, and factors associated with trauma and PTSD and the experience of LHWs working with this population are all crucial precursors to developing a strategy for integrating a care package for PTSD within the existing FB program. The FB is an evidence-based CBT intervention delivered by trained lay health workers (LHWs) (1). It has been running for over 10 years and has been scaled up to over 70 primary health care facilities in Zimbabwe. We, therefore, aim to enhance this existing CBT-based intervention offered through PHC settings in order to meet the needs of those presenting with PTSD symptomatology, particularly PLWH.

The following aims are addressed in this thesis.

1.2) Primary Aims

1. To establish through a systematic review which psychological interventions are offered to PLWH presenting with PTSD in low resource settings as well as their effectiveness, outcome measures and overall quality.
2. To explore perceptions and experiences of LHWs on the FB working with PLWH presenting with PTSD symptomatology and to explore the experiences of those clients with a history of trauma receiving the FB intervention.
3. To validate an internationally recognized PTSD diagnostic tool, the PTSD Checklist for DSM-5 (PCL-5), for the local setting.
4. To establish the prevalence of PTSD and comorbid CMD in a high HIV prevalence setting within the PHC system.

5. To assess the prevalence of PTSD and comorbid CMD amongst the LHW working for the FB program.
6. To develop a proposed algorithm for integrating a trauma-informed intervention within the FB program.

1.3) Background

1.3.1) Posttraumatic Stress Disorder

Posttraumatic Stress Disorder (PTSD) is a psychiatric condition that is linked causally to the experience of one or more life threatening events. Main characteristics of the condition are repeated intrusive re-experiencing (i.e. flashback, nightmares), avoidance and negative alterations of cognitions and symptoms of hyper-arousal (i.e. being hyper-vigilant and easily startled). Untreated PTSD can develop into a chronic and highly disabling condition (2-4).

There is evidence suggesting that PTSD belongs to the category of common mental disorders (CMD) based on its relatively high prevalence globally (5-8).

In the World Health Organization (WHO) World Mental Health survey, Liu et al. found a 4.0% PTSD prevalence with a 70.3% lifetime exposure to traumatic events (9). Traumatic events such as loss of a close person and/or being exposed to death and/or serious injury are reported most commonly, followed by assault, accidents, and life-threatening illness (7). Interpersonal violence and sexual violence are amongst the index traumatic events that occur less often but carry a higher conditional risk for the development of PTSD (10). The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) specifies 8 criteria required to meet a diagnosis of PTSD ranging from A-H (Table 1).

Table 1. PTSD diagnostic criteria according to DSM-5 (2013)

PTSD diagnostic criteria according to DSM-5 (2013)	
Criteria A: Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:	
1	Directly experiencing the traumatic event(s).
2	Witnessing, in person, the event(s) as it occurred to others.
3	Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4	Experiencing repeated or extreme exposure to aversive details of the traumatic event(s).

Criteria B: Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:	
1	Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
2	Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
3	Dissociative reactions (e.g. flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring.
4	Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
5	Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
Criteria C: Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:	
1	Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
2	Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
Criteria D: Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:	
1	Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol or drugs).
2	Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world.
3	Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
4	Persistent negative emotional state.
5	Markedly diminished interest or participation in significant activities.
6	Feeling of detachment or estrangement of others.
7	Persistent inability to experience positive emotions.
Criteria E: Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidence by two (or more) of the following:	
1	Irritable behavior and angry outbursts typically expressed as verbal or physical aggression toward people or objects.
2	Reckless or self-destructive behavior.
3	Hyper-vigilance.
4	Exaggerated startle response.
5	Problems with concentration.
6	Sleep disturbance.
Criteria F: Duration of disturbance (Criteria B,C,D,E) is more than 1 month.	
Criteria G: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.	
Criteria H: The disturbance is not attributable to the physiological effects of a substance or another medical condition.	

An important feature of the PTSD diagnosis according to DSM-5 is the requirement of a specification as to whether dissociative symptoms such as Depersonalization and Derealization are present.

In comparison, the WHO International classification of Diseases 11th revision (ICD-11) which was released as a version for implementation preparation in June 2018 includes two diagnoses for disorders specifically associated with stress; PTSD and complex PTSD (8, 11). A latent profile analysis found evidence for these two separate diagnoses with exposure to a single traumatic event as a precursor to PTSD, and exposure to chronic trauma predictive of complex PTSD (12). Regardless of the traumatic events, the three core elements re-experiencing, avoidance and hyper-arousal have to be present for both diagnoses. However, the diagnoses are differentiated by their symptom profile (12). Complex PTSD requires the additional presence of symptoms in the areas of self-organization. The areas are emotional self-regulation (i.e. emotional reactivity, dissociation), self-concept (i.e. feelings of shame and guilt) and difficulties with relationships with others. It is reasonable to assume, based on the above, that this set of diagnostic criteria brings clarity and applicability to clinicians and researchers. The International Advisory Group for the Revision took into account the distinct features of PTSD, complex PTSD as well as Adjustment Disorder and Acute Stress Disorder (8, 13). While this thesis is informed by the DSM-5, it will be important to describe through empirical observation the overlap of the two sets of criteria, highlighting the differences and the impact these may have in diagnosing and ultimately providing evidence-based care to those affected by PTSD symptomatology.

1.3.2) PTSD and HIV

PTSD is common in people living with HIV (PLWH) in low- and middle-income countries (LMIC) (14-16). Rates of between 20-40% have been reported in some settings (16, 17).

In sub-Saharan Africa alone over 15 million people are living with HIV (18). Zimbabwe's HIV prevalence is at 13.3% according to UNAIDS (2017, <http://www.unaids.org/en/regionscountries/countries/zimbabwe>).

The introduction of highly active antiretroviral therapies (HAART) has reduced HIV/AIDS-related mortality, making HIV a chronic condition. Yet being diagnosed with HIV and the resulting stigma can be seen as contributory factors to the development of HIV-related PTSD (16). PLWH in LMIC also carry a high burden of common mental disorders (CMD) which include depression, anxiety and stress-related disorders (5, 19-22). These CMD are known to hasten HIV/AIDS disease progression even in the presence of HAART (4, 23-26). Non-adherence to ART can increase viral load and decrease quality of life and overall health and lead to a heightened mortality (27, 28).

High CMD prevalence amongst PLHW impacts negatively on medication adherence and physically and mentally compromising this already vulnerable group potentially more (29). There is a high level of comorbidity between PTSD and CMD in low resource settings and this contributes strongly to the burden of disease (30). Research on the comorbidity of PTSD and depression has for the most part focused on civilians being affected by armed conflict and violence (31) and military personnel (32, 33).

1.3.3) Cumulative Trauma

There is evidence that cumulative stressors contribute to the development of PTSD, especially where exposure to several traumatic events is reported (34, 35). Although considered to be highly prevalent, little is known about PTSD among PLWH in LMIC, particularly in resource-limited sub-Saharan Africa (14, 15, 36, 37).

Sub-Saharan Africa is the most HIV-affected region worldwide according to the WHO (<http://www.who.int/hiv/data/>). Being HIV-positive and being exposed to a multitude of HIV-related stressors and losses is a negative experience which can lead to PTSD symptomatology (38). Stressors, both acute and chronic, that people in LMIC are exposed to often occur on a daily basis. Political and economic instability, including poverty and disparity with its consequences of food scarcity and lack of access to medical care constitute a daily reality for the majority of the population. Furthermore, lack of education and exposure to weather phenomena due to climate change can contribute to poor mental health outcomes including stress related disorders (20).

There is a greater risk of developing symptoms of PTSD in women (39, 40) with cumulative effects of multiple traumas being common and associated with worse psychiatric and other chronic medical comorbidity (41-43). PLWH in South Africa have been found to have a high prevalence of persisting psychiatric disorders with PTSD rates of 20% at follow-up and being associated with a longer duration of infection and lower baseline functionality (17). Receiving an HIV-diagnosis was experienced as a traumatic index event for 36.4% in a population of recently diagnosed persons (17, 44).

While evidence-based CBT interventions such as EMDR or prolonged exposure (PE) (45-48) are known to be effective, very few studies have focused on effective treatments for PTSD in PLWH in LMIC despite its high prevalence (49). Furthermore, there is little evidence on the use of lay health workers or non-specialized health care professionals to address the large treatment gap for PTSD (50). Task-shifting approaches in order to address the treatment gap for PTSD have received very little attention despite being recommended as a resource-efficient approach for other common mental disorders (1).

1.4) The Friendship Bench

The Friendship Bench Program (FB) is a low intensity psychological intervention targeting common mental disorders (CMD), mainly depression and generalized anxiety disorder (GAD). It uses a CBT-based intervention delivered by lay health workers (LHWs) to reduce symptomatology. After receiving the intervention, beneficiaries are offered participation in a peer-led group support that integrates behaviour activation in its income generation component. Prevalence studies in the Zimbabwean PHC setting found that 61.4% of clinic users present with CMD as measured by the Shona Symptom Questionnaire (SSQ-14) (51). A recent study carried out as part of this thesis revealed a 40.7% probable PTSD prevalence using the PCL-5 as a screening tool (Verhey, in press). All questionnaires utilized were locally validated (51-53). In a recent rigorous randomized controlled trial (RCT), the FB program was found to be an effective way to narrow the treatment gap for CMD at primary health care level in Zimbabwe (1, 54). The program has been scaled up to more than 70 clinics in 3 cities in Zimbabwe (55).

The LHWs involved in the FB are employed by the City Health Authorities of Harare, Gweru and Chitungwiza and receive a monthly allowance. They have been receiving basic problem solving therapy (PST) and activity scheduling training by senior mental health professionals using a manualized approach. The trainers also provide supervision. The manual extensively covers aspects of mental health conditions and provides insights into mental, neurological and substance use disorders (MNS) such as depression, generalized anxiety, psychosis, epilepsy, substance/alcohol use disorder (SUD/AUD) and PTSD as well as information about associated traumatic events including interpersonal violence. Lay health workers are also trained how to deal with suicidal clients using checklist forms. Furthermore, they are taught about self-care, supervision needs of counselors and the use of ongoing peer support groups in order to enhance care for their clients and their own wellbeing.

LHWs are also trained in affect regulation skills such as breathing exercises and visualization of positive memories.

LHWs involved in the FB work at PHC facility level and move around the community they live in when performing home visits. Despite a high probable PTSD prevalence, little is known about PTSD in the Zimbabwean setting. In addition, the LHWs attached to the clinics have never been sensitized to addressing PTSD as a comorbidity in their clientele as indicated above; current focus of all FB work has been aimed at lowering depression and anxiety symptoms as defined by the SSQ-14.

As LHWs live in the same environment as their clients, they too are often exposed to similar stressors such as poverty, HIV infection and other chronic conditions, lack of access to medical treatment, loss

of loved ones, displacement and violence to name a few. The link between HIV and PTSD amongst PLWH as well as for LHWs who may be personally affected by HIV and are working with PLWH is unknown, and requires further investigation. Therefore, part of this thesis aims to establish whether LHWs are at risk of vicarious trauma.

1.5) Sequence of chapters

This dissertation presents the results of a mixed methods formative study that was carried out in order to prepare for the integration of a trauma-informed psychological intervention in the existing Friendship Bench program. Chapter 2 describes the efforts made to understand the body of knowledge around PTSD in low resource settings through a systematic review, chapter 3 explores the overarching symptoms of CMD and PTSD through a qualitative study that looks at the experience and perception of PTSD by LHWs and their clients. As part of the ongoing FB study, we sought to investigate the prevalence and factors associated with PTSD in this population. PTSD prevalence for both groups, clients (chapter 5) and LHWs (chapter 6) was measured using the PTSD Checklist for DSM-5 (PCL-5).

The validation of an appropriate screening tool such as the PCL-5 (chapter 4) for use within the FB makes identification of those with PTSD feasible and being aware of factors associated with PTSD will further contribute towards the design of an additional trauma-informed component to be incorporated into the existing FB program.

Lastly, understanding the psychological burden imposed on the LHWs will help include strategies to provide support for them. All these components have been articulated in the next five chapters and lead to the final conclusion chapter (chapter 7) which recommends an algorithm to enhance the existing FB program.

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CHAPTER 2

Psychological Interventions for Posttraumatic Stress Disorder in People Living with HIV in Resource Poor Settings: A Systematic Review

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RV designed the search strategy for this systematic review and consulted several librarians before the final search strategy was approved by supervisors. All drafts were originated by RV who also responded to peer reviewers' comments before the manuscript was accepted for publication.

Systematic Review

Psychological interventions for post-traumatic stress disorder in people living with HIV in Resource poor settings: a systematic review

Ruth Verhey¹, Dixon Chibanda¹, Jonathan Brakarsh² and Soraya Seedat³¹ Zimbabwe Aids Prevention Project, University of Zimbabwe, Harare, Zimbabwe² Say and Play Therapy Centre, Harare, Zimbabwe³ Department of Psychiatry, Stellenbosch University, Stellenbosch, South Africa**Abstract**

OBJECTIVE Post-traumatic stress disorder is pervasive in low- and middle-income countries. There is evidence to suggest that post-traumatic stress disorder is more common among people living with HIV than non-infected matched controls. We carried out a systematic review of interventions for adult post-traumatic stress disorder from resource poor settings with a focus on people living with HIV.

METHODS We included all studies that investigated interventions for adult post-traumatic stress disorder from resource poor settings with a focus on interventions that were either randomised controlled trials or observational cohort studies carried out from 1980 to May 2015.

RESULTS Of the 25 articles that were identified for full review, two independent reviewers identified seven studies that met our study inclusion criteria. All randomised controlled trials (RCT) ($n = 6$) used cognitive behavioural therapy-based interventions and focused on people living with HIV in resource poor settings. There was only one study focusing on the use of lay counsellors to address post-traumatic stress disorder but core competencies were not described. There were no intervention studies from Africa, only an observational cohort study from Rwanda.

CONCLUSION Rigorously evaluated interventions for adult post-traumatic stress disorder in people living with HIV are rare. Most were undertaken in resource poor settings located in high-income countries. There is a need for research on the development and implementation of appropriate interventions for post-traumatic stress disorder in people living with HIV in low- and middle-income countries.

keywords Post-traumatic stress disorder, resource poor settings, HIV, People living with HIV

Introduction

Post-traumatic stress disorder (PTSD) is common among people living with HIV (PLWH) [1, 2]. Trauma rates in HIV-positive persons are much higher than in the general population, as found in a meta-analysis, with a fivefold rate for female PLWH (30% PTSD) *vs.* the general female US population [3, 4]. Factors associated with the development of PTSD are diverse, particularly in low- and middle-income countries (LMIC), where rates of up to 40% have been reported [5, 6]. In the Gambia, PTSD was found to be associated with poverty, low CD4 count,

female gender, and advanced HIV illness [5]; in South Africa, with stigma and HIV disease progression [1].

The conceptualisation of PTSD is varied and focuses on responses to traumatic incidents such as assault, sexual trauma, intimate partner violence, sudden and unexpected loss of loved ones, accidents, being exposed to war and violence, and natural catastrophes, which can all be linked to a threat to one's life or physical integrity. Poverty, unemployment, food insecurity, internal displacement, exposure to increased disease risk, unaffordable medical care, and unstable and oppressive political systems can be additional contributory factors to the

development of post-traumatic symptoms in individuals living in LMIC [7, 8].

Little is known about effective treatments for adult PTSD in PLWH in LMIC despite its high prevalence [9]. There is, however, evidence suggesting that cognitive behavioural therapy (CBT)-based interventions can be effective for PTSD [10], namely evidence-based interventions such as eye movement desensitisation and reprocessing (EMDR) [11–14] or prolonged exposure (PE) [15] *vs.* no treatment or control conditions. There is limited research focusing on the use of lay health workers (LHW) to address the treatment gap for PTSD [16], despite this being recommended as a resource-efficient approach for other common mental disorders such as depression [17]. Seedat [1] describes the evidence base of PE within the framework of cognitive behavioural therapy (CBT), the use of SSRIs (selective serotonin reuptake inhibitors) and also EMDR for PTSD. Other studies have focused on reducing sexual risk behaviour or substance use disorder (SUD) in PTSD-affected individuals, as both are positively associated with past trauma and increase the risk for HIV infection and lower medication adherence [18]. In a recent study, Bass [19] found that group therapy for women suffering from PTSD symptoms after sexual violence experiences was effective in reducing trauma symptoms, but this study did not report on the HIV status of the study participants.

In Zimbabwe, several tools have been used in recent years to screen for common mental disorders (CMD) [20–26]; however, there are no validated tools for identifying PTSD in PLWH, despite the high prevalence of negative life events that could be linked to PTSD in this population [27]. In the past 10 years, the Friendship Bench program, a locally developed intervention for CMD, has attended to over 7000 primary health care attenders with CMD [27], with approximately 30% of PLWH showing symptoms of both CMD and PTSD as found in a recent study carried out as formative work for a clinical trial of the Friendship Bench using the SSQ (Shona Symptom Questionnaire) [20] and the IES-R (Impact of Event Scale – revised) [28, 29]. The need to identify appropriate approaches for the care and management of PTSD has arisen as the Friendship Bench intervention prepares for scale up in over 50 primary health care clinics.

This systematic review aims to describe the core features of interventions used in the treatment of PTSD in PLWH in resource poor settings as a way of informing the development of a treatment component for PTSD to an existing intervention focusing on CMD: the Friendship Bench [27].

Search strategy

The main criteria for inclusion were that studies had to (i) be conducted as a RCT or as an observational cohort study where pre- and post-scores related to PTSD and/or post-traumatic stress symptoms (PTSS) were recorded after an intervention in an adult HIV population; (ii) take place in a resource poor setting (including such settings situated in high-income countries); (iii) use a psychological intervention; and (iv) be administered in a population whose PTSD and/or PTSS were measured with a screening tool or a clinical interview. We included quantitative research papers in the English language that reported on interventions with a control group/comparison group or cohort studies that compared before-and-after measures, with an outcome of PTSS or PTSD, as measured by either a self-report questionnaire or clinical observation in PLWH. We excluded conference abstracts, unpublished theses, studies carried out in children and adolescents, and all papers not written in English, with the last search carried out on May 15 2015.

All psychological interventions as defined by Sherr *et al.* (cognitive behavioural therapy, coping effectiveness intervention, interpersonal therapy, group therapy, spiritual self-schema therapy, psycho-education therapy, peer support, counselling) [30], regardless of delivering agent, provided they were for PLWH in resource poor settings and used for PTSD/or PTSS, were included. The search for articles from low- and middle-income countries on HIV/AIDS was expanded as described in an earlier systematic review of psychological interventions by Chibanda *et al.* [28]. After identifying the articles that met our inclusion criteria, we manually searched for task shifting and PTSD in the full text of these articles and determined where the studies were carried out. Where there was uncertainty of the location of the study (low-resource setting), authors were contacted.

Two reviewers (RV and DC) read all titles and abstracts independently after duplicates were deleted. For the first stage, studies were removed if they did not meet at least three of the four inclusion criteria. This two-stage approach was used to ensure that as many studies that closely met inclusion criteria were captured in the initial search. Where the two reviewers differed or could not come to an agreement, a third reviewer (JB) was consulted. Papers extracted from this phase were then reviewed again for all four criteria. We also reviewed all references in the final papers to see whether there were any papers that may have been missed by our search strategy, which was not the case.

Details of search

Using Scopus, we initially carried out the following search: PTSD (expanded) AND psychological interventions (expanded) AND LMIC (expanded). We then searched as follows: HIV (expanded) AND PTSD (expanded) AND psychological interventions (expanded), without including LMIC in the search terms. We used the latter search strategy for Pubmed, PsychInfo and the Cochrane central register of trials.

Data extraction and analysis

Data were extracted using Scopus and Endnote for the first stage, including deleting duplicate results. Subsequent searches were independently carried out manually by RV and DC. All studies that were identified as meeting three of the four conditions were included in the next search. Full articles of those that met the full four conditions were printed and the references were individually checked for any other studies meeting our study inclusion criteria.

Results

Scopus generated a total of 474 results based on the search strategy described above. Pubmed, PsychInfo and Cochrane, using the same search strategy, generated 696 results. There were a total of 456 duplicates between Scopus and the other search engines (Figure 1). After 'psychological interventions' and related terms were included in the search, 66 results were generated, of which 41 had to be excluded as they did not meet at least three of four inclusion criteria.

A total of 25 articles were manually reviewed. Of these, 12 met all four inclusion criteria, but of the 12 a number of articles were excluded as they did not indicate the HIV status of participants and did not include an assessment of PTSD. Ten published articles were included in the final review. Of the 10, Bernstein used the same dataset to publish two papers, one describing an RCT [31] and the other a cohort study analysing the long-term effects of the intervention group [32]. Sikkema *et al.* published their RCT results [33] and a qualitative analysis of their data [34] as well as a further analysis of the same data with regard to the prolonged effects of the intervention tested in the trial [35] (Table 1).

Our review therefore reports on seven studies. Six were randomised controlled trials in resource poor settings (the setting of the study was verified by contacting the authors) in the USA and one was an observational prospective cohort study in Rwanda [36]. Five studies recruited both female and male participants, and two

studies exclusively focused on women [36] or men [37]. In all studies, participants were invited to participate by public invitation, that is through social agencies, AIDS organisations or HIV clinics, except in the Bernstein study [31], where patients presenting to an emergency department were approached.

All studies with the exception of the cohort observation study [36] used a CBT-based or CBT-like approach, with the focus on behaviour change. Trauma was mostly conceptualised as Childhood Sexual Abuse (CSA) [33, 37] or AIDS-related bereavement [38]. Behavioural change and enhanced coping were aimed at using the following techniques: motivational interviewing, exposure to the most traumatic experience through a writing intervention, prolonged exposure and improved coping.

Interventions were mostly carried out by mental health professionals such as clinical psychologists [33–35, 39] or clinical social workers or unspecified trained research staff [40]. One study used lay counsellor interventionists who received training [31] and one study made use of trauma counsellors who were trained specifically for the study [36]. The core competencies of the delivering agents were not further described. For the purposes of our work on the Friendship Bench [27], we defined lay health workers as community members who received specific training to deliver health care services and who were not health care professionals [41].

All studies included in this review focused on populations that were HIV-positive and scored positive for PTSD as measured by recognised screening tools for PTSD identification. Inclusion and exclusion criteria were described in detail in all studies. The instruments used were the Post-traumatic Stress Disorder Checklist PCL-C [42], the Harvard Trauma Questionnaire HTQ [43], the Davidson PTSD scale [44, 45], the IES [46, 47], the PDS [48–50], PSSI [48] and the SCL-90-R [51]. The instruments that were administered in the studies have international utility, and many of these tools have been used extensively in different, non-HIV-related settings [52–61]; however, none of the studies provided information on the validation of the tools in the study setting. Cohen [36] describes the extensive process of translating the HTQ into the local Rwandan language; all other studies used English versions of the tools.

Follow-up

All studies followed up participants for at least 6 months [37, 39], while four studies followed up participants up to 12 months post-intervention [31, 35, 38, 40]. The observational cohort study assessed participants for 18 months [36].

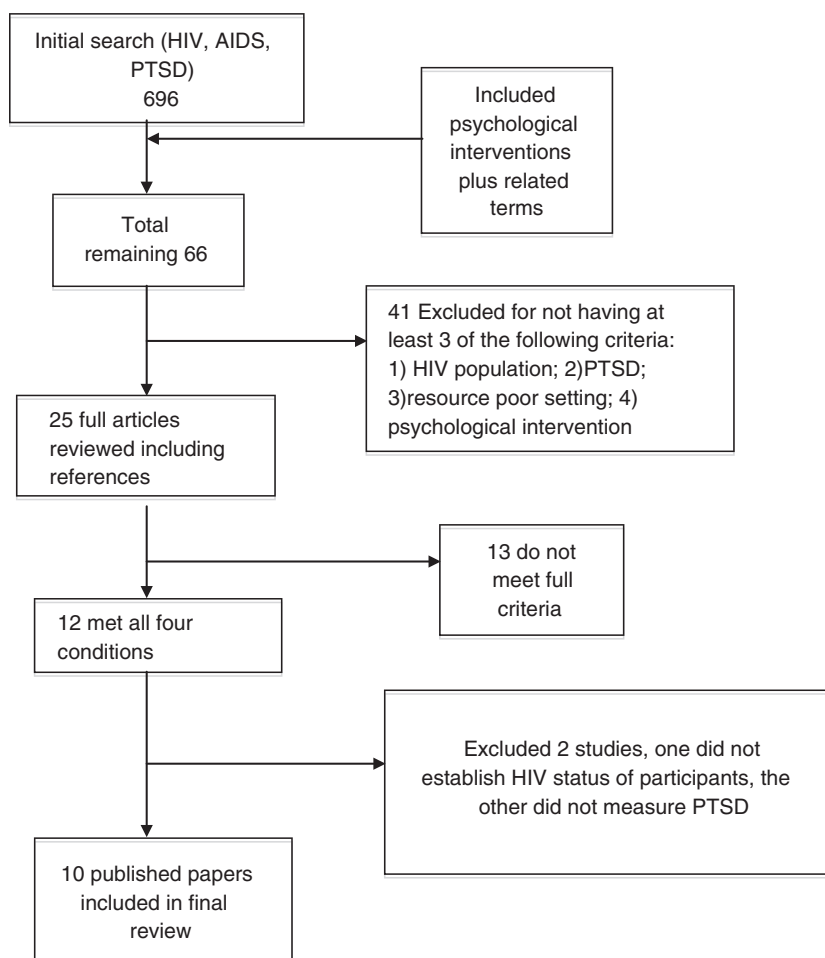


Figure 1 Search results.

Loss to follow-up

Overall, the loss to follow-up ranged from 10% to 59%. The Bernstein study [31] reported a loss to follow-up of 30% for both the intervention and control group. The study by Cohen [36] did not provide information on the loss to follow-up, while Hansen [38] reported a 10% loss to follow-up for the intervention and 5% for the comparison group. In the study carried out by Ironson [40], 32% were lost to follow-up in the intervention group and 26% in the control group. Pacella [39] reported a 59% loss to follow-up for the intervention, and 48% in the control/waiting list group. Sikkema [33] had a 30% loss to follow-up in her comparison group and 39% in the experimental condition. The study by Williams [37] revealed a 31% loss to follow-up for the intervention group and 16% for the control condition.

Study characteristics

As shown in Table 2, the Rwandan study, the only study from Africa, followed up 698 women of whom 75% were HIV-positive and over 60% had a diagnosis of PTSD according to the Harvard Trauma Questionnaire (HTQ) [36]. In the group of uninfected women, 68% had clinically significant HTQ scores. Both groups reported a high prevalence of traumatic events during the post-genocidal era. They were interviewed by trained study staff and were offered the opportunity to disclose details of sexual violence experiences and to remain in contact at follow-up visits. HIV-infected women had a higher counselling and health care user rate.

Sikkema's study from 2007 [33] focused on women and men who experienced both childhood sexual abuse and an HIV diagnosis and presented with traumatic stress

Table 1 Characteristics of included studies

Author/country	Setting	HIV +	Female <i>n</i> (%)	Measure	Tools	Delivering agent	Intervention	Control
Bernstein <i>et al.</i> (2012), USA	Patients at Emergency department who test positive for substance abuse	yes	340 (33.3)	Pre-post 6 and 12 months	PCL-C	ED staff	Brief motivational interview to reduce sex. risk behavior and testing and referral	Testing and referral
Bernstein <i>et al.</i> (2012), USA	Patients at Emergency department who test positive for substance abuse	yes	32.8	Pre-post 6 and 12 months	PCL-C	ED staff	Brief motivational interview to reduce sex. risk behavior and testing and referral	N.A.
Cohen <i>et al.</i> (2011), Rwanda	Post conflict women	yes	690 (100)	Pre-post 6, 12, 18 months	HTQ CES-D	Trained local staff (trauma counsellors, nurses)	On enrolment HTQ administration and additional interview when rape was reported, physical examination	N.A.
Hansen <i>et al.</i> (2006)	HIV-positive grieving men and women (loss due to AIDS)	yes	94 (35)	Pre-post 4, 8, 12 months	GRI SCL-90-R FAHI W/CQ	? no details given	Group coping intervention	Cognitive Behavioural Therapy
Ironson <i>et al.</i> , (2013), USA	HIV-positive men and women, by public invitation	yes	96 (40)	Pre-post 1, 6, 12 months	Davidson PTSD Scale PTSDTOT HAM-D	Research staff	Augmented trauma writing for four days	Daily event writing
Pacella <i>et al.</i> (2011), USA	HIV-positive men and women, recruited by social service agency	yes	24 (37)	Pre-post, 3 months	PDS PSS-I CES-D	clinical psychologists, post-doc level	Prolonged exposure (PE)	Weekly monitoring and waitlist
Puffer <i>et al.</i> (2011)	HIV-positive women recruited by community organization	yes	52 (100) subgroup of Sikkema <i>et al.</i> (2013)	Pre-post	Modified TEQ	Clinical psychologists and social workers	LIFT (living in the face of trauma) group coping skills intervention	N.A.
Sikkema <i>et al.</i> (2013), USA	HIV-positive men and women recruited by AIDS service organizations	yes	130 (53)	Pre-post 4, 8, 12, 16 months	IES BDI Coping with AIDS scale Ways of Coping Questionnaire	clinical psychologists/clinical social workers, master's or post-doc level	LIFT (living in the face of trauma) group coping skills intervention	Therapist-led support group

Table 1 (Continued)

Author/country	Setting	HIV + n (%)	Female n (%)	Measure	Tools	Delivering agent	Intervention	Control
Sikkema (2007)	HIV-positive men and women recruited by community organization	yes	107 (54)	Pre post	Modified TEQ IES	Clinical psychologists and social workers	HIV and trauma group coping skills intervention	Therapist-led support group/waitlist
Williams <i>et al.</i> (2013), USA	African American MSMW (Men who have sex with men and women)	yes	0	Pre post 3, 6 months	WSHQ-R PDS BDI II	Not mentioned	stress-focused sexual risk reduction intervention	Health Promotion

PCL-C PTSD Checklist Civilian version, HTQ Harvard Trauma Questionnaire, CES-D Center for Epidemiologic Studies, Depression Scale, HAM-D Hamilton Depression Scale, Davidson PTSD Scale, PDS Post-traumatic Stress Diagnostic Scale, PSS-I PTSD Symptom Scale Interview, IES Impact of Event Scale, BDI Beck's Depression Inventory, WSHQ-R Revised Wyatt Sex History Questionnaire, TEQ Trauma Experiences Questionnaire, GRI Grief Reaction Index, SCL-90-R Symptom Checklist 90 Revised, FAHI Functional Assessment of HIV Infection, WCC Ways of Coping Questionnaire.

symptoms. A total of 202 participants were assigned to either of the two intervention groups or to the waitlist control group. The intervention group (Living in the face of trauma – LIFT) focused on HIV and coping while the comparator intervention was a support group without a specific programme. The remaining participants were part of the waiting list control group. The coping intervention was provided in a manual delivered by clinical psychologists and social workers. About 40% of all study participants had a diagnosis of PTSD. Decrease in post-traumatic stress symptoms/disorder was measured by examining the IES subscales intrusion and avoidance scores. For the intrusion subscale, the authors found a 20% greater improvement or recovery rate ($P = 0.013$) in the experimental condition than the other study conditions. Analyses were performed to evaluate LIFT for its efficacy over a 12-month follow-up period. The 247 participants in the intervention group had significantly reduced trauma symptoms ($P < 0.02$). More detailed aspects of Sikkema's work were reported in a qualitative study published by Puffer [34].

Williams [37] focused on stress reduction and change in sexual risk behaviour in a population of HIV-positive bisexual African American men with CSA-related trauma. Besides psychological and behavioural data, biomarker samples to measure stress responses (urinary cortisol, catecholamines, neopterin) were collected. The intervention group was compared to a general health promotion condition. At baseline, the two groups differed on CSA prevalence and biomarker composites although standard randomisation was carried out. Both groups had significantly reduced PTSD symptomatology ($P < 0.001$) and depression ($P < 0.01$), and effects were sustained over the follow-up period of 6 months. The effect was group-specific for depression only ($P < 0.01$). Furthermore, both groups had reduced sexual risk behaviours such as unprotected insertive and receptive anal sex as well as vaginal intercourse ($P < 0.001$). These effects were also sustained over the follow-up period.

Pacella [39] described an approach to decrease post-traumatic stress symptomatology (PTSS) that consisted of prolonged exposure aimed at reducing post-traumatic stress symptoms, negative thinking patterns, behaviour and substance use. A total of 66 female and male PLWH were enrolled after having been recruited through social services agencies. The 34 completers in the intervention received a customised course of 10 two-times-weekly therapy sessions following a standard PE protocol, and the control group continued with their standard visits. For both HIV-related and non-HIV-related PTSS, the intervention group had a significant reduction ($P < 0.001$).

Table 2 Characteristics by study arm

Author	Tool	Intervention			Control			P value	
		n	Score before	Score after	Pooled SD	n	Score before		Score after
Bernstein <i>et al.</i> (2012), USA	PCL-C	513	Score > 50 53.1%	N/A	N/A	527	Score > 50 53.8%	N/A	N/A
Cohen <i>et al.</i> (2011), Rwanda	HTQ	698	2.4	N/A	N/A	N/A	N/A	N/A	<0.0001
Hansen <i>et al.</i> (2006), USA	GRI SCL-90-R	156 156 157	18.48 1.00 active coping 43.39 avoidant coping 20.19	13.36 0.76 active coping 43.96 avoidant coping 17.44	10.41	107 108 107	20.56 1.11 active coping 42.85 avoidant coping 41.66	14.78 0.86 active coping 21.01 avoidant coping 17.13	10.44 GRI 0.8 SCL-90-R 0.56
Ironson <i>et al.</i> (2013)	Davidson PTSD scale	120	27.96	18.08	21.51	122	28.65	24.8	0.038
Pacella <i>et al.</i> (2011), USA	PDS PSS-I	34	HIV related PTSS 25.3 Non-HIV related PTSS 27.45 PT Cognitions 115.66	HIV related PTSS 14.43 Non-HIV related PTSS 13.98 PT Cognitions 94.28	11.01 10.74 36.43	24	HIV related PTSS 26.0 Non-HIV related PTSS 30.42 PT Cognitions 111.32	HIV related PTSS 19.76 Non-HIV related PTSS 20.42 PT Cognitions 98.76	0.14 0.24 0.10
Sikkema <i>et al.</i> (2007)	IES Intrusion Avoidance	73 73	16.81 21.44	12.51 17.66	9.4 10.1	77 77	14.43 18.42	9.97 11.1	0.003 0.008
Sikkema <i>et al.</i> (2013) one year follow up	IES (traumatic stress) Coping with AIDS scale + Ways of Coping Questionnaire (avoidant coping)	124	36.0 26.5	24.0 18.2	18.3 11.8	123	32.1 25.7	24.5 19.9	<.02
Williams <i>et al.</i> (2013), USA	PDS	44	10.44	4.61	11.0	44	11.0	2.49	0.01

PCL-C PTSD Checklist Civilian version, HTQ Harvard Trauma Questionnaire, PDS Post-traumatic Stress Diagnostic Scale, PSS-I PTSD Symptom Scale Interview, Davidson PTSD Scale, IES Impact of Event Scale, GRI Grief Reaction Index, SCL-90-R Symptom Checklist 90 Revised, WCC Ways of Coping Questionnaire.

Ironson [40] tested whether an emotional disclosure through a written exposure intervention would decrease PTSD, HIV-related symptoms, and depression and thus improve HIV biomarkers (i.e. participants' CD4 counts and viral loads). A total of 244 male and female were recruited. Participants in the intervention condition were asked to write about the same most traumatic experience four times during a 2- to 4-week period. Additionally, over the course of this disclosure condition, they were given a series of questions relating to their traumatic experience to increase processing. Control group participants were asked to write about daily events. As there were no significant main treatment effects, the authors analysed their data with gender as a moderator and found that women overall benefitted the most from the experimental condition – they improved on all outcomes (PTSD $P = 0.038$). Men improved on PTSD symptomatology in both groups, respectively. For the depression outcome measure, men improved more in the control group compared to the intervention group.

Hansen's [38] RCT tested an intervention to increase coping in PLWH who had AIDS-related bereavement as the trauma condition. A total of 267 PWLH (94 women) were recruited and randomly assigned to either a semi-structured CBT-based support group or to individual sessions with a therapist. Participants were followed up for 12 months. Outcome measures were grief symptoms, psychiatric symptoms, quality of life and health issues in PLWH, as well as coping with the stressor of AIDS-related loss and illness. Results showed that grief severity and global psychiatric distress reduced for the intervention condition over the 1-year follow-up when controlled for avoidant coping ($P = 0.001$). Participants using more active coping scored lower on the psychiatric distress score ($P < 0.001$). Of note is that this study did not use a tool that measured PTSD but instead measured grief response, psychiatric distress and coping.

Patients visiting emergency rooms were studied by Bernstein [31] testing a brief motivational intervention aimed at reducing sexual risk behaviour. A total of 1030 participants who tested positive for drug use and showed high rates of PTSD were randomly assigned to either the intervention consisting of a session of motivational interviewing focusing on STI/HIV risk behaviour reduction delivered by trained lay counsellors, voluntary testing, brief counselling and referral for substance use or to the control condition where they were offered the same standard of care with a brief motivational intervention session that focused on drug use reduction. For both, the intervention and the control condition, a reduction in risk behaviour was found ($Z = 2.684$, $P = 0.007$).

Discussion

This systematic review highlights the importance of PTSD in relation to HIV/AIDS. Our findings indicate that CBT-based interventions were effective in achieving behaviour change [31, 37] and reduction in PTSD symptomatology [33, 36]. However, all studies but one [36] were situated in resource poor settings located in high-income countries. PLWH in these countries mostly belonged to disenfranchised groups such as drug users, ex-convicts, homeless people, racial minorities or were people who engaged in high-risk sexual behaviour. The study from Rwanda [36] was carried out in a post-genocide setting and therefore the traumatic origin of PTSD in this sample was mostly related to war-associated experiences. Altogether, the studies reviewed here focused mostly on traumatic factors such as childhood sexual abuse and AIDS-related grief/bereavement. In LMIC, however, stressors also include poverty, disease burden, lack of access to care, natural catastrophes such as droughts, floods and related food insecurity.

This review was carried out as part of formative work to inform the development of an intervention for Mental, Neurological and Substance Use Disorder (MNS) delivered by community health workers (CHW) in Zimbabwe [62]. Studies have shown that the use of CHW to address the treatment gap for mental, neurological and substance abuse disorders (MNS) is feasible [17]. In Zimbabwe, CHW successfully delivered an intervention addressing common mental disorders, which excluded a focus on PTSD or PTSS [27].

Our review revealed that the use of CHW as intervention delivery agents was not common. Studies located in high-income countries used highly trained therapists for intervention delivery. The Rwandan study trained trauma counsellors specifically for the study; however, their level of knowledge and education prior to receiving training, and their core competencies, were not described. Core competencies in the areas of screening and identification as well as in treatment and care were recognised as crucial during the 2012 Kampala Neuroscience Forum of the Institute of Medicine meeting [63].

All studies reported use of internationally recognised tools but provided no indication of whether these tools were validated in the research population. In a recent review of interventions for CMD, similar findings were made, suggesting the need to encourage appropriate validation of tools [28]. Although positive effects were found in more than half of the studies ($n = 4$), no attempts to scale up these interventions were described. Group sessions were the preferred mode of delivering the interventions across the studies. The interventions differed in the

duration of sessions and the number of sessions. Despite the diversity in the number of sessions, there is no consensus in the literature on the appropriate number of sessions. The studies did, however, reflect structure in the session content by describing themes. This is a common feature of CBT [64, 65].

Despite meeting CONSORT guidelines for reporting RCTs, key limitations include missing information on how sample size was determined; furthermore, sample sizes varied from as small as 66 [39] to as large as 1030 [31].

A limitation of our review is the inclusion of studies from low-resource settings situated in high-income countries, which differ from LMIC on several levels. The poor response rate of authors made it difficult to verify some of the study findings, such as the validation of tools, and the core competencies of the delivering agents.

The diversity of study populations, tools and delivering agents made it impossible to carry out a meta-analysis. The use of highly qualified personnel to deliver the interventions further makes it very challenging for these studies to be replicated in sub-Saharan Africa where the largest burden of mental, neurological and substance use disorders is found. Ways of suitably adapting these interventions for use in sub-Saharan Africa where the current public health approach has recently begun to integrate mental health care packages have to be explored. This could be realised by including the screening of PTSD in packages of care for the more traditional CMDs such as depression and anxiety disorders. These care packages could integrate validated PTSD tools into CMD screening tools and provide additional training on how to address PTSD specific symptoms such as hyperarousal, flashbacks, phobic avoidance and nightmares. However, these studies in low-resource settings reflect challenges which are often faced with delivering psychological interventions in LMIC such as measuring fidelity, validation of tools, establishing core-competencies of delivering agents and scalability of intervention [63].

Conclusion

Psychological interventions for PTSD appear to be effective and need to be scaled up after being adapted to the local cultural context and should be guided by recommended treatment guidelines for LMIC settings, such as those found in the mhGAP, the treatment guidelines for mental, neurological and substance use disorders for non-specialised health settings that are commonly found in LMIC, where up to 75% of those affected have restricted or no access to care [66].

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CHAPTER 3

Perceptions of HIV-related trauma in People living with HIV in Zimbabwe's Friendship Bench program: A qualitative analysis of counselors' and clients' experiences

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Author contributions:

RV designed the interview guides for the qualitative interviews and supervised the Shona speaking interviewers. RV analyzed the translated interviews, developed themes, attached codes and created a descriptive model together with DC.

All draft manuscripts were originated by RV who also responded to peer reviewers' comments before the manuscript was accepted for publication.

3.1) Abstract

Objective: This study investigated the experience of lay health workers (LHWs) delivering problem-solving therapy (PST) for common mental disorders (CMD) as well as clients' views of the PST program referred to as the Friendship Bench (FB).

Method: An analysis of semi-structured interviews of LHWs (n = 5) and clients living with HIV (PLWH) (n=10) was carried out. Data was analyzed using thematic content analysis.

Results: LHWs described a severe form of CMD amongst PLWH with a history of trauma, naming it kufungisisa kwe njodzi (excessive thinking due to trauma), a cultural equivalent of PTSD. Trauma or njodzi was seen both as a circumscribed event and linked to ongoing pervasive experiences such as living with HIV, stigma and poverty. Although LHWs recognized symptoms of PTSD such as intrusion, avoidance, and hyper-arousal, they did not know how to address these specifically and chose to address them as a severe form of kufungisisa. There is a need to integrate aspects of PTSD management within care packages for CMD delivered by LHWs.

Keywords: HIV/AIDS, PTSD, lay health workers, people living with HIV, qualitative methods

3.2) Background

People living with HIV (PLWH) in sub-Saharan Africa have a high occurrence of post-traumatic stress disorder (PTSD) (1-3). In a recent Zimbabwean cross-sectional study of PLWH utilizing primary care services, a PTSD prevalence of 45% (Verhey, submitted) was found using the Posttraumatic Stress Disorder Checklist PCL-5 (4).

PTSD is often associated with other common mental disorders (CMD) such as depression and anxiety disorders (5, 6). In Zimbabwe, for instance, a study using the locally validated screening tool, the Shona Symptom Questionnaire (SSQ) (7) found that 68% of the urban population had a CMD.

The majority of PLWH live in low and middle-income countries (LMIC) with less than 50% accessing anti-retroviral therapy (ART) (UNAIDS fact sheet, 2016). The burden of HIV disease affects both emotional and physical well-being, which are not adequately addressed due to the large treatment gap in LMIC (8). There is evidence supporting the feasibility and acceptability of task-shifting approaches to address this treatment gap (9-11).

High prevalence of CMD is often associated with poverty characterized by low levels of education, food and housing insecurity (12).

There is growing focus on mitigation of such daily stressors in PTSD development and other mental health issues. Several studies found that continuous low level stressors are cumulative and more predictive of psychological distress than single events exposure as shown in studies in conflict, post conflict and non-conflict settings (13-15).

Furthermore, trauma exposure to armed conflict and organized violence is often experienced as distal and found to be less salient over time (15) in comparison to daily stressors such as poverty, overcrowded housing, chronic illness, failure to meet daily basic and medical needs (lack of access to clean water, education, medication, sufficient food to name a few). These daily stressors are particularly prominent in LMIC where they erode psychological resilience and effectiveness of coping mechanisms, thus impeding individuals' overall mental health (16).

Prolonged psychophysiological response to chronic stress is associated with the development of physical and psychological disorders (17).

There is need for comprehensive care for those affected by HIV, PTSD and CMD at primary health care level (PHC) (18). Such a care package must incorporate the clients' social and cultural frameworks (10) and consider a sociocultural model of illness rather than a biomedical approach as currently discussed in South Africa (19).

The task-sharing approach of letting trained and supervised lay health workers (LHWs)

deliver interventions is considered a potentially effective way of offering health care services, especially with respect to mental, neurological and substance use disorders (MNS) (20-22). Several studies have demonstrated the feasibility, acceptability, efficacy and cost-effectiveness of such an approach (23-25).

The Zimbabwean Friendship Bench (FB) Program (26) is an example of using LHWs to reduce the treatment gap for MNS. It is currently the most established initiative in the country (26). The FB program started in 2006 in one of Harare's high-density suburbs, Mbare. Embedded within the City Health Department of Harare, it has been scaled up to all the city's primary health care clinics (52) after it was shown to be effective in a randomized controlled trial (27). The FB Program offers cognitive behavioral therapy based (CBT) problem solving therapy (PST) with a behavioral activation component aimed at reducing symptoms of CMD as measured by a locally validated screening tool (26, 27). A detailed description of the FB intervention is found in Chibanda et al. (28). All visitors attending primary care clinics are screened for CMD using the Shona Symptoms Questionnaire (SSQ-14) tool which has good internal consistency and a Cronbach's alpha of 0.85 (7). Those scoring 9 and above (cut-off) are referred to the FB counselors who reside in the same communities as their clients and are employed by the city health services of Harare. The sessions are held on a bench, the Friendship Bench, which is placed in a discrete area on the clinic premises (26) and allows for an acceptable level of confidentiality. The Friendship Bench intervention has been shown to be culturally acceptable and easily accessible for PHC users (11).

Approximately 80% of the FB clients are PLWH, and of these 30% present with symptoms of both CMD and PTSD (7, 26, 27, 29). In the Zimbabwean context, HIV infection is seen as society's symbolic punishment for those who have been "immoral" (30). Such perceptions contribute to stigma which can lead people to delay or avoid testing and increase the incidence of CMD in this population (31).

This paper focuses on the experience of LHWs delivering PST to clients with a history of trauma as well as the clients' experience of receiving the intervention. It was aimed to ascertain what additional intervention aspects are needed to expand the FB program to address trauma symptomatology as part of the scale-up described in the scale-up strategy (32). Furthermore, the aim was to define the local indigenous terms for PTSS/PTSD through these qualitative interviews.

3.3) Methods

3.3.1) Setting

The study was conducted at Edith Opperman Clinic, the largest of three primary care clinics in Harare's suburb Mbare. The FB Program has been running at this clinic since 2006 (26). It is led by 14 female LHWs who have had extensive training in PST and other CBT related techniques, including provision of peer supervision to other LHWs involved in the scale-up of the FB. LHWs in Harare are traditionally well-respected female community members. The LHWs from Mbare have a mean age of 54 (27). They are employed by the Harare City Health Authorities. This study was carried out between April and June 2016.

3.3.2) Study design and sampling

We carried out 15 in depth semi-structured interviews with key informants consisting of both LHWs (n=5) and clients living with HIV (n=10) who the counseling supervisor (EM) had identified as having experienced one or more traumatic event/s based on the FB clinical data base, and who met PTSD criteria according to the Diagnostic and Statistical Manual of Mental Disorders DSM-5 (American Psychiatric Association, 2013). The LHWs were selected on the basis of years of experience as described in a previous qualitative study (28). Responses from the groups of key informants were planned to give us the necessary information about how the Friendship Bench intervention in its current form is seen by both delivering agents and beneficiaries in terms of its helpfulness and appropriateness for PTSD related issues and would enable us to triangulate the data.

3.3.3) Data collection

Data collection comprised of semi-structured interviews carried out by a Zimbabwean member of the FB research team (AV). The field research team consisted of four members with three of them being native Shona speakers. LHWs were not part of the study team. The interview guide was developed by RV and reviewed by the study team who provided further input before the guide was translated into the local language Shona by a mental health professional who was not part of the study team. The guide was back-translated by a language expert who was unrelated to the study team to see whether the translation had missed any valid points which was not the case. All interviews were conducted in Shona and audio-recorded after obtaining consent from participants. AV used a constant comparative approach to data collection, discussing emerging themes throughout the data collection process with both RV and DC as a way of determining when saturation was reached. The data was then back-translated into English. Translation of all interviews were carried out by research assistants working for the Friendship Bench who have Bachelors degrees in

psychology or sociology and were supervised by the Shona speaking study team.

3.3.4) Data analysis

Data was analyzed by RV and DC who had participated in earlier qualitative research under the guidance of an experienced qualitative researcher leading to a number of qualitative publications (33-35). The analysis was further designed according to an earlier study about the Friendship Bench (36). We initially reviewed all transcripts independently, developed themes and attached codes related to each theme. We then shared themes with the research team (n=6) until consensus was reached on commonalities and sub-themes. Once themes were concluded, each reviewer proceeded to complete a line-by-line analysis. Emerging new themes and sub-themes were discussed until consensus was reached. Codes were sorted into categories, the team determined category relations, followed by placing them into selective coding which resulted in a descriptive model (37). This model was applied to all transcripts with selected quotes used to illustrate the specific themes derived from the exercise. LHW and client's transcripts were analyzed separately as interviews had taken place at different time points as done in an earlier study by Chibanda (28). Results are therefore presented separately with a diagram illustrating the link of the themes between the two groups for better understanding of their interface.

3.3.5) Ethical considerations

Written informed consent was obtained from all participants and participants were reimbursed for their participation in accordance with local regulatory research and ethics bodies. Ethical approval to carry out the study was obtained from the Medical Research Council of Zimbabwe (MRCZ/A/1732) as part of the formative phase of a cluster randomized trial of the Friendship Bench (27) and the Health Research Ethics Committee 1, Faculty of Health Sciences, University of Stellenbosch (S14/05/102).

3.4) Results

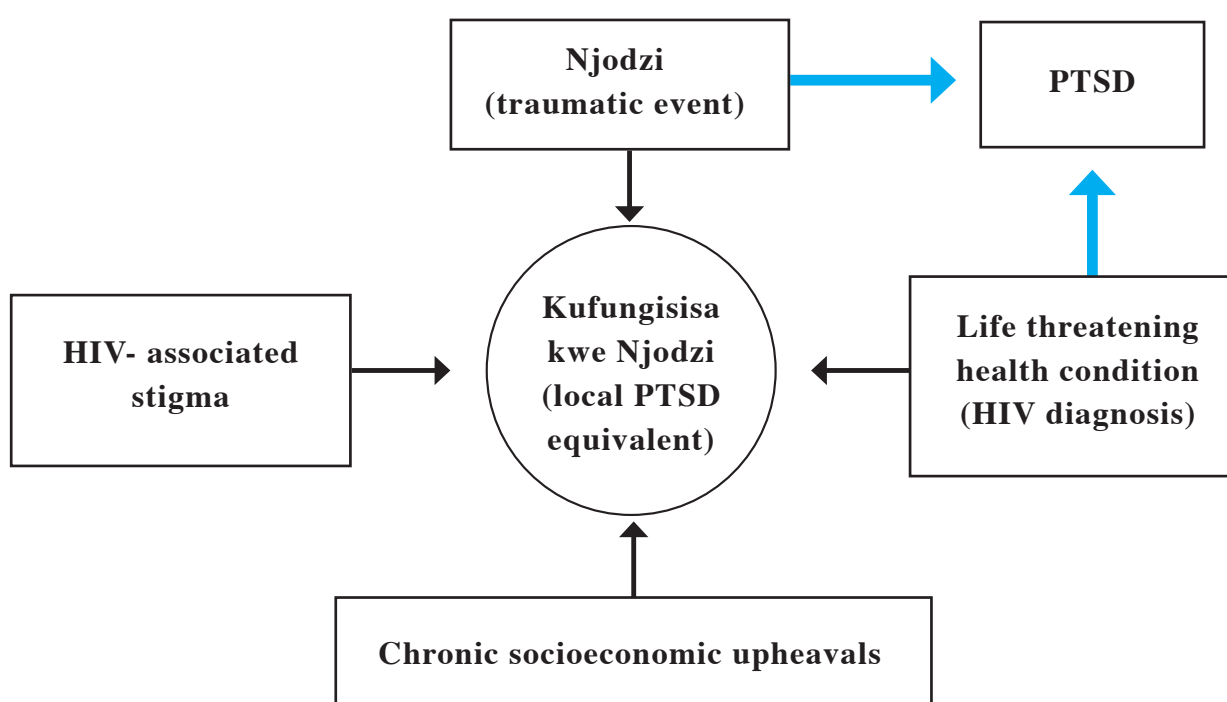
Four broad cross-cutting themes related to traumatic experiences were identified through line-by-line analysis of the transcripts by RV and DC. These themes reflected both the LHWs and clients' experiences as illustrated in Fig.1.

Trauma, either physical or psychological, was not a primary reason for visiting the FB. LHWs did not

recognize trauma related symptoms as a medical condition, however they identified certain symptoms as being trauma related, such as depressed mood, suicidal thoughts, denial, addiction, substance abuse, tearfulness, avoidance, and as representing a severe form of CMD (28).

LHWs and clients used the term njodzi (trauma) to describe traumatic events that they recognized as contributing to kufungisisa related to trauma. Njodzi was defined as being associated with, both, past events and ongoing circumstantial factors, such as poverty and chronic illness (Fig 1). In relation to symptoms associated with the Western defined concept of PTSD, LHWs and clients described these as part of kufungisisa kwe njodzi. Literally translated into English this refers to “thinking too much due to traumatic experience”. In the absence of a Shona equivalent for PTSD, this term was found by LHWs, clients, and Shona speaking psychologists and social workers consulted during the study to be closest to the term PTSD. The term kufungisisa kwe njodzi seeks to describe the interaction of the consequences of traumatic life event/s with ongoing circumstances such as poverty, unemployment, chronic illness, an inability to afford appropriate treatment and being stigmatized (see Fig 1). In its presentation, there are more similarities than differences between the DSM-5-defined PTSD and the Shona equivalent, i.e. all four symptom clusters (intrusion, avoidance, negative cognitive changes, and hyper-arousal) are clearly present. An obvious difference is found in the quality and prevalence of the events that are described as being traumatic to the participants of this study. The results are presented in two subsections, one for the LHWs and one for the clients as it is believed this to be helpful to understand the study’s results.

Figure 1. Themes reflecting trauma in PLWH in Zimbabwe compared to DMS-5 defined PTSD



3.4.1) LHWs

LHWs experience. LHWs approached clients and offered help in the clinics as well as in the community, i.e. when doing home visits. Clients in need of support were recognized either because they presented with physical symptoms (e.g. pulmonary TB, substance use disorder (SUD), sudden weight loss, being physically unkempt) or because of psychological presentations of CMD (38). LHWs indicated that PLWH with underlying njodzi presented often as quiet, reserved, with visible kufungisisa marked by tearfulness, anxiety, sleep problems, and showed subsequent relief about being able to share their stories related to living with HIV. LHWs conceptualized their work with PLWH with a history of njodzi as an ongoing support structure. This was facilitated by their geographical proximity to clients and an understanding of their role as *Ambuya Utano* ('grandmother health provider') (26, 28). The *Ambuya Utano*-role included visiting people's homes to educate about hygiene, vaccination drives, and health campaigns, using soft skills such as empathy and loyalty.

"I have now built a very strong relationship with most of the patients and we now know each other a lot," commented one of the LHWs. While another stated that: "I have such empathy for these clients, I always want to help them. At times I go on the side and cry but I stand with them. I push for them to get help because they really touch my heart..."

The LHWs described their primary intervention tool as *kuvhurapfungwa* ('opening up the mind') and *kusimudzira* ('uplifting') of PLWH with a history of njodzi (28). These terms are local generic terms for the first part of the PST intervention used on the FB (28). The initial psycho-education in the FB program focuses on normalization and helping clients open up about their traumatic events.

One of the LHWs described what they did as follows: "We talk with them, explaining that HIV is like any other disease, i.e. BP", reassuring the clients that kufungisisa is experienced by many people.

The LHWs indicated that their behavioral advice extended to living positively and practicing safe sex as well as safe handling of an ill partner or family member. "We explain the importance of using condoms when clients are sexually active as this has a positive impact on their health."

Njodzi (trauma). LHWs indicated a difference in presentation of clients with underlying kufungisisa kwe njodzi. One of the elderly LHWs said: "Yes, there is a difference [when there is kufungisisa kwe njodzi], the problems that they share show a difference...in terms of how they share their story and who they choose to share their troubles with...the clients living with HIV tend to be more reserved and are not usually open to share what they are going through with their loved ones."

LHWs mostly described njodzi in their clients as ongoing situations, such as noticing one's health deteriorate without knowing why, or being stigmatized or abused when a partner or family

member discovers physical symptoms related to HIV or learns about the HIV status and this leading to kufungisisa, for instance with suicidal ideation.

With regards to this one said “These clients are sometimes tense and agitated (hypervigilant) when they have a history of njodzi, so they must be empowered to be able to deal with their problems through kuvhurapfungwa (opening the mind), this normally helps.”

Addressing suicidal ideation was described as an important aspect of the work of the Friendship Bench and the LHWs appreciated the use of the SSQ-14 (7) to identify those who are suicidal.

“We use the SSQ14 at all times. A client might say she has no problems but we can assess if the client has kufungisisa kwe njodzi because they have answered yes to question 11.”

LHWs tended to refer clients with a “yes” response to question 11 (red flag) to either the nurse in charge or the LHWs’ supervisor progressing up one level of care as designed in the task-shifting approach (27).

A LHW stated that “If I see that a client seems to have these suicidal thoughts and they have a history of njodzi, I refer them quickly.”

In case of rape, LHWs also immediately referred, as emphasized by one of them “I usually refer to the rape clinic”, being cognizant of the severity of the njodzi.

Clients presenting with a history of current abuse were referred to other authorities such as the police and this was explained by one of the LHWs: “When it’s a client who is a victim of violence at home, we normally start our initial PST and refer them to the police.”

HIV diagnosis. Living with HIV and having symptoms suggestive of AIDS was a major contributor to the decline in their clients’ mental health as highlighted by the LHWs. “Due to illness associated with HIV these clients tend to be overwhelmed and deeply affected by stigma, which they describe as a terrible njodzi.”

Sometimes PLWH end up using substances as a way of dealing with life.

Another LHW mentioned the challenges associated with substances “[Clients] use Broncho (cough syrup containing codeine), some of them resort to taking rat poison because they have lost hope for the future (affected by stigma), you hear some of the clients saying: ‘It’s better to die because nobody is going to want to marry me.’” The pervasive stigma around HIV often made disclosure a difficult and complicated process.

Lay health workers illustrated traumatic living situations as a result of failure to disclose: One of the younger LHWs stated that “The wife started explaining her ordeal highlighting that the husband had taken pills (ARV medication) for 2 years and in those two years they had unprotected sex. She felt her life was over, that’s why she wanted to commit suicide.”

Stigma and disclosure. Stigma appeared to be a key contributing socio-cultural factor to the

kufungisisa kwe njodzi as described by one of the LHWs. “This woman was always sick but did not know why, she was losing weight and her health was deteriorating but she could not understand why. She was even afraid to tell her husband and had no one to turn to but suffer in silence. She suffered immensely due to this njodzi.”

Furthermore, according to LHWs stigma-related trauma and being looked down upon was evident among clients: “The client was not allowed to use anything that belongs to the family [utensils]. Such talk can make the clients have suicidal thoughts, as they feel left out and see this as a terrible njodzi. The clients themselves can think it is better to die because the disease will kill them eventually.”

LHWs saw their clients exposed to the pervasive experience of abuse. Culturally accepted, stigmatization creates a dynamic where the seropositive person is often being blamed and punished in the form of IPV (39). “Abuse is really a problem, some are being abused by step-parents and these [suicidal] thoughts come to them.”

Socioeconomic upheavals. According to one of the LHWs: “People should be educated on common mental disorders so that when they face problems [i.e. lack of finances to pay rent and therefore being threatened to lose their home] they know where to turn to and get assistance [to learn to solve their problems].” LHWs showed strong understanding for the need to empower their clients to be able to independently find solutions which is the focus of the Friendship Bench intervention. Giving structural support such as food aid, loans, housing to name a few to alleviate the clients’ stress is not an option within the Friendship Bench Program.

Counselors can become overwhelmed by the needs of their clients, especially as they live under the same conditions as their clients. They will go beyond their work duties to assist as demonstrated by these statements:

As one of the counselors shared: “Most of the young people who are living with HIV often come to my house to ask for food. Sometimes I can help, but sometimes I cannot help since I would not have anything to give them at that time. They always come and I end up wondering how else would I help.”

Another LHW added “Most of them spend time asleep because they have nothing to eat. I sometimes end up having to look for food for them though help is not always available.”

LHWs recognized the impact of their work and wished to be empowered and encouraged to continue as indicated by the group “It goes hand in hand, the bench work has given us skills that we did not have before. The friendship bench work has improved our impact in the community.”

3.4.2) Clients

Clients’ experiences. Special interest was directed to what life events or circumstances

were seen to be traumatic. Furthermore, importance was placed on how the FB clients perceived the quality of the services they used. Clients know that LHWs move around in the community helping people and providing health education.

A common statement from the clients highlighted meeting in the community was “I first met the LHW in the community.”

But most of the clients reported that their first contact with a LHW was initiated due to visible symptomatology, such as weight loss, related to their often still unknown HIV infection (fig. 1). “The LHW first talked about my illness after noticing how me and my baby had lost weight. The LHW helped me to open my mind.”

Another client stated “When ambuya [grandmother] listened to me I felt so much better (kusimudzira) because this was the first time I managed to open up (kuvhurapfungwa) about my traumatic experience with HIV.”

In some cases the trauma was associated with other medical conditions related to HIV as stated by one client “...she (LHW) approached me when I was diagnosed with TB” or with symptoms related to a sexually transmitted infection.

Another client explained “I had a long standing njodzi due to problems with my womb and I met the LHW who talked to me and encouraged me to visit the Clinic.”

LHWs were described as showing empathy when addressing sensitive issues. LHWs were very open and frank with their clients and brought up the topic of getting tested, which was appreciated by their clients as one explained “I fell sick and was encouraged by the HP to go and get tested.”

Njodzi. Clients described various examples of njodzi that partly stemmed from their childhood and partly from current socio-economic and structural circumstances. Often clients reported both kinds of njodzi in their lives. Common njodzi from childhood could be found in clients’ statements describing poverty, loss of caretakers/family members, abuse, (chronic) illness, deprivation and a struggle for survival as narrated by one female client “I lived with my mother in a squatter camp, my mother couldn’t afford school fees, [I had] my first child when I was just 15.” While another one explained how her illness affected her “I fell sick when I was growing up. When this happened I did not know what the cause of the illness was. I had stomach cramps and diarrhea.”

In another case, the client stated “My mother passed on when I was 10 and my father when I was 12. I failed to continue with school. I ran away from the rural areas and I went to South Africa and lived as a street kid there. That is where I got seriously sick.”

PLWH described HIV-related difficulties such as fear for their lives/fear of imminent death after being diagnosed. Another highlighted the trauma of a positive test “...HIV testing which came out positive. It was traumatic for me to accept and my health was deteriorating.”

Suicidal ideation. LHWs addressed suicidal ideation and found it common in PLWH with a

history of njodzi as mentioned by one client “I was in denial and at one point I was arguing with myself whether I should accept [my status] or just die.”

HIV stigma. Clients described the effects of stigma by relatives as very traumatic. One client narrated her ordeal “Because of my condition, my brothers decided to send me to the rural areas to live with my aunt. ... [My] situation was hopeless, I was dying in their eyes.”

Another said “There was a time when I was terminally ill and my aunt told people that I am very sick and could die anytime soon.”

While another client added “My brothers began to sell my property and took my child to her father’s family and told her I was dead.”

Due to the pervasive stigma they faced, PLWH seemed to reflect a sense of worthlessness and perceived themselves as a burden to their families and their community. “I was a self reliant person and when I fell ill, I could not do much”, indicated one client.

Failing to understand the circumstances of getting infected contributed to symptoms of CMD and revealed the level of denial and lack of open communication within sexual partners. One client stated “[I worried] to the extent that I wondered how I got infected.”

As discussed in the section of the experiences of LHWs, many clients were exposed to choices made by infected spouses who would not disclose their status with, some being in denial about their status. A female client explained “My husband had been seriously sick for a while and he would not agree to go and get tested.”

Clients’ perceptions of LHWs. Clients were very forthcoming with their appreciation for the FB counselors as shared by their appreciation of the LHWs.

“There is not much I can do to show my appreciation but she (LHW) is one person who stood by me when all my relatives called my child names and shunned me.”

A male client said “Honestly the LHW helped me, if it were not for her maybe I would not be sitting here because I was so traumatized.”

While another one client added “One word from them can change and help one’s life.”

3.5) Discussion

This qualitative study aimed to explore the perception of LHWs delivering PST for clients with a history of trauma. In addition, the experience of clients living with HIV who utilize the FB was explored. Data derived from the two groups were analyzed and triangulated so as to inform adaptation of the current FB intervention to meet the needs of both LHWs and trauma-exposed clients.

These results highlight the need to integrate trauma specific components in the FB program. The closest indigenous term for trauma is the Shona word *njodzi*. In our setting, it appears that *njodzi* is not only perceived as time circumscribed events, in line with Western literature on PTSD, where events are characterized as exposure to actual or threatened death, serious injury or sexual violence, but is also perceived as part of ongoing difficulties, *kuendereramberi kwe njodzi*, such as generational poverty, chronic illness and inadequate medical care that PLWH in LMIC are frequently exposed to.

These daily stressors are recognized to be contributing to the development of PTSD and CMD (15). Psychosocial intervention such as the Friendship Bench (11) help to reduce the perception of lack of control present as a promising option to help affected populations (15). We propose a differentiation between low intensity stressors and those that hold potential traumatic salience. Especially, in LMIC there is a dearth of data on the cultural understanding and on societal as well as psychological impacts of this concept suggesting a need for rigorous research.

Njodzi is seen to progress from a traumatic event, i.e. receiving an HIV diagnosis, to *kuendereramberi kwe njodzi* (ongoing), mediated by factors such as stigma (external and internalized), declining health, fear of dying and comorbid *kufungisisa* (CMD) as well as the above mentioned socioeconomic difficulties. Symptoms of CMD and physical decline are recognizable to LHWs and will often bring clients to the FB.

The current PST intervention aims to reduce CMD symptoms that are prevalent among those with *njodzi* but may not address symptoms related to traumatic experiences. Despite these limitations, LHWs show an understanding of the concept of traumatic experiences as an 'unknown' illness related to being diagnosed with HIV and being stigmatized. They also see it within the context of ongoing *njodzi* such as poverty, unemployment, substance use disorder, and living in an abusive environment.

We can, therefore, assume that the LHWs trained in the FB intervention (27) are able to associate these traumatic exposures with *kufungisisa kwe njodzi*, the local term used to describe PTSD. In their eyes, it becomes a stronger form of the traditional *kufungisisa* as described in an earlier publication (26) that they address with PST and activity scheduling. LHWs often try to address the ongoing *njodzi* through practical support (e.g. by providing food to clients and/or referring them to local NGOs and similar organizations who specialize in supporting disadvantaged communities).

Although LHWs do not explicitly identify symptoms of PTSD, they do seem to address and alleviate symptoms through their work largely on account of the co-occurrence of PTSD-like symptoms and with symptoms of other CMD symptoms. There is, therefore, a need to incorporate a screen for PTSD/PTSS into the existing screening procedure. Once LHWs are able to specifically diagnose avoidance, intrusive symptoms (e.g. recurrent nightmares or flashbacks), hyper-arousal and reactivity, they will be in a stronger position to address these symptoms in combination with

symptoms of CMD. Such an approach is in line with the current thinking of the common elements approach as described by Murray et al (40). The common elements treatment approach (CETA) assumes that co-morbidity is the norm and therefore management of conditions should be based on an internal stepped care approach where the LHW is able to shift from an emphasis on just *kufungisisa* (CMD) to also addressing symptoms related to trauma. Treatment approaches have to take into account the socio-economical and cultural conditions clients and counselors are facing. As mental health interventions have been shown to improve economic outcomes (41), resilience towards hardship and empowerment is more likely to be increased. The Friendship Bench approach aims to address needs of its clients within communities, thus promoting “community mental health competence” and using this same competence to offer culturally acceptable ways within the program (11, 42). Mental health services must be easily accessible, mid to long term available and sustainable as they are embedded in the general national health care plan.

While a number of studies in sub-Saharan Africa have highlighted the presence of PTSD in local populations that are in conflict situations (43), this study was undertaken in a non-conflict environment. Most sub-Saharan African studies of traumatic stress have not focused on HIV specific populations whereas the FB is primarily aimed at PLWH (44). Similar findings from South Africa also suggest that health workers in primary mental health care (PMHC) conceptualize distress using a social instead of a biomedical model (19).

Similarly, the Friendship Bench has been successful in the past 10 years because the intervention results in improved outcomes in areas such as economic (increased employment rates facilitated by an integrated income generation component) and social aspects (attendance in peer led support groups) (11).

The results of our study reveal that many clients describe traumatic effects related to their HIV-infection. Some of the factors described include physical illness, finding out their partner has been taking ART placing them at risk of infection, the reaction of the wider community/family to their displaying symptoms of ‘the illness’. Faced by numerous socio-economic challenges such as unemployment, an ailing health system and an ongoing HIV epidemic fueled by extreme stigma, Zimbabweans living with HIV experience the condition as an ongoing pervasive threat to their survival (45). Furthermore, LHWs usually reside in the same communities as their clients and are exposed to the same environment with a high level of chronic *njodzi*. This may explain their intrinsic understanding of PTSD related symptoms. In a subsequent study focusing on the mental health of the LHWs, local results also showed low rates of PTSD and CMD amongst them suggesting positive benefits of the FB work (Verhey, unpublished).

Many PLWH have been affected by their diagnosis, HIV-related bereavement and other HIV-

related trauma which is associated with high PTSD prevalence as suggested in the systematic review done by Sherr (46).

There is need for further research on manifestations of PTSD in our setting particularly against a background of pervasive poverty and other psychosocial upheavals.

There are some limitations to our study findings. First, this was a sample of PLWH and so these findings are not generalizable to uninfected individuals. Secondly, the intervention delivered by LHWs on the Friendship Bench is not a trauma-specific intervention that can be equated with recognised PTSD treatments such as prolonged exposure therapy and EMDR (1). However, PST is effective for learned helplessness, and may address some aspects of PTSD without necessitating a formal diagnose of PTSD (47, 48).

Thirdly, our work highlights the importance of further research in this field, particularly in the area of CMD, PTSD and poverty. Future research should take into consideration earlier critical contributions about the nature of PTSD (49-51), current classification based on DSM-5 criteria and emerging knowledge stemming from the research domain criteria (52, 53). However, our work focused primarily on strengthening the Friendship Bench in Zimbabwe and our findings may not be generalizable, yet also help to identify the gaps.

3.6) Conclusion

A trauma history among people presenting with CMD is common and best practice management using the existing FB intervention based on PST will require some adaptation. An increased likelihood for PTSD was recently found in Zimbabwe in people who score high on the local CMD measure, the SSQ (7) suggesting a need to incorporate specific trauma treatment aspects (Verhey, submitted). The concept of trauma needs to be broadened to include its' pervasiveness of both its forms (njodzi and kuendereramberi kwe njodzi), and the impact of CMD/kufungisisa. There is a need to explore the effects of past trauma, i.e. childhood trauma or war exposure on mental health in the Zimbabwean context. The FB realizes the need to build capacity in the management of trauma related symptoms such as intrusion, avoidance and hyper-arousal. LHWs are very clear about their need to learn more, indicating a readiness to screen for and manage trauma-related symptoms. LHWs are driven to help their communities. This is a core strength of the community approach used in the FB program. Further, the respect that the community has for the Ambuya Utano underscores this approach. Adaptation of the intervention to equip the LHWs with tools which most likely have to be modified to address the needs in the Zimbabwean settings to recognize and address trauma-related symptoms using an internal stepped care approach is a step in the right direction.

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CHAPTER 4

Validation of the Posttraumatic Stress Disorder Checklist – 5 (PCL-5) in a primary care population with high HIV prevalence in Zimbabwe

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Author contributions:

RV conceptualized the execution of this validation exercise together with DC. RV trained the clinicians in carrying out the gold standard interview and the research assistants in administering the tool. RV oversaw the data collection process. LG was responsible for data analysis.

The first draft manuscript was written by RV who also responded to peer reviewers' comments. All authors reviewed the final manuscript before submission.

RESEARCH ARTICLE

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Validation of the posttraumatic stress disorder checklist – 5 (PCL-5) in a primary care population with high HIV prevalence in Zimbabwe

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Abstract

Background: There is a dearth of validated tools measuring posttraumatic stress disorder (PTSD) in low and middle-income countries in sub-Saharan Africa. We validated the Shona version of the PTSD Checklist for DSM-5 (PCL-5) in a primary health care clinic in Harare, Zimbabwe.

Method: Adults aged 18 and above attending the clinic were enrolled over a two-week period in June 2016. After obtaining written consent, trained research assistants administered the tool to eligible participants. Study participants were then interviewed independently using the Clinician Administered PTSD Scale (CAPS-5) as the gold standard by one of five doctors with training in mental health.

Result: A total of 204 participants were assessed. Of these, 91 (44.6%) were HIV positive, 100 (49%) were HIV negative, while 13 (6.4%) did not know their HIV status. PTSD was diagnosed in 40 (19.6%) participants using the gold standard procedure. Using the PCL-5 cut-off of ≥ 33 , sensitivity and specificity were 74.5% (95%CI: 60.4–85.7); 70.6% (95%CI: 62.7–77.7), respectively. The area under the ROC curve was 0.78 (95%CI: 0.72–0.83). The Shona version of the PCL-5 demonstrated good internal consistency (Cronbach's $\alpha = 0.92$).

Conclusion: The PCL-5 performed well in this population with a high prevalence of HIV. There is need to explore ways of integrating screening tools for PTSD in interventions delivered by lay health workers in low and middle-income countries (LMIC).

Keywords: Validation, Posttraumatic stress disorder Checklist-5, PTSD, Trauma, HIV, Low and middle income countries

Background

In sub-Saharan Africa, people living with HIV (PLWH) have a high rate of post-traumatic stress disorder (PTSD) [1, 2]. The negative experience of being HIV positive is cumulative with PLWH exposed to multiple HIV-related stressors and losses [3] which can lead to PTSD symptomatology.

Stressors, both acute and chronic, that people in LMIC are exposed to often occur on a daily basis. Political and economic instability, including poverty and disparity with its consequences of food scarcity and lack of access

to medical care are some of the stressors. Furthermore, lack of education, interpersonal violence (IPV), and exposure to weather phenomena due to climate change can contribute to poor mental health outcomes including stress related disorders [4].

Women are reported to be at greater risk of developing symptoms of PTSD [5] with cumulative effects of multiple traumas being common and associated with worse psychiatric and other chronic medical comorbidity [6–8].

In South Africa, PLWH have been found to have high prevalence of persisting psychiatric disorders with PTSD rates at follow-up of 20% being associated with a longer duration of infection and low baseline functionality [9]. The incidence of HIV-related PTSD in a cross-sectional study in the Western Cape, South Africa, was found to

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be at 40% [10]. Receiving an HIV-diagnosis was experienced as a traumatic index event for 36.4% in a population of recently diagnosed persons [9, 11].

The use of different PTSD assessment tools as well as the diversity with which traumatic events have been defined have contributed to varying outcomes in studies of PTSD [12]. Receiving a life-threatening diagnosis meets the threshold for consideration as a traumatic event for the development of PTSD [13] and was included in the Diagnostic and Statistical Manual of Mental Disorders DSM-IV (4th ed.; DSM-IV; American Psychiatric Association, 1994).

In general, too little is known about the prevalence of PTSD and PTSD related to HIV infection and its impact on health outcomes such as, health seeking behavior, treatment adherence and quality of life in sub-Saharan Africa. Furthermore, validated tools are scarce. For Zimbabwe, efforts have been made to validate screening tools for common mental disorders such as depression and anxiety for use in primary health care settings but none have been validated for PTSD [14] therefore this study seeks to address this deficit. The most appropriate current screening tool which based on DSM-5 is the Posttraumatic Stress Disorder Checklist (PCL-5) [15] which has not been validated in Africa. The Posttraumatic Stress Disorder Checklist (PCL) was developed at the National Center for PTSD [15]. It is a self-report measure that is widely used in western contexts and has been found to have very good psychometric properties in various settings [16–20].

Methods

The validation exercise was carried out as a cross-sectional study at the largest clinic in the suburb of Mbare near the central business district of Harare, Zimbabwe.

Adults aged 18 and above attending the clinic were enrolled over a two-week period in June 2016. Pregnant women in their last trimester and women within the 3-month postnatal period were excluded to exempt postnatal depression [21], as were those who were unable to understand the purpose of the study.

After having obtained written consent, research assistants trained in the use of tablet computer facilitated data collection, administered the tool. Study participants were then clinically assessed by one of five doctors trained in mental health using the CAPS-5 (Clinician administered PTSD scale – 5) as the gold standard.

The study was approved by the medical research council of Zimbabwe (MRCZ, reference MRCZ/A/1732) and by the Health Research Ethics Committee at Stellenbosch University (reference S14/05/102).

Sample size

We aimed to recruit a representative sample of $n = 150$ patients from a primary care clinic. We calculated that a

minimum of 75 participants who scored positive on the reference standard for PTSD (CAPS-5) and 75 who scored negative would provide good precision for performance indicators for the PCL-5 achieving a sensitivity of 74.5% (95%CI:60.4–85.7%); specificity of 70.6% (95%CI:62.7–77.7%), positive predictive value (PPV) of 45.8% (95%CI:34.8–57.1%) and negative predictive value (NPV) of 89.3% (95%CI:82.3–94.2%).

Translation of tools

The PCL-5, the LEC-5 (Life Events Checklist - 5) and the clinician administered PTSD scale for DSM-5 (CAPS-5) were translated from English into the local language Shona by a bilingual clinical social worker, and a bilingual psychiatrist (DC).

This draft Shona version was reviewed by a team of five lay health workers (LHW) working in a primary care mental health program called the Friendship Bench [22], five nurses working in the psychiatric ward of Harare Central Hospital together with a psychologist.

This phase focused on ensuring contextual equivalence to the original versions based on their understanding and use of local terms for trauma symptomatology.

An independent language expert back-translated the Shona version into English. The first author together with the social worker and the psychiatrist examined both original and back-translated versions and resolved any discrepancies by consensus. Translation and back-translation were carried out using a standard approach [23].

The PCL-5

The PCL was revised to match the adapted DSM-5 criteria for PTSD. The PCL-5 features an adapted answer scale ranging from 0 = not at all to 4 = extremely, thus making the theoretical lowest score 0. It measures 4 symptom clusters; the original clusters intrusion, avoidance and hyper-arousal and the added cluster of negative alterations in cognition and mood with three items (blame, negative emotions, and reckless or self-destructive behavior). Item scores can be summed for an overall severity score as well as for individual symptom cluster sums. A PTSD diagnosis can be made provisionally considering items rated 2 = moderately or higher as according to the DSM-5 diagnostic rule (at least one B, one C, two D, and two E symptoms present). In an empirical calibration, Blevins *et al.* (2015) found the psychometric properties for the PCL-5 for a US American college convenience sample with subjects who self-identified as having PTSD as follows: internal consistency $\alpha = 0.94$ and test-retest reliability $r = 0.82$, 95% CI [0.71, 0.89] [16].

Clinician administered PTSD scale (CAPS-5)

The Clinician-administered PTSD scale CAPS-5 for DSM-5 [24] was used as the gold standard. It was

derived from the CAPS for DSM-IV [25] and adjusted for the changes of the PTSD diagnosis in DSM-5 (American Psychiatric Association, 2013). The CAPS-5 is a structured clinical interview which allows the clinician to make a diagnosis of PTSD according to the criteria described in the DSM-5. Furthermore, overall symptom severity as well as global, social, occupational and personal impairment are assessed. The main Criterion (A), the traumatic event, is assessed with the added Life Events Checklist for the DSM-5 (LEC-5) [26].

The life events checklist for DSM-5 (LEC-5)

The LEC-5 is a self-report questionnaire asking for the prevalence of 16 potentially traumatic life-time events plus an added open category (“any other very stressful event or experience”) with five answer categories [26]. We used the LEC-5 in combination with the PCL-5.

SSQ-14

The Shona Symptom Questionnaire (SSQ-14) [27] was developed and recently re-validated in Zimbabwe in a HIV-population [14]. Most of the items are common to those found in tools for depression worldwide such as sleep disturbance and suicidal thoughts; others are local idioms of emotional distress including ‘thinking too much’. Participants are asked if they have experienced a list of common mental health symptoms in the past week. Each of the 14 items is scored dichotomously as yes (1) or no (0). With the optimal cut-off of ≥ 9 , the sensitivity and specificity for the SSQ-14 against a diagnosis of depression and/or general anxiety were 84% (95% CI: 78–89) and 73% (95%CI:63–81), respectively. Internal reliability was high (Cronbach $\alpha=0.74$) [14].

Training procedure

Study personnel (four research assistants, six LHWs and five medical doctors) working in the psychiatric unit of Harare Central hospital attended a two-week training using a guide initially developed by the authors (RV and DC). The research assistants were trained in data collection methods using the socio-demographic forms and the screening tools. The medical doctors were trained in the use of the CAPS-5 through a discussion forum led by RV which involved going through the diagnostic criteria, building consensus on how to manage clinically severe cases during the validation, and procedures for ensuring fidelity. RV and DC observed the doctors during role-play using the tool.

All raters were involved in a pilot study with patients visiting the psychiatric outpatient unit. Cohen’s Kappa was found to be high ($k = 0.91$) using a random sample size of $n = 26$. Participants in the pilot study were different from the participants of the validation exercise. The referral pathways for participants meeting criteria for

PTSD and other acute medical conditions were determined as that they should be seen by the medical officer first, for assessment, before being referred to a tertiary psychiatric facility if needed.

Data collection

Stage 1: Every morning during the study period, an appointed research assistant obtained the register of all adult patients waiting to be seen. The research assistant randomly selected clinic attendees based on a computer-generated random number sequence. Fifteen randomly selected participants were invited at one time to a quiet and private space where eligibility was determined. Informed written consent was sought from all those eligible. The four research assistants administered the SSQ and the PCL-5 to participants in randomly assigned alternating questionnaire order and also collected socio-demographic information such as age, gender, HIV status, marital and employment status. The interviews took 20–30 min and were conducted in a quiet space designated for the study team. Although the PCL-5 including the LEC and the SSQ are self-report tools, we chose to have them administered by trained research assistants as it was found in prior validation exercises using the same approach that tablet computer-use was not familiar to most of the clinic attendees [21].

Stage 2: Following administration of the screening tools, participants were referred to one of five medical doctors who conducted the CAPS-5. The doctors were blinded to the screening data. Each doctor asked the participant to recall the index event that was chosen, or the worst event if several were indicated, from the LEC-5 for the subsequent clinical interview. The CAPS-5 interview lasted 30–60 min in a private and quiet room. In case of a participant not reporting any event, the interview was not carried out.

All those needing acute psychiatric care were further assessed for treatment and referral to the psychiatric hospital.

Data management

All data was double entered onto a password-protected database using Stata (version 13). No participant identifiable information was entered into the database. Ethical considerations and confidentiality for all participants were respected in accordance with Medical Research Council of Zimbabwe guidelines.

Analysis

The performance of the PCL-5 was measured against the CAPS-5 as the gold standard. We estimated the sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) for different cut-points. The optimal cut-point was chosen to deliver a good

balance between sensitivity and specificity. Results were presented in the form of a ROC curve which plots the true positive rate (sensitivity) against the false positive rate (specificity) [28]. The area under a ROC curve (AUC) quantifies the overall ability of the test to discriminate between those individuals with the outcome and those without the outcome.

Internal reliability was estimated using Cronbach's α . All analyses were conducted using Stata (version 13).

Results

Sample description

A total of the 204 (74.1%) participants were recruited during a 2-week period from a total of 275 who had been invited to take part. Seventy one were not illegible or declined participation. Of the final participants, 163 (85.3%) were female, 133 (69.6%) were married, and 139 (59%) had completed secondary education (Table 1). Overall sample mean age was 34 years. There were 108 (65.5%) participants who were unemployed. HIV sero-status was known for 191 (93.6%) participants, of whom 91 were HIV positive (44.6%). 13 (6.4%) did not know or refused to reveal their HIV status. Out of the 91 participants who were HIV positive, 79.1% were female. Being aged 40 and above (OR 15.03 CI6.35–35.57), being widowed (OR CI8.41 2.75–25.70) and having a SSQ 9 and above (OR 2.15 CI1.19–3.87) were associated with HIV positive status, respectively (Table 1).

Forty-two (46.2%) of the HIV positive participants ($n = 91$) scored equal or above the cut-off score for PTSD. On the measure of depression (SSQ-14), 45 (49.5%) of this group scored above cut-off.

Amongst all 191 participants for whom the HIV status was known, 76 (39.7%) scored equal or above cut-off for PTSD as measured by the PCL-5.

Traumatic events reported using LEC-5

On the self-experienced answer category, participants ($n = 204$) were asked to indicate all the events that happened to them in their entire life. The following five index events were reported as most common: physical assault [reported by 132 participants (64.7%)], the open category any other very stressful event or experience [130 participants (63.7%)], sudden, unexpected death of someone who was close to the participant (113 participants, 55.4%), life-threatening illness or injury (89 participants, 43.6%), as well as severe human suffering (86 participants, 42.2%).

Traumatic events reported in the CAPS-5

In the clinical interview participants reported a similar distribution of events as the LEC-5. A total of 40 (19.6%) cases of PTSD were identified using our gold standard procedure. Qualifying traumatic events reported were

categorized as follows: victim of physical, often combined with sexual assault (18 cases, 45%), being diagnosed with HIV as a life-threatening illness in 13 cases (32.5%) and having experienced sudden death of a person close to the participant in 9 cases (22.5%).

Performance of the PCL-5 against the CAPS-5

A cut-off of ≥ 33 provided the highest proportion of participants correctly diagnosed compared with the CAPS-5 instrument. With this cut-off, sensitivity was 74.5% (95% CI: 60.4–85.7) and specificity was 70.6% (95% CI: 62.7–77.7) (Table 2).

The PPV was 45.8% (95% CI: 34.8–57.1) and the NPV 89.3% (95% CI: 82.3–94.2) with Cronbach's $\alpha = 0.92$.

After stratification by HIV status the sensitivity for PLWH was 78.6% (59.0–91.7), and the specificity was 68.3% (55.3–79.4). The PPV was 52.4% (36.4–68.0), the NPV 87.8% (75.2–95.4) using the cut of ≥ 33 .

The ROC curve for the performance of the PCL-5 gave an AUC of 0.78 (95% CI: 0.72–0.83) (Fig. 1).

Discussion

The primary goal of this study was to validate the PCL-5 as the most current, DSM-5 keyed, PTSD measure (5th ed.; DSM-5; American Psychiatric Association, 2013) and to determine its utility and applicability in our context. We have validated other relevant tools for our work in CMD [14] but none for PTSD specifically.

The PCL-5 has not been validated within a comparable setting before, focusing on a population with high HIV prevalence.

The optimum cut-off score was found to be ≥ 33 , a value which gave us a sensitivity of 74.5% (95%CI 60.4–85.7) and a specificity of 70.6% (95%CI 62.7–77.7). There was a difference after stratification according to HIV status [sensitivity = 78.6% (95%CI 59.0–91.7) and specificity = 68.3% (95%CI 55.3–79.4)]. This suggests the tool is more sensitive and less specific for PLWH compared to the results for the whole sample. This is further supported by the positive and negative predictive values which were 45.8% (34.0–57.1) and 89.3% (82.3–94.2) respectively for all participants ($n = 204$). The ROC curve (Fig. 1) gave an area under the curve (AUC) of 0.78 (95% CI0.716–0.834). The sensitivity of the tool being higher amongst PLWH was also the case in our earlier validation of tools for CMD [14]. There was good internal consistency (Cronbach's $\alpha = 0.92$).

Our results show that it is feasible to validate PTSD tools in a low resource setting using locally trained researchers. Although the PCL-5 is originally developed in a high-income setting where the context is different, we have shown that using cross-cultural methods as in earlier validation studies [21] is possible for PTSD tool validation. The inclusion of LHWs who are the delivering

Table 1 Socio-demographic characteristics of all participants by HIV status ($n = 191$)^b

Characteristic	HIV positive ($n = 91$)		HIV negative ($n = 100$)		Logistic regression ^a		
	N	%	N	%	OR	95% CI	<i>p</i> -value
Gender							0.02
Male	19	20.9	9	9.0	1	–	
Female	72	79.1	91	91.0	0.37	(0.16–0.88)	
Age group							< 0.001
< 30	16	17.6	63	63.0	1	–	
30–39	33	36.3	26	26.0	5	(2.36–10.60)	
40+	42	46.2	11	11.0	15.03	(6.35–35.57)	
Marital status							< 0.001
Married	54	59.3	79	79.0	1	–	
Single	14	15.4	17	17.0	1.2	(0.55–2.65)	
Widowed	23	25.3	4	4.0	8.41	(2.75–25.70)	
Education							0.009
Less than 'O' level	45	49.5	31	31.0	1	–	
'O' level or more	43	50.6	69	69.0	0.46	(0.25–0.83)	
Current employment status							0.11
Unemployed	46	50.5	62	62.0	1	–	
Permanent FT or PT	8	8.8	3	3.0	3.59	(0.90–14.30)	
Casual/self-employed	37	40.7	35	35.0	1.42	(0.78–2.59)	
Main income source							< 0.001
Own business/salary	58	65.2	40	40.4	1	–	
Partner/family	22	24.7	51	51.5	0.3	(0.16–0.57)	
No income	9	10.1	8	8.1	0.78	(0.28–2.18)	
Suffer from chronic illness							< 0.001
No	10	11.0	66	66.0	1	–	
Yes	81	89.0	34	34.0	15.72	(7.23–34.18)	
Reason for clinic visit							< 0.001
HIV-related	37	40.7	1	1.0	1	–	
Routine/family/antenatal	34	37.4	54	54.0	0.02	(0.00–0.13)	
Other reason	20	22.0	45	45.0	0.01	(0.00–0.09)	
Negative life events in last 6 months							0.21
No	20	22.0	30	30.0	1	–	
Yes	71	78.0	70	70.0	1.52	(0.79–2.93)	
SSQ ≥ 9							0.01
No	46	50.6	68	68.7	1	–	
Yes	45	49.5	31	31.3	2.15	(1.19–3.87)	
PCL ≥ 33							0.09
No	49	53.8	66	66.0	1	–	
Yes	42	46.2	34	34.0	1.66	(0.93–2.98)	

^aunivariate logistic regression for outcome HIV+^bParticipants who did not know or reveal their HIV status excluded ($n = 13$)

agent of the Friendship Bench intervention also makes the eventual use of the PCL-5 tool in their work at primary care level further possible. Including staff at all levels of the health system is important when developing

interventions as this contributes to a stronger buy-in and increases the chances of the tool being used by all [29]. The results of this validation study will enable local researchers working on epidemiological and intervention

Table 2 Sensitivity, specificity, PPV & NPV for PCL-5 cut-off ≥ 33 for whole sample and for PLWH only

	Sensitivity (95%CI)	Specificity (95%CI)	PPV (95%CI)	NPV (95%CI)
N = 204	74.5% (60.4–85.7)	70.6% (62.7–77.7)	45.8%(34.8–57.1)	89.3% (82.3–94.2)
N = 91 PLWH only	78.6% (59.0–91.7)	68.3% (55.3–79.4)	52.4% (36.4–68.0)	87.8% (75.2–95.4)

studies with a focus on PTSD to work with a tool validated using an evidence based approach.

The PTSD prevalence of 46% amongst seropositive participants highlights the close link between HIV-status and PTSD prevalence, therefore it may be necessary to include screening for PTSD in the expanding HIV clinics in the country. Currently PLWH are screened using the SSQ-14 [27] which shows some overlap of symptomatology with PTSD (Table 1), however, there is need for PTSD specific screening in view of the high prevalence of PTSD. The prevalence of PTSD for all participants ($n = 204$) according to the gold standard measure CAPS-5 was 19.6%. Community studies have shown that trauma exposure is higher, often multiple, and associated with several chronic physical conditions [30].

A positive HIV sero-status is described as a traumatic event [31, 32]. In our study, one third (32.5%) of the PTSD cases identified by the gold standard clinical interview were found to have HIV infection as the qualifying traumatic event.

Being found out to be HIV positive is often met with interpersonal violence by partners or family members [33] with anticipatory fear often leading to

non-testing or non-following up of treatment seeking behavior [34].

Whereas HIV can arguably be managed effectively in Western countries, the situation is different for the developing world. Poverty and unemployment, lack of access to medication and medical care, unavailability of adequate food, housing, risk of exposure to illnesses and to being re-infected due to lack of awareness and risky sexual practices as well as exposure to stigma and stigma-related interpersonal violence all comprise daily traumatic events for the HIV population in Zimbabwe.

The cumulative effect of these stressors is seen in the high prevalence of CMD of 49.5% amongst seropositive participants.

The Friendship Bench Program has had a successful, targeted approach to CMD [35], however we realize that PTSD identification could contribute towards adequately addressing the needs of primary care patients.

The use of psychological interventions to address common mental disorders (CMD) in PLWH in sub-Saharan Africa, their scaling-up, as well as their monitoring and evaluation underscores the importance of

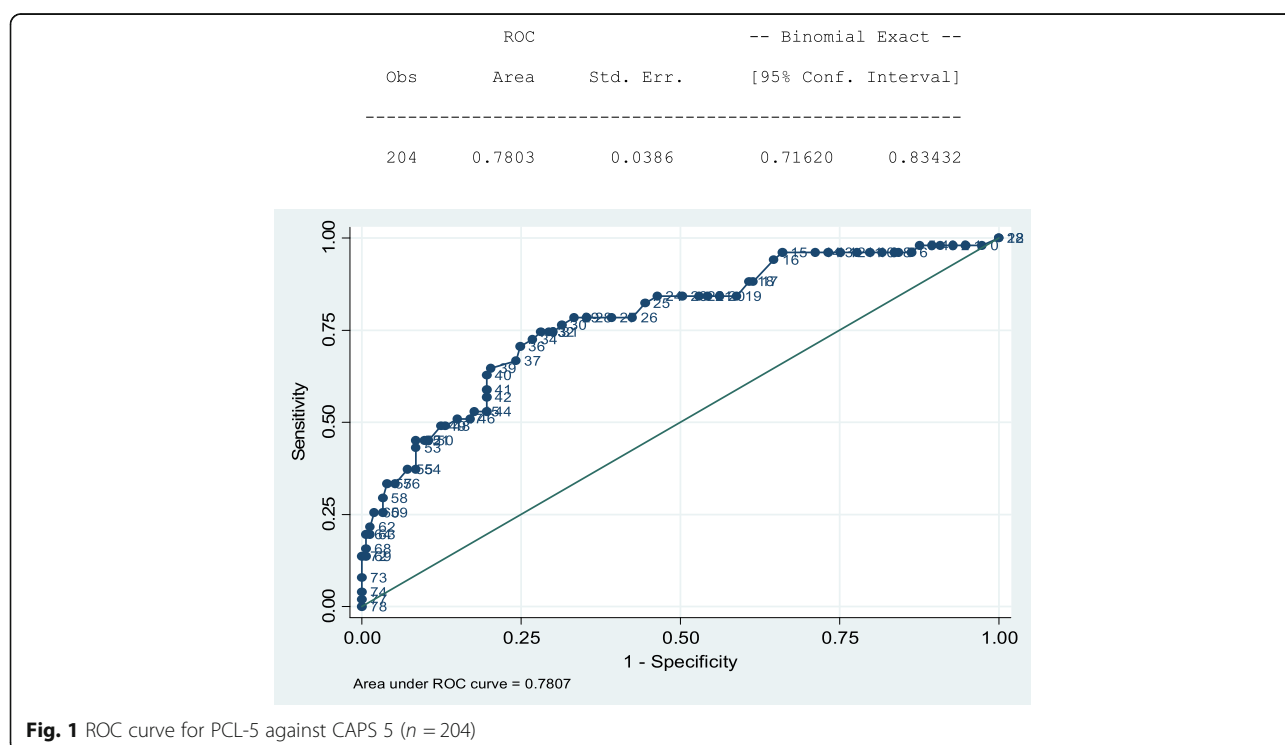


Fig. 1 ROC curve for PCL-5 against CAPS 5 ($n = 204$)

administering validated tools in rigorously conducted clinical trials [36, 37].

The PCL-5 has been developed in a western setting, as have most other psychological tools. Traumatic events according to the DSM-5 are defined as events that are linked to actual or threat of death, serious injury, or sexual violence experienced by self or close others, witnessed as well as heard of. Given the living situation for the majority of the population in LMIC, in our view the definition of a traumatic event has to be broadened. In LMIC, a wider range of circumstances hold a potential life threat for the population, as seen in the burden of disease studies [38]. Furthermore, people in LMIC are often exposed to multiple traumas [39] and have therefore a pronounced need for adequate, accessible and evidence-based care.

Limitations

The gold standard interviews were carried out by medical doctors who all had a minimum of 2 years of work experience in psychiatry but no formal training in psychiatry. They were trained and supervised in the use of the tool by the first author together with the second author. The duration of training was less in comparison to other settings [16].

Study participants were urban dwellers visiting primary care clinics, therefore generalization beyond primary care settings is not possible. Furthermore, most of the study participants were female (85% females in our sample) which is common in this setting as shown in previous work [35, 40, 41], therefore, our finding may not be gender-sensitive.

PCL-5 and SSQ were administered in interview format despite them being designed for self-administration. Interviews were conducted by trained research assistants as study participants were not familiar with self-administration on tablet computers which were used for the data collection. A limitation of this approach is that participants might have displayed a social desirability bias [42] and therefore decreased the validity of the responses.

We did not investigate aspects of trauma attribution, resilience and vulnerability of individuals in this study nor did we discuss possible co-morbidities, all these are seen as associated with the development of PTSD [43, 44].

Conclusion

It is possible to validate screening tools for PTSD in a low resourced setting with a high HIV prevalence. We found the PCL-5 to have a good internal consistency with Cronbach's $\alpha = 0.92$, and with a cut-off score of 33 it showed good performance. Furthermore, our cut-off score is in line with what is suggested by the authors of the PCL-5 in its revised civilian version [16].

There is a need for integrating PTSD screening in primary care due to the high rate of PTSD within our study populations (45% for HIV positive and 34.3% for HIV negative participants, respectively).

Abbreviations

AIDS: Acquired immune deficiency syndrome; ART: Anti-retroviral Therapy; CAPS-5: Clinician administered PTSD scale – 5; CI: Confidence interval; CMD: Common mental disorders; DMS-5: Diagnostic and Statistical Manual of Mental Disorders 5th edition; HIV: Human immunodeficiency virus; IPV: Interpersonal violence; LEC-5: Life Events Checklist – 5; LMIC: Low and middle income countries; MRCZ: Medical research council of Zimbabwe; NPV: Negative predictive value; PCL-5: Posttraumatic Stress Disorder Checklist – 5; PLWH: People living with HIV; PPV: Positive predictive value; PTSD: Posttraumatic Stress Disorder; ROC: Receiver operator curve

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Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due ongoing analyses for further publications but are available from the corresponding author on reasonable request.

Authors' contributions

RV and DC conceived and designed the study. DC and RV gained funding for the study. RV and DC carried out the study. LG was responsible for all statistical analysis. RV drafted the first manuscript. DC, JB, SS revised the manuscript. All authors read and approved the manuscript.

Ethics approval and consent to participate

The study was approved by the Medical Research Council of Zimbabwe and by the Health Research Ethics Committee at Stellenbosch University in line with the ethical principles stated by the Helsinki Declaration. Consent was sought in written form from all participants.

Consent for publication

All participants gave written consent to publish all data reported in this and other publications arising from study.

Competing interests

The authors declare that they have no competing interests except for DC who is supported through the DELTAS Africa Initiative [DEL-15-01]. The DELTAS Africa Initiative is an independent funding scheme of the African Academy of Sciences (AAS)'s Alliance for Accelerating Excellence in Science in Africa (AESA) and supported by the New Partnership for Africa's Development Planning and Coordinating Agency (NEPAD Agency) with funding from the Wellcome Trust [DEL-15-01] and the UK government. The views expressed in this publication are those of the author(s) and not necessarily those of AAS, NEPAD Agency, WellcomeTrust or the UK government.

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CHAPTER 5

Prevalence and correlates of probable Posttraumatic Stress Disorder and common mental disorders in a population with a high prevalence of HIV in Zimbabwe

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Author contributions:

RV designed the methodology for this study. This included working closely with the local health facilities to prepare sites for both piloting and formal data collection. RV facilitated the training of research assistants who were involved in the data collection. RV cleaned the data and uploaded it to a password-protected server before the statistical analyses were carried out. Reviewers' comments from the European Journal of Psychotraumatology are currently being addressed before re-submission.

5.1) Abstract

Background: We investigated prevalence and factors associated with PTSD and common mental disorders (CMD) which include depression and anxiety disorders in a high HIV prevalence setting within a primary care clinic (PHC), using the Posttraumatic Stress Disorder Checklist (PCL-5) and the Shona Symptom Questionnaire (SSQ-14), both locally validated screening tools.

Method: A cross-sectional survey was carried out with adult patients (n=204) from the largest PHC facility in Harare in June 2016.

Result: A total of 83 (40.7%) met criteria for probable PTSD, amongst these 57 (69.5%) had comorbid CMD. Among people living with HIV (PLWH), 42 (55.3%) had PTSD. Probable PTSD was associated with having experienced a negative life event in the past six months (AOR 3.73, 95% CI 1.49-9.34), or screening positive for CMD (AOR 6.48, 95% CI 3.35-2.54).

Conclusion: PLWH showed a high prevalence of PTSD and CMD comorbidity. PTSD screening should be considered when CMD screen is positive and there is history of negative life events.

Keywords: Posttraumatic Stress Disorder, Common Mental Disorders, HIV, low and middle-income countries, Zimbabwe, primary health care

5.2) Background

Posttraumatic Stress Disorder (PTSD) is highly prevalent in populations with high HIV rates (1, 2). Common mental disorders (CMD) which include depression and anxiety disorders are equally prevalent in high HIV settings (3). These disorders are a leading cause of disability globally (4). It is estimated that less than one third of individuals in US/Europe and less than one fifth in low- and middle-income countries (LMIC) receive treatment for treatable psychiatric conditions (5-7).

Studies show high comorbidity between depression and PTSD in a variety of population samples, such as those from conflict or post-conflict settings (8), refugee camps (9, 10), combat situations, victims of interpersonal violence (IPV) (11), or survivors of natural or man-made disasters (12-14). Political and economic instability and disparity, poverty with its consequences of food scarcity, lack of access to medical care, education, and politically motivated violence, crime and exposure to weather phenomena due to climate change which impacts negatively on an agriculture-based country like Zimbabwe, further contribute to poor mental health outcomes (15).

Receiving an HIV diagnosis, stigma from one's community which often includes acts of interpersonal violence and being confronted with a scarcity of treatment options also contribute to unfavourable mental health outcomes (16, 17) and reduced adherence to anti-retroviral treatment (ART) (18), consequently posing a threat to survival. Stressors, both acute and chronic, that inhabitants of LMIC are exposed to often occur on a daily basis.

The overlap of symptoms of PTSD and depression is clinically contextualized in the latest version of the Diagnostic and Statistical Manual for Mental Disorders (DSM-5) (American Psychiatric Association [APA], 2013) (19). Criteria C of the DSM-5 consists of six items comprising a symptom cluster of negative alterations in mood and cognition that can be applied to both PTSD and depression. The diagnosis of PTSD depends on fulfilment of criterion A, a stressor which varies in severity and subjective appraisal (20). Several studies have found that continuous lower level stressors are cumulatively more predictive of psychological distress than single event exposures, as documented in studies in conflict or post-conflict and non-conflict settings (Miller, 2010)(21).

Furthermore, exposure to armed conflict and organized violence are often experienced as distal and found to be less salient over time (8) in comparison to daily stressors such as poverty, overcrowded housing, chronic illness, failure to meet daily basic and medical needs (lack of access to clean water, education, medication and sufficient food to name a few). These daily stressors are seen as being able to erode psychological resilience and effective coping mechanisms through their cumulative impact, thus impeding individuals' overall mental health (22).

There are gender differences in the prevalence of PTSD, although more men are exposed to traumatic events than women (23), women are more likely to develop PTSD (24, 25) after exposure

to a traumatic event. Individuals with PTSD have a higher likelihood of suffering from chronic medical conditions with the number of lifetime traumas mediating this correlation (Sledjeski, Speisman, & Dierker, 2008). Ill health in turn has a negative impact on resilience and coping with the daily stressors that are common in LMIC (26, 27). Cumulative effects of multiple traumas are also found to be common and associated with worse psychiatric outcomes (28-30).

Recent work from Zimbabwe revealed high levels of CMD and PTSD in primary care users, necessitating the need for adequate interventions to alleviate this burden. Psychosocial interventions such as the Friendship Bench (31, 32) seem to reduce the perception of lack of control among affected populations (8). The Zimbabwean Friendship Bench program is a low intensity psychological intervention that is successfully reducing the treatment gap for common mental disorders on primary health care level. The task-shifted intervention is delivered by trained and supervised lay health workers (31). There is a dearth of data on cultural understandings of trauma as well as on the societal and psychological impacts of low versus high intensity stressors and their influence on potential treatment considerations of subsequent PTSD, therefore rigorous research is needed. The purpose of this study was to establish prevalence and correlates of PTSD in a population sample with high HIV prevalence using primary health care facilities in Zimbabwe.

5.3) Methods

We carried out a cross-sectional study using the Posttraumatic Stress Disorder Checklist (PCL-5) (33) as well as the Shona Symptom Questionnaire (SSQ-14) (34), both validated in Zimbabwe (35, 36), at the largest clinic in the suburb of Mbare, near the central business district of Harare, Zimbabwe. This clinic has a catchment area of over 200,000 with an average attendance of 140 patients per day and a high HIV prevalence. This is a typical primary care clinic in Harare which is mostly staffed by nurses and lay health workers.

5.3.1) Inclusion criteria

Adults aged 18 and above attending the clinic were eligible for recruitment over a two-week period in June 2016, provided they were able to give written consent and resided in the area. Pregnant women in their last trimester and women within the 3-month postnatal period were excluded, as were those who were unable to understand the purpose of the study.

5.3.2) Posttraumatic Stress Disorder Checklist PCL-5

The PCL-5 was validated in Zimbabwe to determine the adequate cut-off score for an adult population (35). It was found to have good psychometric properties with a cut-off score of ≥ 33 , sensitivity and specificity of 74.5% (95%CI: 60.4-85.7) and 70.6% (95%CI: 62.7-77.7), respectively. Cronbach's alpha was 0.92 reflecting very good internal consistency.

The PCL-5 is a self-report measure that was developed at the National Center for PTSD (37). It is used in conjunction with the Life Events Checklist-5 (LEC-5) (38). The LEC-5 is a self-report questionnaire which assesses the prevalence of 16 potentially traumatic life-time events as well as an added open category ("any other very stressful event or experience") with five answer categories (39). The original PCL was revised to match the adapted DSM-5 criteria for PTSD. It features an adapted answer scale ranging from 0='not at all' to 4='extremely', thus making the theoretical lowest score 0. It measures 4 symptom clusters; the original clusters intrusion, avoidance and hyper-arousal and the added cluster of negative alterations in cognition and mood with three items (blame, negative emotions, and reckless or self-destructive behavior). Item scores can be summed for an overall severity score as well as for individual symptom cluster sums. A PTSD diagnosis can be made provisionally considering items rated 2 = moderately or higher as according to the DSM-5 diagnostic rule (at least one B, one C, two D, and two E symptoms present).

5.3.3) Shona Symptom Questionnaire (SSQ-14)

The Shona Symptom Questionnaire (Patel et al., 1997) was developed and validated in Zimbabwe in 1997 and recently we re-validated it in a high HIV prevalence setting where a cut-off score of 9 with sensitivity and specificity of 84% (95%CI:78–89%) and 73% (95%CI:63–81%), respectively, was found to be suitable for detecting CMD (36). Most of the 14 items are common to those found in tools for depression worldwide, such as sleep disturbance and suicidal thoughts; others are local idioms of emotional distress including 'thinking too much'. Participants are asked if they have experienced a list of common mental health symptoms in the past week. Each of the items is scored dichotomously as yes (1) or no (0) (34).

5.3.4) Translation of tools

The PCL-5 and the LEC-5 were translated from English into the local language Shona by a bilingual clinical social worker, and a bilingual psychiatrist (DC). The draft Shona version was reviewed by a team of five lay health workers (LHWs) working for the Friendship Bench and five

nurses working in the psychiatric ward of Harare Central Hospital together with a psychologist. This phase focused on ensuring contextual equivalence to the original versions based on their understanding and use of local terms for trauma symptomatology.

An independent language expert back-translated the Shona version into English. The first author together with the social worker and the psychiatrist examined both original and back-translated versions and resolved any discrepancies by consensus. Translation and back-translation were carried out using a standard approach (40).

5.3.5) Ethical considerations

The study was approved by the Medical Research Council of Zimbabwe (MRCZ, reference MRCZ/A/1732) and by the Health Research Ethics Committee at Stellenbosch University (reference S14/05/102). Ethical considerations and confidentiality for all participants were respected in accordance with Medical Research Guidelines.

5.3.6) Data collection

During the study period, we randomly selected of participants on a daily base from a register of all adult patients waiting to be seen at the clinic. Participants were selected based on a computer-generated random number sequence. Fifteen selected participants were invited at a time to a quiet and private space where eligibility was determined. Informed written consent was sought from all those eligible.

Trained research assistants administered the SSQ and the PCL-5 to participants in randomly assigned alternating questionnaire order and also collected socio-demographic information such as age, gender, HIV status, marital and employment status using Samsung Galaxy Tablets. HIV status was established by self-report. We aimed to recruit between 180-200 participants over the 2-week period.

Interviews took 20–30 minutes and were conducted in a quiet space designated for the study team. Although the PCL-5, LEC and SSQ are self-report tools, we chose to have them administered by trained research assistants as was found in a prior validation exercises using the same approach that tablet/computer use was not familiar to most of the clinic attendees (36, 41).

5.3.7) Statistical Analysis

As in an earlier study (31), data were entered directly into the study desk-top computer by a data entry clerk using a predesigned data entry program containing automated range checks, and

data cleaning was carried out at the end of each day. Data were transferred to STATA version 13.0 for analysis. Analysis was based on outcome measures of the PCL-5. Following tests for effect modification of HIV status and factors associated with CMD, results were presented stratified by PCL-5 outcome. Socio-demographic variables of the two stratified groups with respect to meeting PCL-5 criteria for PTSD and SSQ-14 criteria were initially compared to establish differences. Variables with $p < 0.1$ on univariate logistic regression analyses were taken forward to be included in the multivariable regression. Those variables with a p -value of less than 0.05 were then included in the final regression model to estimate adjusted odds ratios (OR) and 95 % confidence intervals (CI).

5.4) Results

5.4.1) *Sample description*

A total of 204 adults aged 18 and above gave consent to participate in the study with 174 (85.2%) being women. A greater number of participants (42.2%) were aged below 30 years, while those aged 30-39 years made up 30.4% of the participants with the rest being 40 years and older. Mean age was 34 years. Most participants were married (69.1%). There were 91 (44.6%) HIV-positive participants. Of these 72 (67.9%) were female. A total of 100 (49%) were HIV negative, while 13 (6.4%) did not know their HIV status.

5.4.2) *Prevalence of PTSD by (PCL-5)*

Table 1 shows the characteristics of study participants by PCL-5 ≥ 33 versus < 33 . There were 83 (40.7%) participants who scored ≥ 33 on the PCL-5. Out of the 83 who scored 33 and above on the PCL-5, 75 (90.4%) reported a negative life event in the last six months (95%CI 81.7 - 95.2, $p < 0.001$). A total of 57 (69.5%) of those meeting caseness on the PCL-5 scored above 9 on the SSQ-14 (95%CI 58.5 – 78.7, $p < 0.001$) (Table 1). The odds of experiencing a negative life event in the last six months among those who scored positively for probable PTSD was almost four times higher than those who had not (OR 3.73, 95%CI 1.49-9.34) (table 2). Participants who were found to suffer from probable PTSD were more likely to score ≥ 9 on the SSQ-14 (OR 6.48, 95%CI 3.35-12.54) (table 2).

Table 1. Characteristics of participant by PCL-5 score (n=204)

All participants	PCL<33 (n=121)		PCL≥33 (n=83)		χ^2 p-value
	N	%	N	%	
HIV status *					0.09
negative	66	57.4%	34	44.7%	
positive	49	42.6%	42	55.3%	
Gender					0.75
male	17	14.1%	13	15.7%	
female	104	86.0%	70	54.3%	
Age group					0.12
<30	58	47.9%	28	33.7%	
30-39	34	28.1%	28	33.7%	
40+	29	24.0%	27	32.5%	
Marital status					0.25
married	88	72.7%	53	63.9%	
single	17	14.1%	19	22.9%	
widowed	16	13.2%	11	13.3%	
Education					0.13
less than 'O' level	44	36.4%	39	47.0%	
'O' level or more	77	63.6%	44	53.0%	
Current employment status					0.06
Unemployed	76	62.8%	38	45.8%	
Permanent FT or PT	6	5.0%	6	7.2%	
Casual/self-employed	39	32.2%	39	47.0%	
Main income source					0.03
Own business/salary	56	46.7%	53	65.4%	
Partner/family	52	43.3%	23	28.4%	
No income	12	10.0%	5	6.2%	
Suffer from chronic illness					0.02
no	57	47.1%	25	30.1%	
yes	64	52.9%	58	69.9%	
Reason for clinic visit					0.25
HIV-related	18	14.9%	20	24.1%	
Routine/family/antenatal	58	47.9%	35	42.2%	
Other reason	45	37.2%	28	33.7%	
Negative life events in last six months					<0.001
no	45	37.2%	8	9.6%	
yes	76	62.8%	75	90.4%	
SSQ≥9					<0.001
no	95	78.5%	25	30.5%	
yes	26	21.5%	57	69.5%	

Table 2. Multivariable analysis by PCL-5 ≥ 33 (n=204)

	All participants		PCL ≥ 33			final model		
	Total N	%	OR	95% CI	p-value	OR	95% CI	p-value
HIV status					0.92			
negative	100	34.0%	1	-				
positive	91	46.2%	1.04	(0.45-2.44)				
Gender								
male	30	43.3%						
female	174	40.2%						
Age group								
<30	86	32.6%						
30-39	62	45.2%						
40+	56	48.2%						
Marital status								
married	141	37.6%						
single	36	52.8%						
widowed	27	40.7%						
Education								
less than 'O' level	83	47.0%						
O' level or more	121	36.4%						
Current employment status					0.97			
Unemployed	114	33.3%	1					
Permanent FT or PT	12	50.0%	1.17	(0.24-5.68)				
Casual/self-employed	78	50.0%	1.15	(0.38-3.46)				
Main income source					0.36			
Own business/salary	109	48.6%	1					
Partner/family	75	30.7%	0.45	(0.14-1.40)				
No income	17	29.4%	0.44	(0.09-2.10)				
Suffer from chronic illness					0.83			
no	82	30.5%	1					
yes	122	47.5%	1.10	(0.46-2.65)				
Negative life events					0.01			0.005
no	53	15.1%	1			1		
yes	151	49.7%	4.17	(1.50-11.62)		3.73	(1.49-9.34)	
SSQ≥ 9					<0.001			<0.001
no	120	20.8%	1			1		
yes	83	68.7%	6.57	(3.16-16.68)		6.48	(3.35-12.54)	

5.4.3) LEC-5: Self-experienced traumatic index events

All participants (n=204) responded to the 17 items describing potentially traumatic life events. The mean number of self-experienced lifetime traumatic events was 4.6 (SD 2.4). The most commonly endorsed lifetime traumas are listed in table 3. 132 participants reported experienced physical assault (64.7%), followed by any other very stressful event/experience indicated by 130 participants (63.7%) as well as sudden, unexpected death of someone close named by 113 participants (55.4%) and life-threatening illness/injury listed by 89 (43.6%). Participants could report as many items as they felt appropriate.

Table 3. Life event checklist LEC-5 (self experienced exposure) n=204

Name of item	#	%
1. Natural disaster (for example, flood, hurricane, tornado, earthquake)	51	25.0
2. Fire or explosion	23	11.3
3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)	31	15.2
4. Serious accident at work, home, or during recreational activity	30	14.7
5. Exposure to toxic substance (for example, dangerous chemicals, radiation)	14	6.9
6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)	132	64.7
7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)	36	17.6
8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)	20	9.8
9. Other unwanted or uncomfortable sexual experience	20	9.8
10. Combat or exposure to a war-zone (in the military or as a civilian)	12	5.9
11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)	39	19.1
12. Life-threatening illness or injury	89	43.6
13. Severe human suffering	86	42.2
14. Sudden, violent death (for example, homicide, suicide)	25	12.3
15. Sudden, unexpected death of someone close to you	113	55.4
16. Serious injury, harm, or death you caused to someone else	7	3.4
17. Any other very stressful event or experience	130	63.7

5.5) Discussion

This paper highlights the substantial prevalence of PTSD in a high HIV prevalent population sample using a primary health care (PHC) facility in an urban setting in Zimbabwe. A probable PTSD prevalence of 40.7% was reported in this sample of PHC users who live in a non-armed conflict setting (n=204).

Out of the self-experienced lifetime index events, the highest prevalence was for physical assault, often in the form of interpersonal violence (IPV). Other specific life-time events mentioned included sudden and unexpected death of a family member as well as illness and severe human suffering. These findings are in line with earlier findings where interpersonal violence was reported by more than 40% of those presenting with common mental disorders (CMD) and receiving the Friendship Bench intervention (31). Experiencing domestic violence has been found to be an important trauma type associated with PTSD and CMD (42, 43). There is evidence showing high rates of PTSD amongst victims of domestic violence (44-46). Our results support findings that physical assault and IPV are common in a population with high HIV prevalence (47, 48).

Furthermore, sudden and unexpected death of a close person as well as illness which is often related to untimely death were listed as common traumatic events. In LMIC, the population is faced with reduced life expectancy and quality of life, as injuries and disease (chronic or acute) potentially cause long term disability (49) or death that could be avoided with the improvement of access to a well-functioning health system (50, 51).

This study shows a high rate of CMD as measured by a locally validated tool the SSQ-14 (34, 36) among participants who met criteria for probable PTSD as measured by the PCL-5. This comorbidity is not unusual as symptoms associated with CMD such as feelings of helplessness, hopelessness, poor functioning, and sleep disturbances can be found in PTSD (52).

Our findings further reflect the results of earlier studies that show the impact of suffering from a chronic illness such as HIV and the increased likelihood of the development of PTSD and comorbid CMD (53, 54). Despite more PLWH being commenced on ART and HIV/AIDS no longer being considered a death sentence, HIV positive status is still associated with stigma (55, 56), even in the absence of physical signs. Stigma continues to have a negative effect on medication adherence (57).

Significance and meaning of HIV as a chronic condition can be seen as important to the risk of developing PTSD in this context (58). An earlier study (Verhey, in press) revealed traumatic experiences referred to as '*njodzi*', in the local language often being HIV-related and associated with the experience of PTSD symptoms, however, these symptoms were seen within the context of CMD by LHWs. LHWs in the aforementioned study, had not been trained in the identification of PTSD

related symptoms. Furthermore, 90.4% of all the participants who scored positive for PTSD on the PCL-5 reported to have experienced a negative life event in last 6 months (Table 1), indicating that the occurrence of index traumatic events are common in their living environment.

As *'kufungisisa kwe njodzi'* (local term for PTSS/PTSD literally translated to 'thinking too much due to having experienced a trauma') is pervasive but not recognized as a condition that can be treated. As such, many people will not seek help thereby increasing the likelihood of developing PTSD (59, 60). Our findings demonstrate an association of PTSD with a negative life event in the past six months, and symptoms of CMD. These findings have also been reported in several independent research studies (9, 42, 53, 61, 62).

In order to decrease the burden of mental illness, an evidence-based approach, such as the Friendship Bench program, can easily be offered in all PHC facilities as it has been shown to offer an efficient and cost-effective as well as culturally acceptable way to bridge the existing treatment gap (31). However, there is a need to address comorbidity that is found often (63) particularly at primary health care level (64, 65). Sub-threshold presentations of PTSD are associated with similar levels of psychosocial impairment as found in person diagnosed with PTSD (66, 67). In order to lower the impact of psychosocial impairment on PHC facility users, both PTSD as well as sub-threshold PTSD have to be recognized.

Assessment of exposure to negative life events, whether acute or chronic, can become part of a comprehensive health care package with the aim of addressing stress disorder symptoms timeously. The need to train LHWs on how to identify PTSD specific symptoms such as phobic avoidance, hypervigilance, recurrent nightmares adding to their mental health literacy was highlighted recently. Integrating a common elements approach (68) in the management of conditions by LHWs is considered to be an acceptable way to bridge the treatment gap.

This study illustrates the high prevalence of PTSD-like symptoms among people meeting symptoms of CMD. Further studies will need to examine how LHWs can be used resourcefully to address the burden of comorbidity in LMIC. There is growing evidence supporting the efficient and effective use of transdiagnostic approaches, for example, for anxiety disorders (69). PTSD had been part of the DSM-IV anxiety disorders category until the release of DSM-5 (American Psychiatric Association, 2013; DSM-IV, American Psychiatric Association [APA], 2000). With the Friendship Bench Program being a community-based intervention, we believe that an integrated, culturally acceptable task-shifting approach with an added focus on stress disorders can make a difference to beneficiaries. Furthermore, we propose rigorous research focusing on its effectiveness in decreasing the burden of compromised mental health in a holistic manner.

5.6) Limitations

This study was carried out in a primary care clinic in one of Harare's townships. The majority of the sample was female with the unequal gender distribution a reflection of women displaying more active health seeking behavior in Zimbabwe. Therefore, our results may not be generalizable across gender. We did not stratify negative life events by specific type of trauma therefore it is not possible to make any firm conclusions as to which specific negative life events are more likely to lead to PTSD, or what mix of negative life events are important. There is need for further work on this.

5.7) Conclusion

PTSD is highly prevalent in our setting and is associated with a wide range of negative life events and CMD symptoms. In order to sustainably decrease the burden of mental illness, stress-related disorder symptoms and their link to previous exposure to traumatic events have to be recognized by lay health workers working for the Friendship Bench. There is need to develop and strengthen community-based, cost-effective and efficient integrated interventions aimed at addressing this and other comorbidities. We furthermore propose that a differentiation in lower intensity stressors and their impact on mental health and those that hold potential traumatic salience as defined by DSM-5 (American Psychiatric Association, 2013) is especially important in LMIC.

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CHAPTER 6

Prevalence and correlates of Posttraumatic Stress Disorder and common mental disorders in lay health workers working in the Friendship Bench Program in Zimbabwe

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RV and DC conceived and designed the study. DC and RV gained funding for the study. RV and DC carried out the study with RV leading in the management of the study team which included research assistants, LHWs and data entry clerks. LG was responsible for statistical analyses. RV drafted the first manuscript. DC, JB, SS revised the draft manuscript and approved it for submission.

6.1) Abstract

The Friendship Bench is a task-shifting intervention for common mental disorders delivered by lay health workers (LHWs). This study aimed to establish the prevalence and factors associated with post-traumatic stress disorder (PTSD) and common mental disorders (CMD) among the LHWs. A random sample of LHWs (n=182) had the Posttraumatic Stress Disorder Checklist (PCL-5) and the Shona Symptom Questionnaire (SSQ-14) administered to them. 11 (6%) and 17 (11%) presented with probable PTSD and CMD, respectively. The prevalence of PTSD and CMD was low. There is need for further studies to understand the protective mechanisms that may be associated with this work.

Keywords: Lay health workers; Posttraumatic Stress Disorder; Zimbabwe; Friendship Bench; Task-shifting

6.2) Introduction

In low and middle-income countries (LMIC) where higher cadre medical professionals are scarce, task-shifting approaches give lay health workers (LHWs) both an opportunity and responsibility to offer a variety of services to populations needing care. This collaborative stepped health care model has found a lot of acceptance worldwide (1-5). The use of LHWs allows referral strategies to be used economically and efficiently and to provide a wider range of services to underserved or hard to reach populations (6, 7).

LHWs are community members who have received task related training but have not obtained formal professional qualifications. Depending on their work environment they are also called village or community health workers.

As a historically under-resourced component of health care, mental health has gained major traction with recent predictions indicating the lifetime prevalence of mental neurological and substance use disorders (MNS) in adults to be 20% (8). This high rate of MNS globally, and CMD in particular, contributes substantially to disability-adjusted life years (DALYs) (9). The burden of disease related to MNS in sub-Saharan Africa is expected to increase by 130% by 2050 (10).

A series of studies, mostly carried out in LMIC, focusing on feasibility, acceptability and efficacy as well as cost-effectiveness in using LHWs in mental health interventions have been carried out with promising results (11-16). In Pakistan for instance, LHWs are delivering a successful program to respond to maternal depression and infant outcome (15). In Chile, Araya and colleagues (17) showed how LHWs successfully delivered group interventions in order to decrease depression prevalence in a cost-effective way (17, 18). LHWs delivering a psychosocial intervention helped reduce prevalence of CMD, suicidal behavior and general psychological morbidity in India (19). Further, in rural Indian communities LHWs were trained to correctly diagnose CMD and manage cases (20).

Recently, Zimbabwe's Friendship Bench Program has successfully demonstrated the feasibility and acceptability of a low intensity psychological intervention for CMD (21). In addition, effective training, ongoing supervision, financial incentives and integration in community and health systems have been found to increase LHWs performance (22).

A recent survey of primary health care users in Zimbabwe found a prevalence of 40.7% for CMD and 40.6% for PTSD, respectively, stressing the need to bridge the treatment gap for MNS. In this environment, the approach of the FB of using of problem solving therapy for "kufungisisa" (depression in the local language) (23) delivered by LHWs was shown to be effective, culturally acceptable and

effective in a recent randomized controlled trial (RCT) (21). The program has since been scaled up to more than 70 city health clinics in the capital of Zimbabwe, Harare, and two other municipalities involving over 300 LHWs (24).

While the above cited studies, including the FB, have effectively focused on the beneficiaries of interventions delivered by LHWs, the aim of this study was to examine the prevalence of PTSD and CMD in the group of LHWs involved in daily activities related to reducing the treatment gap for CMD through task-shifting on Zimbabwe's FB.

Little is known about the effects on LHWs involved in this kind of work, particularly with regards to the long-term psychological effects of managing clients with CMD. As the group of LHWs working for the Friendship Bench (FB) live in the same environment as their clients, we were interested in investigating to what extent they are affected by PTSD and CMD when delivering the FB intervention and being exposed to the cumulative effects of vicarious trauma and of having to deal with similar stressors as the ones their clients seek counseling for. To our knowledge there is no study that has focused on the prevalence of PTSD and CMD in a group of low cadre LHWs in sub-Saharan Africa.

6.3) Method

Lay health workers (LHWs) (n=204) working for the Friendship in Harare since its scale up to more than 70 clinics (25) were invited to take part in this survey in September 2016. The LHWs had received previous training on the Friendship Bench approach and had worked as FB counselors between 3 and 8 years. FB counselors report to District Health Promoting Officers (DHPO) who have a tertiary health education and had received an advanced training in the FB approach. DHPOs are supported by the FB clinical team if further clinical input is needed (21).

Over a one-week period all LHWs (n=204) were approached at their work place during working hours by research assistants. Informed written consent was sought from all participants.

The trained research assistants with local bachelors' degrees in psychology or health promotion administered the SSQ and the PCL-5 to participants in randomly assigned alternating questionnaire order and also collected socio-demographic information such as age, gender, HIV status, marital and employment status using Samsung Galaxy Tablets.

Interviews took 20–30 minutes and were conducted in a quiet space designated for the study team. Although the PCL-5 and SSQ are self-report tools, we chose to have them administered by the trained research assistants as a prior validation exercise using the same approach found that tablet computer use was not familiar to most of the LHWs (26, 27)

Participation was voluntary and all participants were reimbursed up to 3\$ for participation in accordance to the Medical Research Council Zimbabwe (MRCZ).

6.4) Assessment

6.4.1) Questionnaires

i) Shona Symptom Questionnaire (SSQ-14)

The Shona Symptom Questionnaire was developed and validated in Zimbabwe (27, 28) as a screening measure for CMD. Most of the items are common to tools for depression worldwide such as sleep disturbance and suicidal thoughts; others are local idioms of emotional distress including ‘thinking too much’. Participants are asked if they have experienced a list of common mental health symptoms in the past week. Each of the 14 items is scored dichotomously as yes (1) or no (0) (28) and summed up for the final score. In a recent validation study the cut-off score for the SSQ-14 was found to be 9 and above with a sensitivity and specificity of 84% (95% CI:78–89%) and 73% (95% CI:63–81%), respectively (27).

ii) Posttraumatic Stress Disorder Checklist 5 (PCL-5)

The Posttraumatic Stress Disorder Checklist (PCL) was developed at the National Center for PTSD (29).

The 17-items of the PCL correspond to the PTSD criteria as given in the DSM-IV (American Psychiatric Association, 2013; DSM-IV, American Psychiatric Association [APA], 2000).

The revised PCL-5, which matched DSM-5 criteria, features an adapted answer scale ranging from 0=not at all to 4=extremely, thus making the theoretical lowest score now 0. Furthermore, 3 items have been added to reflect the additional PTSD criteria blame, negative emotions, and reckless or self-destructive behavior.

This tool was recently validated for the Zimbabwean setting and a cut-off score of ≥ 33 with a sensitivity and specificity of 74.5% (95%CI: 60.4-85.7); 70.6% (95%CI: 62.7-77.7), respectively, were found (30).

6.5) Methods

6.5.1) Translation of tools

Both the PCL-5 and the SSQ-14 were translated from English into the local language Shona by two bilingual mental health professionals. The draft Shona version was reviewed by a team of five lay health workers (LHW) and five nurses working in the psychiatric ward of Harare Central Hospital together with a psychologist. This phase focused on ensuring contextual equivalence to the original versions based on their understanding and use of local terms for trauma symptomatology.

An independent language expert back-translated the Shona version into English. A team of mental health professionals examined both original and back-translated versions and resolved any discrepancies by consensus. Translation and back-translation were carried out using a standard approach (31).

6.5.2) Data collection

Informed written consent was sought from all participants. Trained research assistants administered the SSQ and the PCL-5 to participants and also collected socio-demographic information such as age, gender, HIV status, marital and employment status using Samsung Galaxy Tablets.

6.5.3) Ethical considerations

The study was approved by the Medical Research Council of Zimbabwe (MRCZ, reference MRCZ/A/1732) and by the Health Research Ethics Committee at Stellenbosch University (HREC, reference S14/05/102). Ethical considerations and confidentiality for all participants were respected in accordance with Medical Research Guidelines.

6.5.4) Statistical Analysis

Data were entered by a data entry clerk and data was cleaned. It was subsequently transferred to STATA version 13.0 for analysis. Analysis was based on outcome measures of the PCL-5 and SSQ-14.

Following tests for effect modification of HIV status and factors associated with CMD, results were presented stratified by probable PCL case-ness. Socio-demographic variables of the two groups (cases vs. non-cases) meeting PCL-5 and SSQ-14 criteria for PTSD were initially compared to establish differences. Variables with $p < 0.15$ on univariate logistic regression analyses were included in multivariable regression to estimate adjusted odds ratios (OR) and 95 % confidence intervals (CI).

6.6) Results

Out of a total of 204 LHWs who were approached 182 (98.2%) LHWs were available and gave consent to participate in the survey. All were female with a mean age of 62 years (SD=8.3). 98% of the participants had at least primary school education. All had received previous training in home-based care for people living with HIV and AIDS, in community follow-up of persons on TB treatment and in delivering community health education and promotion e.g. through encouraging immunization and methods to control disease outbreaks. The participating LHWs had received the two-week Friendship Bench training on problem solving therapy and basic mental health (32) and worked for the FB program for a duration of minimum 3 and up to 8 years. 17 (9.3%) of participants were seropositive, while 89 (49%) of all participants were widowed and 144 (79%) relied on their own salary as an income. A total of 129 (70%) reported suffering from a chronic illness. Probable PTSD as measured with the PCL-5 (cut-off score ≥ 33) was found in 6% of all participants, the mean score was 46.45 (SD 7.3), CMD prevalence, based on the SSQ-14 (cut-off score ≥ 9), was 11% with a mean of 9.9 (SD 0.7).

A total of 10 (90.9%) out of the 11 LHWs with probable PTSD reported to have experienced a negative life event in the past six months compared to those who had scored below the cut-off for probable PTSD ($p < 0.05$). 6 (54.5%) out of the 11 who scored above 33 on the PCL-5 were positive for CMD as measured by SSQ-14. Multivariate analysis (table 2) showed no significant association with high score of PCL-5. Table 1 shows the characteristics of participants by their probable PTSD status.

Table 1. Characteristics of participants by their probable PTSD status.

All participants	PCL<33 (n=171)		PCL>=33 (n=11)		p-value
	N	%	N	%	
HIV status					0.995
positive	16	90.1%	1	90.0%	
negative	145	9.9%	9	10.0%	
Age group					0.152
<60	61	35.7%	7	63.6%	
60-69	74	43.3%	2	18.2%	
70+	36	21.1%	2	18.2%	
Marital status					0.066
married	80	46.8%	5	45.5%	
single	6	3.5%	2	18.2%	
widowed	85	49.7%	4	36.4%	
Education					0.111
less than 'O' level	152	88.9%	8	72.7%	
O' level or more	19	11.1%	3	27.3%	
Main income source					0.102
Own business/salary	135	78.9%	9	81.8%	
Partner/family	34	19.9%	1	9.1%	
No income	2	1.2%	1	9.1%	
Suffer from chronic illness					0.410
no	51	29.8%	2	18.2%	
yes	120	70.2%	9	81.8%	
Negative life events in last six months					0.042
no	68	39.8%	1	9.1%	
yes	103	60.2%	10	90.9%	
SSQ>9					<0.001
no	157	91.8%	5	45.5%	
yes	14	8.2%	6	54.5%	

Table 2. Outcome by probable PTSD case-ness (n= 182)

Outcome PCL>33	N	%	OR¹	95% CI	p-value	OR²	95% CI	p-value
Age group					0.1492			0.394
<60	68	10.3%	1	-		1		
60-69	76	2.6%	0.24	(0.05-1.18)		0.33	0.06-1.87	
70+	38	5.3%	0.48	(0.10-2.46)		0.45	0.06-3.30	
Marital status					0.1836			0.107
married	85	5.9%	1	-		1		
single	8	25.0%	5.33	(0.85-33.51)		11.37	1.10-124.05	
widowed	89	4.5%	0.75	(0.20-2.90)		1.01	0.21-4.75	
Education					0.1567			0.355
less than 'O' level	160	5.0%	1	-		1		
'O' level or more	22	13.6%	3.00	(0.73-12.29)		2.08	0.44-9.75	
Main income source					0.2438			0.362
Own business/salary	144	6.3%	1	-		1		
Partner/family	35	2.9%	0.44	(0.05-3.60)		0.39	0.04-3.95	
No income	3	33.3%	7.5	(0.62-90.78)		4.9	0.31-78.31	
Suffer from chronic illness					0.3896			0.726
no	53	3.8%	1	-		1		
yes	129	7.0%	1.91	(0.40-9.16)		1.36	0.24-7.55	
Negative life events in last six months					0.0251			0.054
no	69	1.4%	1	-		1		
yes	113	8.8%	6.6	(0.83-52.76)		12.27	0.95-157.82	

1 univariable logistic regression

2 multivariable logistic regression

The 11 LHWs (n=6%) who scored above the cut-off for probable PTSD reported the following negative life events in the six months prior to the survey as self-experienced: Six had experienced a death of a family member while 2 reported serious illness and loss of accommodation, respectively. One LHW reported domestic violence and 2 reported general assault.

6.7) Discussion

From our knowledge this is the first study to establish the burden due to probable PTSD and CMD in LHWs involved in the delivery of a task-shifted evidence-based intervention that has been successfully scaled up. Considering that the group of LHWs working for the Friendship Bench (FB) live in the same environment as their clients and are exposed to similar daily stressors, we were interested in assessing to what extent they are impacted by PTSD and CMD when delivering the FB intervention and being exposed to the cumulative effects of vicarious trauma whilst at the same time dealing with similar stressors that their clients seek counseling for.

Compared to health care providers in other LMIC settings (33, 34), this group of Zimbabwean female LHWs presented with low rates of PTSD and CMD. There are no other studies published from LMIC to compare our findings with but these rates are low relative to rates of CMD and PTSD amongst PHC facility users in Zimbabwe (60% and 39.7%, respectively) (27, 30). This suggests high levels of resilience among FB LHWs. The LHWs working with Friendship Bench program are highly respected community members who demonstrate dedication and commitment to the work they are doing since inception of the Friendship Bench in 2006 and in recent studies (35). However, the psychological burden of the work was unknown before this study. As paraprofessional counselors, they work closely in a population with a high prevalence of PTSD and CMD. They are increasingly relied upon to reduce the treatment gap for a variety of conditions (36). Concerns about burn-out and psychological morbidity among health care providers have been highlighted in high income countries (34, 37), whilst in sub-Saharan Africa the impact on job satisfaction and motivation of health workers has been explored (33).

Earlier studies highlighted the impact vicarious traumatization (VT) in workers in trauma settings (38) as well as compassion fatigue which can affect emergency responders and health care workers (39, 40). Research has also focused on the etiology of compassion fatigue in mental health professionals as a major consequence of working with survivors of trauma (41, 42). Caseload, lack of support and institutional stress are associated with an elevated risk of burnout in health care providers (34). A survey amongst mental health professionals in Australia found work-related stressors to be related to therapist distress instead of exposure to patients' traumatic material (42).

Secondary traumatic stress effects are found to be expressed in the form of psychological distress and dysfunction, shifts in individuals' belief systems or relational disturbances, decreasing personal effectiveness and achievement, as well as compassion fatigue (40, 43, 44). Various studies have

documented high compassion fatigue rates in health care workers. Non-specialized paraprofessionals working in low-income settings with high burden of disease and whose training and income is very small are especially at risk of being negatively affected.

A Chinese cross-sectional study amongst community health workers found a high prevalence of anxiety symptoms of 38% linking burn out, occupational stress and anxiety symptoms (45). Similarly, a Zambian study found 51% of professional public health care providers reporting occupational burn-out related to little pay and feeling overworked (46). However, protective factors, of which resilience is one, is associated with functional social support, family, institutional as well as community, and personal psychological growth (47, 48).

Resilience is linked to personal trauma histories of responders and existing coping strategies as well as debriefing availability and support, in and outside of the workplace. Approaches such as adjustment to workload, supervision, group support and ongoing education structures at an organizational level, as well as enhanced self care on an individual level, are suggested to reduce the risk for VT (49, 50).

In contrast to our hypothesis that FB LHWs would show similar levels of trauma-related psychopathology as their clients, they present with low levels. Resilience in this sample needs to be further explored. However, earlier work (Verhey, in press) revealed that LHWs working with the Friendship bench found the work rewarding. It will be important to explore how the rewarding nature of this work contributes to the lower prevalence of PTSD and CMD, if any.

With regards to the HIV status of LHWs, again rates were lower than those of their clients (44.6%) with 17 (9.3%) of all LHWs being seropositive. This may be explained by age (the mean age of LHWs was 62 years) and gender (all female) and is in line with what has been found in other sub-Saharan countries for this age group (UNAIDS report, 2013). There is presumably less susceptibility to HIV acquisition in this particular sample, given the work of LHWs in the field of HIV and AIDS care and their knowledge about safe sex practices. Their higher average age of 62 years compared to the population also classifies them according to cultural norms as a less sexually active group with half of the surveyed LHWs being widowed. Nevertheless, there is a lack of research on HIV acquisition in elderly women in LMIC.

LHWs working for the Friendship Bench receive a small monthly salary and, as indicated earlier, for the vast majority (79%) this is their only source of income. Zimbabwe's unemployment rate is high, 72.3% of the population lives below the national poverty line (World Bank Data 2011). The income of LHWs supports themselves as well as their families. Financial stability in the form of a regular

income is important for job satisfaction, motivation and empowerment (51).

Furthermore, LHWs are well-respected members of their respective communities and are sought out for their knowledge and expertise. Despite little formal education, LHWs reported in a recent qualitative study that they feel very motivated to help their community members. They explained that they felt personally empowered by the intervention that they deliver to the PHC facility users who present with CMD. In addition, the FB has also developed an ongoing supervision framework which is mainly based on peer supervision offered by more experienced peers. Supervision has been found to be important for job effectiveness and therefore for job satisfaction (22). These factors may be contributing to the resilience of the FB LHWs.

6.8) Limitations

This study was carried out with an only female sample of LHWs. Furthermore, the higher mean age of the LHWs may not be representative of LHWs of a younger age and both genders. Therefore, our results may not be generalizable across gender and other age groups.

6.9) Conclusion

Using a task-shifting approach involving community health workers in mental health is a feasible and effective way of closing the treatment gap for mental, neurological and substance use disorders.

Despite the hypothesis that LHWs working on the FB would display signs of vicarious trauma and burnout, we found this sampled group of female LHWs to be remarkably resilient. They live in the same environment as their clients, are faced with the same problems such as poverty, violence, and chronic illness, yet seem less affected by these and other stressors. The FB LHWs have low rates of PTSD and CMD compared to their clients and report high job satisfaction and motivation. They appear to derive benefit from protective factors such as being highly respected community members, being integrated in a community health system, being recognized for their skills and expertise and approachability. Furthermore, they have support from work-inherent peer supervision as well as a clearly delineated job, a salary and referral system.

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CHAPTER 7

A task-shifting approach to treating Posttraumatic Stress Disorder in a high HIV prevalence setting within Primary Health Care facilities in Zimbabwe

This chapter brings together the gained knowledge presented in the five manuscripts which are either published or submitted to peer-reviewed scientific journals. The chapter summarizes the findings, discusses the strengths and limitations of the research and closes with recommendations on how a PTSD component could be integrated in the existing psychological intervention delivered by LHWs – The Friendship Bench. The thesis further highlights how PLWH, a group affected disproportionately by PTSD, could benefit from this integration.

This thesis outlines the process that was involved under my guidance in integrating a trauma-informed PST component into the FB program. The following steps were undertaken to ensure that the process was carried out using empirical observation.

1. A systematic review aimed to inform on existing approaches to address PTSD in PLWH in low resource settings. Most interventions were carried out in economically disadvantaged settings in high-income countries and used highly trained mental health professionals as the agents of delivery (1). Only one study from Africa, a cohort study from Rwanda, was included, emphasizing the dearth of evidence from LMIC settings. Furthermore, none of the studies used a task-shifting approach utilizing LHWs.

2. A qualitative research component explored the FB counseling experience of clients who presented with PTSD symptomatology. Furthermore, LHWs were interviewed on their view of PTSD and counseling this specific group of clients. The LHWs had not received any formal training on how to address PTSD symptoms except being taught to teach clients affect regulation skills that were not used consistently.

Qualitative interviews that were conducted with FB beneficiaries indicated that they experienced receiving support on the bench through the problem solving therapy approach as helpful. The Shona word *njodzi* (trauma) was understood as a circumscribed event but also as an ongoing stressor such

as generational poverty, chronic illness and inadequate medical care that people in Zimbabwe and other LMIC were frequently exposed to. The LHWs described PTSD as *kufungisisa kwenjodzi* (thinking excessively due to trauma) and treated it as a more severe form of CMD (*kufungisisa*). The clients described trauma experiences often as HIV-related and of an interpersonal nature. They found being counseled by the FB LHWs to be extremely beneficial, pointing out the core competencies displayed by LHWs such as empathy, listening skills, understanding and acceptance (Verhey, in press).

3. The validation of a user-friendly and internationally recognized diagnostic tool highlights the importance of assessing psychometric properties of screening tools within different cultural settings. The PCL-5 had not been validated in a PHC population in Zimbabwe before. It showed good internal consistency (Cronbach's alpha = 0.92) as well as good sensitivity and specificity of 74.5% (95%CI: 60.4-85.7) and 70.6% (95%CI: 62.7-77.7), respectively.

This study showed that it is feasible to validate an internationally developed tool in our setting. The PCL-5 becomes the first tool validated in Zimbabwe for detecting people with probable PTSD. It will facilitate further epidemiological and intervention studies to be carried out in Zimbabwe and regionally.

4. Understanding the factors commonly associated with PTSD in PHC users was critical as this informed the researchers on key areas which included interpersonal violence. Therefore, patients presenting with IPV should be given attention as they are likely to have comorbid PTSD and CMD.

5. Assessing the psychological morbidity amongst the LHWs provided the FB's first baseline data on the psychological burden imposed on the LHWs as they carry out their work on the FB and in their communities. The low morbidity of both PTSD and depression and anxiety should encourage further exploration of the feasibility and appropriateness of LHWs delivering a common elements approach intervention within the context of the FB program. Additionally, it is recommended to undertake further studies to understand the unusually low prevalence of PTSD and other CMDs in the FB counselors.

Collectively, CMDs, which include depression, anxiety disorders and PTSD, are among the leading causes of disability worldwide (2) and are especially prevalent in high HIV settings (3). A recent survey of primary care facility (PHC) users, which formed part of this thesis, revealed a high HIV prevalence of 40.7% of PTSD and 40.9% of CMD, respectively (Verhey, in print). The prevalence was measured with locally validated tools; the PCL-5 (4) and the SSQ-14 (5). The PCL-5 was specifically validated through a rigorous method that included input from the lay health workers working on the Friendship Bench (FB) as part of this thesis.

Despite the prevalence for CMD being high globally, it is estimated that less than one third of individuals in the USA and Europe and less than one fifth in low- and middle-income countries (LMIC) receive treatment for these treatable psychiatric disorders (6-8). A review of the literature, on psychological interventions aimed at posttraumatic stress disorder (PTSD) for PLWH yielded no intervention from low and middle-income countries (LMIC). Most studies that met the study inclusion criteria were undertaken in resource-poor settings in high-income countries (HIC) using highly qualified delivering agents (1), emphasizing the need for rigorously evaluated, feasible, culturally acceptable and accessible task-shifted interventions for LMIC. This thesis seeks to contribute to the body of knowledge on the subject.

7.1) Lay Health Workers to narrow the treatment gap

The locally developed Friendship Bench (FB) intervention has contributed significantly towards narrowing the treatment gap for CMD in Zimbabwe using a task-shifting approach which was recently scaled up to more than 70 clinics in 3 cities (9). The Friendship Bench is a cognitive behavioural therapy (CBT)-based intervention delivered by elderly female lay health workers (LHWs) referred to as grandmothers within their communities. In Zimbabwe, CMD are conceptualized as '*kufungisisa*' (thinking too much) or '*kufungisisa kwenjodzi*' (excessive thinking due to trauma) in the local language Shona.

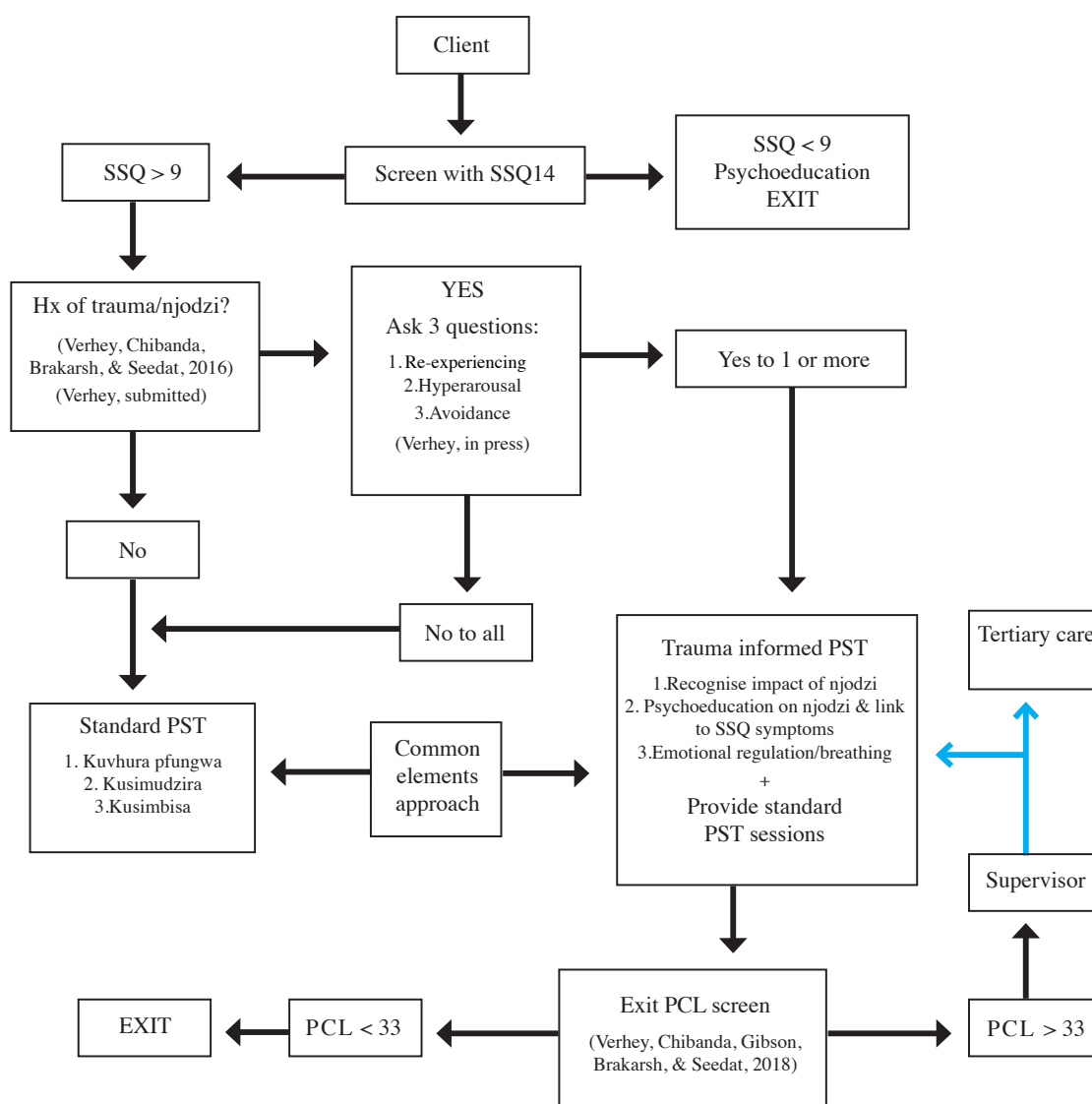
This task-shifting approach of using LHWs or community health workers (CHWs) to address CMD in a collaborative stepped health care model has witnessed growth and acceptance worldwide (10-13). The use of LHWs allows referral strategies to be used economically and efficiently and offers the possibility of a wider range of services being made available to underserved or hard to reach populations, especially in low resource and rural settings (14). With effective training, ongoing supervision and financial incentives, as well as integration in community and local health systems, LHWs' performance is enhanced and contributes efficiently to narrowing the treatment gap (15).

The work carried out through the Friendship Bench has placed great emphasis on the provision of a thorough and manualized training in problem solving therapy (PST) and a strong supervision structure combined with a structured referral system. However, despite this rigorous approach the LHWs working on the FB were not aware of the DSM-5 condition PTSD. Interestingly, this thesis found that they were still able to capture salient features of PTSD, such as avoidance, re-experiencing (i.e. flashbacks), hyper-arousal and negative thought patterns such as self-blame (Verhey, in press), in the face of a traumatic life event suggesting that they had integrated this phenomenon in their

work. With no prior knowledge of PTSD, the grandmothers coined this phenomenon as ‘*kufungisisa kwenjodzi*’ (thinking excessively due to trauma). Through the lens of ‘*kufungisisa kwenjodzi*’ the FB LHWs have managed to incorporate their clients’ reports of traumatic experiences (‘*njodzi*’) into the existing CMD framework by treating it as a more severe form of ‘*kufungisisa*’ (Verhey, in press).

As found in earlier studies by Murray et al. (16) the approach utilized by the LHWs is consistent with a common elements approach. Based on our findings from the LHWs’ perspective and feedback from clients, a need for a trauma-informed PST would be feasible. It would be integrated into the existing FB program that has been scaled up across Zimbabwe and other parts of the world (Malawi, New York City, and starting soon in Zanzibar and Liberia). A conceptual framework based on the synthesis of this body of research could describe the integration of PTSD-related symptoms as outlined in figure 1.

Figure1. Algorithm for integrating a trauma informed PST for the Friendship Bench



7.2) Lay health workers' psychological health

Given the high probable prevalence of PTSD, depression and anxiety amongst PHC users, and studies showing a high prevalence of secondary traumatization and compassion fatigue amongst health care workers (17, 18), the emotional well-being of the FB grandmothers was an added focus of this thesis. In a survey of 182 FB LHWs, probable PTSD as measured with the PCL-5 (cut-off score ≥ 33) was found in only 6% of participants (grandmothers) while depression and anxiety prevalence, based on the SSQ-14 (cut-off score ≥ 9), was 11% (Verhey, submitted). While it is not clear why this particular group of LHWs have such low rates in comparison to the PHC users, we hypothesize that the FB LHWs have high levels of resilience despite living in the same environment and being exposed to the same stressors as their clients. Some possible explanations to this include benefits of LHWs such as being well respected and seen as a source of wisdom in their communities. The regular peer support meetings that they hold to assist each other with challenging cases coming to the FB and a general group cohesiveness which has formed around their work on the FB is also likely to contribute. Ongoing support and continuous education for the LHWs form part of the FB approach.

Furthermore, the LHWs reported a sense of fulfillment in being able to care for and effectively help community members in need of support as reflected in chapter 3. There is a growing body of research on altruism (19, 20) which would need to be further considered in the LHWs involved with FB. A positive finding among the LHWs was a much lower prevalence of HIV (9.3%) compared to their clients (44.6%) (Verhey, in press). However, they did show a high prevalence of other chronic illness (70.9%) although this was not significantly associated with CMD or specifically chronic illness-related PTSD.

A critical issue that arises is whether LHWs will manage to incorporate a trauma informed care package as described in figure 1. Despite this uncertainty, the FB LHWs are arguably appropriate and acceptable delivery agents for a trauma-informed intervention in poor resourced country such as Zimbabwe.

One possible approach, based on this thesis, could be for the LHWs to probe for exposure to one/or more traumatic event(s). If this question were answered positively (figure 1), the LHWs would explore the clients' experiences further. The LHWs could establish criterion A verbally after being trained to recognize events that are life-threatening. LHWs could then proceed to inquire about re-experiencing, avoidance and hyper-arousal through asking these questions:

1. Do you re-experience what happened to you in flashbacks or recurrent nightmares?
2. Do you avoid thinking or talking about or being reminded of what happened to you?
3. Are you easily startled and highly anxious and alert?

If one or more were answered positively, the LHWs would integrate the trauma-informed approach as described below into the standard FB sessions on the bench and could refer to a higher cadre for diagnosis if there is a significant level of disturbance.

The next step after this thesis work is to pilot this PTSD-informed package based on figure 1. This would then be followed by scaling it up to all the FB sites in the country once it is found to be feasible and acceptable.

Our results show that PHC facility users most commonly reported traumatic events such as interpersonal violence, any other very stressful event or experience, sudden and unexpected death of someone who was close to them as well as illness and severe human suffering, according to the Life Events Checklist for DSM-5 (LEC-5) (21). These findings are consistent with earlier work on the FB that showed a high rate of interpersonal violence (IPV), which is a topic that has not been thoroughly addressed through the FB program.

7.3) Rumination and PTSD

This thesis shows that FB LHWs recognize their clients' trauma symptomatology as equivalent to 'rumination' (compare *'kufungisisa kwenjodzi'* = thinking excessively due to trauma). Rumination is understood as consecutive thoughts about an event, its cause and consequences, as well as the person's role in and meaning of the event over a long period of time in which the thinking person often describes her/himself as unable to stop (22, 23). The aim of rumination is described as wanting to create understanding and finding solutions to the problems the worrying person is facing (24). This over-thinking is actually found as impeding successful problem-solving (25) and can be seen as a maladaptive coping strategy (26). Negative self-appraisal in individuals with self-esteem instability contributes to PTSD symptomatology (27).

Ruminating about the traumatic event is differentiated from the re-experiencing of the event(s) that happens in intrusive memories, such as flashbacks as part of the diagnostic criteria in DSM-5 (APA, 2013). The more rumination a client describes, the greater the symptom severity generally found (28). Rumination is more present in clients with PTSD and comorbid depression than in clients with PTSD symptomatology only (29). Thinking too much (*'kufungisisa'*) can thus be seen as maintaining the symptoms of PTSD and depression. Furthermore, maladaptive coping such as self-blame as part of trauma-related guilt is seen to lead to the use of avoidance behavior and substance use (30). Maladaptive coping is associated with the experience of childhood trauma (30, 31).

Interventions targeting PTSD should address the ‘thinking too much’/rumination, trauma-related guilt, dysregulated emotional and cognitive reactions and help clients learn how to accept and modulate these. This is in line with the adjusted criteria for PTSD in DSM-5 that acknowledges negative alterations in cognitions with regards to the traumatic experience and is also reflected in the new ICD-11 in which the additional set of criteria around self-organization warrant a diagnosis of complex PTSD. The LHWs approach to work with their clients on problem solving skills and emotional regulation skills is therefore an acceptable non-trauma-processing intervention component and feasible for them.

7.4) Modifying the current PST to a trauma-informed approach

The CBT-based PST approach of the Friendship Bench Intervention could offer a successful intervention for both CMD and PTSD by incorporating an affect-regulation component to alleviate clients’ stress experience. Learning affect regulation skills is seen as a main non-trauma-processing intervention aim in people suffering from PTSD. Affect regulation-based approaches such as learning to recognize and accept negative emotional states and their impact on body and cognitions, learning to modulate them with the help of breathing or meditative exercises as well as eliciting positive emotions and memories are helpful to reduce PTSD symptomatology and are part of most trauma-focused therapies (32-35). Non-judgmental and present-centered acceptance of emotions, thoughts and sensations within a Mindfulness approach have also been found to lower depression symptomatology by increasing positive reappraisal (36-38).

FB LHWs are already including some of these aspects in their counseling work and can be trained going forward to use non-trauma-processing interventions in a more structured way. This could be a potentially viable pathway to bring trauma-informed care to low resource settings using a task-shifting approach (39).

As such, based on the findings of this thesis, the FB has commenced formative work on how best to incorporate a trauma-informed component into the existing program. As it stands, the FB intervention places emphasis on the interpersonal contact between counselor and client, creating a sense of care and safety for the person seeking support. The approachability of LHWs even outside the clinic setting makes them easily accessible for members of the community. It allows for the building of a long-term supportive relationship for those who are exposed to cumulative trauma as is common in the Zimbabwean setting. A clear referral pathway supports LHWs in dealing with severe cases. This further supports the feasibility of a trauma-informed approach within the FB program.

7.5) Limitations

The study was carried out in an urban primary health care setting and does therefore not consist of a representative population sample of Zimbabwe. The rural areas of Zimbabwe have to be taken into account in future research.

The majority of the surveys' participants were female (85.3% of primary health care users and 100% LHWs). The lack of male participants and their experience needs to be addressed in future research. This implies finding feasible ways to reach the male population as the majority of them do not visit PHC facilities.

Screening for PTSD using the PCL-5 might not be as easily carried out by LHWs with criteria A (exposure to actual or threatened death, serious injury, or sexual violence) having to be established (using the LEC-5) and the client having to indicate which traumatic event they refer to when answering the questionnaire. Furthermore, the 5-point answer scale is more complicated to use than a dichotomous yes-no answer scale as used in the SSQ-14. The PCL-5 should therefore be administered by a higher cadre health professional upon referral from the LHWs.

As we have found that self-administration of psychometric tools is difficult due to literacy issues or, if administered via computer, unfamiliarity with technology, we chose to have trained research assistants administer the questionnaires used in this study. This could introduce a potential screening bias. Audio computer-assisted self-interviewing (ACASI) offers a possibility to address this issue and would facilitate an integrated mental health assessment on PHC level (40, 41).

7.6) Recommendations

Various task-shifting interventions are currently addressing mental health needs of PHC users presenting with CMD in low resource settings such as in Uganda (42, 43), India (44), Pakistan (45) and work by Seedat has highlighted the burden due to PTSD on the female population in South Africa (46). This study adds to the literature on PTSD in Zimbabwe and beyond on how to integrate a trauma-informed approach in an existing psychological intervention. PTSD and especially HIV-related PTSD should be included in a mental health care package that is delivered at PHC level so that beneficiaries receive best practice care.

The findings of this thesis document indicate that it is necessary, and feasible to include a package of care for PTSD through the training of LHWs within the existing health care structures. Future research should look into how LHWs are able to shift the focus from a CMD-focused therapy approach

to trauma-informed FB counseling. PTSD should be included as part of the routinely available packages of care in Zimbabwe because of its high comorbidity with depression and anxiety. LHWs should be empowered with the basic skills required to identify the core symptoms of PTSD and how to incorporate a trauma-informed care program in the management plan.

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Appendix A

SSQ-14 • English Version

Please answer these questions thinking about the LAST WEEK.		
Question	Yes	No
There were times in which I was thinking deeply or thinking about many things.		
I found myself sometimes failing to concentrate.		
I lost my temper or got annoyed over trivial matters.		
I had nightmares or bad dreams.		
I sometimes saw or heard things which others could not see or hear.		
My stomach was aching.		
I was frightened by trivial things.		
I sometimes failed to sleep or lost sleep .		
There were moments when I felt life was so tough that I cried or wanted to cry.		
I felt run down (tired).		
At times I felt like committing suicide.		
I was generally unhappy with things that I would be doing each day.		
My work was lagging behind.		
I felt I had problems in deciding what to do.		

Appendix B

SSQ-14 • Shona Version

Mibvunzo inotevera inoda kuti mufunge nezvamainzwa mu SVONDO RAPFUURA		
	Hongu	Kwete
Pane pandaimboona ndichinyanya kufungisisa kana kufunga zvakawanda.		
Pane pandaimbotadza kuisa pfungwa dzangu pamwechete.		
Pane pandaimboshatirwa kana kuita hasha zvenhando.		
Pane pandaimborota hope dzinotyisa kana dzisina kunaka.		
Pane pandaimboona kana kunzwa zvinhu zvaisaonekwa kana kunzwikwa nevamwe.		
Pane pandaimborwadziwa nemudumbu.		
Pane pandaimbovhundutswa nezvinhu zvisina mature.		
Pane pandaimbotadza kurara kana pandaishaiwa hope.		
Pane pandaimbonzwa kuomerwa neupenyu zvekuti ndaimbochema kana kunzwa kuda kuchema.		
Pane pandaimbonzwa kuneta.		
Pane pandaimboita pfungwa dzekuda kuzviuraya.		
Ndaisafara nezvinhu zvandaiita zuva nezuva.		
Basa rangu rainge rava kusarira mumashure.		
Ndainzwa zvichindiomera kuti ndizive kuti ndoita zvipi.		

Appendix C

PCL-5 • English Version

LEC-5

PART 1: Listed below are a number of difficult or stressful things that sometimes happen to people. For each event please check one or more of the boxes to the right to indicate that: (a) it ***happened to you*** personally; (b) you ***witnessed it*** happen to someone else; (c) you ***learned about it*** happening to a close family member or close friend; (d) you were exposed to it as ***part of your job*** (for example, paramedic, police, military, or other first responder); or (e) you're ***not sure*** if it fits.

Be sure to consider your ***entire life*** (growing up as well as adulthood) as you go through the list of events.

<i>Event</i>	<i>Happened to me</i>	<i>Witnessed it</i>	<i>Learned about it</i>	<i>Part of my job</i>	<i>Not Sure</i>
1. Natural disaster (for example, flood, hurricane, tornado, earthquake)					
2. Fire or explosion					
3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)					
4. Serious accident at work, home, or during recreational activity					
5. Exposure to toxic substance (for example, dangerous chemicals, radiation)					
6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)					
7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)					
8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)					
9. Other unwanted or uncomfortable sexual experience					
10. Combat or exposure to a war-zone (in the military or as a civilian)					
11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)					
12. Life-threatening illness or injury					
13. Severe human suffering					
14. Sudden, violent death (for example, homicide, suicide)					
15. Sudden, unexpected death of someone close to you					
16. Serious injury, harm, or death you caused to someone else					
17. Any other very stressful event or experience					

PLEASE COMPLETE PART 2 ON THE FOLLOWING PAGE

PART 2:

A. If you checked anything for #17 in PART 1, briefly identify the event you were thinking of:

B. If you have experienced more than one of the events in PART 1, think about the event you consider the *worst event*, which for this questionnaire means the event that currently bothers you the most. If you have experienced only one of the events in PART 1, use that one as the worst event. Please answer the following questions about the worst event (*check all options that apply*):

1. Briefly describe the worst event (*for example, what happened, who was involved, etc.*).

2. How long ago did it happen? _____

3. How did you experience it?

___ *It happened to me directly*

___ *I witnessed it*

___ *I learned about it happening to a close family member or close friend*

___ *I was repeatedly exposed to details about it as part of my job (for example, paramedic, police, military, or other first responder)*

___ *Other, please describe:*

4. Was someone's life in danger?

___ *Yes, my life*

___ *Yes, someone else's life*

___ *No*

5. Was someone seriously injured or killed?

___ *Yes, I was seriously injured*

___ *Yes, someone else was seriously injured or killed*

___ *No*

6. Did it involve sexual violence? ___ Yes ___ No

7. If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

___ *Accident or violence*

___ *Natural causes*

___ *Not applicable (The event did not involve the death of a close family member or close friend)*

8. How many times altogether have you experienced a similar event as stressful or nearly as stressful as the worst event?

___ *Just once*

___ *More than once (total # of times _____)*

PLEASE COMPLETE PART 3 ON THE FOLLOWING PAGE

Part 3: Below is a list of problems that people sometimes have in response to a very stressful experience. Keeping your worst event in mind, please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

<i>In the past month, how much were you bothered by:</i>	<i>Not at all</i>	<i>A little bit</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>
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 (<i>as if you were actually back there reliving it</i>)?	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 (<i>for example, heart pounding, trouble breathing, sweating</i>)?	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 (<i>for example, people, places, conversations, activities, objects, or situations</i>)?	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 (<i>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</i>)?	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 (<i>for example, being unable to feel happiness or have loving feelings for people close to you</i>)?	0	1	2	3	4
15. Irritable behavior, 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

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Appendix D

PCL-5 • Shona Version

LEC-5

Chikamu chekutanga: Pazasi pakanyorwa zvinhu zvakasiyanasiyana zvinogona kunetsa kana kushungurudzwa zvinogona kusanganikwa nevanhu dzimwe dzenguva. Pane chiiitiko chese chakanyorwa, ratidza neku....mubhokisi ririkurudyi, rimwe chete kana akawanda, zvichienderana nezvakaitika, uchiratidza kuti (a) zvakaitika kwauri pachako; (b) wakaona zvichiitika kune umwe munhu; (c) wakanzwa kuti zvakaitika kuhama kana shamwari yepedyo;(d)wakasanganidzana nazvo sezvimwe zvebasa rako raunoshanda (semabasa akafanana ne,chipurisa, chiuto, kana rimwe basa zvaro rinotanga kunobatsira pane njodzi inenge yaitika);kana kuti (e) hausi kunyatsonzwisisa kuti zvinopindirana here.

Yedza kurangarira hupenyu hwako hwese (kubva pahudiki kusvika wakura) paunenge uchiongorora zvitiko zvakanyorwa izvi.

<i>Event Chiitiko</i>	<i>Happened to meZvakaitika kwandiri</i>	<i>Witnessed it ndakaona/ndakapupura zvichiitika</i>	<i>Learned about it Ndakanzwa nezvavo</i>	<i>Part of my job Ndoozvi mwe zvinowanikwa mubasa</i>	<i>Not Sure Handina chokwadi</i>
1. Njodzi dzaMwari (muenzaniso we murove, mhopo huru inoparadza, kundengendeka kwenyika)					
2. Moto kana kuputika kwebhomba					
3. Njodzi (muenzaniso wenjodzi dzemotokari, zvikepe, zvitima kana ndege)					
4. Njodzi huru dzekumabasa, kumba kana dzinoitika nguva dzemafaro					
5. Kusanganidzana nezvinhu zvinokuvadza muenzaniso wemishonga inokuvadza kana mirazvo yeradiation)					
6. Kurwiswa (muenzaniso weku..., kurohwa nembama, kukaviwa)					
7. Kurohwa/kurwiswa nezvinhu(muenzaniso, kupfurwa nepfuti, kubaiwa kana kutyisisidzirwa nebanga kanabhomba)					
8. Zvepabonde (muenzaniso, kubatwa chibharo, kupotsa wabatwa chibharo wozopukunyuka, kumanikidzwa kuita zvepabonde uchiita zvekutyisisidzirwa kuti ukaramba unokuvadzwa)					
9. Zvimwe zviitiko zvepabonde zvakaitwa usingade kana kuti zvawanga usina kunyatsosununguka nazvo					
10. Mauto kana kusanganidzana nehondo(uri muchiuto kana kuti uri munhuwo zvake)					
11. Kubatwa hunhapwa (muenzaniso,)					
12. Hurwere kana kukuvara kwadzama zvekuva njodzi kuuhupenyu					

13. Kutambudzika kwevanhu kwakanyanyisisa					
14. Rufu rwunongoitika chiriporipotyo muenzaniso, kupondwa, kuzvisungirira)					
15. Rufu rusingatarisirwi rwakaitika chiriporipotyo rwemunhu aripedyo newe					
16. Kukuwadza kana rufu rwawakakonzeresa kune mumwe munhu					
16. Zvimwewo zvinoshungurudza zvakaitika kana zvawakasanga nazvo					

ZADZISA CHIKAMU CHEPIRI CHIRI PAPEJI INOTEVERA

CHIKAMU CHECHIPIRI

A. Kana wanyora panhamba 17 muchikamu chekutanga, tsanangura muchidimbu chiitiko ichochi chawanga uchifunga

B. Kana wakasangana nezvinhu zvinodarika chimwe chete muchikamu chekutanga, sarudza chiitiko chimwe chete chaunitora sechakaipa/chinotyisa/chinoshungurudza kudarika zvimwe, uye pamibvunzo inotevera, zvinoreva kuti chiitiko ichi chichiri kukunetsa kudarika zvimwe. Kana wakangosanganidzana nechitiko chimwe chete badzi muchikamu chekutanga, tora ichocho sechitiko chakaipisis/chinotyisa/chinoshungurudza.

1. Chipindura mibvunzo inotevera maererano nechitiko chakaipisisa/chinotyisa/chinoshungurudza kudarika zvimwe (Muenzaniso, chii chakaitika, ndiani aivepo/akanga ari mukatiwo, nezvimwewo).

2. Zvakaitika kare zvakadiyi? _____

3. wakasanganidzana nazvo sei??

____ Zvakaitika kwandiri

____ Ndakaona/Ndakapupura zvichiitika

____ Ndakanzwa kuti zvakaitika kuhama kana shamwari yepedyo

____ Ndakasanganidzana nazvo kakawanda serimwe rebasa rangu (muenzaniso-..., muchiuto, muchipurisa, mubasa revanotanga kudaidzwa kana paita njodzi)

____ describe:Zvimwewo, tsanangura:

4. pane hupenyu hwe munhu wakange huri munjodzi here?

____ Hongu, hupenyu hwangu

____ Hongu, hupenyu hwemumwe munhu

____ Kwete

5. Pane akakuvara zvakanyanya here kana kufa?

____ Hongu, ndakakuvara zvakanyanya

____ Hongu, pane mumwe akakuvara zvakanyanya kana kufa

____ Kwete

6. Zvaisanganisira kushungurudzwa/kumanikidzwa kwepabonde here? _____ Hongu _____ Kwete

7. Kana chiitiko ichi chaisanganisira rufu rwehama kana shamwari yepedyo, zvakakonzerwa nenjodzi here, kurwiswa kana kuti nezviitiko zvaNyadenga zvinoongouya?

_____ Njodzi kana kurwisana

_____ Zviitiko zvaNyadenga zvinongouya

_____ Hapana mhinduro (Chiitiko change chisinganganisiri hama kana shamwari yepedyo)

8. Kangani ukabatanidza zvese zvakaitika, kangangani kawakasanganidzana nezviitiko zvinoshungurudza/zvinotyisasechiitiko ichochi chawasarudza?

_____ Kamwe chete

_____ Kanodarika kamwe(nyora kuti zvakaitika kangani _____)

ZADZISA CHIKAMU CHETATU CHINOTEVERA

CHIKAMU CHETATU: Pazasi pakanyorwa matambudziko anogona kusanganikwa nawo nevanhu mushure mekunge vasangana nezvinhu zvinoshungurudza. Ramba uchifunga nezvedambudziko riya rawambotaura kuti ndiro rakanyanyinyisa/rinonyanyoshungurudza/rinonyanyotyisa, woverenga dambudziko rega rega, wobva watenderedza nhamba imwe chete inotaridza kuti dambudziko iri ranga richikushungurudza/richikunetsa zvakadiyi mumwedzi wapfuura.

<i>Mumwedzi wapfuura, wakanetswa zvakadiyi ne:</i>	<i>Kwete</i>	<i>Zvisho ma</i>	<i>Zviripakati nepakati</i>	<i>zvisho mawo</i>	<i>Zvakanyanya</i>
1. Pfungwa dzinoramba dzichiuya kakawanda, dzinokanganisa, dzechiitiko chonotyisa/chinoshungurudza ichi	0	1	2	3	4
2. Hope (zviroto) dzinoramba dzichiuya kakawanda, dzinokanganisa, dzechiitiko chonotyisa/chinoshungurudza ichi	0	1	2	3	4
3. Kungoerekana wave kunzwa kana kutoita sekunge chitiko chinoshungurudza ichi chavekutoitika zvakare (kuita sekunge wadzokera kuya kwazvakaitika, wave kuzvirarama zvakare)	0	1	2	3	4
4. Kunzwa kusagadzikana/kutsamwa kana pakaita chinokufungisa nezvechiitiko chinoshungurudza/chinotyisa ichi?	0	1	2	3	4
5. Kunzwa paine zvinotoitika pamuviri wako kana paine chakurangaridza nezvechiitiko chinotyisa/chinoshungurudza ichi (muenzaniso, hana kurova, kunetseka kufema, kudikitira)	0	1	2	3	4
6. Kuedza kunzvenga ndangariro, pfungwa kana zvaunonzwa zvinoenderana nechitiko chinoshungurudza/chinotyisa ichi?	0	1	2	3	4
7. kuedza kunzvenga zvinhu zvinokurangaridza nezvechiitiko chinotyisa/chinoshungurudza ichi (muenzaniso, vanhu, nzvimbo, nyaya, zviitiko, zvinhu ...)	0	1	2	3	4
8. Kunetseka kurangarira zvidimbu zvechiitiko ichi zvakanosha?	0	1	2	3	4
9. Kunzwa uchifunga zvisina kunaka zvakananyanya pamusoro pako, pevammwe vanhu kana kuti penyika ino (muenzaniso, pfungwa dzakafanana nekuti: ndiri munhu akaipa, pane chinhu ckakanganisika pandiri, hapana munhu waunogona kuvimbwa naye, nyika ino izere nenjodzi)?	0	1	2	3	4
10. Kuzvipa mhaka, kana kupamumwe munhu mhaka pamusoro pechiitiko ichochi chakaitika kana kuti zvakanosha mumashure macho?	0	1	2	3	4
11. Kunzwa kutya, kuzvipomera mhaka, hansha kana nyadzi kwakananyanya?	0	1	2	3	4
12. Kushaya kufarira zvinhu zvaisimbokufadza?	0	1	2	3	4
13. Kunzwa uri kure nevamwe vanhu?	0	1	2	3	4
14. Kunetseka pafadzwa nezvinhu (muenzaniso, kunetseka kuwana mufaro kana kuve nerudo kune vanhu vari padyo newe)	0	1	2	3	4
15. Kushatiriswa/kutsamwisa nezvinhu zvidiki, kana kuita zvinhu zvehasha?	0	1	2	3	4
16. Kuita zvinhu zvinokuisa panjodzi kana zvinogona kukuvadza?	0	1	2	3	4

17. Kunzwa wakarindira njodzi zvakanyaya?	0	1	2	3	4
18. kunzwa uchingovhundutswa vhundutswa nezvinhu zvenhando?	0	1	2	3	4
19. Kunetseka kuisa pfungwa dzako pamwe chete pane zvaunenge uchiita?	0	1	2	3	4
20. Kunetseka kubatwa nehope kana kuramba wakarara?	0	1	2	3	4

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Appendix E

CAPS-5 • English Version

CAPS Page 1

National Center for PTSD
CLINICIAN-ADMINISTERED PTSD SCALE FOR DSM-5
PAST MONTH VERSION

Name: _____ ID#: _____
Interviewer: _____ Date: _____
Study: _____

NOTE: THIS IS A DRAFT VERSION CURRENTLY UNDERGOING PSYCHOMETRIC EVALUATION

PLEASE DO NOT USE OR DISTRIBUTE WITHOUT PERMISSION FROM THE FIRST AUTHOR (email: weathfw@auburn.edu)

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National Center for Posttraumatic Stress Disorder
August 12, 2013

Instructions

Standard administration and scoring of the CAPS-5 are essential for producing reliable and valid scores and diagnostic decisions. The CAPS-5 should be administered only by qualified interviewers who have formal training in structured clinical interviewing and differential diagnosis, a thorough understanding of the conceptual basis of PTSD and its various symptoms, and detailed knowledge of the features and conventions of the CAPS-5 itself.

Administration

1. Identify an index traumatic event to serve as the basis for symptom inquiry. Administer the Life Events Checklist and Criterion A inquiry provided on p. 5, or use some other structured, evidence-based method. The index event may involve either a single incident (e.g., “the accident”) or multiple, closely related incidents (e.g., “the worst parts of your combat experiences”).
2. Read prompts verbatim, one at a time, and in the order presented, EXCEPT:
 - a. Use the respondent’s own words for labeling the index event or describing specific symptoms.
 - b. Rephrase standard prompts to acknowledge previously reported information, but return to verbatim phrasing as soon as possible. For example, inquiry for item 20 might begin: “You already mentioned having problems sleeping. What kinds of problems?”
 - c. If you don’t have sufficient information after exhausting all standard prompts, follow up ad lib. In this situation, repeating the initial prompt often helps refocus the respondent.
 - d. As needed, ask for specific examples or direct the respondent to elaborate even when such prompts are not provided explicitly.
3. In general, DO NOT suggest responses. If a respondent has pronounced difficulty understanding a prompt it may be necessary to offer a brief example to clarify and illustrate. However, this should be done rarely and only after the respondent has been given ample opportunity to answer spontaneously.
4. DO NOT read rating scale anchors to the respondent. They are intended only for you, the interviewer, because appropriate use requires clinical judgment and a thorough understanding of CAPS-5 scoring conventions.
5. Move through the interview as efficiently as possible to minimize respondent burden. Some useful strategies:
 - a. Be thoroughly familiar with the CAPS-5 so that prompts flow smoothly.
 - b. Ask the fewest number of prompts needed to obtain sufficient information to support a valid rating.
 - c. Minimize note-taking and write while the respondent is talking to avoid long pauses.
 - d. Take charge of the interview. Be respectful but firm in keeping the respondent on task, transitioning between questions, pressing for examples, or pointing out contradictions.

Scoring

1. CAPS-5 symptom severity ratings are based on combined ratings of symptom frequency and intensity, except for items 8 (amnesia) and 12 (diminished interest), which are based on amount and intensity. Depending on the item, frequency is rated as either the number of occurrences (how often in the past month) or percent of time (how much of the time in the past month). Intensity is rated on a four-point ordinal scale with ratings of *Minimal*, *Clearly Present*, *Pronounced*, and *Extreme*.

2. The five-point CAPS-5 symptom severity rating scale is used for all symptoms. Rating scale anchors should be interpreted and used as follows:
- 0 Absent** The respondent denied the problem or the respondent's report doesn't fit the DSM-5 symptom criterion.
 - 1 Mild / subthreshold** The respondent described a problem that is consistent with the symptom criterion but isn't severe enough to be considered clinically significant. The problem doesn't satisfy the DSM-5 symptom criterion and thus doesn't count toward a PTSD diagnosis.
 - 2 Moderate / threshold** The respondent described a clinically significant problem. The problem satisfies the DSM-5 symptom criterion and thus counts toward a PTSD diagnosis. The problem would be a target for intervention. This rating requires a minimum frequency of *2 X month* or *some of the time (20-30%)* PLUS a minimum intensity of *Clearly Present*.
 - 3 Severe / markedly elevated** The respondent described a problem that is well above threshold. The problem is difficult to manage and at times overwhelming, and would be a prominent target for intervention. This rating requires a minimum frequency of *2 X week* or *much of the time (50-60%)* PLUS a minimum intensity of *Pronounced*.
 - 4 Extreme / incapacitating** The respondent described a dramatic symptom, far above threshold. The problem is pervasive, unmanageable, and overwhelming, and would be a high-priority target for intervention.
3. In general, make a given severity rating only if the minimum frequency and intensity for that rating are both met. However, you may exercise clinical judgment in making a given severity rating if the reported frequency is somewhat lower than required, but the intensity is higher. For example, you may make a severity rating of *Moderate / threshold* if a symptom occurs *1 X month* (instead of the required *2 X month*) as long as intensity is rated *Pronounced* or *Extreme* (instead of the required *Clearly Present*). Similarly, you may make a severity rating of *Severe / markedly elevated* if a symptom occurs *1 X week* (instead of the required *2 X week*) as long as the intensity is rated *Extreme* (instead of the required *Pronounced*). If you are unable to decide between two severity ratings, make the lower rating.
4. You need to establish that a symptom not only meets the DSM-5 criterion phenomenologically, but is also functionally related to the index traumatic event, i.e., started or got worse as a result of the event. CAPS-5 items 1-8 and 10 (reexperiencing, effortful avoidance, amnesia, and blame) are inherently linked to the event. Evaluate the remaining items for trauma-relatedness (TR) using the TR inquiry and rating scale. The three TR ratings are:
- a. **Definite** = the symptom can clearly be attributed to the index trauma, because (1) there is an obvious change from the pre-trauma level of functioning and/or (2) the respondent makes the attribution to the index trauma with confidence.
 - b. **Probable** = the symptom is likely related to the index trauma, but an unequivocal connection can't be made. Situations in which this rating would be given include the following: (1) there seems to be a change from the pre-trauma level of functioning, but it isn't as clear and explicit as it would be for a "definite;" (2) the respondent attributes a causal link between the symptom and the index trauma, but with less confidence than for a rating of *Definite*; (3) there appears to be a functional relationship between the symptom and inherently trauma-linked symptoms such as reexperiencing symptoms (e.g., numbing or withdrawal increases when reexperiencing increases).
 - c. **Unlikely** = the symptom can be attributed to a cause other than the index trauma because (1) there is an obvious functional link with this other cause and/or (2) the respondent makes a confident attribution to this other cause and denies a link to the index trauma. Because it can be difficult to rule out a functional link between a symptom and the index trauma, a rating of *Unlikely* should be used only when the available evidence strongly points to a cause other than the index trauma. NOTE: Symptoms with a TR rating of *Unlikely* should not be counted toward a PTSD diagnosis or included in the total CAPS-5 symptom severity score.

5. **CAPS-5 total symptom severity score** is calculated by summing severity scores for items 1-20. NOTE: Severity scores for the two dissociation items (29 and 30) should NOT be included in the calculation of the total CAPS-5 severity score.
6. **CAPS-5 symptom cluster severity scores** are calculated by summing the individual item severity scores for symptoms contained in a given DSM-5 cluster. Thus, the Criterion B (reexperiencing) severity score is the sum of the individual severity scores for items 1-5; the Criterion C (avoidance) severity score is the sum of items 6 and 7; the Criterion D (negative alterations in cognitions and mood) severity score is the sum of items 8-14; and the Criterion E (hyperarousal) severity score is the sum of items 15-20. A symptom cluster score may also be calculated for dissociation by summing items 29 and 30.
7. **PTSD diagnostic status** is determined by first dichotomizing individual symptoms as “present” or “absent,” then following the DSM-5 diagnostic rule. A symptom is considered present only if the corresponding item severity score is rated $2=$ *Moderate/threshold* or higher. Items 9 and 11-20 have the additional requirement of a trauma-relatedness rating of *Definite* or *Probable*. Otherwise a symptom is considered absent. The DSM-5 diagnostic rule requires the presence of least one Criterion B symptom, one Criterion C symptom, two Criterion D symptoms, and two Criterion E symptoms. In addition, Criteria F and G must be met. Criterion F requires that the disturbance has lasted at least one month. Criterion G requires that the disturbance cause either clinically significant distress or functional impairment, as indicated by a rating of $2=$ *moderate* or higher on items 23-25.

Criterion A: Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). **Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.**

[Administer Life Events Checklist or other structured trauma screen]

I'm going to ask you about the stressful experiences questionnaire you filled out. First I'll ask you to tell me a little bit about the event you said was the worst for you. Then I'll ask how that event may have affected you over the past month. In general I don't need a lot of information – just enough so I can understand any problems you may have had. Please let me know if you find yourself becoming upset as we go through the questions so we can slow down and talk about it. Also, let me know if you have any questions or don't understand something. Do you have any questions before we start?

The event you said was the worst was (EVENT). What I'd like for you to do is briefly describe what happened.

Index event (specify):

<p>What happened? (<i>How old were you? How were you involved? Who else was involved? Was anyone seriously injured or killed? Was anyone's life in danger? How many times did this happen?</i>)</p>	<p><i>Exposure type:</i></p> <p><i>Experienced</i> ____</p> <p><i>Witnessed</i> ____</p> <p><i>Learned about</i> ____</p> <p><i>Exposed to aversive details</i> ____</p> <p><i>Life threat?</i> NO YES [self ____ other ____]</p> <p><i>Serious injury?</i> NO YES [self ____ other ____]</p> <p><i>Sexual violence?</i> NO YES [self ____ other ____]</p> <p><i>Criterion A met?</i> NO PROBABLE YES</p>
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For the rest of the interview, I want you to keep (EVENT) in mind as I ask you about different problems it may have caused you. You may have had some of these problems before, but for this interview we're going to focus just on the past month. For each problem I'll ask if you've had it in the past month, and if so, how often and how much it bothered you.

Criterion B: Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1. (B1) Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

<p>In the past month, have you had any <u>unwanted memories</u> of (EVENT) while you were awake, so not counting dreams? [Rate 0=Absent if only during dreams]</p> <p>How does it happen that you start remembering (EVENT)?</p> <p style="padding-left: 40px;">[[If not clear:] (Are these <u>unwanted memories</u>, or are you thinking about [EVENT] on purpose?) [Rate 0=Absent unless perceived as involuntary and intrusive]</p> <p>How much do these memories bother you?</p> <p>Are you able to put them out of your mind and think about something else?</p> <p><small>Circle: Distress = Minimal Clearly Present Pronounced Extreme</small></p> <p>How often have you had these memories in the past month? # of times _____</p> <hr/> <p><small>Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, some difficulty dismissing memories Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories</small></p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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2. (B2) Recurrent distressing dreams in which the content and/or affect of the dream are related to the event(s). Note: In children, there may be frightening dreams without recognizable content.

<p>In the past month, have you had any <u>unpleasant dreams</u> about (EVENT)?</p> <p>Describe a typical dream. (What happens?)</p> <p style="padding-left: 40px;">[[If not clear:] (Do they wake you up?)</p> <p style="padding-left: 80px;">[[If yes:] (What do you experience when you wake up? How long does it take you to get back to sleep?)</p> <p style="padding-left: 80px;">[[If reports not returning to sleep:] (How much sleep do you lose?)</p> <p>How much do these dreams bother you?</p> <p><small>Circle: Distress = Minimal Clearly Present Pronounced Extreme</small></p> <p>How often have you had these dreams in the past month? # of times _____</p> <hr/> <p><small>Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, less than 1 hour sleep loss Severe = at least 2 X week / pronounced distress, more than 1 hour sleep loss</small></p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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3. (B3) Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Note: In children, trauma-specific reenactment may occur in play.

<p>In the past month, have there been times when you <u>suddenly acted</u> or <u>felt</u> as if (EVENT) were <u>actually happening</u> again?</p> <p style="text-align: center;">[[if not clear:] <i>(This is different than thinking about it or dreaming about it – now I'm asking about flashbacks, when you feel like you're actually back at the time of [EVENT], actually reliving it.)</i></p> <p>How much does it seem as if (EVENT) were happening again? <i>(Are you confused about where you actually are?)</i></p> <p>What do you do while this is happening? <i>(Do other people notice your behavior? What do they say?)</i></p> <p>How long does it last?</p> <p><u>Circle:</u> Dissociation = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often has this happened in the past month? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of dissociation Moderate = at least 2 X month / dissociative quality clearly present, may retain some awareness of surroundings but relives event in a manner clearly distinct from thoughts and memories Severe = at least 2 X week / pronounced dissociative quality, reports vivid reliving, e.g., with images, sounds, smells</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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4. (B4) Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

<p>In the past month, have you gotten <u>emotionally upset</u> when <u>something reminded you</u> of (EVENT)?</p> <p>What kinds of reminders make you upset?</p> <p>How much do these reminders bother you?</p> <p>Are you able to calm yourself down when this happens? <i>(How long does it take?)</i></p> <p><u>Circle:</u> Distress = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often has this happened in the past month? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, some difficulty recovering Severe = at least 2 X week / pronounced distress, considerable difficulty recovering</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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5. (B5) Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

<p>In the past month, have you had any <u>physical reactions</u> when <u>something reminded you of (EVENT)?</u></p> <p>Can you give me some examples? (<i>Does your heart race or your breathing change? What about sweating or feeling really tense or shaky?</i>)</p> <p>What kinds of reminders trigger these reactions?</p> <p>How long does it take you to recover?</p> <p><i>Circle: Physiological reactivity = Minimal Clearly Present Pronounced Extreme</i></p> <p>How often has this happened in the past month? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of physiological arousal Moderate = at least 2 X month / reactivity clearly present, some difficulty recovering Severe = at least 2 X week / pronounced reactivity, sustained arousal, considerable difficulty recovering</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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Criterion C: Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

6. (C1) Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

<p>In the past month, have you tried to <u>avoid thoughts</u> or <u>feelings</u> about (EVENT)?</p> <p>What kinds of thoughts or feelings do you avoid?</p> <p>How hard do you try to avoid these thoughts or feelings? (<i>What kinds of things do you do?</i>)</p> <p><i>Circle: Avoidance = Minimal Clearly Present Pronounced Extreme</i></p> <p>How often in the past month? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of avoidance Moderate = at least 2 X month / avoidance clearly present Severe = at least 2 X week / pronounced avoidance</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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7. (C2) Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

<p>In the past month, have you tried to <u>avoid things</u> that <u>remind you</u> of (EVENT), like certain people, places, or situations?</p> <p>What kinds of things do you avoid?</p> <p>How much effort do you make to avoid these reminders? <i>(Do you have to make a plan or change your activities to avoid them?)</i></p> <p style="text-align: center;">[If not clear:] (Overall, how much of a problem is this for you? How would things be different if you didn't have to avoid these reminders?)</p> <p><u>Circle:</u> Avoidance = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often in the past month? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of avoidance Moderate = at least 2 X month / avoidance clearly present Severe = at least 2 X week / pronounced avoidance</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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Criterion D: Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

8. (D1) Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

<p>In the past month, have you had <u>difficulty remembering</u> some <u>important parts</u> of (EVENT)? <i>(Do you feel there are gaps in your memory of [EVENT]?)</i></p> <p>What parts have you had difficulty remembering?</p> <p>Do you feel you should be able to remember these things?</p> <p style="text-align: center;">[If not clear:] (Why do you think you can't? Did you have a head injury during [EVENT]? Were you knocked unconscious? Were you intoxicated from alcohol or drugs?) [Rate 0=Absent if due to head injury or loss of consciousness or intoxication during event]</p> <p style="text-align: center;">[If still not clear:] (Is this just normal forgetting? Or do you think you may have blocked it out because it would be too painful to remember?) [Rate 0=Absent if due only to normal forgetting]</p> <p><u>Circle:</u> Difficulty remembering = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>In the past month, how many of the important parts of (EVENT) have you had difficulty remembering? <i>(What parts do you still remember?)</i> # of important aspects _____</p> <p>Would you be able to recall these things if you tried?</p> <hr/> <p>Key rating dimensions = amount of event not recalled / intensity of inability to recall Moderate = at least one important aspect / difficulty remembering clearly present, some recall possible with effort Severe = several important aspects / pronounced difficulty remembering, little recall even with effort</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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9. (D2) Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” “The world is completely dangerous,” “My whole nervous system is permanently ruined”).

<p>In the past month, have you had <u>strong negative beliefs</u> about yourself, other people, or the world?</p> <p>Can you give me some examples? (<i>What about believing things like “I am bad,” “there is something seriously wrong with me,” “no one can be trusted,” “the world is completely dangerous”?</i>)</p> <p>How strong are these beliefs? (<i>How convinced are you that these beliefs are actually true? Can you see other ways of thinking about it?</i>)</p> <p><i>Circle: Conviction = Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way? % of time _____</p> <p>Did these beliefs start or get worse after (EVENT)? (<i>Do you think they’re related to [EVENT]? How so?</i>) <i>Circle: Trauma-relatedness = Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of beliefs Moderate = some of the time (20-30%) / exaggerated negative expectations clearly present, some difficulty considering more realistic beliefs Severe = much of the time (50-60%) / pronounced exaggerated negative expectations, considerable difficulty considering more realistic beliefs</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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10. (D3) Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.

<p>In the past month, have you <u>blamed yourself or others</u> for (EVENT) or what happened as a result of it? By others, I don’t mean someone who meant to harm you, but someone you think should have known about (EVENT) or been able to stop it.</p> <p>Tell me more about that. (<i>In what sense do you see [YOURSELF OR OTHERS] as responsible?</i>) [Rate 0=Absent if only blames perpetrator]</p> <p>How strongly do you blame (YOURSELF OR OTHERS)? (<i>How convinced are you that [YOU OR OTHERS] are truly responsible for what happened? Can you see other ways of thinking about it?</i>)</p> <p><i>Circle: Conviction = Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way? % of time _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of blame Moderate = some of the time (20-30%) / distorted blame clearly present, some difficulty considering more realistic beliefs Severe = much of the time (50-60%) / pronounced distorted blame, considerable difficulty considering more realistic beliefs</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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11. (D4) Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).

<p>In the past month, have you had any <u>strong negative feelings</u> such as fear, horror, anger, guilt, or shame?</p> <p>Can you give me some examples? (<i>What negative feelings do you experience?</i>)</p> <p>How strong are these negative feelings?</p> <p>How well are you able to manage them?</p> <p><u>Circle:</u> Negative emotions = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way? % of time _____</p> <p>Did these negative feelings start or get worse after (EVENT)? (<i>Do you think they're related to [EVENT]? How so?</i>) <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of negative emotions Moderate = some of the time (20-30%) / negative emotions clearly present, some difficulty managing Severe = much of the time (50-60%) / pronounced negative emotions, considerable difficulty managing</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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12. (D5) Markedly diminished interest or participation in significant activities.

<p>In the past month, have you been <u>less interested in activities</u> that you used to enjoy?</p> <p>What kinds of things have you lost interest in or don't do as much as you used to? (<i>Anything else?</i>)</p> <p>Why is that? [Rate 0=Absent if diminished participation is due to lack of opportunity, physical inability, or developmentally appropriate change in preferred activities]</p> <p>How strong is your loss of interest? (<i>Would you still enjoy [ACTIVITIES] once you got started?</i>)</p> <p><u>Circle:</u> Loss of interest= <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>Overall, in the past month, how many of your usual activities have you been less interested in? % of activities _____</p> <p>What kinds of things do you still enjoy doing?</p> <p>Did this loss of interest start or get worse after (EVENT)? (<i>Do you think it's related to [EVENT]? How so?</i>) <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = percent of activities affected / intensity of loss of interest Moderate = some activities (20-30%) / loss of interest clearly present but still has some enjoyment of activities Severe = many activities (50-60%) / pronounced loss of interest, little interest or participation in activities</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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13. (D6) Feelings of detachment or estrangement from others.

<p>In the past month, have you felt <u>distant</u> or <u>cut off</u> from other people?</p> <p>Tell me more about that.</p> <p>How strong are your feelings of being distant or cut off from others? (<i>Who do you feel closest to? How many people do you feel comfortable talking with about personal things?</i>)</p> <p><u>Circle:</u> Detachment or estrangement = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way? % of time _____</p> <p>Did this feeling of being distant or cut off start or get worse after (EVENT)? (<i>Do you think it's related to [EVENT]? How so?</i>) <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of detachment or estrangement Moderate = some of the time (20-30%) / feelings of detachment clearly present but still feels some interpersonal connection Severe = much of the time (50-60%) / pronounced feelings of detachment or estrangement from most people, may feel close to only one or two people</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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14. (D7) Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

<p>In the past month, have there been times when you had <u>difficulty experiencing positive feelings</u> like love or happiness?</p> <p>Tell me more about that. (<i>What feelings are difficult to experience?</i>)</p> <p>How much difficulty do you have experiencing positive feelings? (<i>Are you still able to experience any positive feelings?</i>)</p> <p><u>Circle:</u> Reduction of positive emotions = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way? % of time _____</p> <p>Did this trouble experiencing positive feelings start or get worse after (EVENT)? (<i>Do you think it's related to [EVENT]? How so?</i>) <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of reduction in positive emotions Moderate = some of the time (20-30%) / reduction of positive emotional experience clearly present but still able to experience some positive emotions Severe = much of the time (50-60%) / pronounced reduction of experience across range of positive emotions</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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Criterion E: Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

15. (E1) Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.

<p>In the past month, have there been times when you felt especially irritable or angry and showed it in your behavior?</p> <p>Can you give me some examples? <i>(How do you show it? Do you raise your voice or yell? Throw or hit things? Push or hit other people?)</i></p> <p><u>Circle:</u> Aggression = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often in the past month? # of times _____</p> <p>Did this behavior start or get worse after (EVENT)? <i>(Do you think it's related to [EVENT]? How so?)</i> <u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of aggressive behavior Moderate = at least 2 X month / aggression clearly present, primarily verbal Severe = at least 2 X week / pronounced aggression, at least some physical aggression</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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16. (E2) Reckless or self-destructive behavior.

<p>In the past month, have there been times when you were taking more risks or doing things that might have caused you harm?</p> <p>Can you give me some examples?</p> <p>How much of a risk do you take? <i>(How dangerous are these behaviors? Were you injured or harmed in some way?)</i></p> <p><u>Circle:</u> Risk = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often have you taken these kinds of risks in the past month? # of times _____</p> <p>Did this behavior start or get worse after (EVENT)? <i>(Do you think it's related to [EVENT]? How so?)</i> <u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / degree of risk Moderate = at least 2 X month / risk clearly present, may have been harmed Severe = at least 2 X week / pronounced risk, actual harm or high probability of harm</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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17. (E3) Hypervigilance.

<p>In the past month, have you been especially <u>alert</u> or <u>watchful</u>, even when there was no specific threat or danger? <i>(Have you felt as if you had to be on guard?)</i></p> <p>Can you give me some examples? <i>(What kinds of things do you do when you're alert or watchful?)</i></p> <p style="padding-left: 20px;">[If not clear:] <i>(What causes you to react this way? Do you feel like you're in danger or threatened in some way? Do you feel that way more than most people would in the same situation?)</i></p> <p><u>Circle:</u> Hypervigilance = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How much of the time in the past month have you felt that way? % of time _____</p> <p>Did being especially alert or watchful start or get worse after (EVENT)? <i>(Do you think it's related to [EVENT]? How so?)</i> <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of hypervigilance Moderate = some of the time (20-30%) / hypervigilance clearly present, e.g., watchful in public, heightened awareness of threat Severe = much of the time (50-60%) / pronounced hypervigilance, e.g., scans environment for danger, may have safety rituals, exaggerated concern for safety of self/family/home</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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18. (E4) Exaggerated startle response.

<p>In the past month, have you had any <u>strong startle</u> reactions?</p> <p>What kinds of things made you startle?</p> <p>How strong are these startle reactions? <i>(How strong are they compared to how most people would respond? Do you do anything other people would notice?)</i></p> <p>How long does it take you to recover?</p> <p><u>Circle:</u> Startle = <i>Minimal Clearly Present Pronounced Extreme</i></p> <p>How often has this happened in the past month? # of times _____</p> <p>Did these startle reactions start or get worse after (EVENT)? <i>(Do you think they're related to [EVENT]? How so?)</i> <u>Circle:</u> Trauma-relatedness = <i>Definite Probable Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of startle Moderate = at least 2 X month / startle clearly present, some difficulty recovering Severe = at least 2 X week / pronounced startle, sustained arousal, considerable difficulty recovering</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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19. (E5) Problems with concentration.

<p>In the past month, have you had any <u>problems</u> with <u>concentration</u>?</p> <p>Can you give me some examples?</p> <p>Are you able to concentrate if you really try?</p> <p><u>Circle:</u> Problem concentrating = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How much of the time in the past month have you had problems with concentration?</p> <p>% of time _____</p> <p>Did these problems with concentration start or get worse after (EVENT)? (Do you think they're related to [EVENT]? How so?) <u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of concentration problems Moderate = some of the time (20-30%) / problem concentrating clearly present, some difficulty but can concentrate with effort Severe = much of the time (50-60%) / pronounced problem concentrating, considerable difficulty even with effort</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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20. (E6) Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

<p>In the past month, have you had any problems <u>falling</u> or <u>staying</u> asleep?</p> <p>What kinds of problems? (How long does it take you to fall asleep? How often do you wake up in the night? Do you wake up earlier than you want to?)</p> <p>How many total hours do you sleep each night?</p> <p>How many hours do you think you should be sleeping?</p> <p><u>Circle:</u> Problem sleeping = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often in the past month have you had these sleep problems? # of times _____</p> <p>Did these sleep problems start or get worse after (EVENT)? (Do you think they're related to [EVENT]? How so?) <u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of sleep problems Moderate = at least 2 X month / sleep disturbance clearly present, clearly longer latency or clear difficulty staying asleep, 30-90 minutes loss of sleep Severe = at least 2 X week / pronounced sleep disturbance, considerably longer latency or marked difficulty staying asleep, 90 min to 3 hrs loss of sleep</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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Criterion F: Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

21. Onset of symptoms

[If not clear:] When did you first start having (PTSD SYMPTOMS) you've told me about? (How long after the trauma did they start? More than six months?)	Total # months delay in onset _____ With delayed onset (≥ 6 months)? NO YES
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22. Duration of symptoms

[If not clear:] How long have these (PTSD SYMPTOMS) lasted altogether?	Total # months duration _____ Duration more than 1 month? NO YES
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Criterion G: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

23. Subjective distress

Overall, in the past month, how much have you been bothered by these (PTSD SYMPTOMS) you've told me about? [Consider distress reported on earlier items]	0 <i>None</i> 1 <i>Mild, minimal distress</i> 2 <i>Moderate, distress clearly present but still manageable</i> 3 <i>Severe, considerable distress</i> 4 <i>Extreme, incapacitating distress</i>
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24. Impairment in social functioning

In the past month, have these (PTSD SYMPTOMS) affected your relationships with other people? How so? [Consider impairment in social functioning reported on earlier items]	0 <i>No adverse impact</i> 1 <i>Mild impact, minimal impairment in social functioning</i> 2 <i>Moderate impact, definite impairment but many aspects of social functioning still intact</i> 3 <i>Severe impact, marked impairment, few aspects of social functioning still intact</i> 4 <i>Extreme impact, little or no social functioning</i>
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25. Impairment in occupational or other important area of functioning

[If not clear:] Are you working now? [If yes:] In the past month, have these (PTSD SYMPTOMS) affected your work or your ability to work? How so? [Consider reported work history, including number and duration of jobs, as well as the quality of work relationships. If pre-morbid functioning is unclear, inquire about work experiences before the trauma. For child/adolescent trauma, assess pre-trauma school performance and possible presence of behavior problems] [If no:] Have these (PTSD SYMPTOMS) affected any other important part of your life? [As appropriate, suggest examples such as parenting, housework, schoolwork, volunteer work, etc.] How so?	0 <i>No adverse impact</i> 1 <i>Mild impact, minimal impairment in occupational/other important functioning</i> 2 <i>Moderate impact, definite impairment but many aspects of occupational/other important functioning still intact</i> 3 <i>Severe impact, marked impairment, few aspects of occupational/other important functioning still intact</i> 4 <i>Extreme impact, little or no occupational/other important functioning</i>
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Global Ratings

26. Global validity

Estimate the overall validity of responses. Consider factors such as compliance with the interview, mental status (e.g., problems with concentration, comprehension of items, dissociation), and evidence of efforts to exaggerate or minimize symptoms.	0	<i>Excellent, no reason to suspect invalid responses</i>
	1	<i>Good, factors present that may adversely affect validity</i>
	2	<i>Fair, factors present that definitely reduce validity</i>
	3	<i>Poor, substantially reduced validity</i>
	4	<i>Invalid responses, severely impaired mental status or possible deliberate “faking bad” or “faking good”</i>

27. Global severity

Estimate the overall severity of PTSD symptoms. Consider degree of subjective distress, degree of functional impairment, observations of behaviors in interview, and judgment regarding reporting style.	0	<i>No clinically significant symptoms, no distress and no functional impairment</i>
	1	<i>Mild, minimal distress or functional impairment</i>
	2	<i>Moderate, definite distress or functional impairment but functions satisfactorily with effort</i>
	3	<i>Severe, considerable distress or functional impairment, limited functioning even with effort</i>
	4	<i>Extreme, marked distress or marked impairment in two or more major areas of functioning</i>

28. Global improvement

Rate total overall improvement since the previous rating. Rate the degree of change, whether or not, in your judgment, it is due to treatment.	0	<i>Asymptomatic</i>
	1	<i>Considerable improvement</i>
	2	<i>Moderate improvement</i>
	3	<i>Slight improvement</i>
	4	<i>No improvement</i>
	5	<i>Insufficient information</i>

Specify whether with dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

29. (1) Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

<p>In the past month, have there been times when you felt as if you were separated from yourself, like you were watching yourself from the outside or observing your thoughts and feelings as if you were another person?</p> <p style="text-align: center;">[[if no:] (What about feeling as if you were in a dream, even though you were awake? Feeling as if something about you wasn't real? Feeling as if time was moving more slowly?)</p> <p>Tell me more about that.</p> <p>How strong is this feeling? <i>(Do you lose track of where you actually are or what's actually going on?)</i></p> <p>What do you do while this is happening? <i>(Do other people notice your behavior? What do they say?)</i></p> <p>How long does it last?</p> <p><small>Circle: Dissociation = Minimal Clearly Present Pronounced Extreme</small></p> <p style="text-align: center;">[[if not clear:] (Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?) [Rate 0=Absent if due to the effects of a substance or another medical condition]</p> <p>How often has this happened in the past month? # of times _____</p> <hr/> <p><small>Key rating dimensions = frequency / intensity of dissociation Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of self and awareness of environment Severe = at least 2 X week / pronounced dissociative quality, marked sense of detachment and unreality</small></p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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30. (2) Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

<p>In the past month, have there been times when things going on around you seemed unreal or very strange and unfamiliar?</p> <p style="padding-left: 40px;">[If no:] (Do things going on around you seem like a dream or like a scene from a movie? Do they seem distant or distorted?)</p> <p>Tell me more about that.</p> <p>How strong is this feeling? <i>(Do you lose track of where you actually are or what's actually going on?)</i></p> <p>What do you do while this is happening? <i>(Do other people notice your behavior? What do they say?)</i></p> <p>How long does it last?</p> <p><u>Circle:</u> Dissociation = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p style="padding-left: 40px;">[If not clear:] (Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?) [Rate 0=Absent if due to the effects of a substance or another medical condition]</p> <p>How often has this happened in the past month? # of times _____</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
<hr/> <p>Key rating dimensions = frequency / intensity of dissociation Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of environment Severe = at least 2 X week / pronounced dissociative quality, marked sense of unreality</p>	

Appendix F

CAPS-5 • Shona

Version

CAPS Page 1

National Center for PTSD
CLINICIAN-ADMINISTERED PTSD SCALE FOR DSM-5
PAST MONTH VERSION

Name: _____ ID#: _____
Interviewer: _____ Date: _____
Study: _____

NOTE: THIS IS A DRAFT VERSION CURRENTLY UNDERGOING PSYCHOMETRIC EVALUATION

PLEASE DO NOT USE OR DISTRIBUTE WITHOUT PERMISSION FROM THE FIRST AUTHOR (email: weathfw@auburn.edu)

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National Center for Posttraumatic Stress Disorder
August 12, 2013

Instructions

Standard administration and scoring of the CAPS-5 are essential for producing reliable and valid scores and diagnostic decisions. The CAPS-5 should be administered only by qualified interviewers who have formal training in structured clinical interviewing and differential diagnosis, a thorough understanding of the conceptual basis of PTSD and its various symptoms, and detailed knowledge of the features and conventions of the CAPS-5 itself.

Administration

1. Identify an index traumatic event to serve as the basis for symptom inquiry. Administer the Life Events Checklist and Criterion A inquiry provided on p. 5, or use some other structured, evidence-based method. The index event may involve either a single incident (e.g., “the accident”) or multiple, closely related incidents (e.g., “the worst parts of your combat experiences”).
2. Read prompts verbatim, one at a time, and in the order presented, EXCEPT:
 - a. Use the respondent’s own words for labeling the index event or describing specific symptoms.
 - b. Rephrase standard prompts to acknowledge previously reported information, but return to verbatim phrasing as soon as possible. For example, inquiry for item 20 might begin: “You already mentioned having problems sleeping. What kinds of problems?”
 - c. If you don’t have sufficient information after exhausting all standard prompts, follow up ad lib. In this situation, repeating the initial prompt often helps refocus the respondent.
 - d. As needed, ask for specific examples or direct the respondent to elaborate even when such prompts are not provided explicitly.
3. In general, DO NOT suggest responses. If a respondent has pronounced difficulty understanding a prompt it may be necessary to offer a brief example to clarify and illustrate. However, this should be done rarely and only after the respondent has been given ample opportunity to answer spontaneously.
4. DO NOT read rating scale anchors to the respondent. They are intended only for you, the interviewer, because appropriate use requires clinical judgment and a thorough understanding of CAPS-5 scoring conventions.
5. Move through the interview as efficiently as possible to minimize respondent burden. Some useful strategies:
 - a. Be thoroughly familiar with the CAPS-5 so that prompts flow smoothly.
 - b. Ask the fewest number of prompts needed to obtain sufficient information to support a valid rating.
 - c. Minimize note-taking and write while the respondent is talking to avoid long pauses.
 - d. Take charge of the interview. Be respectful but firm in keeping the respondent on task, transitioning between questions, pressing for examples, or pointing out contradictions.

Scoring

1. CAPS-5 symptom severity ratings are based on combined ratings of symptom frequency and intensity, except for items 8 (amnesia) and 12 (diminished interest), which are based on amount and intensity. Depending on the item, frequency is rated as either the number of occurrences (how often in the past month) or percent of time (how much of the time in the past month). Intensity is rated on a four-point ordinal scale with ratings of *Minimal*, *Clearly Present*, *Pronounced*, and *Extreme*.

2. The five-point CAPS-5 symptom severity rating scale is used for all symptoms. Rating scale anchors should be interpreted and used as follows:
- 0 Absent** The respondent denied the problem or the respondent's report doesn't fit the DSM-5 symptom criterion.
 - 1 Mild / subthreshold** The respondent described a problem that is consistent with the symptom criterion but isn't severe enough to be considered clinically significant. The problem doesn't satisfy the DSM-5 symptom criterion and thus doesn't count toward a PTSD diagnosis.
 - 2 Moderate / threshold** The respondent described a clinically significant problem. The problem satisfies the DSM-5 symptom criterion and thus counts toward a PTSD diagnosis. The problem would be a target for intervention. This rating requires a minimum frequency of *2 X month* or *some of the time (20-30%)* PLUS a minimum intensity of *Clearly Present*.
 - 3 Severe / markedly elevated** The respondent described a problem that is well above threshold. The problem is difficult to manage and at times overwhelming, and would be a prominent target for intervention. This rating requires a minimum frequency of *2 X week* or *much of the time (50-60%)* PLUS a minimum intensity of *Pronounced*.
 - 4 Extreme / incapacitating** The respondent described a dramatic symptom, far above threshold. The problem is pervasive, unmanageable, and overwhelming, and would be a high-priority target for intervention.
3. In general, make a given severity rating only if the minimum frequency and intensity for that rating are both met. However, you may exercise clinical judgment in making a given severity rating if the reported frequency is somewhat lower than required, but the intensity is higher. For example, you may make a severity rating of *Moderate / threshold* if a symptom occurs *1 X month* (instead of the required *2 X month*) as long as intensity is rated *Pronounced* or *Extreme* (instead of the required *Clearly Present*). Similarly, you may make a severity rating of *Severe / markedly elevated* if a symptom occurs *1 X week* (instead of the required *2 X week*) as long as the intensity is rated *Extreme* (instead of the required *Pronounced*). If you are unable to decide between two severity ratings, make the lower rating.
4. You need to establish that a symptom not only meets the DSM-5 criterion phenomenologically, but is also functionally related to the index traumatic event, i.e., started or got worse as a result of the event. CAPS-5 items 1-8 and 10 (reexperiencing, effortful avoidance, amnesia, and blame) are inherently linked to the event. Evaluate the remaining items for trauma-relatedness (TR) using the TR inquiry and rating scale. The three TR ratings are:
- a. **Definite** = the symptom can clearly be attributed to the index trauma, because (1) there is an obvious change from the pre-trauma level of functioning and/or (2) the respondent makes the attribution to the index trauma with confidence.
 - b. **Probable** = the symptom is likely related to the index trauma, but an unequivocal connection can't be made. Situations in which this rating would be given include the following: (1) there seems to be a change from the pre-trauma level of functioning, but it isn't as clear and explicit as it would be for a "definite;" (2) the respondent attributes a causal link between the symptom and the index trauma, but with less confidence than for a rating of *Definite*; (3) there appears to be a functional relationship between the symptom and inherently trauma-linked symptoms such as reexperiencing symptoms (e.g., numbing or withdrawal increases when reexperiencing increases).
 - c. **Unlikely** = the symptom can be attributed to a cause other than the index trauma because (1) there is an obvious functional link with this other cause and/or (2) the respondent makes a confident attribution to this other cause and denies a link to the index trauma. Because it can be difficult to rule out a functional link between a symptom and the index trauma, a rating of *Unlikely* should be used only when the available evidence strongly points to a cause other than the index trauma. NOTE: Symptoms with a TR rating of *Unlikely* should not be counted toward a PTSD diagnosis or included in the total CAPS-5 symptom severity score.

5. **CAPS-5 total symptom severity score** is calculated by summing severity scores for items 1-20. NOTE: Severity scores for the two dissociation items (29 and 30) should NOT be included in the calculation of the total CAPS-5 severity score.
6. **CAPS-5 symptom cluster severity scores** are calculated by summing the individual item severity scores for symptoms contained in a given DSM-5 cluster. Thus, the Criterion B (reexperiencing) severity score is the sum of the individual severity scores for items 1-5; the Criterion C (avoidance) severity score is the sum of items 6 and 7; the Criterion D (negative alterations in cognitions and mood) severity score is the sum of items 8-14; and the Criterion E (hyperarousal) severity score is the sum of items 15-20. A symptom cluster score may also be calculated for dissociation by summing items 29 and 30.
7. **PTSD diagnostic status** is determined by first dichotomizing individual symptoms as “present” or “absent,” then following the DSM-5 diagnostic rule. A symptom is considered present only if the corresponding item severity score is rated $2=$ *Moderate/threshold* or higher. Items 9 and 11-20 have the additional requirement of a trauma-relatedness rating of *Definite* or *Probable*. Otherwise a symptom is considered absent. The DSM-5 diagnostic rule requires the presence of least one Criterion B symptom, one Criterion C symptom, two Criterion D symptoms, and two Criterion E symptoms. In addition, Criteria F and G must be met. Criterion F requires that the disturbance has lasted at least one month. Criterion G requires that the disturbance cause either clinically significant distress or functional impairment, as indicated by a rating of $2=$ *moderate* or higher on items 23-25.

Criterion A: Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

Chikamu A: Kusangana ne njodzi inopotsayakuuraya, kukukuvadza zvakananyana kana kushungurudzwa pa bonde ne nzira imwe chete (kana dzakawanda) pane zvakanyorwa pazasi apa;

1. Directly experiencing the traumatic event(s).
 1. Makasangana nenjonzi iyi imi pachezvenyu
2. Witnessing, in person, the event(s) as it occurred to others.
 2. Makaona njodzi iyi ichiitika muripo
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
 3. Kuziva kuti chiiitiko chenjodzi ichi chakaitika kune munhu wemumhuri yenyu ari pedyo nemi kana shamwari yepedyo. Kune chiiitiko ichi chinogona kuuraya chakaitika kumunhu wemumhuri wepedyo kana shamwari yepedyo, chiiitiko chacho chaiva ne mhirizhonga kana kuti chakaitika kuburikidza nenjodzi.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.
 4. Kuramba uchisangana nezvino kurangaridza pamusoro penjodzi inoshungurudza iyi (Muenzaniso: mupurisa anoramba achisangana nenyaya dzekubhinywa kwevana) Yambiro: Kusangana ne zvinhu zvakanyorwa pamubvunzo uyu we namba 4 hakufanire kuri kuburikidza nekuona zvivhitivhiti kana zvimwe zvfananidzo zvechimanje manje, asi chete kana kuona izvi kuchiitika pabasa ramunhu wacho.

[Administer Life Events Checklist or other structured trauma screen]

Ndichakubvunza pamusoro pemibvunzo yawambodaira kwairi pamusoro pezvawakasangana nazvo zvirikukushungurudza. Ndichatanga neku unditaurirewo muchidimbu muchidimbu pamusoro pechiitiko chimwe chete chaunoti chakananyo kushungurudza kudarika zvimwe. Ndichazoenderera mberi ndichikubvunzai kuti chiiitiko ichi chakakushungurudza zvakadii mumwedzi wapfuura. Pindurai henyu musinganyanyo taura zvakananda pamusoro pechiitiko ichi, ndirikuda kungoti ndinzwisise kuti matambudziko amurikusangana nawo takatarisa chiiitiko ichi ndeapi. Sunungukai kundiudza kana mavakunzwa kukurirwa nezvamurikunzwa, kungava kudakuchema kana kutsamwa pamunenge muchipindura mibvunzo iyi, kuti tigombomira tonyatsokukurukura pamusoro pezvinenge zvanetsa izvi. Uye sunungukai kubvunza mibvunzo kana muinawo, kana apo pamunenge matadza kunzwisisa. Mungaite mubvunzo tisati tatanga?

Index event (specify):

<p>Chii chakaitika? (<i>Maiva nemakore mangani? Makasangana nazvo sei? Ndiani mumwe aivapo? Pane munhu aka kuvarazvakanyanya kana akafa? Pane hupenyu hwemunhu hwaiva panjodzi? Zvakaitika kangani?</i>)</p>	<p><i>Exposure type:</i> <i>Makasangana nazvo sei?</i></p> <p><i>Ndakasangana nazvo ini</i> ____</p> <p><i>Ndakaona zvichiitika</i> ____</p> <p><i>Ndakanzwa nezvazvo</i> ____</p> <p><i>Ndakasangana nenhorondo yezvakaitika zvaitiyisa</i> ____</p> <p><i>Experienced</i> ____</p> <p><i>Witnessed</i> ____</p> <p><i>Learned about</i> ____</p> <p><i>Exposed to aversive details</i> ____</p>
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	<p><i>Life threat? NO YES [self ___ other ___]</i></p> <p><i>Zvaiisa hupenyu panjodzi? Kwete Hongu (hupenyu hwangu ___ hupenyu hwemumwe ___)</i></p> <p><i>Serious injury? NO YES [self ___ other ___]</i></p> <p><i>Zvaikuvadza zvakanyanya? Kwete Hongu (hupenyu hwangu ___ hupenyu hwemumwe ___)</i></p> <p><i>Sexual violence? NO YES [self ___ other ___]</i></p> <p><i>Mhirizhonga dzepabonde? Kwete Hongu (hupenyu hwangu ___ hupenyu hwemumwe ___)</i></p> <p><i>Criterion A met? NO PROBABLE YES</i></p> <p><i>Zvese zvirimuchikamu A zvakaitika? Kwete Zvinogona kunge zvakaitika Zvakaitika</i></p>
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Tichienderera mberi nehurukuro yedu, ndinoda kuti urambe uchirangarira chiitiko chatambo taura apo ndinenge ndichikubvunzai nezve matambudziko akasiyana siyana amungangove makasangana nawo. Munogona kunge makambosangana nematambudziko aya munguva yapfuura, asi muhurukuro ino tinoda kuti titarise zvakakasangana nazvo mumwedzi wapfuura chete. Padambudziko rega rega ndichabvunza kuti makasangana nazvo mumwedzi wapfuura here, kana mukati hongu, ndichadakuti mukurukure kuti maisangana nazvo kaka wanda sei uye kuti zvaikushungurudzai zvakadii.

Criterion B: Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

Chikamu B: Huvepo hwechimwe (kana zvakawanda) zvezvinhu zvinotevera zvinechekuita nekurangarira usingade zvakaitika panjodzi yakasanganikwa nayo, zvakatanga mushure menjodzi iyi yaitika:

1. (B1) Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

<p>Mumwedzi wapfuura makamboita ndangariro dzezvakitika izvi dzaingoramba dzichiyaya imimusingade kuti dzivepo makamuka, tisingatarise zviroti? [Rate 0=Absent if only during dreams]</p> <p>Ndangariro idzi dzinouya sei? [If not clear:] Ndangariro idzi dzinouya musingade kana kuti munofunga nezvazvo muchida [Rate 0=Absent unless perceived as involuntary and intrusive]</p> <p>Ndangaririro idzi dzinokushungurudzai zvakadii?</p> <p>Munokwanisa here kusiyana nendangariro idzi muchifungawo zvimwe?</p> <p><u>Circle:</u> Distress = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Makaita ndangariro idzi kakawanda sei mumwedzi wapfuura? Kangani _____</p> <p>Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, some difficulty dismissing memories Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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2. (B2) Recurrent distressing dreams in which the content and/or affect of the dream are related to the event(s). Note: In children, there may be frightening dreams without recognizable content.

<p>Mumwedzi wapfuura makamboita hope dzinotyisa kana dzisingafadze pamusoro pechiitiko ichi?</p> <p>Tsanangura kuti muhope dzacho chii chaitika? (Chii chinoitika, hope idzi dzinokumutsa here?)</p> <p>[If yes:] Chii chinoitika ukamutswa nezviroti izvi? Zvinokutorera nguva yakaitasei kuti ugodzokera kurara zvekare</p> <p>[If reports not returning to sleep:] Unotadza kurara kakawanda sei?</p> <p>Zviroti izvi zvinokushungurudza zvakadii?</p> <p><u>Circle:</u> Distress = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Makaita zviroti zvakadai kangani mumwedzi wapfuura? Kangani _____</p> <p>Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, less than 1 hour sleep loss Severe = at least 2 X week / pronounced distress, more than 1 hour sleep loss</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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3. (B3) Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Note: In children, trauma-specific reenactment may occur in play.

<p>Mumwedzi wapfuura, panenguva here yamaiwerekana maita kana kunzwa kunge chitiko chiya chavakutoitika zvekare ipapo?</p> <p>[If not clear:] Izvizvakasiyana nekufunga nezvazvo kana kurota nezvazvo- apa tirikutarisa kuti mune nguva yamunoita kunge murikuona zviya zvakaitika zvichiita kunge zvirikuitika ipapo, apo munonzwa kunge madzokera kunguva iya yakaitika chitiko ichi, kunge murikuzvirarama zvekare)</p> <p>Kangani kamunoita kunge murikurarama zvekare chitiko ichi? (Munombokanganisika kufunga moshaya kuziva kuti muripi?)</p> <p>Munoitasei pazvinoitika izvi? (Vamwe vanozviona here? Vanotii nezvazvo?)</p> <p>Zvinotora nguva yakareba sei?</p> <p>Circle: Dissociation = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Izvi zvakaitika kangani mumwedzi wapfuura? Kangani _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of dissociation Moderate = at least 2 X month / dissociative quality clearly present, may retain some awareness of surroundings but relives event in a manner clearly distinct from thoughts and memories Severe = at least 2 X week / pronounced dissociative quality, reports vivid reliving, e.g., with images, sounds, smells</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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4. (B4) Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

<p>Mumwedzi wapfuura makambo netseka nekunzwa kutsamwa mushure mekunge marangaridzwa pamusoro pechitiko ichi?</p> <p>Zvinhuzvakaita sei zvinokuranga ridzai nezvechitiko zvokutsamwisai?</p> <p>Zvinokurangaridzai izvi zvinokunetsai zvakadii?</p> <p><u>Munokwanisa kuzvidzikamisa nekuzvidzora kana izvi zvaitika? (zvinokutorerai nguva yakadii?)</u></p> <p>Circle: Distress = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Izvi zvakaitika kakawanda sei mumwedzi wapfuura? Kangani _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, some difficulty recovering Severe = at least 2 X week / pronounced distress, considerable difficulty recovering</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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5. (B5) Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

<p>Mumwedzi wapfuura, panezvakaridzira kana zvamakanzwa munyama yenyu mushure mekunge marangaridzwa nezvechitiko ichi?</p> <p>Mungandipa mienzaniso? (<i>hana yenyu inorova kana kuti kufema kwenyu kunosanduka? Munodikitira kana kunzwa kuoma mumapendekete kana tsandanyama kana kudedera here?</i>)</p> <p>Ndezvipi zvinoita kuti munzwe izvi?</p> <p>Zvinotora nguva yakareba sei kuti zvizopera?</p> <p><u>Circle:</u> Physiological reactivity = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Izvi zvakaaitika kakawanda sei mumwedzi wapfuura? Kangani _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of physiological arousal Moderate = at least 2 X month / reactivity clearly present, some difficulty recovering Severe = at least 2 X week / pronounced reactivity, sustained arousal, considerable difficulty recovering</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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Criterion C: Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

6. (C1) Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

<p>Mumwedzi wapfuura, panemifungo yamakamboedza kusafunga pamusoro payo inokurangaridzai chitiko ichi?</p> <p>Ndeipi mifungo yamunoedza kusafunga pamusoro payo?</p> <p>Munoedza zvakadii kusafunga mifungo iyi? (<i>Zvii zvamunoita?</i>)</p> <p><u>Circle:</u> Avoidance = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Izvi zvakaaitika kakawanda sei mumwedzi wapfuura? Kangani _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of avoidance Moderate = at least 2 X month / avoidance clearly present Severe = at least 2 X week / pronounced avoidance</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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7. (C2) Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

<p>Mumwedzi wapfuura makamboedza kuregedza kuita, kutaura kana kuenda kunezvinhu/vanhu zvinokurangaridzai chiitiko ichi?</p> <p>Zvinhu zvakaitasei zvamunoregedza kuita?</p> <p>Munoedza zvakadzi kutimusingaridzwe chiitiko ichi? (Munehurongwa hwamunoita kana zvamunoshandura muhupenyu hwenyu kuti musaringaridzwe chiitiko ichi?)</p> <p>[If not clear:] (Izvizvinokushungurudzai zvakadzi muhupenyu hwenyu?Hupenyu hwenyu hungashanduka sei daimusingaedze kuregedza zvinhu zvinokurangaridzi chiitiko ichi?)</p> <p>Circle: Avoidance = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Izvi zvakaitika kakawanda sei mumwedzi wapfuura? Kangani_____</p> <hr/> <p>Key rating dimensions = frequency / intensity of avoidance Moderate = at least 2 X month / avoidance clearly present Severe = at least 2 X week / pronounced avoidance</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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Criterion D: Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

8. (D1) Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

<p>Mumwedzi wapfuura, makamboona muchinetseka kurangarira zvimwe zvakakosha zvezvakaitika pachiitiko ichi? (Munonzwa kunge pane zvimwe zvidimbu zvamusisarangarire pachiitiko ichi?)</p> <p>Zvidimbu zvipi zvamunoona zvakaoma kurangarira?</p> <p>Munonzwa kunge munofanira kurangarira zvinhu izvi here?</p> <p>[If not clear:] Munofunga kuti chii chinoita kuti musaringarire? Makakurava musoro here pachiitiko ichi? Makange makadhakwa nedoro kana zvimwewo zvinodhaka? [Rate 0=Absent if due to head injury or loss of consciousness or intoxication during event]</p> <p>[If still not clear:] Munofunga kuti kungokanganawo here? Kana munofunga kuti makazvidzvisa mupfungwa menyu nekuti zvinokurwadzai kurangarira? [Rate 0=Absent if due only to normal forgetting]</p> <p>Circle: Difficulty remembering = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Mumwedzi wapfuura zvidimbu zvakawadza sei zvechiitiko ichi zvamaiona zvakaoma kuti murangarire? (Ndezvipi zvamuchiri kurangarira?) Zvidimbuzvingani zvakakosha _____</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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Mungakwanise kurangarira zvinhu izvi mukaedza?

Key rating dimensions = amount of event not recalled / intensity of inability to recall

Moderate = at least one important aspect / difficulty remembering clearly present, some recall possible with effort

Severe = several important aspects / pronounced difficulty remembering, little recall even with effort

9. (D2) Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” “The world is completely dangerous,” “My whole nervous system is permanently ruined”).

<p>Mumwedzi wapfuura makambonzwa kukurirwa nekufunga kana kutenda zvisina kunaka pamusoro pako, pevammwe vanhu kana kuti penyika ino?</p> <p>Mungandipawo mienzaniso? (<i>Pfungwa dzakafanana nekuti: ndiri munhu akaipa, pane chinhu ckakakanganisika pandiri, hapana munhu akavimbika, nyika ino izere nenjodzi?</i>)</p> <p>Kutenda kwakadai kwakasimba zvakadii? (<i>Munogutsikana kuti kutenda uku ndekwechokwadi here? Mungaone mamwe mafungiro ekufunga pamusoro peizvi here?</i>)</p> <p><u>Circle:</u> Conviction = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Inguva yakadii mumwedzi wapfuura yamainzwa izvi? Kangani _____</p> <p>Kutenda uku kwakatanga kana kuti kwakawedzera mushuremechiitiko ichi here? (<i>Munofunga kuti kutenda uku kunechekutita ne chiitiko ichi? Sei muchidaro?</i>)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of beliefs Moderate = some of the time (20-30%) / exaggerated negative expectations clearly present, some difficulty considering more realistic beliefs Severe = much of the time (50-60%) / pronounced exaggerated negative expectations, considerable difficulty considering more realistic beliefs</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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10. (D3) Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.

<p>Mumwedzi wapfuura makambonzwa kuzvipa mhosva, kana kupa mumwe munhu mhosva pamusoro pechiitiko ichochi kana kuti zvakazoitika mumashure macho? Pamumwe munhu, handisikureva munhu aida kukukuvadza, asi munhu wamunofunga kuti aifanira kuziva nezvechitiko ichi kana kudzivisa chiitiko ichi.</p> <p>Nditsanangurireiwo zvakadzama? (<i>Munozvipomera kana kupomera mumwe munhu mhosva sei?</i>)</p> <p>Munozvipomera kana kupomera vamwe zvakadzama sei? (<i>Munotenda zvakadii kuzvipomera kana kupomera mumwe munhu pane zvakaitika? Munemamwe maonero amungaita panyaya iyi?</i>)</p> <p><u>Circle:</u> Conviction = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Inguva yakaawanda sei yamainzwa izvi mumwedzi wapfuura? % of time _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of blame Moderate = some of the time (20-30%) / distorted blame clearly present, some difficulty considering more realistic beliefs Severe = much of the time (50-60%) / pronounced distorted blame, considerable difficulty considering more realistic beliefs</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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11. (D4) Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).

<p>Mumwedzi wapfuura maimbonzwa kukurirwa nezvakaipa zvakananana nekutya, kuzvipomera, hasha kana nyadzi?</p> <p>Mungandipawo mienzaniso (Ndezvipi zvakaipa zvamunonzwa?)</p> <p>Zvakaipa izvi zvinokukurirai zvakadii?</p> <p>Munonzwa kuti munogona kukurira kunzwa zvakaipa izvi here?</p> <p><u>Circle:</u> Negative emotions = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Inguva yakaawanda sei yamainzwa izvi mumwedzi wapfuura? % of time _____</p> <p>Kunzwa zvakaipa izvi kwakatanga kana kuti kwakawedzera mushuremechiitiko ichi here? (Munofunga kuti kunzwa zvakaipa izvi kunechekutita ne chiitiko ichi? Sei muchidaro?)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of negative emotions Moderate = some of the time (20-30%) / negative emotions clearly present, some difficulty managing Severe = much of the time (50-60%) / pronounced negative emotions, considerable difficulty managing</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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12. (D5) Markedly diminished interest or participation in significant activities.

<p>Mumwedzi wapfuura maimbonzwa kushaya hanya muzvinhu zvaisimbokufadza?</p> <p>Ndezvipi zvinhu zvama kushayira hanya, kana zvamuisa ite zvaisimboita? (Pane zvimwe here?)</p> <p>Munofunga kuti sei zvirikudaro?</p> <p>[Rate 0=Absent if diminished participation is due to lack of opportunity, physical inability, or developmentally appropriate change in preferred activities]</p> <p>Kushaya hanya kwenyu muzvinhu zvamaimbofarira mungati kwakasimba sei? (Munofunga kuti mungaita hanya nezvinhu izvi mukangozvitanga zvekare?)</p> <p><u>Circle:</u> Loss of interest= <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Mumwedzi wapfuura mungati zvinhu zvakananana sei zvaisimboita? % of activities _____</p> <p>Ndezvipi zvaisimboita kufarira kuita?</p> <p>Kushaya hanya hanya nezvaisimboita uku kwakatanga kana kuti kwakawedzera mushuremechiitiko ichi here? (Munofunga kuti zvinechekutita ne chiitiko ichi? Sei muchidaro?)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = percent of activities affected / intensity of loss of interest Moderate = some activities (20-30%) / loss of interest clearly present but still has some enjoyment of activities Severe = many activities (50-60%) / pronounced loss of interest, little interest or participation in activities</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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13. (D6) Feelings of detachment or estrangement from others.

<p>Mumwedzi wapfuura maimbonzwa muri kure nevamwe vanhu kana kuzvibvisa pane vamwe?</p> <p>Munganditsanangurirewo zvakadzama?</p> <p>Kunzwa muri kure nevamwe vanhu kana kuzvibvisa pane vamwe uku munonzwa kuchikukurirai zvakadii? (<i>ndiani wamumnonzwa kuti muripedyo naye? Vanhu vangani vamakasununguka kukurukura navo pamusoro pezvirikuitika muhupenyu hwenyu?</i>)</p> <p><u>Circle:</u> Detachment or estrangement = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Mainzwa izvi kwenguva yakareba sei mumwedzi wapfuura? % of time _____</p> <p>Kunzwa muri kure nevamwe vanhu kana kuzvibvisa pane vamwe kwakatanga kana kuti kwakawedzerwa ne chiitiko ichi here? (Munofunga zvine chekutita ne chiitiko here? Sei muchidaro?)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of detachment or estrangement Moderate = some of the time (20-30%) / feelings of detachment clearly present but still feels some interpersonal connection Severe = much of the time (50-60%) / pronounced feelings of detachment or estrangement from most people, may feel close to only one or two people</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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14. (D7) Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

<p>Mumwedzi wapfuura pane pamaimbonzwa kunetseka nekufunga kana kunzwa zvinhu zvakanaka (muenzaniso, kunetseka kuwana mufaro kana kuve nerudo kune vanhu vari padyo newe)</p> <p>Munganditsanangurirewo zvakadzama? (Ndezvipi zvamunoona zvakakuomerai kunzwa?)</p> <p>Zvakakuomerai zvakadii kunzwa zvinhu zvakanaka? (Munezvimwe zvakanaka zvamuchirikukwanisa kunzwa?)</p> <p><u>Circle:</u> Reduction of positive emotions = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Mainzwa izvi kwenguva yakareba sei mumwedzi wapfuura? % of time _____</p> <p>Kunetsekana nekunzwa zvakanaka kwakatanga kana kuti kwakawedzerwa ne chiitiko ichi here? (Munofunga zvine chekutita ne chiitiko here? Sei muchidaro?)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <p>Key rating dimensions = frequency / intensity of reduction in positive emotions Moderate = some of the time (20-30%) / reduction of positive emotional experience clearly present but still able to experience some positive emotions Severe = much of the time (50-60%) / pronounced reduction of experience across range of positive emotions</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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Criterion E: Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

15. (E1) Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.

<p>Mumwedzi wapfuura pane pamainzwa nekuita zvinoratidza kusvotwa, kushatirwa kunopfachukira kana kuita zvinhu zvehasha?</p> <p>Mungandipawo mienzaniso? (Munozviratidza sei? Munopopota kana kutaura neizwi riripamusoro here? Munopotsera kana kurova zvinhu here? Munosandudzira kana kurova vamwe here?)</p> <p><u>Circle:</u> Aggression = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>How often in the past month? # of times _____</p> <p>Izvi zvakaitika Kangani mumwedzi wapfuura?</p> <p>Kuita uku kwakatanga kana kuti kwakawedzerwa ne chiitiko ichi here? (Munofunga zvine chekutita ne chiitiko here? Sei muchidaro?)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of aggressive behavior Moderate = at least 2 X month / aggression clearly present, primarily verbal Severe = at least 2 X week / pronounced aggression, at least some physical aggression</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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16. (E2) Reckless or self-destructive behavior.

<p>Mumwedzi wapfuura pane pamaiona muchiita zvinhu zvinokuisa panjodzi kana zvinogona kukuvadza?</p> <p>Mungandipawo mienzaniso?</p> <p>Munoita zvinhu zvinokuisa panjodzi kakawanda zvakadii? (<i>Zvamunoita izvi zvinenjodzi yakakura sei? Pane pamukambokuvara kana kukuvadzwa?</i>)</p> <p><u>Circle:</u> Risk = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Makaita zvinhu zvakawanda sei mumwedzi wapfuura zvaikuisai panjodzi? # of times _____</p> <p>Kuita uku kwakatanga kana kwakawedzera nekuda kwechiitiko ichi here? (Munofunga zvine chekutita ne chiitiko here? Sei muchidaro?)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / degree of risk Moderate = at least 2 X month / risk clearly present, may have been harmed Severe = at least 2 X week / pronounced risk, actual harm or high probability of harm</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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17. (E3) Hypervigilance.

<p>Mumwedzi wapfuura mainzwa makarindira njodzi zvakanyaya kana kusagadzikana muchifunga kuti pane chakaipa chingangoitika?</p> <p>Mungandipawo mienzaniso? (Zvii zvamunoita kana makarindira njodzi kana musina kugadzikana uku?)</p> <p>[If not clear:] Chii chinoita kuti murindire kana kusa gadzikana kudai? Munonzwa kunge muripanjodzi? Munonzwa izvi kupfuura zvinoita vamwe vangangova panzvimbo yakafanana neyenyu?</p> <p><u>Circle:</u> Hypervigilance = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Makaita zvinhu zvakanwanda sei mumwedzi wapfuura zvaikuisai panjodzi? % of time _____</p> <p>Izvi zvekuva makarindira njodzi nguva dzose zvakatanga kana zvakawedzera mushure mechiitiko ichi here? (Munofunga zvine chekutita ne chiitiko here? Sei muchidaro)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of hypervigilance Moderate = some of the time (20-30%) / hypervigilance clearly present, e.g., watchful in public, heightened awareness of threat Severe = much of the time (50-60%) / pronounced hypervigilance, e.g., scans environment for danger, may have safety rituals, exaggerated concern for safety of self/family/home</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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18. (E4) Exaggerated startle response.

<p>Mumwedzi wapfuura pane pamaimbonzwa muchingovhundutswa vhundutswa nezvinhu zvenhando?</p> <p>Zvinhu zvakaite sei zvaingokuvhundutsai?</p> <p>Kuvhunduka uku kwaikukurirai zvakadii? (Kunokukurirai zvakaipfuura zvinoita vamwe here? Pamunovhunduka vanhu vanozviona here kuti mavhunduka?)</p> <p>Zvinokutorerai nguva yakareba sei kuti mugozogatsikana</p> <p><u>Circle:</u> Startle = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Izvi zvakaite kangani mumwedzi wapfuura? # of times _____</p> <p>Kuvhunduka uku kwakatanga kana zvakawedzera mushure mechiitiko ichi here? (Munofunga zvine chekutita ne chiitiko here? Sei muchidaro)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p> <hr/> <p>Key rating dimensions = frequency / intensity of startle Moderate = at least 2 X month / startle clearly present, some difficulty recovering Severe = at least 2 X week / pronounced startle, sustained arousal, considerable difficulty recovering</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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19. (E5) Problems with concentration.

<p>Mumwedzi wapfuura makamboona muchinetseka kuisa pfungwa dzanyu pamwe chete pane zvamunenge muchiita?</p> <p>Mungandipa mienzaniso?</p> <p>Munogona kuisa pfungwa dzenyu pamwechete mukanyatso zvipira?</p> <p><u>Circle:</u> Problem concentrating = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Maiona muchitadza kuisa pfungwa dzenyu pamwechete kakawanda sei mumwedzi wapfuura? % of time _____</p> <p>Kunetseka nekuisa pfungwa pamwechete uku kwakatanga kana kuwederwa nechitiko ichi here? (Munofunga zvine chekutita ne chitiko here? Sei muchidaro)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
<p>Key rating dimensions = frequency / intensity of concentration problems Moderate = some of the time (20-30%) / problem concentrating clearly present, some difficulty but can concentrate with effort Severe = much of the time (50-60%) / pronounced problem concentrating, considerable difficulty even with effort</p>	

20. (E6) Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

<p>Mumwedzi wapfuura pane pamaimboona muchinetseka kubatwa nehope kana kuramba makarara?</p> <p>Munoita matambudziko akaita sei? (Zvinokutorerai nguva yakareba seo kuti muzorara? Munomuka kakawanda sei husiku? Munokurumidza kumuka kunyangwe musingade?)</p> <p>Munorara ma awa manganic husiku hoga hoga?</p> <p>Munofunga kuti munofanira kurara ma awa mangani?</p> <p><u>Circle:</u> Problem sleeping = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>Mumwedzi wapfuura maiita matambudziko ekurara kakawanda sei? # of times _____</p> <p>Matambudziko ekurara aya akatanga kana kuwederwa nechitiko ichi here? (Munofunga zvine chekutita ne chitiko here? Sei muchidaro)</p> <p><u>Circle:</u> Trauma-relatedness = <i>Definite</i> <i>Probable</i> <i>Unlikely</i></p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
<p>Key rating dimensions = frequency / intensity of sleep problems Moderate = at least 2 X month / sleep disturbance clearly present, clearly longer latency or clear difficulty staying asleep, 30-90 minutes loss of sleep Severe = at least 2 X week / pronounced sleep disturbance, considerably longer latency or marked difficulty staying asleep, 90 min to 3 hrs loss of sleep</p>	

Criterion F: Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

21. Onset of symptoms

<p>[If not clear:] Makatanga kuita matambudziko aya ePTSD atakurukura nezvazvo riinhi? (<i>Zvakatanga kwapera nguva yakadzi chitiko chiya chaitika? Kwakange kwapera mwedzi mitanhatu here?</i>)</p>	<p><i>Total # months delay in onset</i> _____</p> <p><i>With delayed onset (≥ 6 months)?</i> NO YES</p>
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22. Duration of symptoms

<p>[If not clear:] Matambudziko aya ePTSD atakurukura ava nenguva yakareba sei muchianzwa?</p>	<p><i>Total # months duration</i> _____</p> <p><i>Duration more than 1 month?</i> NO YES</p>
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Criterion G: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

23. Subjective distress

<p>Matambudziko ose aya e PTSD atakurukura nezvawo anokushungurudzai zvakadzi mumwedzi wapfuura? [Consider distress reported on earlier items]</p>	<p>0 <i>None</i></p> <p>1 <i>Mild, minimal distress</i></p> <p>2 <i>Moderate, distress clearly present but still manageable</i></p> <p>3 <i>Severe, considerable distress</i></p> <p>4 <i>Extreme, incapacitating distress</i></p>
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24. Impairment in social functioning

<p>Matambudziko ePTSD atakurukura nezvawo aya akakanganisa hukama hwenyu nevamwe here mumwedzi wapfuura? Zvakaitika sei? [Consider impairment in social functioning reported on earlier items]</p>	<p>0 <i>No adverse impact</i></p> <p>1 <i>Mild impact, minimal impairment in social functioning</i></p> <p>2 <i>Moderate impact, definite impairment but many aspects of social functioning still intact</i></p> <p>3 <i>Severe impact, marked impairment, few aspects of social functioning still intact</i></p> <p>4 <i>Extreme impact, little or no social functioning</i></p>
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25. Impairment in occupational or other important area of functioning

<p>[If not clear:] Muri kushanda here parizvino?</p> <p>[If yes:] Mumwedzi wapfuura matambudziko aya e PTSD anga achikanganisa basa renyu kana kugona kushanda kwenyu here? Zvii zvanga zvichiitika?</p> <p>[Consider reported work history, including number and duration of jobs, as well as the quality of work relationships. If premorbid functioning is unclear, inquire about work experiences before the trauma. For child/adolescent trauma, assess pre-trauma school performance and possible presence of behavior problems]</p> <p>[If no:] Matambudziko aya ePTSD anezvimwe</p>	<p>0 <i>No adverse impact</i></p> <p>1 <i>Mild impact, minimal impairment in occupational/other important functioning</i></p> <p>2 <i>Moderate impact, definite impairment but many aspects of occupational/other important functioning still intact</i></p> <p>3 <i>Severe impact, marked impairment, few aspects of occupational/other important functioning still intact</i></p> <p>4 <i>Extreme impact, little or no occupational/other important functioning</i></p>
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zvaakakanganisa zvakakosha muhupenyu hwenyu here?

[As appropriate, suggest examples such as parenting, housework, schoolwork, volunteer work, etc.] **Zvanga zvichiitika sei?**

Global Ratings

26. Global validity

Estimate the overall validity of responses. Consider factors such as compliance with the interview, mental status (e.g., problems with concentration, comprehension of items, dissociation), and evidence of efforts to exaggerate or minimize symptoms.

- 0 *Excellent, no reason to suspect invalid responses*
- 1 *Good, factors present that may adversely affect validity*
- 2 *Fair, factors present that definitely reduce validity*
- 3 *Poor, substantially reduced validity*
- 4 *Invalid responses, severely impaired mental status or possible deliberate “faking bad” or “faking good”*

27. Global severity

Estimate the overall severity of PTSD symptoms. Consider degree of subjective distress, degree of functional impairment, observations of behaviors in interview, and judgment regarding reporting style.

- 0 *No clinically significant symptoms, no distress and no functional impairment*
- 1 *Mild, minimal distress or functional impairment*
- 2 *Moderate, definite distress or functional impairment but functions satisfactorily with effort*
- 3 *Severe, considerable distress or functional impairment, limited functioning even with effort*
- 4 *Extreme, marked distress or marked impairment in two or more major areas of functioning*

28. Global improvement

Rate total overall improvement since the previous rating. Rate the degree of change, whether or not, in your judgment, it is due to treatment.

- 0 *Asymptomatic*
- 1 *Considerable improvement*
- 2 *Moderate improvement*
- 3 *Slight improvement*
- 4 *No improvement*
- 5 *Insufficient information*

Specify whether with dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

29. (1) Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

<p>Mumwedzi wapfuura munenguva yamainzwa kunge hamusisiri mumuviri menyu, kunge maizviona murikunze kwemuviri wenyu muchiona zvirikuitika kana kuita kunge murikuongorora mifungo yenyu nezvamuri kunzwa muchiita kunge mumwe munhu?</p> <p>[If no:] Kokunzwa kunge murikurota, kunyangwe makamuka? Kunzwa kunge chimwe chinhu pauri hachisi chechokwadi? Kunzwa kunge nguva iri kufamba zvishoma shoma?</p> <p>Nditsanangurirei zvakazara pamusoro peizvi?</p> <p>Zvamunonzwa izvi zvinokukurira zvakadii? (Munombo tadza kuziva kuti muripi uye kuti chii chirikuitika?)</p> <p>Munoita sei izvi pazvinoitika? (Vamwe vanoona zvamunenge muchiita izvi? Vanotii nezvazvo?)</p> <p>Zvintora nguva yakaita sei zvichiitika?</p> <p>Circle: Dissociation = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>[If not clear:] Izvi zvakanzerwa ne kunwa doro kana zvimwe zvinodhaka? Pane chirwere chamunofunga kuti chinogona kunge chakanzera kunge pfari?</p> <p>[Rate 0=Absent if due to the effects of a substance or another medical condition]</p> <p>Izvi zvakitika kakawanda sei mumwedzi wapfuura? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of dissociation Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of self and awareness of environment Severe = at least 2 X week / pronounced dissociative quality, marked sense of detachment and unreality</p>	<p>0 Absent</p> <p>1 Mild / subthreshold</p> <p>2 Moderate / threshold</p> <p>3 Severe / markedly elevated</p> <p>4 Extreme / incapacitating</p>
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30. (2) Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

<p>Mumwedzi wapfuura pane pamaimbonzwa kunge zvakakutenderedzai zvaisava zvechokwadi kana kuti zvaikukatyamadzi uye musinganyatsokuzviziva?</p> <p>[If no:] (Zvinhu zvinoitika zvakakutenderedzai zvinomboita kunge murikuzvirota kana kuita kunge murikuzviona pachivhiti vhiti? Zvinoita kunge zvirikure kana zvisirikunyatsokuoneka?)</p> <p>Munganditsanangurirawo zvakazara?</p> <p>Zvamunonzwa izvi zvinokukurira zvakadii? (Munombo tadza kuziva kuti muripi uye kuti chii chirikuitika?)</p> <p>Munoita sei izvi pazvinoitika? (Vamwe vanoona zvamunenge muchiita izvi? Vanotii nezvazvo?)</p> <p>Zvinotora nguva yakaita sei zvichiitika?</p> <p>Circle: Dissociation = <i>Minimal</i> <i>Clearly Present</i> <i>Pronounced</i> <i>Extreme</i></p> <p>[If not clear:] (Izvi zvakakonzerwa ne kunwa doro kana zvimwe zvinodhaka? Pane chirwere chamunofunga kuti chinogona kunge chakakonzerwa kunge pfari?)</p> <p>[Rate 0=Absent if due to the effects of a substance or another medical condition]</p> <p>Izvi zvakaitika kakawanda sei mumwedzi wapfuura? # of times _____</p> <hr/> <p>Key rating dimensions = frequency / intensity of dissociation Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of environment Severe = at least 2 X week / pronounced dissociative quality, marked sense of unreality</p>	<p>0 <i>Absent</i></p> <p>1 <i>Mild / subthreshold</i></p> <p>2 <i>Moderate / threshold</i></p> <p>3 <i>Severe / markedly elevated</i></p> <p>4 <i>Extreme / incapacitating</i></p>
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