



SYNTHESIS REPORT

Causes and dynamics of mixed unskilled migrants trafficked within the Horn region. A study including Eritrea, Ethiopia and Sudan



Colofon

Tilburg, March 2018

Authors:

Prof. Dr. Mirjam van Reisen (PI)

Dr. Mia Stokmans

Selam Kidane

Kristina Melicherova

Rick Schoenmaeckers

Layout:

Klara Smits

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Picture: 2017, Endebaguna, Reception Centre, Shire (Ethiopia). Photo by Mirjam van Reisen (copyrights)

We have made every effort to truthfully report the findings of the research. If there is any error or comment on the content of this report, we are grateful if you bring this immediately to our attention.

Mirjam van Reisen, Email: Mirjamvanreisen@gmail.com



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As other people, we think about the future. We live for the future.

But we don't have any future here.

(Interview, Melicherova with Interviewee 3, face-to-face, 1 February 2018)

Lord Alton of Liverpool (CB)

My Lords, while I strongly welcome what the Minister said about tackling root causes, perhaps I might press her to revisit suggestions made in your Lordships' House about the creation on the north African coast of internationally guaranteed safe havens where people can live in security, develop livelihoods and build homes, as well as looking at the root cause of human rights violations—egregious ones in many cases—in countries such as Eritrea and Sudan, from which people are fleeing in their hundreds of thousands.

Debate House of Lords, 14 June 2018 Hansard

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Acronyms

ANOVA	Analysis of Variance
ARRA	Administration for Refugees and Returnees Affairs in Ethiopia
CCBT	Computer Assisted Cognitive Behavioral Therapy
COR	Conservation of Resource
CRRF	Comprehensive Refugee Response Framework
DAR framework	Development Assistance for Refugees framework
DFID	Department for International Development
DFID	Department for International Development
DSM	Diagnostic and statistical manual of mental disorders
EMDR	Eye Movement Desensitization Reordering
ETB	Ethiopian Birr
HAP	Humanitarian Assistance Programs
ICT	Information and Communication Technology
IDP	Internally displaced person
IES	Impact of Events Scale
IES-R	IES-R Impact of Events Scale – Revised
IES-S	Impact of Events Scale Short
ILO	International Labour Organization
ISCS	Internet Social Capital Scale
MANOVA	Multivariate analysis of variance
NET	Narrative Exposure Therapy
NGO	Non-governmental organization

PTS	Post-Traumatic Stress
PTSD	Post-Traumatic Stress
SER	Social and Economic Resilience
SHLCPTS	Self-Help Low Cost Post Traumatic Stress Program
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organization

Justification

This report is a synthesis of research reported separately in:

Kidane, S. & Stokmans, M. 2018. Research report 1: ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. *Tilburg University*. Tilburg.

Melicherova, K. 2028. Research report 2: Refugees and Livelihood: A case study from Hitsats. *Tilburg University*. Tilburg.

Schoenmackers, R. 2018. Research report 3: Secondary Migration and Mobile Phone Use in Hitsats. *Tilburg University*. Tilburg.

The Synthesis reports is based on these three underlying reports.

This report also includes direct reference to the report:

Reisen, van, L., et al. 2018. A Cost-Benefit Analysis of Cash-Transfer Programs and Post-Trauma Services for Economic Empowerment of Women in North Uganda. *Research Report (EWP-U)*. Tilburg University. Tilburg.

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The Shimelba Youth Recreation Centre, Cinema Empero in Hitsats and Martha's Café (Hiwinet Café) in Hitsats were our defacto field offices, where we held our individual interviews and focus group discussions as well as our community meetings. We thank everyone for their support and hospitality. ZOA staff in Hitsats and Mebrihit in Shimelba provided us accommodation, during the exhausting data collection days and we are truly grateful for their touching hospitality.

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Abstract

This study of mixed migration and human trafficking explored its causes within dynamic information-sharing along the migration routes and across communities in locations where migrants or refugees are. This study was carried out in Sudan and Ethiopia, focusing on Refugees from Eritrea within host communities.

This study found that human trafficking dynamically moves across such locations and across communities. The lack of support to victims of human trafficking, especially stigmatisation of single mothers who have experienced sexual violence and their children, may keep them trapped in a Human Trafficking Cycle.

Social media are an important source of information. Minors, with little connectivity, demonstrated ingenuity in establishing contact with people close to them, across the globe, and this is their principle source of information. Livelihoods are a big challenge in transit communities, which lack access to basic needs such as water, food and shelter and have no access to income generating activities.

The high prevalence of Post-Traumatic Stress leads to collective trauma amongst refugee populations. In this research a Self Help Low Cost Post Traumatic Stress (SHLCPTS- tool was tested. It proved to be highly effective on reducing trauma, increasing social capability and socio-economic resilience.

The policy implications point to the need to revisit the theory of 'push-and-pull', which is at the basis of current policies to reverse the migration crisis by fear-inducing obstacles to mobility. The findings suggest that these measures may be counterproductive and enhance a 'thinking-fast' mode which leads to be more prone to fleeing and risk-taking.

Alternatively, a policy of care for trauma, enhancing livelihoods and out-of-camp policies will help migrant and refugee youth to consider options based on resilience and positive appreciation of support available to them.

1. Introduction of Research Gap

This study investigates the causes and dynamics of Mixed Migration and Human Trafficking in the Horn, particularly in Sudan, Ethiopia and Eritrea.

1.1. Focus on the Eritrean origin of Human Trafficking networks in the Horn

This study builds on several earlier investigations. In the research published in 'Human Trafficking and Trauma in the Digital Era. The Tragedy of Trade in Eritrean Refugees from Eritrea' (Reisen, van, M. & Mawere, 2017) the argument was presented that the first Central Mediterranean Route was organized by Eritrean human traffickers principally responsible for organizing the route. The investigation also projected that Eritrean migrants and refugees were targeted for such trafficking and that such trafficking was organized from within Eritrea. The origin of such trafficking was placed in 2009, when a new form of human trafficking for ransom emerged, closely related to the new possibilities that had emerged in ICTs at global level (Reisen, van, M & Rijken, 2015, Reisen, van, M, et al., 2017).

The UN Security Council adopted a resolution in June 2018 in which sanctions were posed on six human traffickers operating on the route through Libya. Two of the traffickers mentioned were of Eritrean origin and mentioned to be involved in Human Trafficking, possibly from 2005 or 2006 onwards and long before the route to Libya was developed (Reisen, van, M & Mawere, *ibid.*; Nastranis, 2018). Their names had emerged in the route earlier developed to Egypt, Sinai and researched by Van Reisen, Estefanos and Rijken (2012, 2013). The EU confirmed the sanctions on 14 June 2018 (EU Council, 2018).

The current study identifies the development of the route from Eritrea, Ethiopia and Sudan towards Libya. The study particularly focuses on two elements (i) understanding causes and drivers of such trafficking from the perspectives of Eritrean refugees and other migrants and refugees from the region and (ii) understanding of dynamics between different forms of migration in relation to human trafficking.

1.2. Social media-based information streams

The research further builds on work that was carried out in an earlier research project entitled 'Youth in the Horn' and which looked at the role of information to young people vulnerable to being trafficked. The research focused particularly on Eritrean youth in Ethiopia and in Sudan. It was concluded that social media and ICT-based communication

were the principal means for youth to receive information on which they based their decisions (Kidane, 2017). Based on these results the interest emerged to understand how information was received in no or low connectivity areas and how limitation to receiving information affected the type of information that was processed.

1.3. Poverty as basis for vulnerability to human trafficking

The “Youth in the Horn” research also pointed to the precarious situation of refugees and migrants rendering them more vulnerable to human trafficking. The question as to whether poverty and vulnerability is an explanatory factor in human trafficking remains an important question when considering the causes of human trafficking. Deliberate impoverishment contributes to the push factors of Eritrean refugees and drives them in the arms of human traffickers, was the conclusion put forward in Van Reisen and Mawere (2017). One of the goals of the development of livelihood programs in refugee camps is to empower people to become self-reliant and be able to create socio-economic and cultural ties with host community (UNHCR, 2012). The link with host communities are considered as helping the resilience of refugees within the recipient location. However, efforts to help settle refugees do not appear to be adequate to stop human trafficking or put an end to onward travel. During the period of investigation 13.000 persons registered by UNHCR in Shire had disappeared after three months (UNHCR, interview, 2017, MvR). The relationship between poverty and livelihoods therefore needs further investigation in relation to onward movement in transit countries (Sudan and Ethiopia). The expansion of human trafficking throughout the region further raised the question of the exposure to risks of human trafficking within host communities.

1.4. The effect of trauma on information processing

Finally, this research builds on an earlier investigation which was carried out in Northern Uganda. In this research social-economic resilience of post conflict communities (many returnees from abduction by the LRA) was studied. High levels of Post-Traumatic Stress characterized the community. Comparing interventions to improve livelihoods (Chambers and Conway, 1992) by social protection support (cash or in-kind) and psycho-social support were compared. Reflecting at a theoretical level, it was considered that:

the improvement of (individual) livelihoods can be achieved by a change in mindset or values—from reacting to a hazard or danger to pro-active behavior that is future-oriented. This change in mindset has an effect on how people perceive opportunities and threats in their current situation, as well as their routine ways of evaluating situations and responding accordingly (referred to as agency) (van Reisen et al., 2018: 44)

The findings of this study were striking, demonstrating that interventions of psycho-social support had a higher significant impact on Social-Economic Resilience than social protection support, which also had a significant impact. The impact of both interventions had an accumulative impact (Van Reisen et. al., 2018). The research outcomes seemed significant in light of the high levels of trauma reported in the Eritrean refugee and migrant communities – influenced by the human trafficking experiences which had started with Human Trafficking to Sinai (2009 – 2015):

“These scores signify the fact that the traumatic impact of Sinai human trafficking is far wider spread than the primary victims who underwent the physical and psychological torment at the hands of traffickers and via the phone. Results are also indicative of the prevalence of widespread and acute PTSD among members of Eritrean refugee communities.” (Kidane, 2018: 31)

In the research in Northern Uganda (Van Reisen et al., *ibid.*) the impact of trauma on information processing had emerged as a major element, interfering with the impact of social protection on livelihood support. It was observed that ‘information’ is not neutral but informed by feelings. People regard their feelings as a source of information, based on the feelings-as-information theory of Schwarz (2010):

One usually assumes that the feelings that are experienced are ‘about’ whatever is the focus of one’s attention, unless it is attributed to a specific incident (Van Reisen et al., 2018: 45).

The relevance of trauma for information processing was considered as follows:

Trauma can hinder the change in mindset that can be initiated by social protection. In a state of trauma, people are overwhelmed by negative emotions. These negative emotions affect the way people perceive and evaluate the social protection they receive. (..) People who have been traumatized experience an intensive negative mood. As moods are not triggered by a specific incident, this negative state will also impact on how the social protection program is perceived. Consequently, the social protection is not regarded as a new start (a positive opportunity), but as temporally relieve of a bad situation. If trauma is not healed, people have trouble changing their mindset, despite the social protection that is offered. (Van Reisen et al., 2018: 45).

The effect of psycho-social support for PTS on increased perceptions of social-economic resilience was significant and positive in Northern Uganda.

The research in Northern Uganda considered the challenge of cost benefits and the low resources characterizing the situation in Northern Uganda, with very few availability of mental health services. The team had also observed the potential danger of re-traumatisation and alternative methods of treating PTS looked attractive, both from a cost perspective and effectiveness of the procedure, especially to avoid the danger of re-traumatisation through re-narration.

To test the possibility of a low cost but effective psycho social therapy an intervention was developed based on Eye Movement Desensitisation and Reprocessing (EMDR) Method, increasingly used for treatment of PTS (see annex 1). The intervention developed was called Self Help Low Cost Post Traumatic Stress support (SHLCPTS). The effectiveness of this intervention was tested in a second research carried out in Northern Uganda.

The Northern Uganda research proved positive and the SHLCPTS showed significant effect on social economic resilience. However, the research implementation had some limitations, particularly in terms of sampling, which affected the results. A rigorous pre-test post-test design needed to be implemented to confirm the initial findings in the research carried out in Northern Uganda. Moreover, the positive results of the research in Northern Uganda

created an expectation that the SHLCPTS support intervention might also be helpful to other groups, particularly refugees, with high levels of PTS.

In the preparation of the research in Northern Ethiopia the mobility of the refugees was considered – and the need to ensure that SHLCPTS would be available to the users even when on the move. It was also considered that mobile smartphone was a trusted medium of the youth refugees and that therefore an application of SHLCPTS on mobile phone could be tested among this population.

1.5. Objective of the Research

The objective of the research was to explore alternative explanation of causes of human trafficking by a broad scope of human trafficking and migration as stringed networked phenomena across states, and spiderweb networked within locations. The ‘here and there’ effect (Ong’ayo, 2018, forthcoming) presents communities on the move as interconnected with things happening in one place having an effect on another place.

This research employs new research methods to explore how information travels across these networks and how this impacts on the resilience perceived within those networks.

Specifically, the role of trauma is investigated, as it is expected that trauma dampens any information and that therefore the processing of information itself is affected by the trauma. The objective of this research is to strengthen a theory of the relevance of trauma on information processing and decision-making in migrant and refugee communities, by studying the effect of psycho-social support on the perception of resilience.

The objective of the study was to present and test practical and implementable solutions to address the mixed migration and human trafficking crisis, within full respect of international human rights, whilst recognizing limitations such as costs and magnitude of the problem. Testing the effectiveness of SHLCPTS for social-economic resilience – as a self-help tool, requiring a minimum of costs fulfilled the criteria and, if found to be effective, could provide a concrete tool for organisations – such as ZOA, to work with.

The findings of this study should help guide policy-makers in exploring a wider range of policy options and provide evidence of the effects of interventions. In addition, the research should explore alternative frameworks to help understand the reasons for the differentiated

effects of such interventions to increase understanding of the phenomenon of human trafficking in mixed migration settings.

In order to present the evidence emanating from this research policy briefs have been produced to present findings to policy makers. The purpose of this report is to present the scientific explanation, justification, findings and conclusions of the research.

1.6. Research questions

Causes of human trafficking are investigated in this study on the human trafficking route from Eritrea to the Central Mediterranean transit to Europe, with a focus on Eritrean refugees within migrant and host communities in Ethiopia and Sudan. The causes are identified within an ethnographic approach, aiming to identify what information is processed and how, and how such information relates to the understanding of social-economic resilience within the different places along the route.

1.6.1. Research Question I: Exploring the broad setting of mixed migration and human trafficking

The research carried out a general investigation of information exchanged amongst youth on the route, as well as the resilience perceived and the influence of their moods on their perception of social-economic resilience. This research was carried out in Ethiopia (Tigray and Addis Ababa) and Sudan (Kassala and Khartoum). In addition, explorative research was carried out by Researcher Besa Nisrane and the team of Mekelle University to explore dynamics in host communities (in Ethiopia). The research of experiences along the routes and in host communities was compared research exchange meetings of the teams.

1.6.2. Research Question II: Investigating the drivers for youth on the move in a refugee camp

Having explored the general setting, the key question is, what drives youth on onward journeys?

This question was researched in a specific location, two camps for Eritrean refugees in Northern Ethiopia, Tigray region, Hitsats and Shemelba camp (Shire district).

The following specific research questions were investigated:

- (i) What are the perceptions of youth on livelihoods in the camps?**
- (ii) What are the strategies employed by youth on accessing digital information through ICTs in the camps?**
- (iii) PTS and the effect of PTS on perceived social-economic resilience**
 - What is the prevalence of PTS among Eritrean refugees along the routes?
 - How does treatment of PTS change perceptions on social-economic resilience amongst youth residing in Hitsats and Shemelba refugee camps?
 - To what extent can psycho-social support to relieve PTS be effective if supported on mobile phone?
 - What are the workable elements of an EMDR-based Self Help trauma support intervention that positively changes perceptions of persons with high PTS?

The first specific research question was investigated with a survey in natural setting (N=94), following several periods of observation within the camps by several researchers on the team. The survey was developed and implemented by Kristina Melicherova as part of an explorative research in preparation for her PhD research.

The second specific research question was based on participatory observations and interviews in Hitsats camp carried out by Rick Schoenmaeckers as part of his research for his Master Thesis. This research focused specifically on unaccompanied minors protected in the camp.

The last specific research question was based on a rigorous pre-test/post-test design in a natural setting with N=103. The research was carried out by Selam Kidane as part of her PhD research. She earlier carried out research on the effect of PTS treatment on social-economic resilience in Northern Uganda and developed a Self Help Low Cost PTS intervention which was tested in Northern Uganda and then in this study.

This synthesis report identifies the main outcomes of the study. For the specific definitions, operational definitions and theoretical frameworks employed, we refer to the specific research reports.

1.7. Societal Relevance

This investigation has high societal relevance. High political priority is given to human trafficking within the broader political attention awarded to high numbers of refugees and

migrants moving to Europe (and elsewhere). Human Trafficking, as it has emerged on the route studied here, is extremely violent, leaving many vulnerable to extortion, detention, torture, inhumane treatment, sexual violence, disappearances and killing. The fight against Human Trafficking has increasingly gained political prioritization, but without an understanding of the causes of it, the fight against Human trafficking remains largely ineffective. This study aims to help explain the causes of human trafficking.

The policies on the fight against Human Trafficking have had much focus on information campaigns that should deter the refugees and migrants. The assumptions are that the decisions of refugees and migrants can be influenced to be more cautious about human trafficking. It is assumed that the refugees and migrants lack knowledge of the risks of human trafficking. It is further assumed that providing such information on the risks, this will positively enhance the resilience of migrants and refugees so that they will no longer take such risks. However, numbers of persons being trafficking appear to not have declined as a result of such information campaigns. This research aims to explore whether other causes could be identified that help explain the way in which persons are trapped within human trafficking practices.

In terms of policy orientations, the policy orientations to better manage migration policies are based on an understanding that support in the region and reception of refugees in the region can help combat migration and human trafficking. It is assumed that the support mechanisms in the region provide alternative livelihoods that will be pursued by the migrants and refugees. This assumption is investigated.

1.8. Scientific Relevance

The scientific relevance of this research can be identified at several levels. Kidane (2018) proposes that the theory of 'push and pull' is inadequate in explaining the causes of human trafficking and migration. Her specific objective is to investigate whether alternative theoretical models are more suited to explain causes of human trafficking and migration.

The theory of how trauma may affect vulnerability for human trafficking is at the core of this research. Investigating the connection between PTS and perceptions of social-economic resilience, this research aims to establish whether root causes of human trafficking can be explored through this lense. This research further explores how these three areas are

linked. Introducing the concept of ‘collective trauma’, Kidane explores the impact of social media on trauma, not just at individual level but also at collective level. Given the high prevalence of human trafficking amongst Eritrean refugees, she investigates whether a theory of collective trauma may better explain exposure to human trafficking. Her theoretical model identifies how information is processed in a PTS dominated mind set, at individual level – and at a collective level.

Dependency on humanitarian aid may leave refugees without any prospect of becoming self-sufficient and without ability to plan for a future (Jacobsen & Fratzke, 2016; Samuel Hall, 2014; UNHCR, 2011). The relation between poverty and lack of livelihoods as a cause for human trafficking and migration (Mawere, 2017) is investigated, especially in relation to perception of social-economic resilience of refugees. While it is generally assumed that poverty increases vulnerability to human trafficking, more scientific understanding is needed to explain how poverty has a causal relation to human trafficking. This research aims to explore theorizing on the nature of this causal link.

At a more generic level, the understanding of the relevance of digital information for refugees and migrants remains underexplored. This investigation aims to understand not only what the relevance is of digital information in comparison to other sources of information (Dekker, 2018), but more importantly, how such digital information is accessed if no access is (apparently) available. This explorative question is relevant for a ethnographic and digital architectural understanding of digital accessibility and consequences of the availability of digital information.

1.9. Definition of terms

This report refers to the detailed reports of findings for definition of terms and operational definitions. For the purpose of this synthesis report the following terms are defined:

1.9.1. Refugees

Refugees are persons seeking protection from political persecution or unhumane treatment in accordance to international law and the Geneva Refugee Conventions, and in particular such people under the protection of refugee protection agencies operating at national or international level.

1.9.2. Migrants

Migrants are persons who move from one place to another to find better living conditions.

1.9.3. Youth

Young people from 10 years of age up to the age of approximately 25 years of age (maximum 30 years of age).

1.9.4. Human Trafficking

The modus operandi of displacing people for exploitative purposes in line with international law.

1.9.5. Livelihood programme

These are programmes offered to migrants or refugees to help ameliorate their daily existence, in the form of support to in-kind basic needs or income-generating activities.

1.9.6. Traumaⁱ

The individual distress and enduring pain and suffering, including post-traumatic stress disorder (PTS) and comorbid disorders, such as depression, caused by mass traumatic events like war, torture and human rights violations (e.g., Maresella et al., 1996; Turner, Bowie, Shapo, & Yule, 2003).

1.9.7. Collective trauma

Collective trauma is defined here as “the impact of an experience, which becomes a keystone in a group’s narrative, a set of beliefs and identity, both for the current generation and across generations. Collective trauma involves a socially-constructed process with an impact on the identity of the group and its individual members.” (Van Reisen et al, 2018)

1.10. Participants in the research

The following participants were included in the research:

1. Monitors in refugee communities in Addis Ababa, Khartoum, Kassala, Hitsats Refugee camp and Shemelba. The monitors were youth from Eritrean, Ethiopia or Sudanese origin (male/female).
2. Women and Single Mothers returnees from Ethiopian origin, victims of human trafficking to Saudi Arabia.
3. Host communities (Shire, Ethiopia).

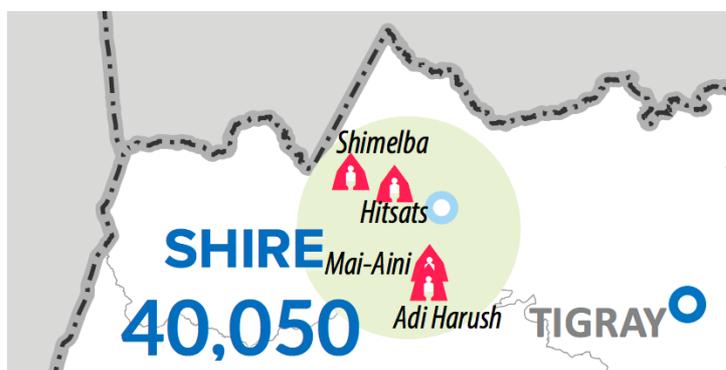
Specific locations were visited by researchers, in Khartoum, Addis Ababa and the refugee camps in Tigray.

The specific research about causes of human trafficking (why do youth not stay in the camps) was carried out in the four camps in the Tigray area, around Shire. Four camps are located around the border area between Eritrean and Ethiopia. Shemelba is the oldest refugee camp, while Hitsats is the most recent camp, receiving many of the youth who have recently fled from Eritrea. The UN estimates that approximately 5000 Eritreans leave the country each month.

Figure 1.2 Google Map – Border area Eritrea - Ethiopia



Figure 1.3 Shire Area and refugee camps



Source:

https://reliefweb.int/sites/reliefweb.int/files/resources/Ethiopia_Infographics_as_of_30_April_2018.compressed.pdf (30 April 2018, accessed 14 June 2018)

In the four Shire camps just over 40.000 refugees of Eritrean origin were registered in 2018.

1.12. Hitsats Campⁱⁱ

Hitsats is a refugee camp of approximately 13,000 Eritrean refugees. The camp is located near Shire in a region where temperatures can rise up to 50 degrees Celsius in the dry season. The main issues in Hitsats are the shortage of drinking water and food, electricity, firewood, hygiene, and the malaria epidemic that hits all people on a regular base. Additionally, there is the absence of secondary education which affects a vast part of the children in the camp. Once a day people can fill jerry cans with water, this is organised per community at fixed times. There is a monthly food distribution programme. One week a month the people can pick up their rations at the World Food Program (WFP) distribution point. The rations per person include 10kg of wheat and 60 Ethiopian BIRR (ETB), which is about 2,50 euro. The food distribution is also the way of registering the active refugees in the camp. People can pick up their rations with their ration card and fingerprints. If people do not pick up their rations for three months, they will be registered as inactive refugee. This is the method with which the UNHCR figures are established for the region. The camp is organised in zones, blocks, and communities, which all have their own democratically chosen leaders. If anyone wants to leave temporarily to Shire, Addis Ababa, or anywhere else, they have to apply for leave by those leaders. The application goes hierarchically and has to be approved by all. Eventually, the Administration for Refugee and Returnee Affairs (ARRA) will sign and provide a transparency card that is necessary for leave.

1.13. The Research Team

The Research was conducted under leadership of Prof Dr Mirjam van Reisen (Tilburg University) together with Dr. Mia Stokmans (methodology), Dr. Vallejo (organization and coordination), Selam Kidane (PhD candidate), Besa Nisrane (PhD candidate), Kristina Melicherova (PhD candidate) and Rick Schoenmaeckers (Masters Student). The team cooperated closely with Mekelle University, under leadership of Dr. Kinfu Abraha, Dr. Aradom and their research teams. ZOA provided support within the camps and hosted the teams and provided advice.

1.14. Timeline

The research period was very short (6 months), whilst the scope was very large. Preparatory meetings were held in May (prior to the start of the research), followed by research organization meetings in June and July. Regular update meetings were held and visits were

made by all the researchers in close coordination. In order to compare research findings and help draw conclusions meetings were held with all the researchers in Mekelle (January 2018) and Tilburg (February 2018). The concentration and sequencing of research activities are set out below.

	May (prep)	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Africa Monitors											
Mekelle Uni											
Besa Nisrane											
Schoenmackers											
Selam Kidane											
Melicherova											

1.15. Reporting

Given the short timeline this research is seen as an explorative scoping research to investigate alternative causes to explain migration and human trafficking. This report serves as a write up to orientate around the different components of the research, the findings and how the findings relate to serve as a basis for new hypothesis concerning causes of migration and human trafficking.

This investigation aims to show the dynamic realities of migration and human trafficking and investigates this from a standpoint of the refugees and migrants. The dynamics that so emerge should help to gain further insight into the question what moves youth along the migratory trafficking routes and help identify new unexplored perspectives on this.

The findings of the research will be published in a book jointly published in 2018 by Tilburg University, Mekelle University, Khartoum University, Deje University, Tangaza University and Great Zimbabwe University with researchers from The Netherlands and Europe, Eritrea, Ethiopia, Sudan, Kenya, Uganda and Zimbabwe. An editorial team with team-leaders of each of the universities has been established.

Three PhD candidates will utilize the research conducted for this investigation as part of their thesis to defined a PhD (Selam Kidane, Kristina Melicherova and Besa Nisrane). Rick

Schoenmackers used his findings for his Masters' thesis which has been defended with success.

Policy briefs have been presented in order to make the findings available for policy makers and during a range of meetings findings have been presented in different places with policy makers.

1.16. Data Management

Since the data collected included sensitive data of the unaccompanied minors and youth, data were stored safely on my computer. Data are kept on protected surfdrive. The findings are anonymously documented in reports and articles. all data was gathered, processed and stored in accordance to Tilburg University's data management protocol. Data is analysed and filed in a password locked system to protect the identity of participants.

1.17. Approvalsⁱⁱⁱ

Ethical approval was obtained from Tilburg University for the investigation in the effect of the SHLCPTS tool to relieve trauma and study its effect on social-economic resilience.

There was a serious consideration made that affected the very design of the study as it was felt to be unethical (on top of being impractical) to leave respondents who came into contact with the research team and would have been interviewed and tested across all tools answering questions on traumatic experiences, without any support. Consequently, due consideration was given to this in the context of the Eritrean refugee camps, in Ethiopia where services are extremely restricted. As a result, the research design was altered in accordance to the description in previous sections.

In addition to this, there was concern over potential re-traumatization of participants who were asked to reflect on traumatic experiences. Below is a description of the steps taken to avoid re-traumatisation:

1. The design of the intervention focused on equipping participants, with self-help techniques to deal with reactions of traumatic stress rather than indentify and address specific traumatic experiences. This was done to avoid harm to participants and particularly to avoid re-traumatisation in as much as possible under the circumstances.

2. Videos were sequenced in a way that ensured participants were fully briefed and coached on building their resources (resourcing) for stabilizing themselves in the event of distress when dealing with traumatic experiences. Two exercises in the first video following the information/education sessions are designated for this purpose (the safe calm place and breathing exercises). No participant was given access to subsequent videos that dealt with specific traumatic experiences without first accessing this session that equipped participants.
3. In addition, there were meetings with MSF in the camps to explain the potential need for referrals for participants that were identified at the screening session (first wave data collection) as needing more support than was available in the videos. MSF agreed to receive referrals from the researcher at that point and from research assistants once videos were distributed. In the event four people were referred to MSF (three in Hitsats and one in Shimelba) and were being supported by members of the MSF team at the conclusion of the research. Researchers had a meeting with MSF staff prior to collection of second wave data collection to get update and ensure it was safe to collect second wave data.
4. Research assistants who were briefed to ask people how they found the videos before giving them access to the next session and as mentioned above they were aware of the possibility to refer onto MSF.
5. Participants also had the option of sending a message on the app or as a comment on the video to ask for assistance (in the event most of the requests for assistance were actually for technical assistance on downloading and accessing videos)

Having considered the application for ethical approval, the Research Ethics Committee of Tilburg School of Humanity gave the required ethical clearance on 18th of May 2017.

Approval to conduct explorative research in the camps was coordinated with Mekelle University and obtained from ARRA, the refugee protection agency of Ethiopia (approval obtained at national, regional and local level).

In order to collect the data for the research, clearance was necessary from ARRA. Firstly, approval was given by the deputy director Mr. Zeynu Jemal in Addis Ababa. Secondly, Mr. Tekei Maesho, who is ARRA's regional manager for the Shire refugee camps, provided

permission to do research. Thirdly, permission was granted by Mr. Haftom Teklemichael, the Hitsats camp coordinator and Mr. Daniel Gebretsadik, the protection officer.

As soon as the clearance was granted on the different levels, we met with the other IPs (implementing partners) in Shire and Hitsats. The active IPs are: ARRA, the United Nations High Commission for Refugees (UNHCR), ZOA, Norwegian Refugee Council (NRC), International Rescue Committee (IRC), and Medicine Sans Frontiers Holland (MSF).

The NRC was the responsible organisation for the unaccompanied minors in Hitsats. Therefore, it was necessary to get their permission as well. Permission was granted by the regional manager Sheila Donaghy, the project coordinator-education Belete Chekol, and the camp coordinator Atakalti Berhe. As soon as the contacts were established, I could settle down in Hitsats.

The researchers were housed at the ZOA compound since this was the principal partner of the project. The ZOA staff that assisted with the research and with housing were the regional manager Bereket Godifay and the camp coordinator Kumelachew Mesi.

Participants in the research were asked for consent to participate in this research.

2. Methodology^{iv}

This study takes a rigorous ethnographic approach, in the sense that the situation is investigated through an understanding of all aspects that come into play within a certain context. Understanding is derived from the meaning that is given within a particular context. This research was conducted as Mixed Method methodology.

2.1. Explorative study

The explorative phase of this study is based on observations communicated by refugees in different locations on the route in the network of Africa Monitors. The observations provided through this network were corroborated through interviews and observations by the researchers. Information was communicated through the research monitors from Khartoum, Kassala, Addis Ababa and the Shire region. Observations were further investigated in field visits to Addis Ababa and Khartoum. The collaboration of Tilburg University with Africa Monitors and the technique to work with monitors within the trafficking routes as a way of exploring modus operandi on the routes earlier resulted in the publication “Human Trafficking and Trauma in the Digital Era” (Van Reisen & Mawere, 2018).

The observations studied within the human trafficking routes were compared with study findings in the host communities. This work was concentrated in Ethiopia. Mekelle University conducted several studies as part of the study team into the host communities, their relations with the refugee and migrant communities and dynamics of human trafficking. Ethiopian researcher Besa Nisrane (PhD candidate) also conducted additional research into specific experiences of Ethiopian women and single mothers who had returned from human trafficking and migration experiences in The Middle East. The findings of the research were presented and compared during a workshop held in Mekelle in January 2018 and a writing week held in February 2018 in Tilburg University.

The explorative research on use of social media was a (participatory) observation and interviews carried out during a three month stay in Hitsats (June – August 2017) during which the researcher participated in the daily routines. The researcher was introduced

through ZOA, which was working in the camp had established working relations within the camps and in relation to the unaccompanied minors protected in the camp.

The survey conducted by Kristina Melicherova (N=94) served as an explorative research to describe the population of Hitsats camp and to explore their perception on opportunities for livelihoods in the camps. This research served as a background against which other research activities took place. The data were collected through a survey and descriptively analysed in SPSS.

2.2. (Quasi-)experimental set up in a real-life setting

The research on the effect of psycho-social support and livelihood on social-economic resilience was carried in a real-life setting. A (quasi-)experimental set-up was used, as advised when the study's objective is to understand the causal effect of an intervention. The design of this study aims to isolate the intervention from other extraneous variables so that a link between effects can be established based on the theory that provides the hypotheses for a causal relationship. In a positivist approach, all variables are controlled and consequently causal conclusions are drawn. Although it is the most appropriate way of drawing causal conclusions, a controlled environment has the disadvantage that it removes the knowledge of the effect of the intervention within a real-life situation from the experiment. A controlled environment, thus, runs the risk of creating artificial situations that are not always representative of real-life situations.

Carrying out an experiment in a real-life situation has the important advantage that the intervention can be studied in its natural environment. The findings can, therefore, inform the researchers about the way in which the intervention responds within a real-life setting, which is not the case if the study is undertaken in an isolated environment. This is particularly relevant when the experiment is carried out in the environment that has a particular interest in the findings of the study, as was the case with this research.

A real-life set-up responds to an increasing demand for the research to be beneficial to society. The problem identified by many policymakers, who are interested in evidence-based decision making, is that research tends to be carried out in a sterile experimental set-up, which undermines understanding of what may be expected of an intervention in the real-life situation that policymakers are concerned with. It is, therefore, necessary to

consider the research advantages and possibilities of studying interventions in a real-life context.

Before carrying out research on an intervention, critical questions need to be asked, such as: 'Is it possible to study the intervention?' If so, is it possible to adhere to ethical standards to ensure validity of the research outcome? Is there any advantage in studying the intervention in question? Such critical questioning before conducting research on an intervention is carried out is peremptory as it helps us to identify and understand the limitations of a real-life methodology.

2.2.1. The challenge of a real-life study setting in an investigation of causality

To advance a justification for the implementation of experiments in a real-life experimental setting, it should be acknowledged that this creates a complex study design. This is because questions on the sensitivity and sensibilities—questions that are critical in any research that involves humans—often arise. Usually, questions regarding the effectiveness of interventions are approached by obeying the rules set for an experimental design as much as possible (Shadish, Cook, & Campbell, 2001). In order to be able to make causal claims (the intervention caused the improvement), three important rules should be met:

- Respondents can be randomly assigned to treatment and control groups
- The treatment should be designed by a researcher on the basis of theory
- The treatment should be under the control of the researcher and therewith equal for each individual assigned to a specific group

The question that arises in view of these three rules is: can respondents be fully assigned randomly in a real-life situation? Experienced researchers in research concerning human beings are usually aware that in real-life intervention studies, these rules often cannot be followed in a narrow sense. This is on account of their being dissociative and impractical in many real-life intervention studies.

The first rule, about the random assignment of individuals, for example, is complicated, as participation in research with humans (as emphasized by many ethical research committees) is always on a voluntary basis. As underlined in research ethics around the world, persons who agree to participate in the intervention, and in the research linked to the intervention, are able to change their situation any time they deem necessary. In fact, in real-life

situations, research participants are given the opportunity to change their situation so that they are motivated to participate in the research. Otherwise, they will choose not to, thereby making the whole exercise futile. Thus, it is unavoidable to have such a research bias, as highlighted in any research with humans, and the research must take proper note of such dynamics.

In addition to motivational issues, it is often not the call of the researcher to decide who gets what kind of intervention (or none at all). As is the case in this research project, an external organization, not the researcher, set the criteria and selected the individuals who received cash and/or those who received trauma counselling, or no support at all. In real life, social interventions are not distributed at random to the target population; people should be informed about the intervention, people have to apply (motivational issue), and a commission has to decide who can, and is in fact eligible, to participate. Due to these facts, treatment groups and control groups will probably not be similar on all relevant variables exogenous to the intervention. This makes research with humans even more complicated and indeed challenging.

Furthermore, a unique assignment of individuals to a specific group is hard to realize in real life settings. This is because, by virtue of them being zoon politikons (Aristotle) and social by nature, people talk among themselves: they share their concerns. Moreover, the effect of an intervention on the participants (emotional, social and even the economic improvement of an individual's situation) affects other people in the social network or the community of the participant. This is because man (and woman) are never an island on himself/herself. We are all part of the whole, which makes it even more complicated to deal with interventions, at least in a manner that would satisfy all. As in the case of this research, the fact that participants talked about the trauma counseling intervention, made this intervention (partly) available to other people (and the whole community) as secondary intervention effect.

The second point relates to the rule that an intervention should be based on a theory. While this rule should be met as closely as possible, a similar problem as the one noted above also arises the moment you try to apply theory to real-life situations. In real-life situations, interventions are often designed by a specific agent to implement a particular policy and

researchers are asked to evaluate the effectiveness of these interventions. In such cases, the treatments do differ between and among groups. But, quite often, these differences in treatment are not inspired by theory that indicates why a specific intervention will work in one particular situation, or not in another. These treatments are the result of the implementation of policy and partly based on agenda-setting by policymakers and those who implement the agreed policy, while the treatment may provide a policy window for bringing in new ideas on the policy agenda with, importantly, an unpredictable element regarding when ideas may move onto the policy agenda (Kingdon, 1995). As a consequence, the research objective is not to test causal relations between specific variables of a theory (the intention of an experiment within the positivistic empirical approach), but to establish the effectiveness of an intervention (which consists of a whole set of undefined variables) in a real-life situation.

The third rule of an experiment is that the intervention or the treatment is under the control of the researcher, and that this is equal for each individual in a particular (treatment) group. This rule is particularly hard to realize in real-life interventions. In real-life, interventions occur in a social situation, never in a vacuum. Participants, as well as those who execute the intervention, work with an intervention in a specific context. They have their own ideas of how the intervention should be applied in a situation. More so, they have their own expectations of what will work (and not), under what conditions, as is dictated by their context. Therefore, in this socially-defined context, the participants and those executing the intervention, will unavoidably adjust the intervention to the physical, social, and cultural situation at hand. Furthermore, multiple projects are often implemented at the same time in the same location by different initiators. In the case of this research, churches also offer social support as well as counselling, for example. And, more generally, life goes on and may affect respondents in different ways. So, a researcher should realize that the intervention is just one of the events that is happening to the respondents and that those other events can have different impacts on different respondents.

Drawing on the analysis here, governed by the rules of causal claims and interventions, it can be concluded that it is often practically impossible to follow the methodological rules set for a true or even a quasi-experimental design to study the effectiveness of a social intervention or an intervention taking place within a social reality. Dealing with and

researching people remains a mammoth challenge for researchers across the board, be it in the natural sciences, social sciences or humanities.

This does not mean that the effectiveness of an intervention cannot be studied (Snow, et. al., 2003). However, it does mean that one should be thorough and meticulous when carrying out research on an intervention. This can be achieved by committing oneself to sensitivity (or responsiveness) to the research situation at hand and applying different research methods (triangulation) in order to have data to verify and validate the results of the testing of the effect of the intervention.

2.2.2. Natural design

A possibility is to elaborate a natural design (Shadish, Cook & Campbell, 2001) in which all important key variables may not be known. In a natural design, variables may be identified based on several different scenarios or a combination of those. Variables may be identified based on the following reasons:

- (i) Developed hypotheses concerning the workable elements of the intervention that is expected to cause the effect (based on theory);
- (ii) Understanding of the nature of a particular version of the treatment as it was applied in the natural life environment;
- (iii) Understanding of the blending of different treatments applied in one community; and
- (iv) Understanding of the extent to which treatments will have an effect at the collective community level and, therefore, also affect the control group (in that community).

Such a design demands specific requirements of a study, such as being responsive to what is taking place in the environment and documenting carefully all the contextual specifics taking place before, during, and after the intervention or treatment is applied.

The suggestion to be responsive to the research situation in its real-life context is counterintuitive to the traditional positivistic empirical research. This research tradition prescribes that a researcher should behave as an objective (outsider) observer, who does not interfere with the research situation. This argument can be countered by considering the reality that the researcher is doing this research in a social context with humans whose

sensibilities or values need to be seriously considered from both the perspective of research ethics and human rights. The point, thus, is that the researcher gathers specific information, which necessarily and unavoidably makes him/her a part of the social reality in which the intervention takes place (Burawoy, 1998).

2.2.3. The role of the researcher in a real-life setting

This research project is conducted in a real-life setting, more specifically in a rural area, in which researchers are a unique, extraordinary phenomenon. People have expectations of what researchers will be doing and how to approach them. Moreover, the researcher has to approach and interact with local authorities, participants and non-participants of the research according to proper (local) social norms. This has, as a consequence, that the researcher realizes that he/she is not an objective, outsider observer, but an engaged researcher who is trying to discover an appropriate way to improve the social situation at hand for a particular group of people. According to a positivistic logic, such an expectation concerning the research itself should not exist. But in the reality of the research, the social situation is present and can never be avoided at any given moment. Methodologically, it is more sound to acknowledge the effects of the social embedding of a research, rather than artificially deny the existence of the social specific interaction of the real-life experiment with its environment.

2.2.4. Studying effect

By researching the effect of an intervention for a defined group (women in Northern Uganda, in the case of this project), one helps this particular group (and, therefore, not another group), even though the findings for this research can be applicable partly or wholly in similar contexts elsewhere. This choice can trigger envy. In the researchers' experience, the men in the community (spouses, fathers, and sons) were asking to be included in the intervention. Such a reaction by a community indicates that doing research is not an objective act that can be located outside the social situation in which the intervention takes place. It shows that research is an integral part of the social situation in which the intervention takes place. In this study, the broader community and the participants of the different research groups were all given access to the SHLCPTS program. Local radio broadcast on the program was sought to provide broader benefit from the intervention to

the community as a whole after the research was ended so as not to interfere with the experimental set up of the study.

In a positivist design, such factors would be removed, but making the outcome of the experiment irrelevant to a real-life social situation is not practical, as the intervention or treatment would always take place within its social context. It can, therefore, be argued that it is more advantageous to implement interventions or treatments that have a place in the social context in question. Strategies to implement such interventions can be better studied by acknowledging the effect of real life in a context. By letting go of the fixed idea of being objective, one opens the path of becoming more acquainted and familiar with the people, as well as the community in which the intervention takes place.

In order to study an intervention or treatment in a natural situation, the researchers are required to pay full attention to the specifics of the social context. This is an important step, as researchers are often not familiar with the social, cultural and historical situation of the context in which they are to carry out research. A lack of shared experiences and background knowledge would then hamper the validity of the information gathered. If a researcher is not familiar and asks only standardized questions, and accepts only recorded (standardized) answers, the probability that the question, as well as the answer, is misunderstood by the respondent and the researcher is high. It is, therefore, imperative to understand the context, and to study how the social context interacts with the experiment.

This line of reasoning leads to the conclusion that an experimental method that is used to research an intervention or treatment in a social situation should be enhanced by science notions emerging from ethnographic research traditions. This type of research differs from positivistic research (among other things) in the following respects:

- The researcher is more engaged with respondents and the community in order to overcome differences in language use, norms and values that are expressed in (social) expectations and reactions (cognitive, emotional and behavioral), as well as evaluations (what is a good, appropriate, and bad reaction) (symbolic interactionist base).
- The researcher is sensitized to the context of the research setting. Social research, unlike natural science research carried out in laboratories, is always situated in a specific

context that can be described in terms of a physical, social, economic, cultural, and historical entirety.

- The research focuses on social processes (what people are doing and why they are doing it; how the intervention is handled in this community), as well as the outcomes of social processes (the effect of the intervention on specific variables of interest).

The position of an ethnographically-informed research methodology is that the effect of the social intervention or treatment is the result of social processes in a specific context. The processes emerging from the intervention or treatment will then be located at, minimally, three levels:

1. Individual level (perceptions, feelings, opinions, and competences)
2. Social interaction of people involved in the intervention
3. Effect of the behavior of the people involved in the intervention on the community

These social processes take place within a specific context, which specifies the physical, economic, social, cultural and historical conditions in which the intervention takes place. This broader context is not noise, as positivist assume, but reality (Burawoy, 1998). It is, therefore, essential to include reality in the research.

2.2.5. Aggregate knowledge and representativity

When a researcher realizes that the results of a certain intervention always emanate from social processes in specific social situation, certain standard rules for experimental design can be modified.

The rule to pick representative cases is no longer relevant, as representative cases, as such do not exist in a real-life situation, as all contexts are different and specific and, therefore, not representative. The urge to generalize the results to a wider context (other populations, other social circumstances) needs to be modified by the understanding of the researcher of the specific interaction with the social reality in his/her experiment. This does not mean that it is not possible to identify results at more aggregate levels. The researcher is prompted to search for more abstracting general tendencies across different implementation contexts and can so develop an abstract theory of the working elements of the intervention or

treatment. This theory can then be used as a guideline to develop (and study) similar interventions or treatments in other context and to validate or reject the theory.

In order to come to more abstract knowledge (theory) about why and how an intervention works, one should study the process of implementation, as well as reactions to different versions of an intervention at different moments in time (for example, before, during, after, half-a-year later, and so on) in different social settings (or communities). By describing the context, the social processes, the intervention or treatment, as well as the effects of the intervention or treatment (on individual, interpersonal, and community level), the researcher develops an idea of how (what social processes) and why (what key variables trigger the appropriate social processes) these interventions work in general (theory). This theory will then indicate what version(s) or which elements of an intervention or treatment have (what) effects within the real-life implementation and informs the researcher of the practical applicability of an intervention, as well as the expected improvement in the effect of variables, in specific settings.

3. The broad setting

A number of themes emerged from the explorative part of this research. These are briefly summarized here, and will be reported in further detail in the book publication.

3.1. In-camp policy

Restricting refugees to policies restricted to in-camp locations are negatively experienced for reasons such as:

- Insufficient access to basic needs
- No prospects for the future, limited prospects for livelihoods
- Low integration with host communities
- Low contribution to the economy creating negative perceptions

3.2. Role of host communities to expand social-economic resilience of refugee communities

As part of the research ZOA expanded the livelihood programme to involve pairing of youth with students of the host community. The programme was perceived as very successful and assisting in:

- Breaking down barriers between refugee and host communities
- Creating greater understanding amongst the communities
- Allowing refugees to show skills and willingness to contribute
- Demonstrating potential of refugees to host communities as a source that can contribute to economic opportunities

3.3. Out-of-camp communities

Due to in-camp policies, youth of refugee backgrounds residing outside the camps have very low sense of social-economic resilience, due to:

- Feeling of being illegal
- Danger of criminalization and irregularisation
- Low integration with host communities due to fear
- Low contributions to the economy creating negative perceptions
- Low expectations of the future

3.4. Human Trafficking among host communities

Human Trafficking is economically attractive and dynamic. Once it is under some control in one place, it migrates to other places. The research identified that the combat against Human trafficking in refugee camps in Tigray has created new targets for human traffickers within communities in the recipient country. Villages in Tigray were targeted, but not at equal level. The conditions under which villages become vulnerable to human trafficking need to be further investigated.

3.5. The challenges of return migration for women and single mothers

The research in the returnee women and single mothers who had returned from Saudi Arabia to Ethiopia showed the following challenges:

- Little understanding among return communities of the hardship of returning victims of human trafficking and exploitation
- Difficulties of re-integration due to stigma, especially for single mothers who return and their children (born out of wedlock)
- Little support received from relatives and limited possibilities for livelihoods
- Push back of returnees to exploitative situations as source of income for relatives

3.6. Remittances as important driver

The research identified that international people-to-people mobile money transfers are a major driver of migration and human trafficking, whilst these also support refugees and migrants in setting up businesses and investment in economic activities. The impact of remittances as a driver of economic integration or a push factor into human trafficking needs further investigation.

4. Livelihood programmes^v

4.1. Demographic features

In total 94 respondents took part in the survey distributed among refugees in Hitsats camp. Due to the sampling procedure used, men and women were represented equally by a number of 47 for each gender. Even though the gender balance was preserved within quantitative data collection, the qualitative interviews disclose that the male refugees dominated within the camp population.

In every aspect, there is a dominance of male refugees. In overall demographics [of the camp], even in our training and livelihood activities, [numbers of] male refugees are dominant. (Interview, Melicherova with NRC worker, face-to-face, 30 January 2018)

Some interesting demographic phenomenon was recognized during the process of analysis. The demographics of the camp is dominated by young male refugees. More than 80% of the refugee respondents, both men and women, are between 18 and 30 years old which shows the high proportion of young Eritreans migrating.

Figure 4.1 The age of refugee respondents (n=93)

Age Group	Percentage
18 - 25	60.2%
26 - 35	26.9%
36 - 59	12.9%

One of the consequences of migration in early age is the lack of education of refugees received back in Eritrea. However, respondents to the questionnaires did not have problems with literacy, although, in total 60.5% of refugees have obtained 10 or fewer years of education. Consequently, the range of skills that refugees managed to develop before they flee Eritrea, remain low.

Figure 4.2 Years of education

Years of education	Gender	
	Female	Male
≤ 10	30	24
11-12	12	16
≥ 13	0	3

Due to the remoteness of the camp, many refugees decide to leave and conduct secondary movement. Despite very dynamic inflow and outflow of Eritreans, to and from Hitsats respectively, many of refugees have been residing in the camp for several months or even years (Table 4.3.). That is closely linked with low possibilities or resources, such as lack of money, that prevent refugees from moving out of the camp.

Those [refugees] who have chance, opportunities or power left the camp. People who live in this camp are those who didn't have any chance or power to go. In this camp, it is only those who don't have money [nor] support [from families or friends]. (Interview, Melicherova with Interviewee 4, face-to-face, 1 February 2018)

Figure 4.3 Year of arrival to the camp (n=91)

		Frequency	Valid Percent	Cumulative Percent
When did you arrive to the Hitsats camp?	2013	9	9.9	9.9
	2014	21	23.1	33.0
	2015	17	18.7	51.6
	2016	35	38.5	90.1
	2017	9	9.9	100.0
	Total	91	100.0	

In the following sections, we will report on the results along the sub-questions asked in the introduction of this Chapter.

4.2. Refugees' main sources of livelihood

Despite the low percentage of regular access to income generating activities, refugees conceded that they had previously accessed specific sectors through which they had earned their livelihood. A major sector that provides opportunities for refugees to earn some income is institutional employment which shows that organizations based in camp intend to create opportunities within refugee communities. Alongside the institutions, refugees engage in petty trade, personal services (such as beauty parlours, hairdressers, and barbers), construction-related works and technical services (mainly for male refugees). Refugees in Hitsats are not allowed to own a piece of land, and therefore access to livelihoods through agriculture is lacking.

Stemming from the quantitative analysis, the following table shows sectors in which refugees were able to earn a livelihood in the past.

Figure 4.4 Sectors

Sector	Number of refugees accessing the sector
Institutional Employment	12
Construction	3
Technical Services (mechanics, repair, electrician etc.)	5
Petty Trade	10
Personal Services (Beauty Parlors, Hairdresser, Barber)	6
Agriculture	5
Manufacture	3
Health Care	3
Care of Unaccompanied minors	3
Translation	2
Education	11

In an interview it was observed that refugees are able to access livelihood through sectors, displayed in Table 2.3, even though this access is insufficient.

There are several opportunities in petty trade, personal services, and small businesses - like shops. Those are the main sources of livelihood activities. The main gap is in small industries - like leather craft and soap making. Even [accessing livelihood through] agriculture like a dairy, poultry, home-gardening is lacking. (Interview, Melicherova with ZOA worker 2, face-to-face, 14 December 2017)

In total 87.5% of respondents have not gained experience in the same sector back in Eritrea. This is again closely related to the fact that most of the refugees are very young and they did not have time to gain experience in labour market before they flee from Eritrea.

4.3. Access of refugees to income generating activities

The study carried out in the camp has demonstrated that any kind of income generating activity, even within informal channels, is highly challenged by several factors. Table 4.5 displays, how many respondents had access to work in the past 30 days prior to the day of data collection. Data shows that gender does not play a very significant role in this sample - the percentage of female not working in the last 30 days prior to the data collection is higher by 5% comparing to their male counterparts.

Figure 4.5 Worked in past month

		Worked last month		Total
		Yes	No	
Gender	Female	5	42	47
	Male	8	38	46
Total		13	80	93

?

The following table reveals the main sources of income in the camp setting.

Figure 4.6 Sources of income

Source of income	Number of respondents
Cash money from humanitarian aid	14
Remittances from relatives	26
Revenues from small business	8
Earnings from occasional work	17

The irregular character of income generating activities prevents young Eritreans from building self-reliance even for those who have had an opportunity to access some livelihood programs. Only 15 respondents have claimed to work regularly. Furthermore, the analysis showed that many refugees continuously search for income generating activities mostly when their access to activities leading to income is irregular in nature.

Figure 4.7 Continuous search for livelihood opportunities

?

		Frequency of participation in activities leading to income	
		Regularly	Irregularly
Continuous search for livelihood opportunities	Yes	14	31
	No	1	2

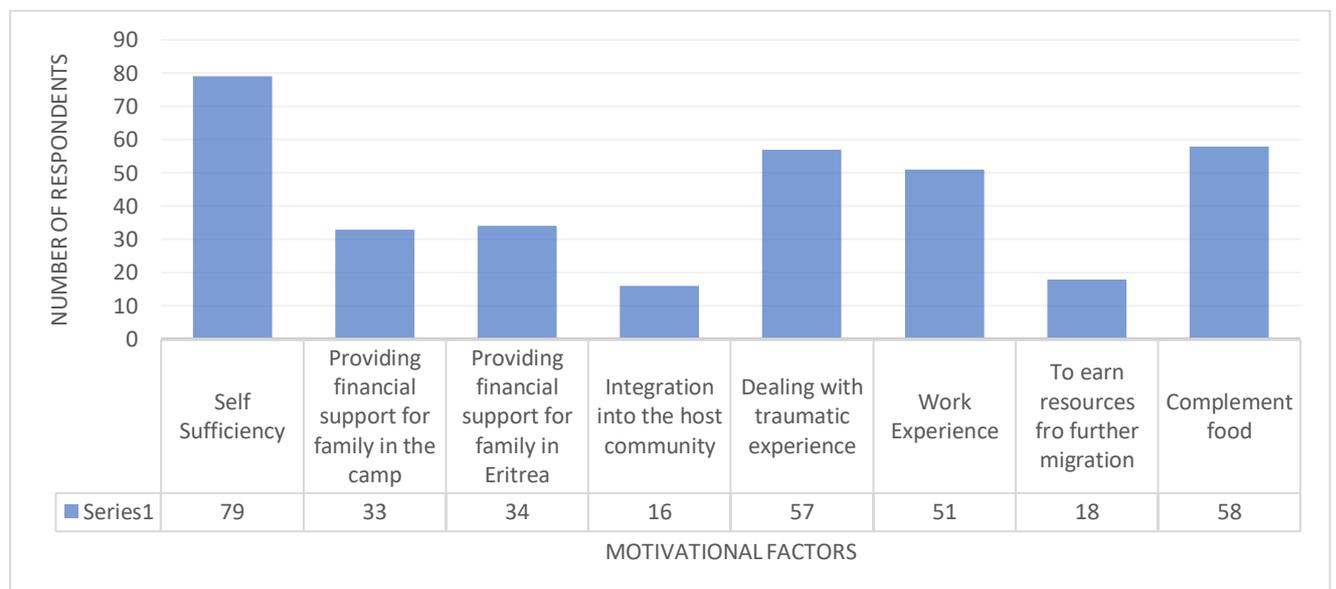
?

In an interview with an NGO worker it was observed some interrelation between incentives of continuous search for livelihood opportunities and market demand.

Refugees need sound business within the camp. As long as there is a satisfactory opportunity in terms of market linkage, they are interested [to search for opportunities continuously]. If they see that the link to the market is missing, they might not be interested. In existing businesses [the missing link] leads to drop-out [of the business activity]. (Interview, Melicherova with ZOA worker 1, face-to-face, 14 December 2017)

The next table provides an overview of motivational factors that keep refugees triggered to participate in income generating activities. The largest motivational factor is 'self-sufficiency' which was opt for by 84% of respondents. A significant difference in responses of two genders was observed in relation to the motivation of 'providing financial support for the family in the camp' which was recognized by 63.6% of women compared to 36.4% of the male counterpart. On the other hand 'dealing with traumatic experience' was considered as driving motivation for 59.5% of men compared to 40.5% of women. The other motivational factors were represented only with minor difference between two genders.

Figure 4.8 Motivational Factors



A respondent explained that beneficiaries of livelihood programs often lose their motivation to continue with particular livelihood activity (e.g., business activity) which may lead to drop-out.

A loss of motivation of beneficiary is often a problem. Most of them are young. They expect to have a short-term benefit and [at the same time] huge benefit. (Interview, Melicherova with ZOA worker 2, face-to-face, 14 December 2017)

4.4. Obstacles and opportunities to access livelihoods

Both quantitative (Table 2.7.) and qualitative data revealed a wide range of obstacles that can explain the low access of Eritrean refugees to livelihood. By far, the lack of job opportunities is considered as a main constraining element by refugees which makes it difficult for them to gain an additional income. Except a few micro-businesses like beauty salons, shops, cafés, or restaurants, very little income generating activities have developed in the camp which is closely linked with demographics and constant secondary movements of refugees. Even refugee who owns small business faces challenges on a daily basis to sustain it and generate small income out of the specific business activity. Respondents clarified this as follows:

I try to work. Mentally, it helps me. I have my small business, but I don't have a good income. In order to have an income, I need customers. But these people [refugees within the camp], they don't have money. If they don't have money, how come they can come to the café to eat? Sometimes you open the doors and for two, three days no one comes. I try to work. But how do I get people to come here? There is no good ground for work. These people are very, very poor. The money they get is not enough for a living. (Interview, Melicherova with Interviewee 3, face-to-face, 1 February 2018)

Some people have the opportunity to open a café or a shop, but it is very difficult because they don't have customers. I don't have the will to open a café nor a shop [when] I see that they [owners] are not working. (Interview, Melicherova with Interviewee 4, face-to-face, 1 February 2018)

This is interlinked with the limitations of freedom of movement which prevents refugees to travel to urban settings freely in search for better livelihood opportunities. In order to be eligible to leave the camp legally, a refugee has to obtain written permission from ARRA which, however, obliges holder to return to the camp after a predefined period. An interviewee explained the situation in this way:

There is no chance to go to other cities to work. You need special permission to go. Such condition does not encourage you to work.
 (Interview, Melicherova with Interviewee 4, face-to-face, 1 February 2018)

The in-camp policies places great restrictions on the youth and this in turn is a driver for onward movement as they see little opportunities for self-reliance within the camps.

Figure 4.9 Obstacles recognized by refugees and their relation to gender

Obstacles	Gender		Total
	Female	Male	
Restriction of the freedom of movement	18	25	43
Lack of working permits	22	16	38
Discrimination	13	6	19
Lack of job opportunities	36	34	70
Language barriers	9	12	21
Lack of experience	5	8	13
Lack of education	9	13	22
Lack of market information	2	9	11
Unacceptance by the host community	8	3	11

A respondent expressed the severity of the lack of income generating activities as follows:

It is very difficult to live here [in the camp], [both] mentally and physically. Because it is very hot here. There are no work opportunities; only for few people. ... Sometimes there is some opportunity to build [shelters], but it is for a short time. When you finish, there is no work anymore. (Interview, Melicherova with Interviewee 3, face-to-face, 1 February 2018)

Even for existing activities, it is very challenging to generate some income due to the low market opportunities.

In any type of livelihood activities, the market is not encouraging. Alongside the skill trainings and getting support investments, they [refugees] have to be linked to the markets which is tough work [to do] for

the NGOs. (Interview, Melicherova with ZOA worker 1, face-to-face, 14 December 2017)

4.5. Basic needs

All of the constraining factors cause that Eritrean refugees struggle to meet their basic needs on a regular basis. Life in Hitsats brings only a few opportunities to generate income which makes refugees highly dependent on aid and assistance from UNHCR programs. However, both refugee respondents, as well as NGO workers, reported many challenges (for quantitative data see Table 2.8.). In particular, many complained that monthly food supplies provided by World Food Program do not last for the whole month. Each person receives 10 kilograms of wheat and 60ETB which was reduced from 100ETB. In addition to that, refugees receive 0.9 liters of oil, 1.5 kilograms of pulses, and 0.25 kilogram of salt. A respondent explained:

Only 10 kilograms of wheat are given to the people. It is not enough. Maybe it is enough for two or three weeks. But after that, what are they doing if they don't have any money? [In order] to manage for one month, the people cook and eat together [rather than] alone. ... It is difficult. When I see it, I am disturbed. (Interview, Melicherova with Interviewee 1, face-to-face, 1 February 2018)

And in an another interview the hardship was expressed as follows:

It is very difficult to live here. We don't get enough food. Even the food they give us is not enough. ... and because people don't have enough food they are exposed to illnesses. (Interview, Melicherova with Interviewee 4, face-to-face, 1 February 2018)

Another problem is water supply. Even though water taps were installed for refugee communities in Hitsats, there is a shortage of water distribution. The international standard for refugees is 20 litres of water per person per day. Interviewees complained about this situation as it makes live very difficult in the camps:

Sometimes there are problems with distribution. Sometimes refugees do not get even 20 litres [of water] per day. So they go to rivers or water holes, and they use unsafe water. That is a challenge. (Interview, Melicherova with NRC worker, face-to-face, 30 January 2018)

This time the water [situation] is difficult. For example, now there is a shortage of water. Only two jugs are allowed per house per day. Forty litres is not enough. We can buy water from the locals who have wells, [we have to pay] 2ETB for 20 litres. (Interview, Melicherova with Interviewee 2, face-to-face, 1 February 2018)

There is a shortage of water. We can buy water, but it is not safe. Nobody knows whether it is clean or not. Even during the rainy season, people go to wash in the river. But it is not good. It brings some allergies. ... The situation with water is worsening. (Interview, Melicherova with Interviewee 4, face-to-face, 1 February 2018)

Each refugee that arrives in Hitsats is granted a shelter. However, challenged by the lack of space, refugees have to share simple houses with many others. They can be as many as ten people assigned to share one shelter. A respondent explains:

Nine or ten people live together in one house. But we are different. We have different ethnicity, culture; we came from different villages, cities; we don't know each other or our behaviours. So it is very difficult to live in one house like this. I don't live with my family nor friends. Instead, I live with different people who came from different regions. (Interview, Melicherova with Interviewee 2, face-to-face, 1 February 2018)

Lastly, the low access to power brings another struggle to a daily reality of refugees. They lack the wood and coal which are essential for cooking. “[A] furnace without coal is nothing” (Interview, Melicherova with Interviewee 1, face-to-face, 1 February 2018).

Consequently, refugees often cut trees to get some firewood for cooking. This often causes clashes between refugee and host communities and may even lead to the detention of refugees.

We don't have [fire]wood either coal. We have to pay for it. If we try to take wood from locals [host community] we may fight with them, or they may beat us, or we may [end up in] a detention centre. (Interview, Melicherova with Interviewee 2, face-to-face, 1 February 2018)

Figure 4.10 Basic Needs

Need	Number of respondents	
	Provided by assistance	Earned additionally
Food	92	88
Water	90	82
Transport	11	78
Health care	85	69
Sanitation	16	83
Communication (mobile, internet)	6	90
Clothing	12	91
Education	90	12
Access to Energy	9	85

4.6. Good practices established in the camp

Several organizations based in the camp are keen to promote and support livelihood programs and build greater self-reliance. Refugees are highly motivated to take part in the programs offered. They seek to obtain certificates which they may potentially use in the future even after leaving the camp. All the procedural and technical aspects of livelihood programs, initiated by NGOs, have to be consulted with ARRA - governmental agency present in the camp.

The programs enhance the capacity development through vocational skills trainings and by providing start-up materials and micro-loans for small businesses. Vocational skill trainings are provided inside the camp for refugee as well as host communities. Each NGO provides these training independently based on the assessment conducted prior the start of livelihood programs. Long-term programs of 6 months include trainings such as furniture making, food preparation, garment making, and construction. Short-term trainings take 3 months and include, e.g., laser work, metal work, and beauty services such as hairdressing or haircutting. Upon receiving vocational training, participants follow business skill training

which educates them about basic business strategies and peculiarities. After graduating from the trainings, organizations provide micro-loans and start-up kits for groups to start their own small business. Not every graduate, however, qualifies for receiving start-up materials as the demand is much higher than possible offers.

Not only refugees themselves but even organizations have to face a lot of limitations and challenges. As multiple NGOs provide the same type of trainings, this causes duplication of certain vocations and leads to saturation of the market. This happens because of lack of horizontal cooperation between organizations during the assessment phase and livelihood planning. *“To train people is not enough. To put them in a good business market, to give them the market is good”* (Interview, Melicherova with Interviewee 1, face-to-face, 1 February 2018).

The connectivity of refugees to the economic market outside the camp is non-existent which dramatically decreases chances to generate enough income for sustaining the business activity and at the same time increases the vulnerability of refugees. According to a respondent:

There are also stereotype problems. You help them [refugees] to start up business, and they feel like you will support them all their life here. NGOs try to help them within their limited budget and capacity, but [refugees'] expectations from NGOs are a lot higher. They feel like you always have to be there to support them rather than [they] strengthen themselves. These syndromes are [present] there. It is a problem to make livelihood really sustainable. You see that their business collapses and they start to go down. (Interview, Melicherova with ZOA worker 1, face-to-face, 14 December 2017)

Current livelihood programs cannot be considered as sustainable. Sustainability in livelihood planning should be an essential element which helps to prevent secondary migration movements. As the SLF framework of DFID qualifies livelihood as sustainable when it does not depend on external assistance, when it recovers from external shocks and stresses, and when the long-term productivity of natural resources is preserved. (DFID, 1999) Therefore, it is necessary to shift from short-term to long-term planning with a

holistic approach. Nevertheless, further research is needed in order to understand how sustainability can be embedded better within refugee livelihood programs.

4.7. Discussion

4.7.1. Representativeness of the collected data

Stemming from the data analysis, it was observed that livelihood situation in the camp remains stalled in practice and the need for enhancement of livelihood programs remains high. It is important to note that the representativeness of the data can be questioned. The following two criteria used during selection process intended to increase the likelihood that the data will reflect the overall camp population more accurately: (1) input of both genders was represented equally; (2) all respondents had to reside in the camp at least 30 days. In reality, the collected data was represented by respondents who had been residing in the camp for one year or more (see Table 2.3). This perhaps amplifies the validity of data as the respondents' experience, perceptions and observations on livelihood situation may expand over the time spent in the camp.

Nevertheless, the occurrence of bias cannot be excluded from the considerations of data validity, while taking into account possible mistrust of refugees towards the researcher as well as the possible impact of traumatic experiences (as described in Kidane and Stokmans, 2018) on the responsiveness of refugees. In addition to that, demographic criteria, except gender, are not represented equally in the collected data. It raises a chance of having different results if the population would be represented by the equal number of refugees in variables such as age group or years of education.

When discussing representativity of data, we have to look into the research carried out independently from the present study. The current results confirm observations of the research conducted in two different camps, Adi Harush and Mai Aini, with solely Eritrean refugee population (Samuel Hall, 2014). Both research studies (by Samuel Hall and the present research) recognized the low access to income generating activities as well as the lack of sustainability of livelihood opportunities. The study by Samuel Hall is, however, broader as it considers refugee livelihoods beyond the camp settings.

The quantitative data collected in Hitsats were complemented by the qualitative interviews and observations from NGO workers which increased the representativeness of

overall data outcome. Nevertheless, the validity of these results was questioned by ARRA agency during the process of dissemination. The ARRA representatives pointed out that results of quantitative data do not capture the severity of livelihood situation and that the real-life conditions are more alarming than the results were able to capture. Specific remarks were directed towards the analysis of the needs of refugees (see sub-section 4.5.), such as access to water, food, shelter, and energy. According to ARRA, the real-life situation and real numbers are far more startling. Therefore, the further research is vital in order to strengthen the overall validity of data.

5. Accessibility to Digital Communication^{vi}

5.1. Unaccompanied minors and youth

The absence of secondary education possibilities is one main issue in Hitsats (ARRA and the Danish Refugee Council (DRC) are planning to provide secondary education later this year (2017)). The vast majority of the unaccompanied minors and youth in Hitsats are coming from the border regions of Southern Eritrea. Their travel to Ethiopia was on average a one hour walk. These regions are mostly rural areas. The minors and youth came alone or with friends because: “everybody goes”, or “my friend asked me to come”, some of them were economically orientated because, for example, their neighbours had a nice house built with money from Germany – so, they will go to Germany. This decision is made while they have no clue about what or where that actually is. If the young people were not economically orientated at the time they left Eritrea, they become economically orientated as soon as they arrive in Hitsats because they are being influenced by their peers.

The lives of the unaccompanied minors and youth in Eritrea appeared to be similar; most minors and youth go to school, after school time they work for their parents (keeping cattle or searching for gold) and help their parents in the household. Leisure time, hobbies or joy was not of anyone’s concern. In Hitsats, joy and leisure time was more dominant because the minors and youth were not concerned about food since this was assured to them via the rations. They were also free to play with friends since they did not have to work for their parents anymore. The male respondents played more outside and enjoyed more time with their friends than the female respondents did.

Roughly all respondents saw education as important. Mostly they argued that: “in order to communicate” or “to achieve goals” one needs education. This was interesting and disturbing because they are aware of the fact that this is not the case for themselves. They know that children in Eritrea will never achieve goals or even need to communicate because their future is already written in stone. The older respondents cared even less about education because they are more aware of the fact that their education was about to be over soon. After secondary school, the youth will join the military service, or they will have children. The military service is a life-long, unpaid service under harsh conditions. Various

girls from the older age groups told me that rather than enjoy education or achieve goals, they prefer to get married and have children as soon as possible to escape the national service. When the girls arrive in Hitsats, this is not the case anymore, and they do not have to give birth as soon as possible. They do not have to serve in the national service and they can pursue new objectives. However, aspirations they may have, the actions in order to achieve them remain absent inside the camp. Only when they leave the camp actions to achieve these goals can be realized. Particularly children who are supposed to be at a secondary school stay often in their houses. Especially the girls stay at home and sleep big parts of the day. The most important concern for them is attending church services and activities. The church provides classes to the minors and youth in which they learn about the bible and religion. The Orthodox church is the most dominant and attended church in Hitsats.

Furthermore, the NRC offers vocational education and training in the camp. Courses such as carpentry, tailoring, and cooking courses are given. Most Eritrean people have no experience with other education than elementary and secondary education. Minors are generally not attending these courses, but among the youth and adults these courses are very popular. Some of the respondents see the courses as offered by the NRC as a good start qualification that prepares them for the future. Various respondents from the over aged groups told me that they will finish one of the (3- or 6-months) courses, receive their certificates, and after that, they will leave to Sudan, and subsequently work as a sewer or cook in Europe or the United States.

5.2. Information

Minors and youth struggle with obtaining correct information. Information about important issues such as resettlement or family reunification is spread among the camp residents themselves. The main issue is that nobody knows the exact procedures for those issues. Even camp officials who work directly with camp residents are in various cases not completely sure about the procedures. This results in many different stories about important issues. When I asked the respondents about how they receive information, it appeared that this goes generally via-via. Another way about how information is spread is by vehicles who drive around with speakers on the roof that announce camp information. Furthermore, the minors are informed with the dangers of migrating via the Central

Mediterranean Route by UNHCR officials who present these dangers to the group. When I asked about these presentations it appeared that the message was not understood by everyone.

5.3. **Mobile phone architecture**

The mobile phone use in Hitsats is extensively outlined in the reports in the appendices. The main findings in those reports is highlight in this section. Connectivity is bad in Hitsats. During the night (00.00-07.00) the mobile signal can be qualified as good, during the day it is hard to reach. In order to get some signal, tricks are conducted by the camp residents. The principal trick to get connection is to dial 112 (the emergency number), by dialling this number continuously the phone can pick up a weak signal. Furthermore, the application Psiphon is used to enforce the connectivity on the phones (Report 3 mobile phone use, Appendix 3). This application is designed for people in oppressive regimes or closed environments and ensures a space to surf freely on the internet. In Hitsats, the application was used because it could grasp the weak signal, and subsequently maintain the signal for a short time. Because the connectivity is low, people do not use Play Store, App Store, or comparable download stores in order to download applications. If a new application has to be introduced this has to be done directly from phone to phone. This also had was done with 24COMS. The people use applications that can share other applications, pictures, videos etc., applications such as: "Share.It", "C-share", "All Share", and "Xender". These sharing applications work as Mobile Hotspots that will be established by the sender and on which the receiver will subsequently connect. You can send and receive safe and directly from phone to phone. Because direct application download platforms are not used, the use of different and new applications in Hitsats is limited and not likely to expand.

Due to the low connectivity and lack of money to buy phone cards, people use competitive applications in order to save money and data. Because money is an issue, there are possibilities to cope with situations whenever there is no credit on the phone. People can transfer money from one phone to another by dialling codes. People can also send "call me back requests" – these are free text messages that are sent from one phone to another in which is written if the receiver can give the sender a phone call (Report 3 mobile phone use, Appendix 3).

Mobile phones are generally switched to the 2G network, over this network phone calls can be made more easily than over the 3G network. As soon as people want to use the internet again they switch their phone back to the 3G network.

6. Developing SHLCPTS on Mobile Phone^{vii}

This study was carried out in refugee camps in Ethiopia. It goes into the delivery of Self-Help Low Cost Post Traumatic Stress (SHLCPTS) program on ICT. It explores the possibilities of delivering the program via ICT as an app on the mobile phone, reflecting the high mobility of the population in question. Furthermore, it will focus on the workable elements of the trauma-healing program (psycho-education, and exercisers).

6.1. Eritrean Refugees in Tigray

Eritrean refugees have been coming to Tigray since about 2000 fleeing a wide range of persecution in their country and increasingly fleeing the open-ended national service. In Ethiopia, they mainly live in four refugee camps in Tigray (although there is a rising number of people who use the off-camp policy and live elsewhere in the country provided they have the means to support themselves doing so). Shimelba, the oldest camp, opened in 2004 and Hitsats, the newest camp, opened in 2013. These are the camps that this study has been conducted in.

UNHCR's Country Refugee Response plan for 2018 reveals that, since 2014 Ethiopia received an average monthly arrival of 2,300 refugees per month. In 2017 the country hosted Eritrean refugees 164,668 refugees (UNHCR 2018), according to the plan the main challenge in providing assistance to these refugees is the high number of people who leave the camps to pursue onward movement. In 2016 up to 80% of newly arrived refugees, including up to 300 unaccompanied children a per month, left the camp within the first 12 months of arrival.

This extraordinary rate of mobility was also reported by earlier reports; in 2014, it was found that of 382 Eritreans surveyed 84% identified 'moving to another country' as their plan for the future (Samuel Hall Consulting, 2014). Similarly, an Amnesty International survey conducted 2015 found that two thirds of the Eritrean refugees in Ethiopia was pursuing secondary movement (Amnesty International 2016). Many of these people would be travelling via irregular means with a substantive majority crossing the Sahara and the Mediterranean to reach Europe (UNHCR 2017).

The high rate of mobility is thus the main difference between the Northern Ugandan population in previous trials of the SHLCPT and this current study. This mobility does

inevitability impact on the meaning of livelihoods and livelihood support. While in Uganda livelihood can be measured in terms of actual income in the context of a highly mobile community it is prospects of building\rebuilding livelihoods that becomes a core consideration of resilience.

6.2. The development and implementation of SHLCPTS App

SHLCPTS was developed on 24COMS which offered its platform without charge for the study. The platform was chosen as 24COMS is an app offering a communication platform that enables secure and efficient communications around mobile devices, with 100% data ownership and care for privacy. Services offered through the app can be deployed with ease and flexibility for Chat, Post, News Feed, Newsletters, Brochures, Location Based Services, Track and Trace etc. All these solutions and applications are managed by an administrator from a web-based control centre.

A special page on the app was developed with a view of delivering the SHLCPTS for use with mobile communities. It has the facilities for completing a short version of the IES-R questionnaire that was developed for measuring the level of trauma and also provides access to the seven videos that were developed to give six sessions of support. 2 of the videos provided education on the impact of trauma and four giving instructions and demonstrations on techniques to enable victims of trauma to take control over distressing emotions in their day to day life. Videos were uploaded onto Vimeo, a video sharing site, and were individually password locked for controlled access. Videos were password locked that were released to each user. The first two upon completion of the IES questionnaire and once the administrator has checked suitability. Subsequent videos were to be released a few days following the completion of the previous video. In addition, users were also able to comment on each video as well as send messages to administrators of the app.

All content, including videos, the instruction for completing the IES and the IES itself were in Tigrigna to enable users to get information in their first language, on a group page called 'Support and Encouragement'.

The initial plan was as follows: following selection for participating in the research, participants are given whole group briefings and then allocated to their respective group (2 video v 7 videos). They are then all interviewed on a short version of the SER and Internet

Social Capital Scale (ISCS) adapted for the research. After this everyone downloaded 24COMS and was admitted to the Support and Encouragement page where they completed the IES-Short and were then prompted to access the first two videos.

After accessing the first two videos participants in the 2-video group were notified that they will then be invited to the second wave interviews and community event to commend them for the progress they have made in dealing with their trauma after six weeks.

The group with 7 videos were prompted to send a message and ask for subsequent videos. After the last video they too were given information of the second wave data collection and community event (see flow chart on annex i for details and annex ii for translations of instructions of exercises video).

6.3. Testing of SHLCPTS on Mobile Phone

How would SHLCPTS work on mobile phone in Hitstats camp. The following are the observations of the study:

Connectivity is very weak, especially in Hitsats. Connectivity at night and in the morning is generally better in the refugee camps. The participants used tricks to get better connectivity. They dialled 1 or 2 times the emergency number 112. While dialling this number, the connectivity appears for a short time. The trick then is to quickly register yourself on the app and move on to the videos before the connectivity disappears again.

Because of the weak connectivity, images are not (good) visible, and it takes a long time to get on to the next page of the group-platform. Text messages send via 24COMS are being received very slowly. Sometimes, it takes a whole day. If messages are received, the receiver gets a push-message. While this push-message appears, it is still difficult to open the actual message, it takes a long time before it appears in the chat. Sending messages also takes time.

In testing the APP the following observations were made:

1. Some features of the app are too complicated;
2. Email registration seems difficult. Many people do not have email addresses which makes registration and subsequently remembering the account codes difficult;
3. The videos are too big, and difficult to access via Vimeo;

4. The language used for APP instructions is too difficult. Written content and instructions consist of Tigrinya mixed with English which is confusing;
5. The checklist in “info” (notification, email, location, location updates) is too difficult;
6. Pop-ups when the app is installed are too difficult (pop-up regarding GPS-approval, and the requirement to add a group);
7. Concrete recommendations from findings:
8. Improve application availability for all types of phones;
9. Functionality less depending on connectivity (e.g. once the functions and different sites of the groups are opened, to be saved on phone);
10. Less pictures for quicker functionality;
11. Quicker message service (WhatsApp/Viber/Messenger messages are being received while the messages of 24COMS are not);
12. It would be easier if registration can be done by just names or phone numbers. The respondents can remember them easier, and registration is more user-friendly;
13. It would be easier if the videos are directly accessible through 24COMS instead of Vimeo;
14. Use one language instead of mix English and Tigrinya;
15. Checklist for notification, email, location, location updates to be automatically checked. If the user wish to un-check; to be done manually;
16. No pop-ups (GPS approval) after install completed.
17. In the future we can perhaps have music, films, books, games, information etc. that is already installed and doesn't require updating.

In response to the problems identified it was decided to change the use of the app in the way it was originally envisaged despite all participants having been registered. Therefore, videos were uploaded to one phone and research assistants then shared it via blue tooth on an app called SHAREit.

SHAREit is a free application for transferring files between phones by creating hotspot connections between two mobile phones that have the application. Once connection was created research assistants were able to select the relevant video and complete transmission. This technology was already in wide use in the camps where photos, videos, contacts and anything else on SD cards was transferred. This was a good alternative to

24COMS in terms of delivering SHLCPTS on ICT. However, it was necessary to give the role of ensuring the time lapse between sessions to the research assistants on the ground, as opposed to the 24COMS administrator doing it remotely.

The SHLCPTS APP is available in annex 2.

7. Trauma relief, livelihoods and Social-Economic Resilience^{viii}

In the quantitative part, we will focus on the effectiveness of the SHLCPTS program as a mobile APP in decreasing trauma, increasing Social and Economic Resilience and increasing Social Capital. The hypotheses to be tested can be summarized as follows:

- 5.1. In the pre-test, we expect a negative correlation between post-traumatic stress (IES-short) and the components of:
 - ‘ Social and Economic Resilience (except worry)
 - ‘ Internet Social Capital Scale (both online and offline)
- 5.2. Both elements of the SHLCPTS program (psycho-education and demonstration of exercises) will
 - ‘ Decrease post-traumatic stress
 - ‘ Increase the components of the Social and Economic Resilience (except worry since high values on that scale indicate more worry)
 - ‘ Increase the components of the Internet Social Capital Scale (both online and offline)
 - ‘ Livelihood support will
 - ‘ Decrease post-traumatic stress
 - ‘ Increase Social and Economic Resilience (except worry since high values on that scale indicate more worry)
 - ‘ Increase the components of the Internet Social Capital Scale (both online and offline)

However, before exploring these hypotheses, we will go into the reliability of the scales used in this study.

7.1. Scale construction

In the research four constructs were used which were measured during the pre- and post-test:

0. Impact of Event Scale (short version)
1. Social and Economic Resilience scale (short version)

2. Internet Social Capital Scale (both online and offline)

In this research, a short version of the Impact of Event Scale was used (see also section 5.4.1.). In order to explore the statistical properties of this short version of the IES we will conduct an item-analysis which consists of the statistics of the items (mean and standard deviation, there was no item non-response), and the internal consistency of the scale (Cronbach's alpha).

Figure 7.1 Mean standard deviation of IES- Short items

	mean		Standard deviation	
	pretest	posttest	pretest	posttest
Other things kept making me think about it.	3,583	3,085	1,4985	1,4418
I had waves of strong feelings about it.	3,359	2,936	1,5266	1,4051
I stayed away from reminders of it.	3,825	2,574	1,3535	1,4027
Tried not to talk about it.	3,417	2,649	1,5116	1,4421
I had trouble falling asleep.	2,777	2,521	1,4137	1,4348
I had trouble concentrating	3,068	2,404	1,5033	1,4242
Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart	3,000	2,628	1,5780	1,5861

Figure 6.1. indicates that, in the pretest, the level of post-traumatic stress is rather high, since all items have an average score above 2,5 which is regarded as the cutoff point for high trauma (1,5 if the scale goes from 0-4 see Creamer, Bell & Failla, 2003; p. 1494).

Furthermore, the respondents score lowest on hyperarousal with a value of about 3. In the

posttest, the level of post-traumatic stress seems lower. Now values on both avoidance and hyperarousal are about 2,5 and only the items of intrusion score about 3.

Moreover, in the pre-and posttest the standard deviation of all the items is above 1, and almost 1,5 which is substantial for a 5-point scale. It indicates that, in the pre- and posttest, the level of post-traumatic stress reported varies quite a lot across the respondents.

Regarding the internal consistency of the scale we will go into the corrected item-total correlations and the Cronbach's alpha (see fig 14).

Figure 7.2 Internal consistency of IES-Short

Cronbach's alpha: first wave= 0,887; second wave=0,873	Corrected Item-total correlation	
	pretest	posttest
Other things kept making me think about it.	,669	,693
I had waves of strong feelings about it.	,786	,701
I stayed away from reminders of it.	,742	,534
Tried not to talk about it.	,652	,758
I had trouble falling asleep.	,572	,654
I had trouble concentrating	,661	,646
Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart	,679	,580

Figure 6.2. indicates that, in the pre- and posttest, each item of the IES-short correlates quite well with the scale (all item-total correlations are above 0,35.) and give a good internal consistency (pretest: Cronbach's alpha = 0,887; posttest: Cronbach's alpha = 0,873). Consequently, the mean of items answered is regarded as an index of the post-traumatic stress. Figure 6.3. outlines the key statistics of the scores on IES-short for the pre- and posttest.

Figure 7.3 Statistics of IES -Short

	mean	Standard deviation	skewness	kurtosis	# of items in the scale
pretest	3,29	1,15	-0,48	-0,67	7
posttest	2,68	1,09	0,18	-1,04	7

2.1. Social and Economic Resilience Scale (SER- short)

In order to explore the statistical properties of this short version of the SER we will conduct an item-analysis which consists of the statistics of the items (mean and standard deviation, there was no item non-response), and the internal consistency of the scale (Cronbach's alpha).

Figure 7.4 Mean and standard deviation of SER- Short Items

	mean		Standard deviation	
	pretest	posttest	pretest	posttest
pretest: n=103; posttest: n=95)				
Improvement of actual income/ Economic resources				
I am able to meet my financial needs	2,447	2,457	1,2889	1,3089
I am able to save money	1,437	1,368	1,0726	0,8998
I will have good means of earning money in the next 6 months?	2,272	2,663	1,2695	1,5953
I am able to survive in hardship times	3,388	3,883	1,0312	1,1250

Figure 7.5 Mean and standard deviation of SER- Short Items (continued)

	mean		Standard deviation	
	pretest	posttest	pretest	posttest
pretest: n=103; posttest: n=95)				
Empowerment				
I am able to get more time for productive activities	2,835	3,389	1,3798	1,5457
I am able make my own decisions	3,427	3,758	1,0252	1,2003
I feel improvement in my self-worth	2,893	3,484	1,3129	1,3198
Structural/System				
I feel I am able to exercise my rights	3,437	3,832	1,1772	1,2936
I am able to easily access support services I need easily	2,961	3,389	1,1875	1,3706
I understand organisations offering support services in the refugee camp work	3,068	3,705	1,2777	1,3596
Worry				
I am worried that conflict/war may erupt again	1,835	1,611	1,0010	1,1041
I am worried that I will fail to provide for myself and/or my family	4,417	4,189	0,9854	1,2573
I am worried that support organisations will not treat me fairly	2,757	2,516	1,2404	1,3358
I am worried my physical or emotional health will deteriorate	3,282	3,253	1,3962	1,4438
I am worried that I may not have enough money to meet my needs	3,650	3,253	1,2184	1,5843
I am worried about my safety in the camp	2,126	1,937	1,2421	1,2532

Figure 16 Mean and standard deviation of SER- Short Items (continued)

	mean		Standard deviation	
	pretest	posttest	pretest	posttest
Capability				
I feel I can get information about anything I want	3,379	3,789	1,1725	1,2874
I have acquired new skills to improve my life	2,563	3,284	1,4119	1,5344
I feel change in the amount of knowledge I hold	2,854	3,453	1,3314	1,4715
Social				
I feel my relationship with the rest of the community has improved	3,738	4,095	1,0661	1,1492
I feel my contact with the leadership in the camp has improved	3,505	3,663	0,8731	1,0975
I feel I trust my community	3,233	3,411	1,1393	1,3248

Figure 6.5. indicates that, in the pre- and posttest, respondents are negative about their income perspectives; in general one has enough money to survive, but is not able to meet financial needs. In the posttest, the income perspectives have only changes (positively) regarding the future, but the current financial position is evaluated the same (first two items).

Regarding empowerment, respondents are about neutral (3) but slightly negative in the pretest. But their empowerment has increased by the posttest. In the posttest all items score above the value 3 (neutral). The same counts for capability. In the pretest the scores are about neutral but slightly negative, and in the posttest all items score above 3. A similar trend emerges for structural/system. In the pretest all items score about neutral (3) and in the posttest all items score above 3 and two items even above 3,5. Also for the social

subscale the same trend can be observed: in the pretest all items score slightly above neutral (3), and in the posttest all items score about 3,5 and one item even 4.

Regarding worry a diffuse picture emerges. In the pre- and posttest, the items that are about personal worry are lower (above neutral) and those about social or situational worry are higher (beneath neutral). Furthermore, the amount of worry reported in the posttest is smaller compared to the pretest.

In the pre- and posttest, the standard deviation of most items are about 1, which is substantial for a 5-point scale. It indicates that the level of social and economic resilience reported varies quite a lot between respondents. This is especially true for empowerment and capability. The last interesting statistic is the percentage of missing values; none of the respondents missed an item.

Regarding the internal consistency of the scale we will go into the corrected item-total correlations and the Cronbach's alpha (see Figure 6.6.).

Figure 7.6 Internal consistency of SER-Short

	Corrected item-total correlation	
	pretest	posttest
Improvement of actual income/ Economic resources, Cronbach's alpha: first wave 0,68; second wave: 0,625		
I am able to meet my financial needs	,610	,548
I am able to save money	,475	,332
I will have good means of earning money in the next 6 months?	,535	,528
I am able to survive in hardship times	,249	,260
Empowerment, Cronbach's alpha: first wave 0,505; second wave 0,742		
I am able to get more time for productive activities	,312	,583
I am able make my own decisions	,276	,488
I feel improvement in my self-worth	,391	,656

Figure 7.7 Internal consistency of SER-Short (continued)

	Corrected item-total correlation	
	pretest	posttest
Structural/System, Cronbach's alpha: first wave 0,553, Second wave 0,667		
I feel I am able to exercise my rights	,391	,427
I am able to easily access support services I need easily	,466	,545
I understand organisations offering support services in the refugee camp work	,330	,468
Worry, Cronbach's alpha: first wave 0,584, second wave 0,632		
I am worried that conflict/war may erupt again	,210	,001
I am worried that I will fail to provide for myself and/or my family	,230	,386
I am worried that support organisations will not treat me fairly	,174	,505
I am worried my physical or emotional health will deteriorate	,488	,477
I am worried that I may not have enough money to meet my needs	,446	,583
I am worried about my safety in the camp	,379	,222
Capability, Cronbach's alpha: first wave 0,617, second wave 0,794		
I feel I can get information about anything I want	,193	,447
I have acquired new skills to improve my life	,577	,753
I feel change in the amount of knowledge I hold	,552	,743
Social, Cronbach's alpha: first wave 0,638, second wave 0,593		
I feel my relationship with the rest of the community has improved	,601	,514
I feel my contact with the leadership in the camp has improved	,488	,433
I feel I trust my community	,301	,284

Regarding the improvement of income scale, figure 6.7. indicates that this scale has questionable Cronbach's alpha in the pre- and posttest (between 0,6 and 0,7). Furthermore, the item-total correlations indicate that the item "I am able to survive in hardship times" correlates rather low with the rest of the scale. This counts for the pre- and posttest. When removing this item, the Cronbach's alpha for the pretest will increase to 0,73 what is regarded as acceptable (between 0,7 and 0,8) and in the posttest the Cronbach's alpha will increase to 0,647 which is still questionable. Due to these findings, this item is removed from the scale.

Regarding the empowerment scale, figure 6.7. reveals that the Cronbach's alpha is rather poor (between 0,5 and 0,6) for the pretest, but acceptable for the posttest (between 0,7 and 0,8). In the pretest, all three items have a rather weak correlation with the rest of the scale (all item-total correlations are below 0,4). However, in the posttest all items have an acceptable item-total correlation ($> 0,35$). In consequence, all three items are kept in the scale.

The structure/system scale has a poor internal consistency (Cronbach's alpha is 0,553) in the pretest, and a questionable internal consistency in the posttest (Cronbach's alpha = 0.667). In the pretest, the item 'understand organizations offering support services in the refugee camps work' has a low item-total correlation ($< 0,35$). However, removing this item will not improve the Cronbach's alpha. In consequence, all three items are kept in the scale.

The worry scale has also a rather poor internal consistency (Cronbach's alpha is 0,584) in the pretest and a questionable internal consistency in the posttest (Cronbach's alpha is 0,632). In the pretest, there are three items with a rather low item-total correlation: 'I am worried that conflict/war may erupt again', 'I am worried that I will fail to provide for myself and/or my family', and 'I am worried that support organizations will not treat me fairly'. In the posttest two items have a rather low item-total correlation: 'I am worried that conflict/war may erupt again', and 'I am worried about my safety in the camp'. Due to these findings two items ('I am worried that conflict/war may erupt again', and 'I am worried about my safety in the camp') are removed from the scale. This resulted in a Cronbach's alpha of 0,50 in the pretest, which is rather poor and a Cronbach's alpha of 0,73 in the posttest, which is regarded as acceptable.

The internal consistency of the capability scale is questionable (Cronbach's alpha = 0,617) in the pretest and acceptable in the posttest (Cronbach's alpha = 0,794). In the pretest, the item 'I feel I can get information about anything I want' has a low item-total correlation (< 0,35) and removing this item will increase the internal consistency to 0,790 which is acceptable. Due to the fact that in the posttest this item has an acceptable item-total correlation (> 0,35), all three items were kept in the scale.

The last subscale, Social, has a Cronbach's alpha of 0,638 in the pretest which is questionable and an alpha of 0,593 in the posttest what is regarded as poor. In the pre- and posttest, the item 'I feel I trust my community' has a low item-total correlation (< 0,35) and removing this item will increase the internal consistency to the acceptable level of 0,762 in the pretest and to the questionable level of 0,687 in the posttest. Due to these findings this item was removed from the scale. A summary of the key statistics SER-short is given in figure 6.8..

Figure 7.8 Summary of SER-Short Statistics

		# items included	mean	Standard deviation	skewness	kurtosis
Improvement of actual income/ Economic resources	Pretest	4	2,05	0,98	0,858	-0,123
	posttest	4	2,16	0,99	0,620	-0,48
Empowerment	Pretest	3	3,05	0,88	=0,267	-0,640
	posttest	3	3,54	1,11	-0,373	-0,905
Structural/System	Pretest	3	3,15	0,88	-0,370	-0,403
	posttest	3	3,64	1,04	-0,502	-0,445
Worry	Pretest	4	3,53	0,77	-0,344	-0,132
	posttest	4	3,30	1,05	-0,074	-0,905
Capacity	Pretest	3	2,93	0,98	-0,215	-0,691
	posttest	3	3,51	1,21	-0,287	-1,061
social	Pretest	2	3,62	0,87	-0,670	0,655
	posttest	2	3,88	0,98	-0,708	-0,076

2.2. Internet Social Capital Scale

In this research we used the ISCS to measure social capital online and offline. We will first discuss the statistical properties of the Social Capital Online and then those of Social Capital Offline.

2.2.1. Social capital Online

Figure 6.9. shows the mean and standard deviation of Social Capital online.

Figure 7.9 Mean standard deviation ISCS (Online)

	mean		Standard deviation	
	pretest	posttest	pretest	posttest
There are several people online/offline I trust to help solve my personal problems.	3,155	3,436	1,5451	1,5832
There is someone online/offline I can turn to for advice about making very important decisions.	2,981	3,234	1,4818	1,6489
There is no one online/offline that I feel comfortable talking to about intimate personal problems. (recoded)	2,214	2,766	1,4393	1,6683
When I feel lonely, there are several people online/offline I can talk to.	2,854	3,277	1,5618	1,6225
If I needed an emergency loan, I know someone online/offline I can turn to.	2,214	2,415	1,4393	1,5548
The people I interact with online/offline would recommend me to people in their network.	3,155	3,543	1,3192	1,5216

Figure 7.10 Mean standard deviation ISCS (Online) (continued)

	mean		Standard deviation	
	pretest	posttest		pretest
The people I interact with online/offline would be good job references for me.	2,903	3,415	1,5244	1,5409
The people I interact with online/offline would share their last dollar/food/clothing with me.	2,019	2,500	1,4001	1,6313
I do not know people online/offline well enough to help me get ahead. (recoded)	2,204	3,085	1,1321	1,6439
The people I interact with online/offline would help me fight an injustice.	2,718	2,968	1,4580	1,5893
I have a good network of friends and family	2,796	3,160	1,5362	1,5678

Figure 19 indicates that, in the pretest, the level of Online Social Capital is about neutral and slightly negative (most items score about 3 or just below). In the posttest all items score higher and the overall level of online social capital is about neutral (only three items score between 2,5 and 3). Moreover, in the pretest, the standard deviation for all of the items is above 1, and approach the value 1,5, while in the posttest the standard deviation of all items is above 1,5. This is substantial for a 5-point scale and it indicates that the level of online Social Capital reported varies quite a lot across respondents. The last interesting statistic is the percentage of missing values; none of the respondents missed an item.

Regarding the internal consistency of the scale we will go into the corrected item-total correlations and the Cronbach's alpha (see figure 6.11).

Figure 7.11 Internal consistency of ISCS (Online)\$

Cronbach's alpha: first wave 0,899, second wave 0,960	Corrected Item-total correlation	
	pretest	posttest
There are several people online/offline I trust to help solve my personal problems.	,741	,869
There is someone online/offline I can turn to for advice about making very important decisions.	,739	,847
There is no one online/offline that I feel comfortable talking to about intimate personal problems. (recoded)	,479	,777
When I feel lonely, there are several people online/offline I can talk to.	,526	,774
If I needed an emergency loan, I know someone online/offline I can turn to.	,615	,690
The people I interact with online/offline would recommend me to people in their network.	,742	,859
The people I interact with online/offline would be good job references for me.	,725	,853
The people I interact with online/offline would share their last dollar/food/clothing with me.	,566	,741
I do not know people online/offline well enough to help me get ahead. (reversed)	,406	,787
The people I interact with online/offline would help me fight an injustice.	,639	,795
I have a good network of friends and family	,766	,916

Figure 6.11 indicates that, in the pre- and posttest, each item of the online Social Capital scale correlates quite well with the scale (all item-total correlations are above 0,35). However, one should notice that in the pretest, the reversed items have the lowest item-total correlation. This trend does not appear in the posttest. In the pre- and posttest, all items contribute to a good internal consistency (first wave: Cronbach's alpha = 0,899; Second wave: Cronbach's alpha = 0,960). Consequently, the mean of the items answered is

regarded as an index Online Social Capital. In figure 23 the key statistics of the ISCS (Online) are presented.

2.2.2. Social capital Offline

Figure 6.12 shows the mean and standard deviation of Offline Social Capital.

Figure 7.12 Mean standard deviation of ISCS (Offline)

	mean		Standard deviation	
	pretest	posttest	pretest	posttest
There are several people online/offline I trust to help solve my personal problems.	3,049	3,585	1,3531	1,4548
There is someone online/offline I can turn to for advice about making very important decisions.	2,903	3,585	1,4178	1,4548
There is no one online/offline that I feel comfortable talking to about intimate personal problems. (recoded)	2,427	3,011	1,4525	1,5828
When I feel lonely, there are several people online/offline I can talk to.	3,505	3,809	1,2436	1,3382
If I needed an emergency loan, I know someone online/offline I can turn to.	1,981	2,521	1,3059	1,6312
The people I interact with online/offline would recommend me to people in their network.	3,621	4,085	,9406	1,1608
The people I interact with online/offline would be good job references for me.	3,019	4,000	1,2908	1,2181

Figure 7.13 Mean standard deviation of ISCS (Offline) (continued)

	Standard deviation		mean	
	pretest	posttest		pretest
The people I interact with online/offline would share their last dollar/food/clothing with me.	1,602	2,043	1,0510	1,4212
I do not know people online/offline well enough to help me get ahead. (recoded)	2,456	3,106	1,2189	1,6426
The people I interact with online/offline would help me fight an injustice.	2,854	3,128	1,2634	1,5397
I have a good network of friends and family	2,854	3,585	1,3461	1,4173

Figure 6.13 indicates that for the pretest, about half of the Offline Social Capital items score between 2,5 and 3. This suggests a neutral and slightly negative Offline social capital although the picture is less clear compared to the online social capital. In the posttest, all items of the offline social capital score higher and now most items are above 3 which indicates a neutral and slightly positive off line social capital. Moreover, in the pretest, the standard deviation of all items are above 1 and about half of them are about 1,5. It indicates that the level of offline Social Capital reported varies quite a lot over the respondents. The last interesting statistic is the percentage of missing values; none of the respondents missed an item.

Regarding the internal consistency of the scale we will go into the corrected item-total correlations and the Cronbach's alpha (see figure 6.14).

Figure 7.14 Item-Total correlation of ISCS (Offline)

Cronbach's alpha: first wave 0,792, second wave 0,922	Corrected Item-total correlation	
	pretest	posttest
There are several people online/offline I trust to help solve my personal problems.	,564	,704
There is someone online/offline I can turn to for advice about making very important decisions.	,657	,731
There is no one online/offline that I feel comfortable talking to about intimate personal problems. (recoded)	,450	619
When I feel lonely, there are several people online/offline I can talk to.	,406	,698
If I needed an emergency loan, I know someone online/offline I can turn to.	,415	,613
The people I interact with online/offline would recommend me to people in their network.	,485	,751
The people I interact with online/offline would be good job references for me.	,392	,738
The people I interact with online/offline would share their last dollar/food/clothing with me.	,286	,540
I do not know people online/offline well enough to help me get ahead. (reversed)	,188	,744
The people I interact with online/offline would help me fight an injustice.	,480	,676
I have a good network of friends and family	,610	,835

Figure 6.14 indicates that, in the pretest, most of the item of the offline Social Capital scale correlates quite well with the scale (all item-total correlations are above 0,35). However, two items correlate insufficiently: 'The people I interact with online/offline would share their last dollar/food/clothing with me', and 'I do not know people online/offline well enough to help me get ahead. (reversed)' (both have a corrected item-total correlation beneath 0,35). Still the internal consistency of the total scale is acceptable (0,792). In the posttest, all items have an acceptable item-total correlation (above 0,35) and the

Cronbach's alpha indicates that internal consistency of the scale is excellent (above 0,9). In consequence, all items are included in the scale. Figure 6.15 presents the key statistics of the ISCS (offline).

Figure 7.15 Key statistics of ISCS

	Wave	# of items	mean	Standard deviation	skewness	kurtosis
Social capital online	Pretest	11	2,64	1,01	-0,115	-0,990
	posttest	11	3,07	1,35	-0,271	-1,261
Social capital offline	Pretest	11	2,75	0,72	-0,302	-0,357
	posttest	11	3,30	1,09	-0,303	-0,923

2.2.3. Correlation between PTSD, SER and ISCS in the pretest

Figure 6.16 indicates that posttraumatic stress correlates negatively with all components of Social and Economic Resilience expect worry (as expected) in the pretest. Furthermore, it indicates that post- traumatic stress correlates negatively with Social Capital Offline, but not with Social Capital Online.

Figure 7.16 Correlation between PTSD, SER and ISCS

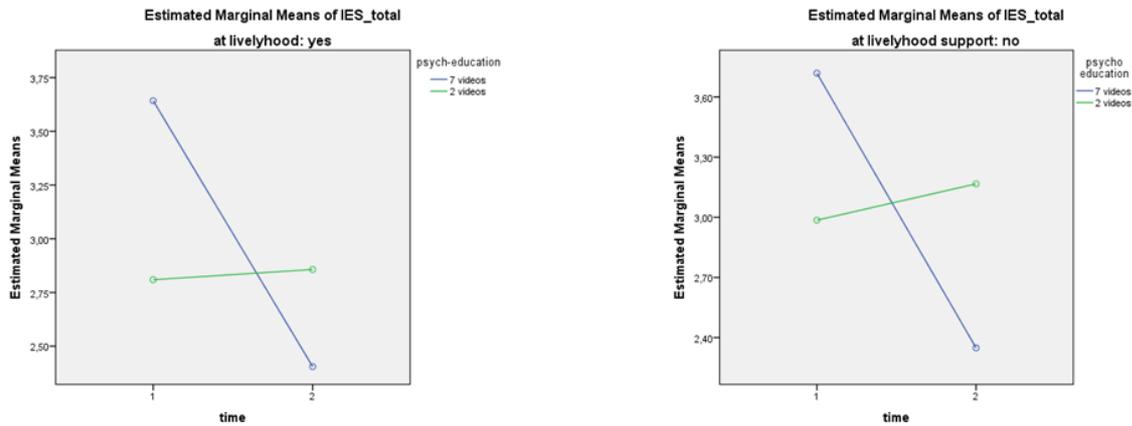
		Correlation	Significance
SER	Income	-,280**	< 0,01
	Empowerment	-,343**	< 0,01
	Worry	,487**	< 0,01
	System	-,192	0,052
	Capability	-,269**	< 0,01
	Social	-,252*	0,010
ISCS	Off line	-,187	0,058
	Online	-,068	0,495

The research questions two and three are examined in one analyses in order to explore the possibility that SHLCPTS will enhance (or decrease) the effect of livelihood support (and visa versa). These research questions are explored by means of a repeated measurement manova in which the difference between the first and second measurement of IES, SER or social capital (within factor) is related to SHLCPTS and livelihood support (between factors) (2x2x2 repeated-measures-MANOVA).

2.2.4. Can the SHLCPTS program reduce post-traumatic stress?

A 2 (SHLCPTS: 7 videos, 2 videos) x 2 (livelihood support: yes, no) x 2 (time: first, second measurement) repeated-measures MANOVA was done with SHLCPTS and livelihood support as between subject factors and time as within-subject factor. The dependent variable was post-traumatic stress measured by means of the IES-short. The interactions time*SHLCPTS, time*livelihood support and time*SHLCPTS* livelihood support are of interest in order to explore the effect of the treatment. The results indicate that post traumatic stress changes between the first and second measurement ((F(1,90) = 64,594, p < 0,01). Furthermore, the interaction time*SHLCPTS is significant (F(1,90) = 91,80, p < 0,01). The interactions time*livelihood support and time*SHLCPTS* livelihood are not significant (respectively F(1,90) = 0,00, p = 0,995; F(1,90) = 0,801, p = 0,373). Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported less post traumatic stress during the second measurement (see also figure 6.17).

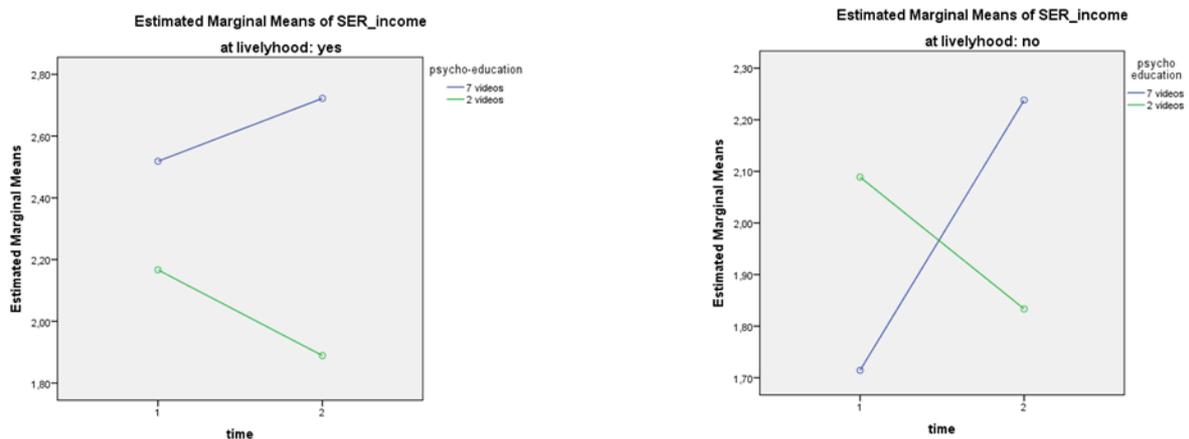
Figure 7.17 SHLCPTS program and trauma levels



2.2.5. Can SHLCPTS increase income of the SER-scale?

The same 2x2x2 repeated-measures MANOVA was done with income of the SER as dependent variable. The results indicate that income does not change between the first and second measurement ($F(1,91) = 0,358, p < 0,551$). Furthermore, the results indicate that the interaction time*SHLCPTS is significant ($F(1,91) = 15,084, p < 0,01$), but the interaction between time*livelihood no ($F(1,91) = 0,012, p > 0,10$),. The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are not significant (respectively: $F(1,91) = 1,112, p = 0,294$; $F(1,91) = 0,842, p = 0,361$). Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher income scores and those who received 2 videos reported lower income scores during the second measurement (see also figure 6.18).

Figure 7.18 SHLCPTS program and Income

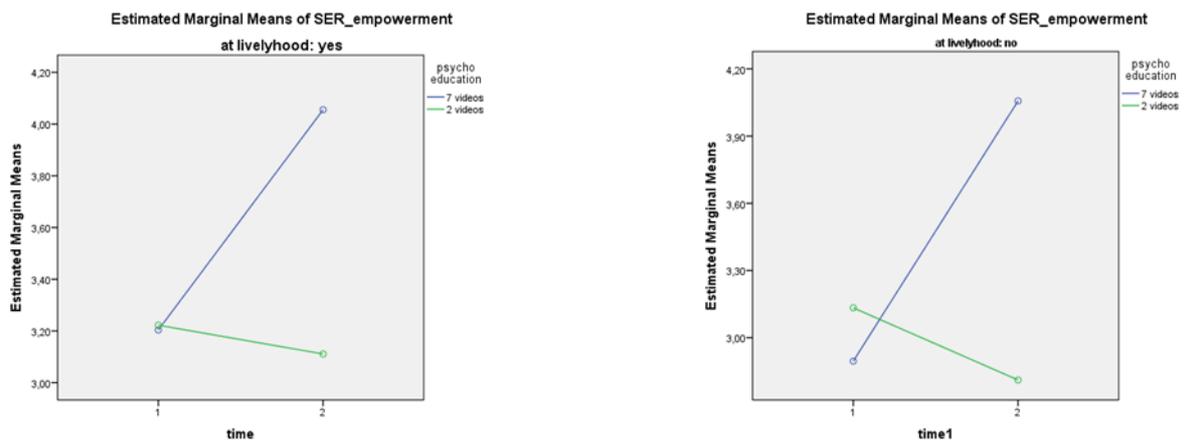


It is an interesting finding that the SHLCPTS program results in improvements on the perception of income levels, even more so that the presence of livelihood support had no effect. Given the preoccupation of refugees is finding protection (refuge) and prospects (a means of making livelihood), it is important to note that trauma support is more likely to improve perceptions of prospects than livelihood support.

2.2.6. Can SHLCPTS increase empowerment of the SER-scale?

The same 2x2x2 repeated-measures MANOVA was done with empowerment of the SER as dependent variable. The results indicate that the main effect of time is significant ($F(1,91) = 17,662, p < 0,01$). This indicates that overall the scores on empowerment have changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,91) = 42,344, p < 0,01$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are respectively: ($F(1,91) = 0,069, p = 0,793$; ($F(1,91) = 1,921, p = 0,169$). Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher empowerment scores and those who received 2 videos reported lower income scores during the second measurement (see also figure 6.19).

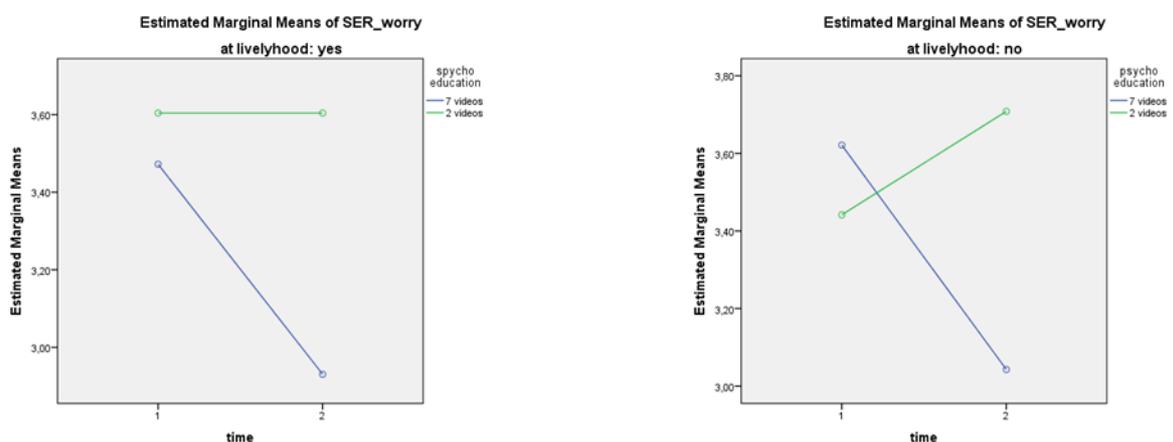
Figure 7.19 SHLCPTS program and Empowerment



2.2.7. Can SHLCPTS decrease worry of the SER-scale?

The same 2x2x2 repeated-measures MANOVA was done with worry of the SER as dependent variable. The results indicate that the main effect of time is significant ($F(1,91) = 5,090, p = 0,026$). This indicates that overall the scores on worry have changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,91) = 13,438, p < 0,01$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are respectively: $F(1,91) = 0,368, p = 0,545$; $F(1,91) = 0,644, p = 0,424$. Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported less worry (see also figure 6.20).

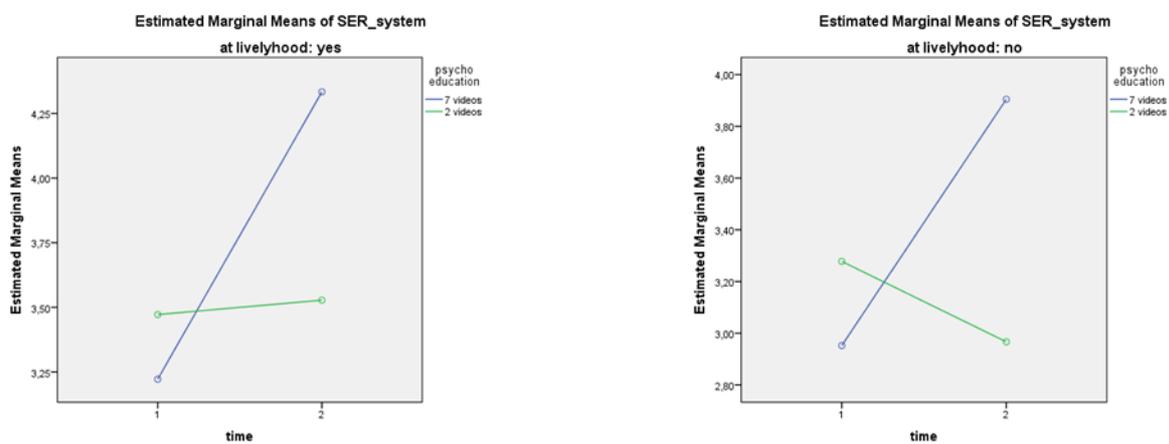
Figure 7.20 SHLCPTS program and worry



▪ **Can SHLCPTS increase system of the SER-scale?**

The same 2x2x2 repeated-measures MANOVA was done with system of the SER as dependent variable. The results indicate that the main effect of time is significant ($F(1,91) = 23,480, p < 0,01$). This indicates that overall the scores on system have changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,91) = 38,632, p < 0,01$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are respectively: $F(1,91) = 1,983, p = 0,162$; $F(1,91) = 0,311, p = 0,579$. Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher system scores (see also figure 6.21).

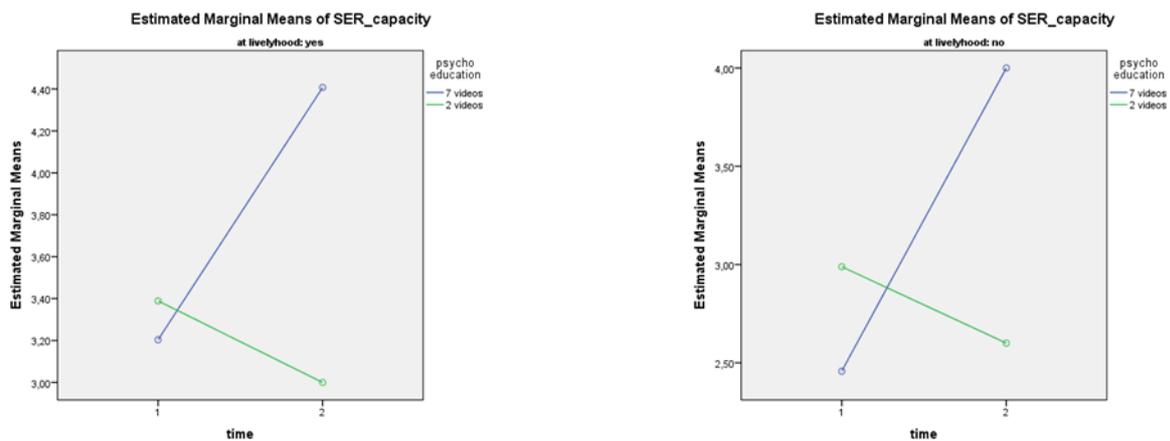
Figure 7.21 SHLCPTS program and system



2.2.8. Can SHLCPTS increase capability of the SER-scale?

The same 2x2x2 repeated-measures MANOVA was done with capability of the SER as dependent variable. The results indicate that the main effect of time is significant ($F(1,91) = 21,708, p < 0,01$). This indicates that overall the scores on capability have changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,91) = 69,565, p < 0,01$) but the interaction time*livelihood is not ($F(1,91)=0,644, p > 0,10$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are respectively: $F(1,91) = 0,644, p = 0,424$; $F(1,91) = 0,644, p = 0,424$. Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher capability scores (see also figure 6.22).

Figure 7.22 SHLCPTS program and Capability

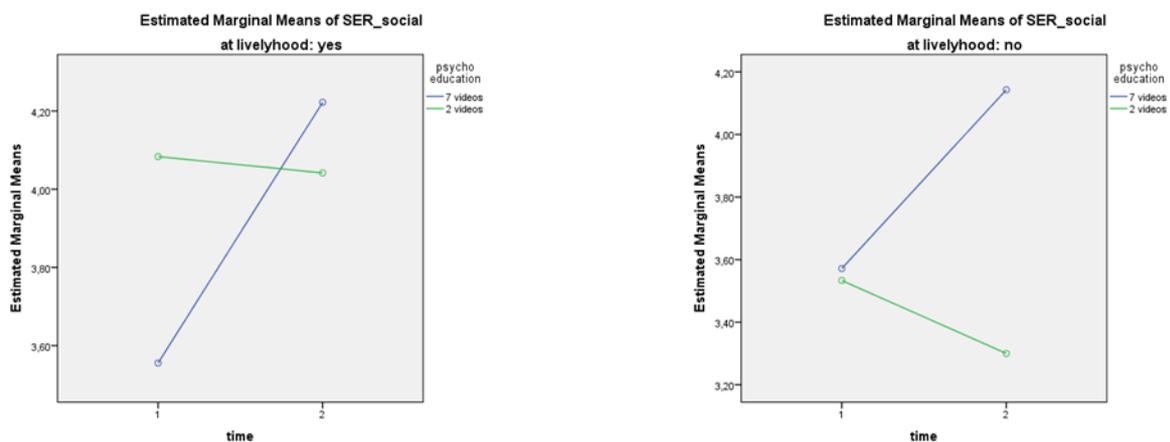


These results relate to a rise in the perception of agency, it seems that the SHLCPTS-program results in an increase in the perceptions of capability or the ability to improve prospects and particularly economic prospects.

2.2.9. Can SHLCPTS increase social of the SER-scale ?

The same 2x2x2 repeated-measures MANOVA was done with social of the SER as the dependent variable. The results indicate that the main effect of time is significant ($F(1,91) = 9,105, p < 0,01$). This indicates that overall the scores on social have changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,91) = 22,474, p < 0,01$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are respectively: $F(1,91) = 0,808, p = 0,371$; $F(1,91) = 0,091, p = 0,763$. Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher social scores (see also figure 6.23).

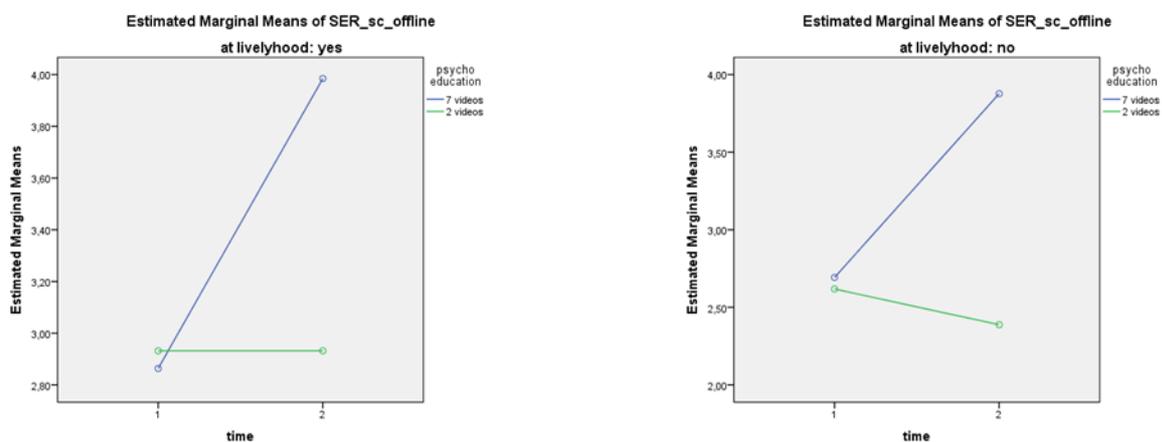
Figure 7.23 SHLCPTS program and Social Capital



2.2.10. Can SHLCPTS improve Social Capital Offline?

The same 2x2x2 repeated-measures MANOVA was done with Social Capital Offline as the dependent variable. The results indicate that the main effect of time is significant ($F(1,90) = 55,409, p < 0,01$). This indicates that overall Social Capital Offline has changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,90) = 82,733, p < 0,01$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are respectively: $F(1,90) = 0,359, p = 0,551$; $F(1,91) = 1,109, p = 0,295$. Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher Social Capital Offline (see also figure 6.24).

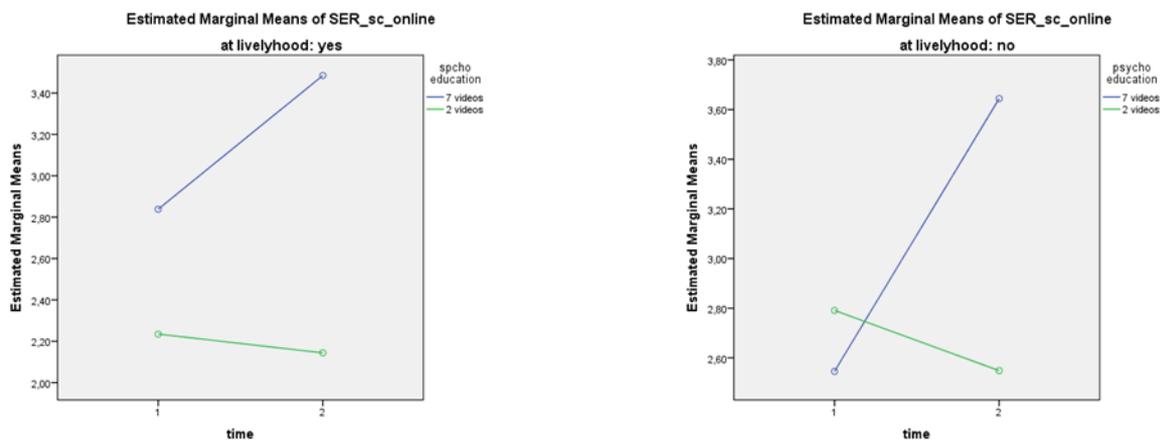
Figure 7.24 SHLCPTS program and Social capital offline



2.2.11. Can SHLCPTS increase Social Capital online?

The same 2x2x2 repeated-measures MANOVA was done with Social Capital Online as the dependent variable. The results indicate that the main effect of time is significant ($F(1,90) = 14,859, p < 0,01$). This indicates that overall Social Capital Online has changed during the period of the research. Furthermore, the interaction time*SHLCPTS is significant ($F(1,90) = 32,203, p < 0,01$). The results for the interactions time*livelihood support and time*SHLCPTS* livelihood are not significant (respectively: $F(1,90) = 0,675, p = 0,413$; $F(1,90) = 2,719, p = 0,103$). Inspection of the estimated means indicated that those who received 7 videos of SHLCPTS reported higher social scores (see also figure 6.25).

Figure 7.25 SHILPTS program and Social Capital Online



As mentioned above the ICS was specifically used as an indicator of Collective trauma and so an improvement in social capital following the intervention is an indication of the positive impact of the intervention on reductions in the level of collective trauma. This could be the combined effect of perceptions of economic resilience, hence a reduction for the need for over relying on others for assistance and support leading to an improved and mutually beneficial rewarding relationships, in addition the reduction in levels of PTSD symptoms could also mean people being more sociable and less preoccupied with their symptomatic behaviour. This change is prevalent in both the online and offline social capital, indicating improvement in relationships both within the camp and on Internet based social interactions.

3. Results^{ix}

The results of this study could be divided into four components:

- Impact of traumatic life events on current levels of PTSD and Collective trauma,
- Impact of PTSD levels on perception of socio-economic prospects
- The prospects of delivering trauma intervention via ICT (impact as measured on PTSD, SER, ISCS)
- Impact of livelihood support delivered in the camps by NGOs on levels of PTSD, perceptions of SER and collective trauma.

3.1. Traumatic events lead to higher PTSD

As was expected the levels of trauma was higher in those that had experiences various traumatic events in their lives before arriving at the refugee camp. The types of experiences detailed ranged from torture and imprisonment to extreme poverty and poverty related child-neglect and emotional abuse. Many of the women talked about childhood poverty and having to support their mothers who had become main breadwinners as the fathers were either at the national service, in prison or had left the country. There were also experiences of traumatic events on route too. Being afraid of getting caught while crossing the border, being chased by wild animals and having to hide were mentioned. There were a significant number of incidences of sexual exploitation and rape both at the national service as well as at home.

There was one case of an extreme trauma resulting from, banditry on the Sudan-Ethiopia border that caused a truck accident (the respondent was in hospital for six months). Multiple episodes of imprisonments and beatings and other forms of torture were common for the men as were the shame and feelings of guilt associated with being unable to support their families. The feelings of inadequacy were reflected both as a physical and psychological characteristic and there were examples of illnesses including potential psychosomatic illnesses and impotence as well as psychological symptoms.

Nearly all participants including those who did not necessarily think they had a particularly traumatic experience prior to arriving in the camp or since, found camp life distressing in the extreme and many felt it made their symptoms worse (e.g. sleeplessness, violent outbursts, lack of concentration etc.)

All of this is consistent with many findings among people who have been exposed to political violence. Eric *et al.* (2012) found that in a population of Israeli youth exposed to ethnic-political violence those with lower levels of self-esteem and who experience low levels of positive parenting were most vulnerable to PTS symptoms. Similarly an assessment of adults exposed to episodes of recurrent communal violence in conflict-affected Timor–Leste found that recurrent violence resulted in major increase in PTSD and severe distress in a community previously exposed to mass conflict, additionally poverty, on-going community tensions and persistent feelings of injustice contribute to the deterioration (Silove et al 2014).

3.2. PTSD negatively impacts on Social Capital and SER

The high PTSD level was found to negatively affect self-assessment of socio-economic resilience (prospects) as measured by the SER scales. The scale measured resilience across several spheres and those with high PTSD scores were found to have a lower SER scores. This finding reflects clinical experience and research findings indicating that low socio-economic positions are overrepresented in trauma populations (Bratsrattström *et al.*, 2015).

Resource loss is an integral part of becoming a refugee. Conservation of Resource theory COR (Hobfoll 1989) states that individuals strive to obtain, retain, protect and foster their resources. COR theory predicts that stress will occur following the actual loss of resources, threat of loss of resources, or failure to gain resources following significant resource investment. Studies carried out after disasters have found that resource loss is a key predictor of psychological distress (Benight *et al.*, 1999). Studies in the context of conflicts and disaster also support COR theory, that the initial resource loss is likely to contribute to long-term loss cycles, hampering recovery (King, King, Foy, Keane & Fairbank, 1999; Norris & Kaniasty, 1995). In this manner, those who have the fewest resources are most affected in the crisis stage, they have fewer resources for recovery and so they continue to be vulnerable to the further demands that follow in the aftermath of traumatic events (Hobfoll *et al.*, 2015). Here we can say that the resource loss entailed in becoming a refugee in a camp where there are little prospects of recovering lost resources can be contributing to the level of PTSD, while at the same time there is little prospect of recovering when you have less resources to assist that recovery. This is an important consideration to make when assessing the kind, level and manner of delivery of livelihood

support. In order to make an impact on levels of trauma (or assist trauma recovery) the livelihood support needs to be proportional to that which was lost and also be given as part of trauma recovery support.

In addition, the assessment on economic standing was also an assessment of economic self-efficacy or the ability to cope with the level of resources available. In this sense the responses therefore indicate that those with higher PTSD considered their self-efficacy to be lower. Perceived self-efficacy relates to individual's perceptions of their capabilities to effect a change in their situation. People with low Perceived Self-Efficacy are more likely to proactively engage with possibilities and make better use of them. This is confirmed by other researches that found similar situations with regards to trauma and self-efficacy in similarly devastated communities. For example Saigh, Mroueh, Zimmerman, Zimmerman, and Fairbank (1995) assessed diverse spheres of self-efficacy in three groups of Lebanese adolescents and found that traumatised adolescents with PTSD exhibited a lower level of perceived efficacy in diverse aspects of their lives than did traumatised adolescents without PTSD and non-traumatized adolescents. Self-efficacy in coping is the "core belief that one has the power to produce desired effects by one's actions" and "plays a key role in stress reactions and quality of coping in threatening situations" (Benight & Bandura, 2004). Individuals with low self-efficacy see challenges as areas of personal failure, focus on these failings, and have low confidence in themselves. Self-efficacy is thus a key component of resilience to trauma (Bandura, 1997).

Taken together the above concepts provide a useful framework for explaining the interrelated nature of material loss with psychological debilitation enabling an analysis of the extent to which PTSD and resource loss are interrelated. The resource loss suffered by many refugees and the inability to regain resources after the loss leads their traumatic experiences to cause PTSD and their perceptions of their self-efficacy (their perceived inability to gain economic prospects) makes their recovery complicated.

As mentioned in previous sections the need to look into social capital emanates from our understanding of collective trauma and also its implications to societal wellbeing. And given the role of communication technology in the lives of refugees on the move we measured social capital across both online and offline networks. The findings of this study indicate that

there was a negative relationship between PTSD and social capital off-line, this is an important indication that levels of trauma maybe diminishing community resiliency (Murphy, 1987), on one hand, while on the other hand the diminished social capital might be depriving individual refugees of a crucial protective factor from PTSD.

The findings also indicated that social capital on-line was unaffected by PTSD. This could mean that due to the cost of connectivity as well as the general limitation of access to the Internet curtailed access. Observations on the ground were such that contact with those who could be accessed only on-line was considered essential on many levels both practical information as well as maintaining family and friendship links. Many participants told of their worry that 'those abroad' might be weary of the constant need of those in the camps and on route for information and resources.

3.3. SHLCPTS reduces PTSD and enhances SER levels and social capital

Despite the shortness of the intervention (given the levels of traumatic stress and its complex nature) as well as the difficulties associated with delivering therapy through ICT, it seems that the intervention did improve levels of traumatic stress and as this has been shown to impact on social capital and self-assessment of socio-economic resilience they too have improved and the improvement includes on-line social capital (which observations in the camp revealed was enhanced as a result of the increased data access when participants were reimbursed for their costs). This means that treating PTSD had positive impacts on mental health status, perceptions of socio-economic status as well as community wide relationships.

Moreover, the full seven-session intervention, where the phased approach is better integrated (than the two video education sessions) was better at improving PTSD and the associated improvements to SER and Social capital.

Much of the PTSD found in the camps can be described as Complex PTSD as it had occurred from prolonged exposure to traumatic events in the context of conflict and political violence. Trauma treatment literature is relatively consistent that the phase-oriented approach we took in developing SHLCPTS is most effective in those circumstances (Briere & Scott, 2006; Brown, Scheffl in, & Hammond, 1998; Courtois, Ford, & Cloitre, 2009; Ford, Courtois, Steele, van der Hart, & Nijenhuis, 2005; van der Hart, Nijenhuis, & Steele, 2006).

The intervention focuses both on understanding symptoms as well as on the development of skills to improve management of symptoms and enhance functioning and relationships. And it seems these improvements have resulted in a more positive self-assessment of the socio-economic resilience as well as perceptions of (cognitive) social capital.

Perhaps surprisingly neither trauma levels, nor the social and economic wellbeing or social capital, was affected by the availability of livelihood support. This is surprising given the link between resources and trauma. It seems that the little livelihood support available in the camp isn't perceived by the recipients as contributing to their socio-economic resilience/prospects, nor is livelihood currently contributing to protection against trauma or loss of social capital. Given the objective to support and protect refugees and the particular need to provide them with skills and resources to regain economic viability by giving them livelihood support in various forms, it is important to address this concern and ensure that livelihood support is objectively related to reducing levels of PTSD and enhancing the perceptions of prospects. This means that it is geared at enabling refugees to enjoy similar levels of prospects as the ones they have lost upon becoming refugees. Otherwise the actual prospect of the opportunity provided is not going to be perceived as being adequate to recover viability post the traumatic loss.

3.4. Increased understanding of Trauma

This research did not specifically ask about immanent decisions pertaining secondary migration as this is seldom answered truthfully in formal circumstances, however there was evidence during discussions to suggest a gradual ability to take in and process contextual information. One such example came at the end of a focus group discussion in Hitsats refugee camp. The participant, a young man, who was part of the group who took up the full six-week sessions hesitantly asked (hesitant because he was not sure whether it was an appropriate question):

...this may not be relevant but ever since listening to you on the videos I have been wondering if... in Europe, where you live there are traumatic events and if people there also suffer from PTS? (D/ Hitsats Camp/ Interviewed 12/08/2017)

Nearly everyone in the group resonated and they all wanted to hear the response. The question and the enthusiasm to hear the answer was a reflection of their increased capacity to begin taking in contextual information.

The above is an illustration of the finding that refugees gained control over their lives and supports the general results of these studies. The results of the last two studies (qualitative, and quantitative over the three studies) point to the same direction: The full SHLCPTS program (psycho-education, demonstration of exercises to get control over distressing PTSD symptoms and an encouragement to share experiences with members of the community) shows the possibility of reducing PTSD, increasing Social and Economic Resilience and increasing Social Capital.

3.5. Delivery via ICT

The results in terms of the psychosocial improvements seem to speak clearly of the potentials entailed in the delivery approach. Indeed, focus group discussions as well as individual feed-back, highlighted the main advantages of delivering trauma support via ICT mediation. The ability to choose your own time and space was a great advantage reinforcing the idea of regaining control over one's own healing. The ability to get information and treatment in your own language was another that was raised by many and finally the ability to go over things again and get additional information on things that weren't clear at the start was a unique advantage of the approach.

However, the approach was not without its problems. The technical problems of delivering via an APP and through social media proved difficult and even impossible in most cases due to the lack of connectivity and unreliability of the weak connection for downloading videos. Alternatives suggested by the refugees themselves were better at addressing some of these concerns. One approach was to download all videos to one phone (from a memory card) and then the research assistants were able to share these via Bluetooth. This worked well in resolving much of the technical hurdles, but it also meant that the interactiveness in the delivery was lost. Participants couldn't leave messages and feedback, or access additional text-based support and encouragement, as was the original idea.

This led to an additional and more serious problem; participant felt alone as they were confronted with the potentially difficult material they were trying to cope differently with.

This could result in the possibilities of dropping out altogether or at least losing motivation to fully engage with traumatic memories. Many people found the resourcing techniques (breathing exercises and 'safe calm place') more attractive than the bilateral stimulation that require, greater commitment and deeper engagement to focus on and process traumatic memories. A feedback from one of the most severely traumatised participants captured this well during an interview. She said:

...it [the intervention] is really helpful, it made sense to me, it touched everything I felt and everything that was happening to me and eventually the butterfly hugs were helpful too, but I felt physically tired every time I did them, I really hated how it initially made me feel, I hated your voice on the video. There were times when I felt physically ill but then I started to notice I was calmer later and less anxious. I started sleeping better and now I see how it helped. But it really is tough and there should be a contact person to tell you it will be ok in the end. (A/ Hitsats Camp/ Interviewed 14/08/2017)

Without major improvements to the connectivity, delivering the whole intervention via ICT risks either high dropout rate or unnecessary distress for those committed to carry on with the intervention.

4. Conclusions^x

4.1. Communication and Information

Mixed Migration and Human Trafficking are dynamic, mediated by information which is shared across routes on which people move and between communities sharing the same locations. The concept of 'here and there' (Ong'ayo, 2018) explains the dynamic effect that something which happens in one location has an effect on another location. Digital communication has enhanced this effect in many ways, and there is great need to study the effects of digital communication on mixed migration and human trafficking.

In this explorative study, interesting dynamics emerged, from which initial conclusions for further research can be drawn.

4.1.1. In-camp and Out-of-Camp policies

In-camp policies, in which refugees are restricted to staying in camp create drives for onwards movement as the youth experience little prospects in the camps. Activities set up during this study to connect youth in the camps with youth in the host communities were very well evaluated and could have positive effect on economic and social integration and lowering of stigmatization. It could economically benefit the recipient community. The advantages of out-of-camp policies need to be further explored.

4.1.2. Expansion of Human Trafficking

- Human Trafficking travels across communities and across places; host communities become vulnerable as targets of human trafficking once routes have been established trafficking members of other communities.
- Returnees of Human Trafficking experience many challenges in reintegration, and these difficulties may result in ongoing human trafficking experiences (Nisrane, 2018). This can be referred to as the Human Trafficking Cycle (Reisen, van, et al, 2014). This problem is especially pertinent to women returnees (in this case, Ethiopian Tigray women returning from the Middle East) and particularly single mothers. Both mothers and children experienced serious stigmatization as a result of the experience of Human Trafficking and exploitation once they returned home.

4.1.3. Mobile Money transfers

- The mobile money transfers (remittances) associated with Human Trafficking help form an economy of extortion.
- Mobile money transfers are potentially of great value as investment in the economy. Many refugees depend on support through remittances. A better integration with local economies could benefit both migrant/refugee communities as well as local host economies.

4.1.4. Information and connectivity

- Unaccompanied Minors in the camps derived their information from social media on smart phones, despite the lack of connectivity in the camps.
- The minors were skillful in organizing connectivity through a range of innovative techniques.
- The dependency on short moments of connectivity and the lack of resources in general meant that they had to prioritise from where they received information, what information to trust and with whom to share information.
- The minors depended on information with a circle of trusted people close to them, often spread around the world. Their information was dependent on facebook (and not on internet websites).

4.2. Livelihoods in the camps

The of livelihood situation of camp refugees was studied Hitsats camp. This is located in Northern Ethiopia and the refugees are from Eritrea. The overall findings of the research have shown that access of Eritrean refugees to livelihood opportunities is very low within the refugee camp setting. The study was conducted through a survey. The following sub-sections summarize the main findings stemming from the research.

4.2.1. Lack of access to Income Generating Activities

Refugees have no possibility to enter formal labor market within Ethiopia. Despite the legal instruments that Ethiopia has adopted, many provisions regarding refugee's right to work are not applied in practice. Already the theoretical overview has drawn out that the camp refugees are facing challenges on a daily basis (Zetter & Ruaudel, 2016; Samuel Hall, 2014). The data showed that lack of income generating activities, even in the informal sector, and

irregularity of the existing ones leave the majority of Hitsats refugees highly dependent on humanitarian assistance provided by UNHCR. Searching for work alternative outside the camp, in urban areas, does not provide a visible option due to the restrictions of freedom of movement, limitations defined in the Out-of-camp policy, as well as the lack of resources of refugees (Samuel Hall, 2014). According to the DAR framework access of refugees to socio-economic activities is one of the essential prerequisites leading to self-reliance. Given the fact that, according to the data, refugees cannot rely on regular income, the social and economic ability of refugees to fulfil their needs is unattainable.

4.2.2. Sources of livelihood are limited

The data illustrates that there are several sectors available in the camp through which refugees have been able to access livelihoods and earn some income. Refugees may engage in petty trade, personal services or construction-related services, set up a small business or work for NGOs based in the camp. All these activities, however, are excessively limited and only minor part of the refugee population is accessing any of mentioned sources. It has also been observed that market within the camp become saturated with some of the small businesses, such as hairdressing services, shops or cafés. On the other hand, some sectors, such as agriculture, are omitted which shows lack of consistency and sustainability within the livelihood programming. According to the SLF framework of DFID, livelihood is sustainable when it does not depend on external assistance (DFID, 1999). High level of dependency of refugees on the humanitarian aid is characteristic for the case of Eritrean refugees of Hitstats.

4.2.3. Lack of basic needs

It was observed that alongside the lack of work opportunities, young camp refugees strive to meet their basic human needs. Based on the interviews with refugees and NGO workers, monthly rations for food (10 kg of wheat per person) are not sufficient to sustain oneself. Location of the Hitsats camp contributes to lack of water for refugees. Results showed that refugees do not get 20 litres of water as the international standard prescribes. In addition, purchased water from the water wells is not purified and may lead to several health problems. Low access to energy brings complications to refugees as they depend entirely on coal and firewood to prepare their food. This causes the tensions between refugee and host communities since refugees often cut the trees for firewood in the act of desperation.

Due to the poverty and hardships, young refugees have to repeatedly strive for complementing the food, water and coal supplies. However, it is impossible to do so without regular income or remittances from family members or friends.

4.2.4. Access to livelihood is prevented by several obstacles

The data revealed a wide range of obstacles that can explain the low access of Eritrean refugees to livelihood. Lack of job opportunities is considered by refugees as one of the most pressing issues. Qualitative interviews showed that even those refugees who have established micro-business in the camp are jeopardized as they don't have (paying) customers on a regular basis; thus, they cannot rely on regular income. Secondly, restriction of freedom of movement followed by the lack of working permits illustrates the difficulty of refugees to go and search for better life prospect outside the camp. Results from the analysis demonstrate that young Eritrean refugees happen to live in the vicious circle where one challenge leads to another. This often evokes very frustrating and hopeless feelings in refugees. Consequently, they often opt to move out from Hitsats camp and even from Ethiopia. They are willing to conduct dangerous journeys to developed countries in hope for better future.

4.2.5. Good practice present in the camp

It has been observed that camp-based NGOs are keen to focus on livelihood programs. Their focus is oriented mainly on providing vocational skill trainings as well as micro-loans and start-up materials for the business. Even though refugees are interested in participating in skill trainings, the linkage to the market is almost non-existent which prevents them from putting skills into practice. According to the ILO guidance, in cases when the environment is not sufficient enough to link refugees to the market and public services, neither the skills of refugees nor the rights are utilized to the full extent (ILO, 2017). Subsequently, this halts refugees from integration to the country of first asylum (Jacobsen & Fratzke, 2016), in this case into Ethiopian society.

A great need for better development of livelihood programs remains high. The concept of refugee livelihood shall not be, however, resolved on its own without stepping into the more complex picture. It is not the mere creation of job opportunity and providing skill training that may result in self-reliance and lead to resilience. Livelihood should be

considered within the policy mechanism available in the host country (Samuel Hall, 2014). In addition to that, the comprehensive study carried out in Northern Uganda showed that improvement of livelihood is possible when the aspect of trauma relief is taken seriously within the livelihood programming (van Reisen et al., 2018). This was also confirmed by the research conducted in Hitsats and Shimelba (see Kidane and Stokmans, 2018).

Overall, the conclusion is that the access of refugees to livelihood opportunities, income generating activities remain very low in the camp setting. Programming highly lacks the element of sustainability which is proved by the number of drop-outs of the livelihood program beneficiaries. Even though sustainability was not an explicit part of the present research, it has been observed that in order to bring long-term solutions, a holistic approach needs to be adopted together with the improvement of horizontal cooperation between NGOs. This finding needs further investigation and is included in a proposal for future research.

4.3. Treatment of Trauma: Effect on Social Capital and Socio-Economic Resilience

Both the widespread nature of traumatisation and the fact that people not directly affected were also traumatised is indicative of the prevalence of not just PTSD but also collective trauma. A Self Help Low Cost Post Traumatic Stress (SHLCPTS) tool was developed. In this research this was tested in a delivery on ICT.

This research has demonstrated that the ICT-based Psycho-social programme SHLCPTS was effective to reduce trauma and to improve both the perception of Social Capital as well that of Socio-Economic Resilience. This was measured across the three tools and the results were consistent throughout.

The results of the study indicate that PTS as measured on the IES-short, all aspects of the SER and Social Capital improved following the SHLCPTS with significantly better results for those who received the full 7 video intervention as opposed to the 2 video education on trauma and its impacts.

Partial eta-square can be interpreted as the percentage of variance in change between the first and second measurement plus the associated error variance (Pierce, Block & Aguinis, 2004). From this perspective, it can be said that SHLCPTS has a strong effect on post-traumatic stress, capability (of the SER) and Social Capita Offline.

This means that through this kind of support refugees can reduce their trauma symptoms, enhance the perception of their capacity to improve their economic prospects and reduce the level of collective trauma by enhancing their social capital in the camp.

Figure 4.1 Summary of Results of the Third Study

		F value	Partial eta-square
IES-short		F(1,90) = 91,80, p < 0,01	0,505
SER	Income	F(1,91) = 15,084, p < 0,01	0,142
	Empowerment	F(1,91) = 42,344, p < 0,01	0,318
	Worry	F(1,91) = 13,438, p < 0,01	0,129
	System	F(1,91) = 38,632, p < 0,01	0,298
	Capability	F(1,91) = 69,565, p < 0,01	0,433
	Social	F(1,91) = 22,474, p < 0,01	0,198
Social capital	Offline	F(1,90) = 82,733, p < 0,01	0,479
	Online	F(1,90) = 32,203, p < 0,01	0,264

Bringing the levels of trauma down seems to have improved people’s perception of their socio-economic status/prospects as well as their social capital. This change occurred within a six-week period where nothing much by way of income levels or other opportunities had changed, meaning that all the improvement that was measured in social capital and socio-economic resilience are in fact improvements in perception following a reduction in the level of trauma as a result of SHLCPTS.

4.4. Perception of Increased Life Control

The main objective of the SHLPTC was to enable victims of trauma gain understanding of their symptoms and then regain some control over them through the use of simple self-help exercises that enabled them to experience better relationships in their day to day life within their community. Symptoms of PTSD (i.e., flashbacks, nightmares, intrusive thoughts, increased arousal) are experienced as uncontrollable and unavoidable, thus possibly diminishing the victim’s cognitive and emotional control. Perceived life control is the cognitive appraisal that has been shown to be significantly associated with PTSD symptoms (Bolstad and Zinbarg, 1997; Regehr *et al.*, 2000), in fact the development of PTSD is strongly associated with the loss of control. Rothbaum, (1992) concludes that PTSD is most likely to develop when the stressful event is perceived as both dangerous and uncontrollable.

Perceptions of control felt during the trauma or controllability in the future is important in effecting on going functioning among trauma survivors (Kushner *et al.*, 1992). Regaining control over aspects of their symptoms and their reactions to them gave people options and potentials that weren't open to them, consequently enabling them to have a different outlook on their lives and their fate including perhaps their assessment of their protection and prospects in their current location.

Attaining a level of control could also have a ripple effect of healing, Arnkoff and Mahoney (1979) suggested the following four beliefs protected individuals against on-going pathology resulting from an extremely stressful event: having skills to control one's response, having skills for controlling the occurrence of reinforcement, being able to regulate one's mental activities and the ability to inhibit distressing mental activities, PTSD undermines these control-related beliefs the resultant reduction in locus of control renders the victim to on-going trauma. Inability to take control of one's life reduces one's belief in their ability to exert any control over their environment (Mikulincer *et al.*, 2009), overcoming the trauma induced learnt helplessness was significant to victims of trauma and their perception of their environment and others who share that environment. The skills learnt through the intervention gave people a significant level of control over their response and their responses to day-to-day challenges in their extremely difficult environment. These small victories in alleviating symptoms and controlling reactions resulted in an enhanced sense of capability to improve social and economic reality or self-efficacy.

A sense of personal efficacy is the foundation of human agency (Bandura 1997, 2001a), people who believe that potential threats are unmanageable view their entire environment as fraught with danger, they thus magnify the severity of possible threats and worry about potential perils that are unlikely to happen. This then starts a negative cycle of thoughts that ends up hampering functioning (Bandura, 1997; Jerusalem & Mittag, 1995; Lazarus & Folkman, 1984). With little felt control over their sense of agitation and anxiety participants felt that there was very little going well for them and that there is only further hardship and danger in their current environment. However, once they regained control over their symptoms they were able to have a more realistic appraisal of their environment and their own capacity to influence it and their prospects there.

In studies in which perceived control is varied experimentally, people who are led to believe they can exercise some control over aversive events display lower physiological arousal and less performance impairment than do those who believe they lack personal control, even though both groups are subjected equally to the aversive events (Geer, Davison, & Gatchel, 1970; Glass, Singer, Leonard, Krantz, & Cummings, 1973; Litt, Nye, & Shafer, 1993; Sanderson, Rapee, & Barlow, 1989). Inevitably persistent posttraumatic stress has multiple and complexly interrelated determinants. Making the disentangling of the unique contribution of self-efficacy to the psychosocial in the aftermath of traumatic experiences complicated, however this research has demonstrated that giving people information about their PTSD symptoms and enabling them to learn techniques that allow them to take control of these symptoms results in reducing PTSD and enhancing their perceptions of their economic prospects as well as relationships with others around them.

Trauma and particularly the kind of trauma caused by a prolonged and devastating event such as political conflict and war, is not an isolated transient event, rather it entails a whole catalogue of losses: loss of life, physical injuries, and property destruction. Often victims suffer stress not only from the catastrophic event itself, but also from the strain of continuing adaptations in the wake of the devastation. In addition to personal physical and psychological injury as well as death and injury of family members there is often a wide spread loss of social connection, extensive damage or loss of property and in many instances the loss of one's very livelihood, the trauma is collective not just personal. Survivors find themselves in a community in severe shock, which can further accentuate the traumatic experience (Benight and Bandura, 2003). In the face of such daunting devastation and enduring hardship it requires a solid sense of self-efficacy to persevere with recovery efforts and even dealing with relief agencies that assist might prove a source of further strain (Bolin, 1982). Trauma support such as SHLCPTS can be a very good starting point to regaining control and self-efficacy and turning the vicious cycle around, both by unlocking personal and community resilience and also preparing the ground for better utilisation of social support initiatives such as the livelihood support provided in the refugee camps.

4.4.1. An Alternative to the push-and-pull theory

To the contrary of the popular push-and-pull migration theory that assumes refugees make a decision regarding migration based on the analysis of pluses and minuses it seems that

trauma leaves them little capacity to make such analysis. With their sense of self efficacy diminished and in a trauma-induced state of hyper vigilance that alleviates the threat entailed in their environment, they will see their environment fraught with insurmountable danger, livelihood support and refugee protection notwithstanding.

This can be explained with the theory of Kahneman (2011) of Thinking Slow and Fast. Thinking Fast is an important survival mechanism, which allows us to respond immediately to a potentially dangerous situation. Thinking Fast leads to a quick response of fleeing, freeze or fight. But in a traumatised and re-traumatised mindset, thinking fast can become a 'standard-setting'. Fleeing becomes a dominant feature response to everything that is perceived as a threat.

In a negative mindset of trauma and related mental disorders such as depression, the information received will be negative. The brain treats the negative emotion as information (Schwarz, 2010). This explains the depressed scores on socio-economic resilience of people who suffer from PTS and are not receiving any care. In this negative emotional state, fleeing is a natural response emanating from the fear perceived in the information that reaches the person.

4.5. Policy Implications

The theory of Push-and-Pull has informed the policy responses to the migration-crisis, a crisis perceived as such since the world has not seen a higher number of displaced persons since the Second World War.

Based on this theory it is thought that the magnetic working of the attraction of wealthier countries should be countered by severe obstacles. The obstacles should help balance the pull against the push, is the idea.

The implications of this research is that this theory may not be valid in explaining drivers of dynamic mixed migration. The research suggests that the lack of protection and safety, together with a traumatic state of mind, lead to negative information and induce a Thinking-Fast pattern, which provokes a response to flee.

Kahneman describes that Thinking Fast leads to errors and that the risk-taking behavior is much increased in persons who have suffered heavy loss. This is certainly the case for many

refugees and migrants who have endured many losses, experienced severe traumatic events and have paid heavily for facilitation of their journeys to smugglers and human trafficking networks. This provides a perfect set of conditions in which youth will be inclined to take high risks to overcome obstacles.

The policy recommendations emanating from this study are to reverse the policies based on creating obstacles and fear. Rather, a policy should be set out which is based on support, protection and care, which will help migrants and refugees to think slow, and identify the potential available within the context available to them and to actually understand and process the risks and opportunities associated with the decision to move on or to stay.

5. Discussion

When it comes to validity of the research there are a couple of points that should be made. The first point to make is the fact that the research started with a theoretical framework defining the constructs, their operationalization as well as the interaction between the various constructs. This framework is used as a guideline throughout the studies and is supported by the (qualitative and quantitative) results. The second point regards the sample that is not (nor did it set out to be) representative for the population. This may have an impact on the level of trauma identified (it may have overestimated the level of trauma, since no random sampling was applied); it is not thought to have impacted on the findings regarding the effectiveness of the SHLCPTS program. This can be concluded from the fact that irrespective of the contexts (Uganda or the camps in Ethiopia) and despite the differences in the way that SHLCPTS was implemented its impact was clearly evident across both studies. This is indicative of the fact that the self-help program is indeed effective in lowering trauma and promoting socio-economic resilience.

We were able to show that the self-help exercises together with the information/education element of the intervention is effective rather than the education/information sessions on their own. In addition to this in third study we fully demonstrated that, despite the enormous needs to improve connectivity and adapt Apps to work in contexts of low connectivity, delivering trauma support via ICT is a viable potential. This is a crucial opportunity for delivering trauma support that will have an impact in raising social capital as well as social and economic resilience in a highly mobile community with concerning levels of trauma. The fact that SHLCPTS can be delivered through a medium that is already known, trusted and adapted by the refugees themselves and the fact that language barriers can be surmounted by preparing videos in native languages makes the particular approach attractive even in contexts of lower mobility and relatively more resources e.g. among refugees in Europe.

Finally, the IES-Short was specifically adapted for use via ICT in conjunction with SHLCPTS. It provided reliable measurement of both levels of trauma as well as impacts of the intervention. These facts make the APP a comprehensive tool that measures level of

traumatic stress, offers support, and measures progress from a device that is already in wide use among refugees.

Concerning PTS, one can state that the measures that were used have been effective; both IES-R and IES-Short were effective in measuring levels of trauma reliably in the various contexts.

The scale analyses indicate that the reliability of some aspects of the SER are questionable. This is probably due to the abstractness of such construct as resilience as well as the abstractness of the aspects of Social and Economic Resilience (social, system, capacity, empowerment, worry and income). Furthermore, system and especially income are context dependent constructs; the items that are applicable differ due to the location of the research. Nonetheless despite the fact that some aspects of the SER had a questionable reliability, the results within a study (Uganda and Ethiopia) as well as the results across the studies, suggest that the core of the constructs is captured in the scale. These findings were backup with the results of the qualitative data (especially in the earlier Uganda study).

Further Reading:

Research reports

Reisen, van, M., Stokmans, M., Kidane, S., Melicherova, K., Schoenmaeckers, R. (2018), Causes and dynamics of mixed unskilled migrants trafficked within the Horn region. A study including Eritrea, Ethiopia and Sudan. Synthesis Report. Tilburg University.

Kidane, S., Stokmans, M. (2018) *ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia*. Research report. Tilburg University. Tilburg.

Melicherova, K. (2018). *Refugees and Livelihood: A case study from Hitsats*. Research Report. Tilburg University. Tilburg.

Reisen, van M., Nakazibwe, P., Stokmans, M., Vallejo, B., Kidane, S. (2018). *A Cost-Benefit Analysis of Cash-Transfer Programs and Post-Trauma Services for Economic Empowerment of Women in North Uganda*. Research report. Tilburg University. Tilburg.

Schoenmaeckers, R. (2018). *secondary migration and mobile phone use in Hitsats*. Research report. Tilburg University. Tilburg.

Policy Briefs

Reisen, van, M., Stokmans, M., Nakazibwe, P., Kidane, S. (ed. Schoenmaeckers, R.) (2018) Enhancing Effectiveness of Social Protection by Psycho-Social Support in Uganda and Ethiopia. *Policy Brief*. Tilburg University. Tilburg.

Reisen, van, M., Stokmans, M., Kidane, S., Melicherova, K., Schoenmaeckers, R. (ed. Schoenmaeckers, R.) (2018) Reprogramming the Mix of Interventions to Support Refugees in Host Communities. *Policy Brief*. Tilburg University. Tilburg.

Reisen, van, M., Kidane, S., Schoenmaeckers, R., Stokmans, M. (ed. Schoenmaeckers, R.) (2018) Digital Realities in Human Trafficking: Bringing Safety to Refugee Camps. *Policy Brief*. Tilburg University. Tilburg.

Reisen, van, M. Kidane, S., Schoenmaeckers, R., Stokmans, M. (ed. Schoenmaeckers, R.) (2018) Trauma and Livelihood Opportunities: Reprogramming Support in Refugee Camps. *Policy Brief*. Tilburg University. Tilburg.

Stokmans, M., Kidane, S. (ed. Kidane, S.) (2018) Relevance of Communication in the Fight Against Human Trafficking. *Policy Brief*. Tilburg University. Tilburg.

Presentations

Kidane, S. (2018) SHLPTS Intervention. *Presentation*. Tilburg University, Tilburg

Kidane, S. (2018) Test intervention trauma. Human Trafficking and Mixed migration. *Presentation*. Tilburg University, Tilburg

References

- Amnesty International (2016). *Amnesty International report 2015/16: the state of the world's human rights*. Amnesty International.
- Arnkoff, D. B., & Mahoney, M. J. (1979). The role of perceived control in psychopathology. In L. C. Perlmutter & R. A. Monty (Eds.), *Choice and perceived control*. Hillsdale, NJ: Erlbaum.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Benight, C.C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: the role of perceived self- efficacy. *Behaviour Research and Therapy*, 42, 1129-1148.
- Benight, C.C., E Swift, J Sanger, A Smith, D Zeppelin (1999). Coping self-efficacy as a mediator of distress following a natural disaster. *Journal of Applied Social Psychology* 29 (12), 2443-2464.
- Bolin, R., C. (1982). *Long-term recovery from disaster*. Boulder: University of Colorado Institute of Behavioural Science.
- Bolstad, B. R., & Zinbarg, R. E. (1997). Sexual victimization, generalized perception of control, and posttraumatic stress disorder symptom severity. *Journal of Anxiety Disorders*, 11, 523-540.
- Brattström O., Eriksson M., Larsson E, Oldner A. (2015). Socio-economic status and co-morbidity as risk factors for trauma. *Eur J Epidemiol*. 30(2):151-7.
- Briere, J., & Scott, C. (2006). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment*. London: Sage Publications.
- Brown, D., Schefflin, A., & Hammond, C. (1998). *Memory, trauma treatment, and the law*. New York: Norton.
- Burawoy, M. (1998). The Extended Case Method. *Sociological Theory*, Volume16, Issue1.
- Chambers, R. & Conway, G.R. (1992). Sustainable Rural Livelihoods: Practical Concepts for the 21st Century. *Discussion Paper 296*. Institute of Development Studies.

Cloitre, M., Courtois, C.A., Ford, J.D., Green, B.L., Alexander, P., Briere, J., Herman, J.L., Lanius, R., Stolbach, B.C., Spinazzola, J., Van der Kolk, B.A., Van der Hart, O. (2012). *The ISTSS Expert Consensus Treatment Guidelines for Complex PTSD in Adults*.

Courtois, C. A., & Ford, J. D. (Eds.). (2009). *Treating complex traumatic stress disorders: An evidence-based guide*. New York: Guilford Press.

Creamer, M., Bell, R., & Failla, S. (2003). Psychometric properties of the impact of event scale—revised. *Behaviour research and therapy*, 41(12), 1489-149.

Rianne Dekker, Godfried Engbersen & Marije Faber. (2016) The Use of Online Media in Migration Networks, *Population, Space and Place* 22, 539–551.

DFID. (1999). *DFID sustainable livelihoods guidance sheets*. Available from: www.ennonline.net/dfidsustainableliving (accessed 15 June 2018).

Eric F. Dubow, L. Huesmann R., Boxer P., Landau S., Dvir S., Shikaki K., Ginges J., (2012). Exposure to Political Conflict and Violence and Post-Traumatic Stress in Middle East Youth: Protective Factors. *J Clin Child Adolesc Psychol*. 41(4): 402–416.

Ford, J. D., Courtois, C. A., Steele, K., van der Hart, O., & Foresight (2011) *Migration and Environmental Change. Final Project Report*, London: The Government Office for Science.

Geer, J. H., Davison, G. C., & Gatchel, R. I. (1970). Reduction of stress in humans through nonveridical perceived control of aversive stimulation. *Journal of Personality and Social Psychology*, 16, 731–738.

Hart, van der, O., Nijenhuis, E. R. S., & Steele, K. (2006) *The haunted self: Structural dissociation and the treatment of chronic traumatization*. New York: Norton.

Hobfoll S.E., (1989). Conservation of resources: a new attempt at conceptualizing stress. *Am. Psychol*. 44(3): 513– 24.

Hobfoll S.E., Stevens N.R., Zalta A.K., (2015). Expanding the science of resilience: conserving resources in the aid of adaptation. *Psychol. Inq*. 26(2): 174–80.

ILO. (2017). *A guide to market-based livelihood interventions for refugees*. Geneva: United Nations High Commissioner for Refugees (UNHCR).

- Jacobsen, K., & Fratzke, S. (2016). *Building Livelihood Opportunities for Refugee Populations; Lessons from Past Practice*. Migration Policy Institute.
- Jerusalem, M., & Mittag, W. (1995). Self-efficacy in stressful life transitions. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 177–201). Cambridge: Cambridge University Press.
- Kaniasty, K., & Norris, F. H. (1995). In search of altruistic community: Patterns of social support mobilization following Hurricane Hugo. *American Journal of Community Psychology*, 23(4).
- Kidane S. (2017) *Refugee Radio: Baseline study Sudan and Ethiopia*. Tilburg: Tilburg University.
- Kidane, S., Stokmans, M. (2018) ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. Research report. Tilburg: Tilburg University.
- King, D. W., King, L. A., Foy, D. W., Keane, T. M., & Fairbank, J. A. (1999). Posttraumatic stress disorder in a national sample of female and male Vietnam veterans: Risk factors, war-zone stressors, and resilience- recovery variables. *Journal of Abnormal Psychology*, 108, 164-170.
- Kingdon, J. W. (1995). *Agendas, Alternatives, and Public Policies*. HarperCollins College Publishers.
- Kushner, M. G., Riggs, D. S., Foa, E. B., & Miller, S. M. (1993). Perceived controllability and the development of posttraumatic stress disorder (PTSD) in crime victims. *Behavior Research and Therapy*, 31, 105-110.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Litt, M. D., Nye, C., & Shafer, D. (1993). Coping with oral surgery by self-efficacy enhancement and perceptions of control. *Journal of Dental Research*, 72, 1237–1243.
- Marsella, A.J., M. J. Friedman, E. T. Gerrity, & R. M. Scurfield (Eds.) (1996). *Ethnocultural aspects of posttraumatic stress disorder: Issues, research, and clinical applications*. Washington, DC: American Psychological Association.

- Mawere, M. (2016) *Violence, Politics and Conflict Management in Africa: Envisioning Transformation, Peace and Unity in the Twenty-first Century*. Bamenda: Langaa. pp. 367 – 400.
- Melicherova, K. (2018). Refugees and Livelihood: A case study from Hitsats. *Research Report*. Tilburg: Tilburg University.
- Mikulincer, M., Glaubman, H., Wasserman, O., Porat, A., & Birger, M. (1989). Control-related beliefs and sleep characteristics of posttraumatic stress disorder patients. *Psychological Reports*, 65, 567-576.
- Murphy, S. A. (1987). Self-efficacy and social support mediators of stress on mental health following a natural disaster. *Western Journal of Nursing Research*, 9, 58–86.
- Nastranis, J. (2018). Security Council Backs Dutch Sanctions Against Eritrean and Libyan Traffickers. *IDN-InDepthNews*, available from: <https://www.indepthnews.net/index.php/the-world/africa/1921-security-council-backs-dutch-sanctions-against-eritrean-and-libyan-traffickers> (accessed 15 June 2018)
- Ong'ayo, A.O (2018) Diaspora organisations, transnational practices and development . Ghanaians in the Netherlands. *PhD Thesis*. Forthcoming.
- Regehr, C., Hill, J., & Glancy, G. D. (2000). Individual predictors of traumatic reactions in firefighters. *The Journal of Nervous and Mental Disease*, 188, 333-339.
- Reisen, M. van, Estefanos, M. & Rijken, C. (2012). *Human Trafficking in the Sinai: Refugees between Life and death*. Nijmegen: Wolf Publishers.
- Reisen, M. van, Estefanos, M. & Rijken, C. (2013). *The Human Trafficking Cycle: Sinai and Beyond*. Nijmegen: Wolf Legal Publishers.
- Reisen, van, M., Gerrima, Z., Ghilazghy, E., Kidane, S., Rijken, C., & Stam, G.J., (2017). Tracing the Emergence of ICT-Enabled Human Trafficking for Ransom. (Rijken ed.) *Handbook for Human Trafficking*. Routledge: London.
- Reisen, van, M., & Mawere, M. (Eds.) (2017) *Human trafficking and trauma in the digital era: the on-going tragedy of the trade in refugees from Eritrea*. Bamenda: Langaa.

- Reisen, van M., Nakazibwe, P., Stokmans, M., Vallejo, B., Kidane, S. (2018). A Cost-Benefit Analysis of Cash-Transfer Programs and Post-Trauma Services for Economic Empowerment of Women in North Uganda. Research report. *Tilburg University*. Tilburg.
- Reisen, van, M. & Rijken, C.J.J. (2015). Sinai Trafficking: Origin and Definition of a New Form of Human Trafficking. *Social Inclusion*, 3 (1), 113 – 124.
- Rothbaum, B.O., Foa, E.B., Riggs, D.S., Murdock, T., and Walsh, W. A (1992) Prospective examination of post-traumatic stress disorder in rape victims. *J. Trauma. Stress*. 1992; 5: 455–475
- Saigh, P. A., Mroueh, M., Zimmerman, B. J., & Fairbank, J. A. (1995). Self-efficacy expectations among traumatized adolescents. *Behaviour Research and Therapy*, 33, 701–704.
- Samuel Hall, NRC (2014). *Living out of camp: Alternatives to Camp-based Assistance for Eritrean Refugees in Ethiopia*. Norwegian Refugee Council. Available from: <http://samuelhall.org/wp-content/uploads/2014/05/Living-Out-of-Camp-Alternative-to-Camp-based-Assistance-in-Ethiopia.pdf> (accessed 15 June 2018)
- Sanderson, W. C., Rapee, R. M., & Barlow, D. H. (1989). The influence of an illusion of control on panic attacks induced via inhalation of 5.5% carbon dioxide-enriched air. *Archives of General Psychiatry*, 46, 157–162.
- Schoenmaeckers, R. (2018). Secondary Migration and Mobile Phone use in Hitsats. *Research report*. Tilburg: Tilburg University.
- Schwarz, N. (2010). Feelings-as-Information Theory. In: P. Van Lange, A. Kruglanski, & E. T. Higgins (eds.), *Handbook of theories of social psychology*. Sage.
- Shadish, W. R, Cook, T.D. & Campbell, D.T. (2001) *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin.
- Silove D., Liddell B., Rees S., Chey T., Nickerson A., Tam N., Zwi A. B., Brooks R., Sila L. L., Steel Z. (2014). Effects of recurrent violence on post-traumatic stress disorder and severe distress in conflict-affected Timor-Leste: a 6-year longitudinal study. *The Lancet Global Health*, Volume 2, Issue 5.

Turner, S. W., Bowie, C., Dunn, G., Shapo, L., & Yule, W. (2003). Mental health of Kosovan Albanian refugees in the UK. *British Journal of Psychiatry*, 182, 444 – 448.

UNHCR (2011). Promoting Livelihoods and Self-reliance; Operational Guidance on Refugee Protection and Solutions in Urban Areas. *UNHCR*, available from:

<http://www.unhcr.org/publications/operations/4eeb19f49/promoting-livelihoods-self-reliance-operational-guidance-refugee-protection.html> (accessed 15 June 2018).

UNHCR (2012). Livelihood Programming in UNHCR: Operational Guidelines. *UNHCR*, available from: <http://www.unhcr.org/uk/publications/operations/4fbdf17c9/livelihood-programming-unhcr-operational-guidelines.html> (accessed 15 June 2018).

UNHCR (2017) Refugee/migrants response - Mediterranean'. Geneva: UNHCR.

UNHCR (2018) Ethiopia- Country Refugee Response Plan 2018: Regional Refugee Coordination Office (RRC) Nairobi. Geneva: UNHCR.

Zetter, R., & Ruaudel, H. (2016). *Refugees' Right to Work and Access to Labor Markets – An Assessment*, Part II: Country Cases.

Annex 1: Development of SHLCPTS in Northern Uganda^{xi}

The Self-Help Low Cost Post Traumatic Stress (SHLCPTS) program was developed as part of a project that focused on the Cost-Benefit of Including Trauma- Support in Social Protection Programs in Northern Uganda (van Reisen *et al.*, 2018). The research in Northern Uganda served as preparation for the research carried out in Northern Uganda.

The main objective of the second study was to understand the beneficial effects of trauma counselling on the effectiveness of social protection in building social economic resilience. The program was developed when research had shown that trauma provided a higher result on Social Economic Resilience than social protection programs, while the combination of social protection programs and trauma showed the highest impact on Social Economic Resilience (first wave, van Reisen *et al.*, 2018). In order to facilitate further understanding of the Cost-Benefits of introducing treatment of trauma into the social protection interventions, a tool was developed that adhered to contextual realities in Northern Uganda. These were the following:

- Environment of low financial resources: the intervention needed to be low cost;
- Environment of low resources of mental health workers and health workers: the support needed for the safe use of the intervention needed to make minimal use of the few available mental health facilities;
- Limited diagnostic facilities: the program needed to provide support without interfering with non-diagnosed mental health problems;
- Low trust in outside interventions: the program needed to have a strong feel of ownership by the communities and support of local leadership and needed strong contextualization (local radio communicators and local leaders supported the program) (Van Reisen, *et al.*, 2018).

In the next section, the background to the program and how it was developed is illustrated.

5.1. Contextual considerations in trauma healing

When considering trauma healing in the contexts such as the one under consideration here, the veracity of universalized psychological interventions often developed in Western contexts and focusing solely on individual trauma, should be carefully considered.

Interventions should be assessed with an understanding of collective cultures and the impacts of collective trauma. These aspects shape the context of the traumatic experiences in Northern Uganda, as well as the impacts that healing should address.

Simply focusing on individual trauma decontextualizes the collective suffering in post-conflict communities. The context for such collective suffering, after all, is the social and historical fabric, and leaving this out of the healing process, leads to further atrocities such as human rights violations (Lykes, 2001; Van Reisen & Munyaradzi, 2017), as well as hampering the recovery of those who are already suffering from PTSD and other mental health problems. On the other hand, the wider focus, locating trauma in the community as well as in any individuals who are suffering symptoms of traumatic stress will give opportunities for practitioners to focus on the community-wide potential to effect healing (Bonano, 2004; Kidane, 2015).

This leads to the conceptualization of trauma healing as supporting the many individuals with symptoms of traumatic stress, while at the same time addressing collective trauma, enabling both the traumatized community and traumatized individuals within it the opportunity to heal and move on to post-traumatic growth. If collective trauma represents the disruption of relationships at many levels of the human system, recovery should also involve collective processes of adaptation and the mobilization of capacities across all these levels (Saul 2014). Therefore, healing trauma simultaneously at the individual and collective levels is crucial for post-conflict recovery. Neglecting trauma healing has detrimental impacts not only on the wellbeing of individuals, it also hampers post-conflict reconstruction and peace building. Moreover, the impacts of collective trauma will affect subsequent generations as traumatic memories and reactions are passed on through collective narratives, norms and societal structures, extending the cycles of violence and vulnerability.

Having justified the need for multilevel healing in post-conflict communities, the challenge of providing such support becomes evident. This is particularly the case given the devastation caused to the human and material resources available to the community and the prioritization of other needs over the needs for psychological healing, be it individual or collective. Gelbach and Davis (2007) state that, although the treatment of psychological distress in individuals and families is generally believed to expedite community recovery,

the provision of effective and affordable psychotherapy is not yet a priority in post-disaster support. Although there are many other reasons for this, including the timing of interventions, as well as the type and effectiveness of some of the available techniques, a recurring concern, particularly in non-western cultures, is whether psychotherapy in itself is culturally biased and stigmatizing, pathologising normal responses to danger and labelling trauma survivors as mentally ill (Miller & Rasco, 2004).

A program that overcomes some of the difficulties to develop a post-disaster treatment method is the EMDR Humanitarian Assistance Programs (HAP). It focuses on supporting the brain's natural capacity to reprocess disturbing information to an adaptive resolution (HAP volunteers, 2005). In addition, HAP found that training local clinicians helps to circumvent the problems caused by delayed international responses to traumatic events and builds sustainable resources in communities plagued by natural disasters or the effects of violent conflict. The positive outcomes of HAP EMDR interventions have been published in several peer-reviewed articles (e.g., Jarero *et al.*, 1999; Adruiz *et al.*, 2009; Fernandez, Gallinari, & Lorenzetti, 2004; Jarero *et al.*, 2006; 2010; Zaghrou-Hodali *et al.*, 2008).

However, in the context of poor post-disaster contexts, such as Uganda, even this successful and relatively cost-effective technique is not easy to implement due to the unavailability of clinicians. This is particularly the case given the extent of the traumatization and the deprivation of the region affected. If EMDR-based techniques are to be effectively implemented to address individual and collective trauma in rural Northern Uganda there is a need to find a realistic and sustainable medium to facilitate accessibility. In our opinion, ICT can provide a feasible medium, since one of the features of communities in current day Africa is the fast expansion of ICTs, which is both a challenge and an opportunity (Van Reisen & Gerrima, 2016). For our purposes, it is important to discuss the opportunities for utilizing technology to facilitate the cost effective and sustainable provision of trauma intervention in resource-deprived communities such as the ones in consideration here.

5.2. The SHLCPTS program

The program was designed to take into account the neurobiology of trauma, as well as the impact of collective trauma on healing and post-traumatic growth. Exercises are intended to heal the connections that are often disrupted by complex trauma such as those prevalent

in post conflict communities (Cozolino, 2006; Ogden, 2006; Siegel, 2001). The design itself follows the phased approach endorsed by a number of key international bodies and clinicians treating either complex PTSD or PTSD (Cloitre *et al.*, 2012).

The SHLCPTS program is fully described in Van Reisen *et al.* (2018), but below is a brief outline of its main principles and objectives:

- It is developed for use in low resourced communities hence techniques are intended to be mainly self-help;
- Any improvements as a result of the program have to be maintained and therefore there is great need for victims understanding their symptoms and their causes in as much detail as possible under the circumstances;
- A central theme of the program is community wide healing and hence trust and trust building is a crucial element as is whole community involvement;
- Sustainability and upscalability through careful utilization of available technology

The SHLCPTS program developed for North Uganda and adapted for this research had three components:

1. Sessions of educational information to raise participants awareness of their symptoms and their causes
2. Sessions of coaching on techniques to gain control over distressing PTSD symptoms
3. A session that encourages participants to share their experiences with members of their community

A defining component of mass trauma, such as the trauma that took place in the years of the civil war in Uganda, is the betrayal of social trust, which leaves victims devalued and humiliated, undermining their sense of communal trust and decency (Saul, 2014). Restoring social trust is, therefore, a foremost task of any program. In fact, without restoring trust, a program will not have a chance of making any meaningful impact on recovery, as recipients will not access or engage with it. In North Uganda, we choose for support by means of radio since it can facilitate collective narration, which can shape the meaning ascribed to traumatic events, as well as providing resources and solutions to difficult challenges (Saul

and Landau, 2004). So, various activities were undertaken to involve media personalities (mainly radio) to support the delivery of the program.

5.3. Experimental design and assignment of the respondents

The feasibility study of the SHLCPTS program was part of a larger study about the effectiveness of social protection and counselling in North Uganda (see Van Reisen *et al.*, 2018 for a full description of experiment and selection of the respondents). For this larger study, respondents were purposive assignment to the groups who received social protection (cash or in-kind, provided by the Government of Uganda) or counselling (provided by NGO's or District). For the feasibility study of the SHLCPTS program, the respondents (N=356) were purposively assigned to the SHLCPTS program, developed by the researchers in collaboration with local authorities. This resulted in the following groups:

- SHLCPTS and cash/in-kind
- SHLCPTS and counselling
- SHLCPTS and both cash/in-kind and counselling
- SHLCPTS and no cash/in-kind nor counselling
- Only cash (cash/in-kind)
- Only counselling
- Both cash/in-kind and counselling
- No support (control group)

5.4. Research tool (Social and Economic Resilience)

The main objective of the second study was to understand the beneficial effects of trauma counselling on the effectiveness of social protection in building social economic resilience. The development of the SER is described in van Reisen *et al.* (2018). It comprises the following six constructs:

- Perceived capabilities
- Income
- Social inclusion

- System: Feeling of security
- Empowerment: A change in agency and behavior
- Experiencing less worry

The reliability of this tool is reported in van Reisen *et al.* (2018).

5.5. Results

There was both a quantitative and qualitative analysis carried out; the qualitative analysis enhanced the understanding of the quantitative data.

5.5.1. Qualitative results of the SHLCPTS program

A full report on the qualitative data is given in van Reisen *et al.* (2018). Here, a summary is given.

The main objective of the program was to enable participants to learn strategies to help them overcome the traumatic stress affecting their day- to-day functioning. During interviews carried out six months after the program, participants reported a wide range of positive impact on the lives of the participants, their families and community at large. Increased self-esteem, decreased domestic violence, better addressing of interpersonal conflicts were examples of the types of change related by participants.

Referring to specific exercises the women expressed that knowledge in application of the touch stone memories and safe calm place presented them with skills that they could use for themselves as well as would share with the rest of the community with those people whom they would identify with trauma symptoms. They also said they were using the trauma healing techniques at home for themselves, used it to help other friends and members of their communities. Several women reported healthy weight gain; this is a crucial indicator particularly for those who are HIV positive as it indicates their physical health is in better shape following the mental health support they received.

Success in overcoming day to day challenges seems to have had a lot of positive effect on physical and psychological wellbeing, their relationship within their respective families as well as their functioning and role within the wider community. It has enabled them to look forward rather than always look back in fear of the rebels coming back.

The fact that the women had continued to use the techniques long after the official conclusion of the project and the fact that they were teaching the techniques to members of their family and community is a testament to the effectiveness of the techniques in addressing symptoms of trauma. Many who were not part of the research participating group, including male members of the family, started expressing wished to be involved in the project.

5.5.2. Quantitative results

A full report of the quantitative result is given in Van Reisen *et al.* (2018). This section only outlines the main findings regarding the effectiveness of program. The Uganda study indicated that (see also Van Reisen *et al.*, 2018):

1. Receiving cash/in-kind has no immediate or lagged effect on Social, Capability, and Income scale of the SER.
2. Receiving cash/in-kind has an immediate positive effect on Women's Empowerment and System scale of the SER.
3. Receiving cash/in-kind has an immediate negative effect on Worry scale of the SER (it increases worry).
4. Receiving counseling has no immediate or lagged effect on Social, Capability, and Worry of the SER.
5. Receiving counseling has an immediate and lagged positive effect on the Income and Women Empowerment scale of the SER.
6. Receiving counseling has an immediate negative effect on System scale of the SER.

The effect of SHLCPTS are still preliminary, due to the short time period between finishing the program and the collection of this set of data. In addition, it should also be taken into consideration that the SHLCPTS program was not assigned randomly to individuals. Rather, it was a targeted at communities that were expected to benefit most of the program. Consequently, at the start of the program, those respondents who did receive the SHLCPTS program are more likely to have lower scores on Social and Economic Resilience compared to those who did not receive it.

The results of the analyses indicate that, those receiving SHLCPTS program:

- Scored lower on the Social and Income scale of the SER.
- Did not differ on Capability, Empowerment, System, and Worry scale of the SER (although this might be expected based on the fact that those who received SHLCPTS program were most in need for trauma support).

These quantitative results are in contrast to the positive results of the qualitative research. However, if the quantitative results are viewed from the perspective that those respondents who did receive the SHLCPTS program probably scored lower on Social and Economic Resilience compared to those who did not receive it, the results can be regarded as positive. The backlog in SER is reduced due to the SHLCPTS program. This interpretation is in line with the qualitative results of the SHLCPTS program. From that perspective, the SHLCPTS program is probably effective in increasing Social and Economic Resilience.

6. Annex 2: Explanation of SHLCPTS

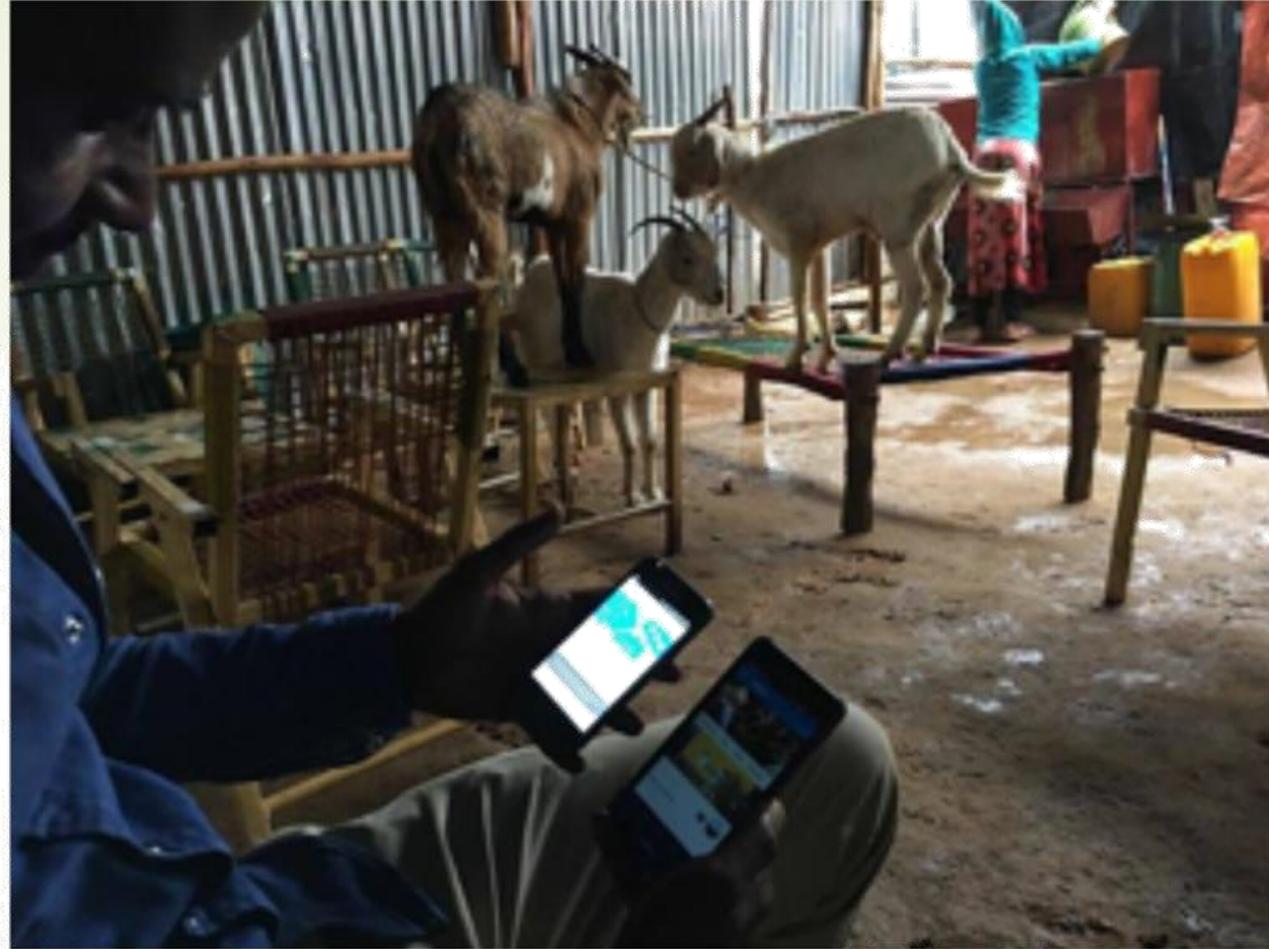
Self-Help Low Cost Post Traumatic Stress Psycho- Social Intervention (SHLCPTS)

Selam Kidane



Netherlands Organisation for Scientific Research
WOTRO Science for Global Development





Support and Encouragement to Refugees on the Move

Selam Kidane

Background

- ← Numbers of Eritreans fleeing the country is high
- ← In Ethiopia, the UNHCR registered 163,281 Eritrean refugees as of September 2017 → includes those officially registered only
- ← In Europe, IOM reports that in the first quarter of 2018, 25% out of a total of around 19.000 arrivals were Eritrean
- ← Traumatized refugees in search of protection and prospects are taking immense risks and deterrents against the risks of human trafficking don't seem to be making an impact
- ← Providing trauma support is key to providing protection for traumatized refugees
- ← However, the scale of the refugee crisis and the availability of resources is a huge challenge
- ← Most refugees rely on cheap smartphones for crucial information and contact with their family and kin networks along their migratory routes
- ← Self Help Low Cost Post Traumatic Stress Program (SHLCPTS) provided on smart phones might help overcome the challenges of providing trauma support to refugees on the move



Objectives SHLCPTS on 24Comms Application

- ◀ Providing trauma support in a context where qualified human resources is severely limited to meet the high prevalence of trauma
- ◀ Providing trauma support to a community that is suffering from individual and collective trauma where gaining and maintaining trust might be challenging, hence the use of a medium that is already trusted and used by the community
- ◀ To provide trauma support using techniques that don't require re-telling of painful memories to another person (as you do in talk therapy) and hence reducing the risk of re-traumatisation
- ◀ To provide trauma support through a medium (an App on smart phones) that is less likely to stigmatise trauma victims for accessing trauma support

Privacy and Security

- 10 The page is secure and only people who are approved by designated administrators can access it following a request to be members
- 10 All members are known to the Administrators and can choose to participate in discussions using a nickname protecting their identity
- 10 Participants can withdraw from the group and delete the Application whenever they want
- 10 All videos are password locked and only participants who are on track for receiving subsequent session are sent the password for the relevant video



Members



Agenda



Forms



Settings



QR code



Leave group

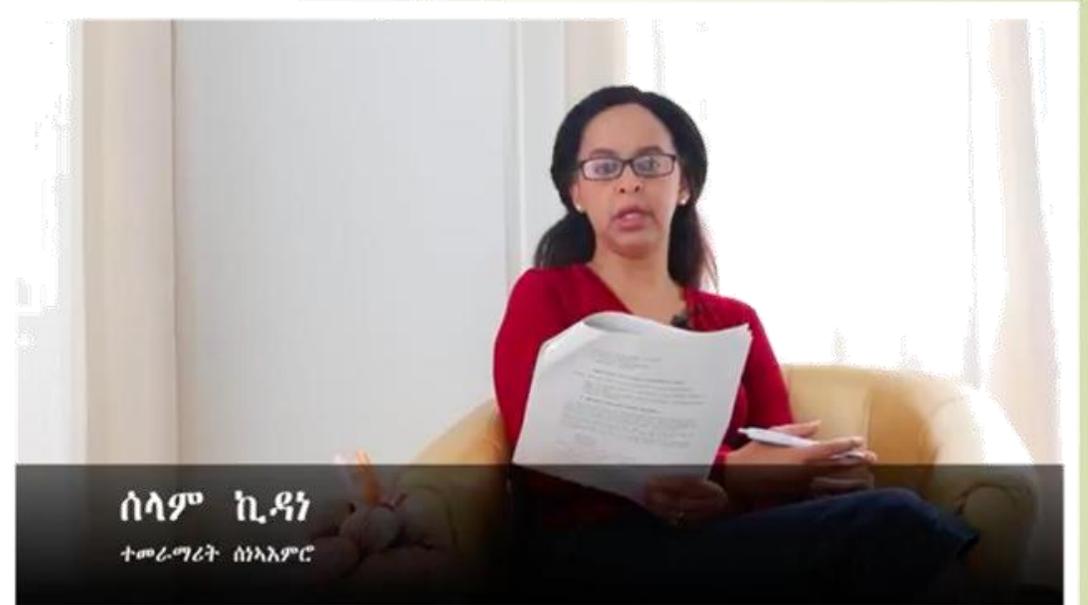
Pre-Session Assessment

- ← Once individuals are admitted onto the program they are sent a trauma assessment questionnaire
- ← The assessment is based on the Impact of Events Scale Revised (IES-R), with a shorter version (IES-Short) adapted for use on ICT
- ← IES-S scores are used to give an insight into current levels of traumatic stress (and will also be used to measure improvements in post intervention measures)
- ← Those with concerning levels of trauma can be identified at this point and be offered additional support where they live
- ← Following completion of IES-short participants are sent the first two videos



Introduction to trauma and traumatic stress

1. The first two videos give participants an insight into trauma and its implications for the individual.
2. The main objective here is to show participants that traumatic stress is a reaction to an extremely difficult experience
3. In particular the impact of trauma on the human brain is described using a life-size brain model
4. The impact of widespread trauma on communities and the society at large is also described
5. The sessions are also used to introduce some concepts of Eye Movement Desensitisation and Reordering Therapy (EMDR) and particularly bilateral stimulations using the 'butterfly hug' as well as breathing exercises that are used throughout the sessions to bring levels of stress down



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Providing resources for coping

- The main objective of session 3 is to provide participants with techniques that they can use to help them cope with the impact of trauma or calming techniques
- Finding a 'safe calm place' and creating a shortcut for accessing and embedding this calming technique
- The session is also a coaching and encouraging session that recognises the unfamiliarity of the approach and encourages participants to have a go at trying the exercises



Support Eritrea 3 - ፍታሕ ምርኮብ

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Recovering from trauma

- The fourth session coaches participants on bringing previous trauma and negative emotions associated with it so they can rank it and also decide to work on processing it so they will eventually cope better
- They will then be coached on how to measure their levels of distress using Subjective Units of Distress (SUD) and use this in conjunction with the butterfly hug to deal with the particularly distressing memory identified
- As with previous session people are not just coached but actively encouraged to give the techniques a try and rank their starting levels of distress and their levels of distress following the techniques introduced
- In addition they are also encouraged to use their 'safe calm placed' and breathing exercises to manage distress both during the session and later



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Dealing with forthcoming potentially stressful situation

- Session 5 is a continuation of using 'butterfly hugs' to cope with either past or present situation. In addition this time participants are also encouraged to envisage forthcoming situations that could be potentially stressful (or distressing) and then encouraged to use their bilateral stimulation (or 'butterfly hugs') to reduce anxiety
- Using the SUD ranking people are encouraged to use butterfly hugs until the level of distress is at a manageable level
- Participants are also encouraged to use a combination of their techniques to help cope with distress e.g. butterfly hugs with breathing or safe calm place



Support Eritrea 5 - ምምላስ ኣእምሮ ናብ ንቡር ካልኣይ ከፋል
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Trauma Recovery

- In recognition of the forthcoming end of the intervention this session begins to give people responsibility for practicing the techniques and applying them concertedly. Participants are also prompted to use the discussion boards if they haven't started using these already
- Knee taps are also introduced as an alternative to butterfly hugs for bilateral stimulation
- This session is the third session dealing with processing of traumatic memories and by this point participants are encouraged to tray the techniques without the videos



Support Eritrea 6 ምምላስ ኣካምፕ ናብ ንቡር ሳልሳይ ከፋ-ል

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Maintenance of a calmer state of mind

- In this session participants are really encouraged to look into the future and think about how to put together their understanding of trauma and the self help techniques.
- Additional simple techniques are also added to their repertoire.
- **Earth:** Sitting firmly on the floor or on a chair and stimulating the brain to prevent freezing in the face of danger
- **Air:** Using deep breathing to help with relaxation and calming oneself
- **Water:** Swallowing hard to prevent the brain from shutting out other functions such as the digestive system (hence freezing)
- **Fire:** Firing imagination and entering the 'Safe Calm Place'
- 1. At this point participants are also invited and encouraged to share these techniques with others and help others to cope better



Support Eritrea 7 - ምዕቃብ ርገኣ ኣኣምሮ
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Celebration of Healing

- (iv) After completing all seven sessions, participants are invited to a community event when they are given opportunities to share their experiences with others and also get a certificate acknowledging their achievements in dealing with their traumatic experiences
- (v) Following this they are then invited to do the IES-Short again and this will give an indication of their current status of traumatic stress



Does SHLCPTS Psycho-Social Intervention work?

Our research on the effectiveness of the intervention found SHILPS:

- Lowered trauma levels
- Enhanced perceptions of capacity to improve socio-economic status
- Enhanced empowerment levels
- Improved perceptions of income levels
- Improved social capital



7. Endnotes

ⁱ Reproduced from Reisen, van, L., et al. 2018. A Cost-Benefit Analysis of Cash-Transfer Programs and Post-Trauma Services for Economic Empowerment of Women in North Uganda. *Research Report* (EWP-U). Tilburg University. Tilburg: 70.

ⁱⁱ Adapted and reproduced from: Schoenmackers, R. 2018. Research report 3: Secondary Migration and Mobile Phone Use in Hitsats. *Tilburg University*. Tilburg.

ⁱⁱⁱ Adapted and reproduced from: Kidane, S. & Stokmans, M. 2018. Research report 1: ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. *Tilburg University*. Tilburg; Melicherova, K. 2028. Research report 2: Refugees and Livelihood: A case study from Hitsats. *Tilburg University*. Tilburg.; Schoenmackers, R. 2018. Research report 3: Secondary Migration and Mobile Phone Use in Hitsats. *Tilburg University*. Tilburg.

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^{vi} Adapted and reproduced from: Schoenmackers, R. 2018. Research report 3: Secondary Migration and Mobile Phone Use in Hitsats. *Tilburg University*. Tilburg.

^{vii} This section is reproduced and adapted from: Kidane, S. & Stokmans, M. 2018. Research report 1: ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. *Tilburg University*. Tilburg and Schoenmackers, R. 2018. Research report 3: Secondary Migration and Mobile Phone Use in Hitsats. *Tilburg University*. Tilburg.

^{viii} This was first published in: Kidane, S. & Stokmans, M. 2018. Research report 1: ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. *Tilburg University*. Tilburg.

^{ix} Reproduced from: Kidane, S. & Stokmans, M. 2018. Research report 1: ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. *Tilburg University*. Tilburg.

^x Adapted and reproduced from: Schoenmackers, R. 2018. Research report 3: Secondary Migration and Mobile Phone Use in Hitsats. *Tilburg University*. Tilburg.

^{xi} This section is first published in: Kidane, S. & Stokmans, M. 2018. Research report 1: ICT-based Psycho-Social Trauma Relief in Refugee Camps in Ethiopia. *Tilburg University*. Tilburg.