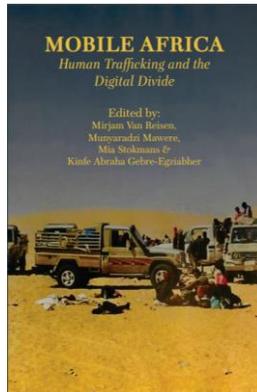# Desperate Journeys: The Need for Trauma Support for Refugees

Selam Kidane & Mia Stokmans

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Human Trafficking and the Digital Divide

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Connected and Mobile: Migration and Human Trafficking in Africa

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Chapter 12

Desperate Journeys:
The Need for Trauma Support for Refugees

Selam Kidane & Mia Stokmans

Introduction

On 3 October 2013 a boat went down off the Italian island of Lampedusa killing 366 people, 360 of which were Eritrea refugees[1] (Davies, 2013). The incident was by far the most devastating, even in a region where such deaths are a regular occurrence. Tens of thousands of refugees are known to have died making the same journey to Europe's southern borders in the past 20 years. The 2018 risk analysis by Frontex concludes that the sea, especially the Mediterranean Sea, will remain the most active route for the illegal crossing of the external borders of the European Union (EU), as well as one of the most dangerous for refugees (Frontex, 2018). The EU's policy of deterring refugees does not seem to have stemmed the flow of desperate refugees from

The critical flaw in Europe's migration policies is the logic that underpins them – that refugees' decisions about migration are rational. But fleeing is not a rational process and often happens as a result of traumatising events, which can prompt refugees to take life threatening risks. This study examines the possibility of alleviating the worst symptoms of post-traumatic stress by using an app offering psycho-social support in refugee camps in Ethiopia. The study finds that psycho-social support can decrease trauma levels and significantly increase social and economic resilience among refugees.

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[1] The word 'refugee' is used here in a non-technical sense to mean a person who has fled his/her country of origin either out of fear for their safety or in search of a better life, and is used interchangeable with the word 'migrant', which is also used in a general sense.

endangering themselves in an attempt to reach Europe (Mackintosh, 2017).

One of the victims of the Lampedusa disaster was Yohanna, a young woman who is believed to have been about 20 years old. She was seven months pregnant and her baby boy was born as she drowned. The premature baby was found still attached to her, when divers finally pulled their corpses from the wreck. The diver who pulled her body out describes how shocked he was by the discovery and how the experience left him unable to sleep (Roberts, 2013). A Guardian newspaper article relates how rescuers found the two in the prow of the boat, after they broke through what was described as "a wall of bodies", including another woman pressing a young child to her chest and a teenage boy wearing a T-shirt emblazoned with the word 'Italia'. Rescuers tied Yohanna's body with a rope to other bodies and then rose with them from the depths of the sea to the light where they realised that the she had a baby nestled in her clothes. It was a disaster unlike any they had ever experienced (Davies, 2013). And, yet, despite the enormous risks and devastating outcomes policymakers continued to cite the desire for economic advantages as the prime cause of migration. In the Prime Minister's Questions in June 2015, David Cameron told the United Kingdom Parliament that: "The vast majority of people setting off into the Mediterranean are not asylum seekers, but seeking a better life". Cameron claimed these people are primarily economic migrants, rather than people seeking refuge from war or persecution, though he provided no evidence to support this claim (Mepham, 2015). No one seems to want to understand what causes these people to take the risks they continue to take in search for protection and prospects.

However, the danger at sea is not the only, nor necessarily the biggest, risk the refugees face on their journey. The desert route through North Africa is riddled with trafficking networks and terrorist groups intent on capitalising on the desperation of refugees. In 2015, Islamic State (ISIS) beheaded and shot 30 Ethiopians and Eritreans and released a video showing the whole event (Catholic News Agency, 2018). News of disappearing and wrecked boats and lists of the

people who have died and are missing circulate rapidly on Ethiopian and Eritrean websites and social media. Yet, this information does not seem to deter the next group of refugees from tempting their fate.

Similar to the deterrents put in place by EU policymakers, the actions of terrorist do not seem to stop the refugees. Nor do the traffickers who sell refugees in open slave markets in Libya (Naib, 2018). The risks that refugees take to obtain what they perceive as protection and prospects seem to outweigh the benefits they actually receive by far much too.

It seems that the critical flaw in Europe's migration policies is the logic that underpins them. There is an undeniable tendency to downplay the devastative impact of war and political violence and take a harsh approach to asylum seekers by removing the economic incentives that are assumed to be 'pulling them' to Europe. This policy is based on one of the oldest models of migration – the 'push-pull' model (Ravenstein, 1889). This theory predicts the level of migration based on objective indicators such as the distance, population, and economic opportunities between the source and destination location. In this model, migration decisions are determined using 'plus' and 'minus' analysis (Lee, 1966; Passaris, 1989). The push-pull model assumes rational decision making that takes only economic opportunities and threats into account.

Research question and objectives

As will be explained in this chapter, the glaring omission in the push-pull theory is the impact of traumatic experiences on the push side, particularly their impact on rational decision making. For instance, in the case of Eritrea, many credible reports into human rights abuses in Eritrea (Amnesty International, 2008; Human Rights Watch, 2009), including the United Nations Human Rights Council's Commission of Inquiry on Human Rights in Eritrea (UN Human Rights Council, 2015), establish the existence of an atmosphere of extreme political repression, including torture and inhumane treatment perpetrated against ordinary citizens. Torture, political violence and armed

conflict, whether targeted at an individual or towards the population at large, pose an immense threat to people on various levels (Modvig & Jaranson, 2004). Indeed there is ample evidence suggesting that, aside from resulting in physical injury or death, political violence, including torture, constitutes a traumatic threat to the integrity of the self (Chapman & Gavrin, 1999).

This chapter states that most people exposed to trauma will experience stress responses such as avoidance, sleep disturbances, hyper-arousal and hyper-vigilance. These are adaptive reactions that prepare the survivor to deal with ongoing risks (Chrousos & Gold, 1992; Tsigos & Chrousos, 2002). Repeated or constant activation of the stress response on the body and brain, known as allostatic load (McEwen, 2003), which corresponds to post-traumatic stress, creates a state of fear, hopelessness or horror in the individual in response to the threat of injury or death (Yehuda, 2002). In this chapter, we will argue that these threats push people into flight mode, which overrides the rational decision-making process, irrespective of the high risks involved in migration. If this is the case, providing information about the risks of migration will not stop refugees from migrating, as this information is not processed due to the flight mode they are in, caused by the traumatic experiences. Hence, the main research question to be answered in this chapter is: *Can trauma support for refugees decrease trauma levels and increase social and economic resilience?* This research question will be investigated in a refugee camp in Ethiopia that gives shelter to many traumatised Eritrean refugees.

The aim of the research is, first and foremost, to draw attention to the effect trauma has on the decision-making process of refugees experiencing post-traumatic stress. The effect of trauma is largely ignored in the scientific discourse about migration, and plays no role in migration policies. However, in order to design effective policies or interventions targeted at traumatised refugees, one should realise that they do not always react rationally, have a low capacity to take in information, and are less capable of processing information. The second aim of the research is to establish the effectiveness of a trauma

counselling programme being implement in refugee camps in Ethiopia.

In the following sections we will first discuss the theoretical framework, which provides a base for the empirical study reported on in this chapter. Then the research method is presented followed by the results of the research. The next section discusses the effectiveness and usability of the trauma counselling programme designed for this study in targeting refugees. This is followed by a brief conclusion, which also looks at the implications of the study for designing interventions targeted at refugees or migration policies.

Theoretical framework

The section presents the theoretical framework, which consists of the key concepts used in answering the research question, namely: the trauma of Eritrean refugees, social economic resilience, and the psychological effects of trauma on the decision to migrate.

Trauma of refugees

Research into the levels of post-traumatic stress disorder (PTSD) in Eritreans has revealed an alarming level in many Eritrean refugee communities and communities inside Eritrea (Kidane & Van Reisen, 2017). The World Health Organization estimates that in situations of armed conflict, 10% of the people who experience traumatic events will have serious mental health problems. The most common conditions are depression, anxiety, insomnia and psychosomatic problems (such as back pain and stomach aches). Furthermore, another 10% will develop behaviours that hinder their ability to function effectively (World Health Organization, 2001). One would expect traumatic events resulting from conflict to be a common experience of people in refugee camps, which may engender strong negative feelings and result in lower social and economic resilience for those involved.

The psychological symptoms resulting from trauma are persistent and simultaneously damage the victim's self-esteem as well as their trust in fellow human beings (Barudy, 1989). Studies of refugee

populations indicate levels of depression and PTSD ranging from 40 to 70% (Baingana, 2003). Although this rate may be compounded by displacement, it indicates the possibility that a significant proportion of people in communities affected by conflict and political violence are debilitated by psychiatric illnesses or severe psychological reactions to trauma (Silove, Ekblad & Mollica, 2000). The impact of trauma on individual lives can also translate into a situation where the whole community succumbs to maladaptation, which is detrimental to the community's wellbeing in the long term and can result in collective trauma (Chang, 2017).

Collective trauma is defined as the effect felt by many in the aftermath of a traumatic event. It is a blow to the basic fabric of social life and damages the bonds that hold people together, impairing their sense of community (Erikson, 1976). Collective trauma impairs the ability of people to react to threats and opportunities, causing them to become trapped in cycles of vulnerability (Fullilove, 2013). In fact, many modern intra-state conflicts deliberately inflict traumatic events on many members of a community to induce collective trauma, in order to control these communities (Blin, 2011).

Social and economic resilience

Social and economic resilience is not well defined in the literature (Van Reisen, Stokmans, Nakazibwe, Baluka & Vallejo, 2019). According to Van Reisen *et al.*, (2019), social resilience refers to an individual's perception of his/her abilities, their social embeddedness in the community, as well as their trust in government. Economic resilience refers to perceived income security. In this study we relate social and economic resilience to the agency of an individual, that is, the human capacity to act based on understanding of the world (Emirbayer & Mische, 1998). We define it as the ability to cope with and recover from the hazards and traumas experienced (see Bergstrand, Mayer, Brumback, & Zhang, 2015).

Psychological effects of trauma on decision to migrate

Researchers have found that a traumatic experience has an effect on the victim's cognitive processes and functioning, including cognitive

appraisal, cognitive schemas, symptom expression, and symptom resolution, as well as their behavioural action and adaptive strategies in response to danger (Lerner & Kennedy, 2000). This has at least two consequences for the lives of refugees. Firstly, PTSD negatively affects their social and economic resilience and, secondly, it affects their decision-making ability (Collier & Hoeffler, 1999). We will discuss both effects successively.

As indicated above, traumatic experiences and PTSD carry with them strong negative feelings. People regard feelings as information, with which they evaluate their situation (Schwarz & Clore, 2007). Strong negative feelings indicate that the current situation might be dangerous and the individual can be especially receptive to negative information that backs up that feeling (Norman, 1990). This effect will only diminish if a person realises that the negative feelings have nothing to do with the situation at hand, but are caused by a negative state of mind (Schwarz, 2011). Negative feelings caused by a traumatic event can be characterised as a negative mood, such as a depression (Schwarz & Clore, 2007). In such cases, it is difficult to realise that the negative feeling is not causally link to the situation at hand, as moods have a more general impact than emotions (Schwarz, 2011). According to this line of reasoning, refugees with PTSD will perceive fewer opportunities in their current situation and are expected to score low in terms of social and economic resilience.

As decision making is a complex process that requires the ability to recognise and evaluate the probability and consequences of each available alternative, it can be expected that it is also affected by traumatic experiences. This suggestion is supported by research, which indicates that people often do not make decisions on the basis of the information available, even if they are not traumatised (Payne, Bettman & Johnson, 1993; Kahneman, 2011; Thaler, 2015). A large number of studies have shown that affective feelings can exert substantial influence on judgment (Schwartz & Clore, 2007; Cohen, Pham & Andrade, 2008; Isen, 2001; Pham, 2004). In particular, it has been shown that the influence of feelings typically increases in situations where ability to process information is reduced by various

factors, including cognitive load (Shiv & Fedorikhin, 1999). It seems that a decrease in processing ability (such as associated with PTSD) results in feelings being substituted for substantive information, which requires more cognitive resources to process (Avnet, Tuan, Pham, & Stephen, 2012).

Generally speaking, most studies identify symptoms of PTSD as factors in increased risk-taking behaviour (Ben-Zur & Zeinder, 2009; Rheingold, Acierno, & Resnick, 2004; Tull, Weiss & McDermott, 2016). However, Augsburger and Elbert (2017), in a pioneering research using a computer-based task to assess risk behaviour in displaced individuals with extremely high levels of traumatic experiences, found that high risk-taking behaviour was not related to organised violence, such as war and torture. This study concluded that the association between risk-taking behaviour and traumatic stress might depend on the particular risk and be affected by culturally different concepts of risk behaviour, education and societal values.

The effects of strong negative feelings on cognitive processes such as information processing and decision making can be explained by dual process theories (Chaiken & Trope, 1999; Stanovich & West, 2000; Evans, 2006; Kahneman, 2011; Evans & Stanovich, 2013). These theories assume that information is processed and evaluated by two different systems: a cognitive system that requires a lot of processing capacity and an affective system that requires almost no processing capacity (Kahneman, 2011). Information is always processed by the affective system first and results in an indication of what to do based on a 'gut feeling'. The cognitive system will only interrupt this decision if the decision is evaluated as inappropriate. In that case, the information is processed by the cognitive system more thoroughly, taking pros and cons into consideration (Kahneman, 2011). According to this theory, refugees will, in the first instance, react according to their gut feeling. Due to the traumatic experience, this gut feeling may be extremely negative and strongly indicate that the refugee should flee. The decision to flee what is perceived as a dangerous situation seems appropriate and the cognitive system sees no need to process information about the pros and cons of migrating.

This can explain why refugees migrate, despite information about the dangers that can be encountered on their journey. Due to their strong negative feelings, migrating seems to be a wise decision that needs no close consideration of the pros and cons. Information about the dangers is simply ignored.

Although information processing might remain hampered by trauma during the flight of refugees, factual information about routes, destinations and facilitators is crucial and so refugees are very invested in staying connected with each other, despite the technological challenges involved. A study into information and communication technology (ICT) (Kidane, 2016) conducted as part of an initiative related to this research found that most people considered their fellow refugees as the best source of information regarding most things (in contrast to official information and members of the host community). The study also identified that much interaction and information exchange takes place on social media, where information is shared on a range of issues. Regular topics of discussion ranged from money and work to family and health. Migration was also discussed, but safety and security seem not to be discussed as much as other topics.

Taken together, the above account shows that the little substantive information that finds its way to refugees on the move seems to come from fellow refugees, who are also most likely hampered by diminished cognitive capacity as a result of individual and collective trauma, and who potentially rely on their feelings to make decisions about their safety and prospects. In fact, it can be concluded that decision making is not only hampered by individual trauma (e.g. PTSD), but also by collective trauma (see Figure 12.1).
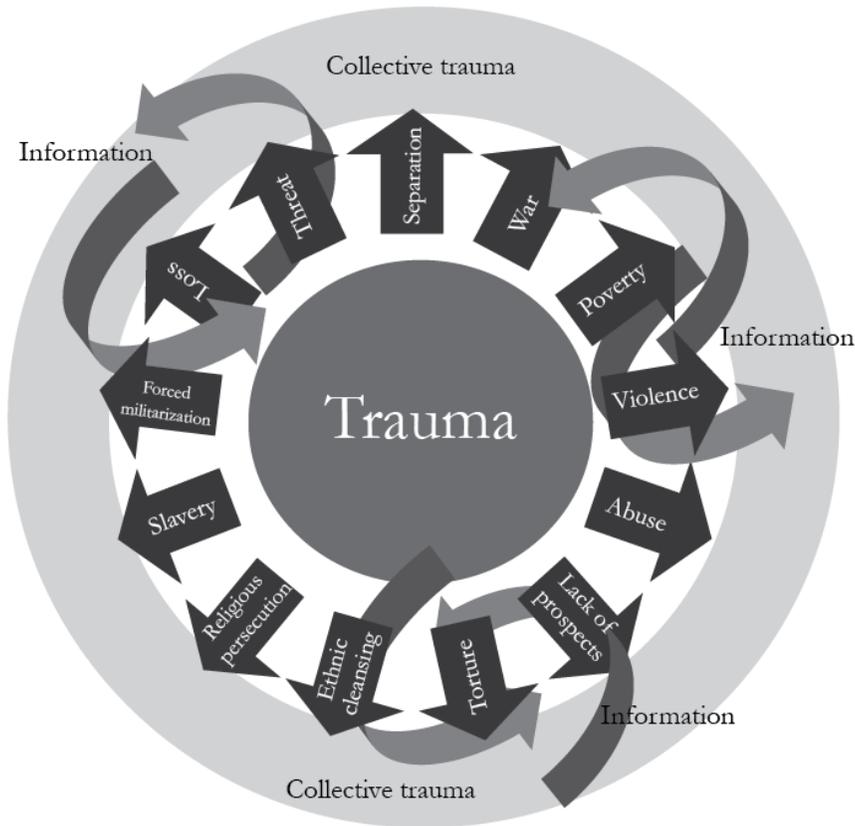
Figure 12.1 Information exchange in refugee communities

This leads to a situation where refugees are unable or unwilling to process all the substantive information available to them, as this would require more cognitive resources than currently available to them due to individual and collective trauma. Meanwhile, they rely on their feelings of fear and despair to make crucial decisions on their prospects and safety. For factual information, they rely on their community, which may also be affected by individual and collective trauma. It follows that one should put the impact of traumatic 'push' factors that debilitate information processing, and the absence of adequate information, which pushes victims to over-depend on their feelings to make a decision, at the heart of discussions on refugees and their decisions to take enormous risks to obtain what they perceive as better protection and prospects for themselves and their

families. In this light, the objective of providing protection to refugees at the earliest safe point should include dealing with the trauma that might be underpinning their decision to move further, often taking shocking risks.

Research method

In order to investigate the research question, an experimental study was carried out in refugee camps in Ethiopia in spring 2017. This section briefly describes the methods used for the selection of participants, design of the study, Self Help Low Cost Post Traumatic Stress (SHLCPTS) programme, instruments used and ethical considerations. More can be found on this research report in Van Reisen, Nakazibwe, Stokmans, Vallejo and Kidane (2018) and Kidane and Stokmans (2018).

Selection of participants
As this research explores some extremely difficult experiences, participants needed to be willing to participate in the programme, as well as able to reflect on their experiences and communicate that reflection to the researchers, while remaining as near to the norms of their community as possible (Allen, 1971). Taking these considerations into account, participants were selected using purposive sampling approaches, which are described more extensively in Kidane and Stokmans (2018). Local research assistants were recruited and asked to draw a list of potential participants. The list was then finalised by the research team.

Design of the study
The research design can be characterised as true experimental (with random assignment of the videos to groups of participants and pre- and post-testing) carried out in a natural setting. Participants were randomly assigned to the trauma support programme. However, it would have been unethical and impractical to have a control group who received no trauma support (Bonell *et al.*, 2011), because it would have denied trauma support to about half of the participants, even after they came in contact with, and opened up to, people who could potentially give them support. In addition, it would have been

impractical as the intervention relied on an app available on a mobile phone, so it would have been impossible to stop people from sharing their newfound knowledge and skills. So, it was decided that half of the participants would receive seven videos, while the other half would receive only two. The participants in the second group would be given the remaining videos at the conclusion of the study, together with an allowance to access them.

Some refugees received additional livelihood support from non-governmental organisations (NGOs) in the camps; those refugees, as well as the refugees who did not receive livelihood support, were asked to participate in the study and randomly assigned to take part in either a short two session video or a longer seven session video. Figure 12.2 shows the distribution of participants across the groups.

2 educational videos; without livelihood support (n=36)	2 educational videos; 5 coaching exercises videos; without livelihood support (n=35)
2 educational videos; with livelihood support (n=14)	2 educational videos; 5 coaching exercises videos; with livelihood support (n=18)

Figure 12.2. Distribution of research participants

The trauma support programme (SHLCPTS)

A problem with trauma support in poor post-disaster contexts is that it is costly and reliant on Western experts or local clinicians (Kidane & Stokmans, 2018). In order to overcome some of these difficulties, the SHLCPTS programme was developed. The intervention was inspired by the eye movement desensitisation reprocessing (EMDR) therapy. EMDR works by getting victims of traumatic stress to focus intensely on the emotions, sensations and meaning of their traumatic experiences in a safe setting, while engaging them in a bilateral

stimulation. The approach was first developed by Francine Shapiro in 1988 and has since been found to be an effective treatment for PTSD across many fields. A full description of this programme is given in Van Reisen *et al.* (2018). The application of this programme consisted of three components:

- Component 1: Two educational video sessions to raise participants' awareness of their symptoms and the causes of these symptoms
- Component 2: Five coaching and exercises video sessions on techniques to gain control over distressing PTSD symptoms
- Component 3: A session that encouraged participants to share their experiences with members of their community

The SHLCPTS programme was delivered via a mobile phone app. This mode of delivery suited the highly-mobile population in the camp, most of whom had a mobile phone. However, there were connectivity problems. Therefore, the app was uploaded to the mobile phones of the research assistants and shared with participants via Bluetooth using an app called SHAREit (Chapter 6, *Journeys of Youth in Digital Africa: Pulled by Connectivity,* by Rick Schoenmaeckers).

Measurement scales

The pre-test and post-test interviews focused on three topics: level of individual trauma, social capital as a proxy for collective trauma, and social and economic resilience. Level of individual trauma was measured using an adapted version of the Impact of Event Scale-Revised (IES-R) (Horowitz, Wilner, & Alvarez, 1979). Our experience with the IES-R in a study in Uganda indicated problems with its length (Van Reisen *et al.*, 2018). So it was decided to develop a shorter version that would be more user-friendly in an ICT context. To ensure the validity of this short version, the three constructs of the IES-R (intrusion, avoidance and hyperarousal) are all included (as suggested by Thoresen *et al.*, 2010). We selected at least two items from each subscale according to the highest inter-item correlation, as found in the Uganda study (Van Reisen *et al.*, 2018) and their face validity (i.e., the item makes sense as a measure of the construct in the eyes of the researcher) (Neuman, 2011). In addition, items that were

considered particularly relevant to refugees in a camp were also included. This resulted in seven items for the short version of the IES-R (Kidane & Stokmans, 2018).

It is important to measure social capital, as studies have been consistent in finding that chronic civil war can lead to the depletion of social capital (Kawachi & Subramanian, 2006; Wind & Komproe, 2012). Furthermore, one of the effects of collective trauma is that it damages the bonds that hold people together (Erikson, 1976) – in other words, it damages social capital. Given this relationship between social capital and collective trauma, loss of social capital is useful in measuring collective trauma (Somasundaram, 2014).

The social capital scale used in this study, was developed by Dmitri Williams (Department of Speech Communication University of Illinois at Urbana-Champaign), and is known as the Internet Social Capital Scale, or ISCS (Williams, 2006). The scale was constructed in recognition of the fact that an increased level of social interaction now occurs online and happens in parallel, and conjunction, with offline interaction. It includes community networks, relationships, and civic engagement based on norms of reciprocity and trust in others who facilitate cooperation and coordination for mutual benefit (Cullen & Whiteford, 2001).

Given our understanding of the continuous information exchanges across refugee communities and the impacts of collective trauma, it was crucial to capture the quality of the social capital held by refugees, which also impacts on the quality of information exchanges across communities. The more meaningful and deep the relationships (social capital), the greater the possibilities for exchanging information, other than traumatic information that affirms the need for a 'fight or flight' response.

Social and economic resilience (SER) was conceptualised as 'social resilience', pertaining to an individual's abilities, their social embeddedness in the community and trust in the government, and economic resilience, referring to their perception of income security.

In this study we made use of an adapted version of the SER tool used in the Uganda research (Van Reisen *et al.*, 2018). In this tool the individual's social resilience was established using several statements regarding 'capability' (to pay bills, get information, acquire skills, and in terms of communication skills), 'empowerment' (to act independently and out of free will, as well as improved self-esteem) and 'worry' (about all kind of things). The social embeddedness of social resilience is operationalised by one indicator: 'subjective/social', which refers to the bonds an individual has with the family, community and the leadership of the community. Trust in the government is captured by 'structural/system', which taps into the person's rights and access to services. 'Economic resilience' is operationalised as the perceived ability to make, save and manage money.

The SER tool was adjusted to the current context in which the participants were individuals living in a refugee camp. To secure the validity of this short version, we selected at least three items from each of the six subscales of the SER tool (income, empowerment, structural/system, worry, capability, and social). In order to do so, we looked at the inter-item correlations reported in the Uganda study (Van Reisen *et al.*, 2018) and checked whether the items were relevant for refugees in a camp (e.g., items relating to income from work had to be modified as most camp residents do not work). Some selected items were adjusted based on an intimate knowledge of the context and an understanding of cultural and linguistic nuances.

Ethical considerations

As mentioned above, it was felt to be unethical and impractical to leave respondents who came into contact with the research team without any support. Therefore, consideration was given to this in the context of the Eritrean refugee camps in Ethiopia, where services are extremely restricted, and the research design altered to take this into account. In addition, there was concern over the potential to re-traumatise participants who were asked to reflect on traumatic experiences. To mitigate this risk, researchers identified potential services (within the extremely limited the camp setting) that could

provide ongoing support to participants who were finding participation in the study overwhelming. Informed consent was sought from every participant and all personal information gathered was anonymised with designated codes that split the person's identity from the data. The data was then stored in accordance with Tilburg University's data management procedures.

Results

In this section we explore whether the SHLCPTS programme was effective in reducing trauma levels, and whether this enhanced social and economic resilience. In addition, we look at the applicability of the trauma support services used in this research.

Did the SHLCPTS reduce traumatic stress?

In this research, individual trauma was indicated by post-traumatic stress, measured by a short version of the IES-R, and collective trauma was measured by the ISCS. For both trauma levels, the effect of the SHLCPTS programme was explored by means of a 2 (full programme: seven videos; short programme: two videos) x 2 (livelihood support: yes, no) x 2 (time: pre- and post-test) repeated-measure multivariate analysis of variance (MANOVA), with trauma support and livelihood support as between-subject factors and time as a within-subject factor.

If the dependent variable was post-traumatic stress, measured on the IES-R short version, the results indicate that post-traumatic stress changed between the first (pre-test) and second (post-test) measurement (F (1, 90) = 64.594, p<0.01).[2] This indicates that post-traumatic stress changed during the research period. The interaction time*SHLCPTS is significant (F (1, 90) = 91.80, p<0.01), which

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[2] An ANOVA makes use of an F distribution to test the significance of the difference between the groups involved. The extent the groups differ is indicated by an F-value (F) and its significance depends on the degrees of freedom that goes along with this test. The degrees of freedom are indicated between brackets just after the F (df1, df2). Df1 is related to the number of groups involved in the comparison and df2 is related to the number of respondents included in the comparison (Hair, Anderson, Tatham & Black, 1998).

indicates that during the research the change in post-traumatic stress was not equal for the two groups of participants (the two and seven video conditions). Inspection of the estimated means indicates that those who received the seven video programme reported less PTSD during the second measurement. Moreover, the interactions time*livelihood support and time*SHLCPTS*livelihood were not significant ($F (1, 90) = 0.00$, $p = 0.995$; $F (1, 90) = 0.801$, $p = 0.373$, respectively).

In the case of collective trauma, measured by the ISCS, we conducted two analyses: one for online social capital and one for offline social capital as the dependent variable. If the dependent variable is online social capital, the results indicate a significant main effect of time ($F (1, 90) = 14.859$, $p<0.01$). This indicates that, overall, social capital online changed during the research period. The interaction time*SHLCPTS is significant ($F (1, 90) = 32.203$, $p<0.01$), which indicates that during the research the change in social capital online is not equal for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported higher social scores. The results for the interactions time*livelihood support and time*SHLCPTS*livelihood were not significant ($F (1, 90) = 0.675$, $p = 0.413$; $F (1, 90) = 2.719$, $p = 0.103$, respectively).

If the dependent variable is offline social capital, the results show a significant main effect of time ($F (1, 90) = 55.409$, $p<0.01$). This indicates that, overall, social capital offline changed during the research period. The interaction time*SHLCPTS is significant ($F (1, 90) = 82.733$, $p<0.01$), which indicates that during the research the change in social capital offline is not equal for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos reported higher social capital offline. The results for the interactions time*livelihood support and time*SHLCPTS*livelihood are not significant ($F (1, 90) = 0.359$, $p = 0.551$; $F (1, 91) = 1.109$, $p = 0.295$, respectively).

So, the results indicate that post-traumatic stress levels, as well as collective trauma levels, decreased due to the SHLCPTS, consisting of two educational videos and five coaching and exercises videos. The same effect was not established by means of only the educational videos (the two video condition) or livelihood support.

Did the SHLCPTS increase social and economic resilience?

In this research, social and economic resilience was operationalised using six subscales: income, empowerment, structural/system, worry, capability, and social. To explore the effect of the SHLCPTS programme on each of these dependent variables, a 2 (full programme: seven videos; short programme: two videos) x 2 (livelihood support: yes, no) x 2 (time: pre- and post-test measurement) repeated-measure MANOVA was conducted, with trauma support and livelihood support as between-subject factors and time as a within-subject factor.

Regarding the dependent variable income, the results indicate that the perception of income did not change between the first (pre-test) and second measurement (post-test) ($F (1, 91) = 0.358$, $p<0.551$). So, in general, the perception of income did not change during the research. However, the interaction time*SHLCPTS is significant ($F (1, 91) = 15.084$, $p<0.01$), which indicates that during the research the perception of income did change for the two as well as the seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported higher income scores and those who received two videos reported lower income scores during the second measurement. However, the interaction between time*livelihood was not significant ($F (1, 91) = 1.112$, $p = 0.294$), which indicates that livelihood support did not alter the perception of participants of income. Finally, the (three-way) interaction time*SHLCPTS*livelihood is not significant ($F (1, 91) = 0.842$, $p = 0.361$). So, receiving both the livelihood programme as well as the SHLCPTS does not result in a multiplier effect.

For empowerment, 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 for empowerment changed during the research. The interaction time*SHLCPTS is significant (F (1, 91) = 42.344, p<0.01) and indicates that during the research empowerment did not change equally for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported higher empowerment scores than those who received only two videos. The results for the interactions time*livelihood support is not significant (F (1, 91) = 0.069, p = 0.793); neither is the three-way interaction time*SHLCPTS*livelihood (F (1, 91) = 1.921, p = 0.169).

Regarding the subscale structural/system, 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 for system changed during the research. The interaction time*SHLCPTS is significant (F (1, 91) = 38.632, p<0.01), which indicates that during the research the scores for system did not change equally for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported higher system scores. The two-way interaction time*livelihood support and the three-way interaction time*SHLCPTS*livelihood are not significant (F (1, 91) = 1.983, p = 0.162; F (1, 91) = 0.311, p = 0.579, respectively).

For worry, similar results were found. The results indicate that the main effect of time is significant (F (1, 91) = 5.090, p = 0.026), indicating that; overall, the scores for worry changed during the research. The interaction time*SHLCPTS is significant (F (1, 91) = 13.438, p<0.01), which indicates that during the research the scores for worry did not change equally for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported less worry. The two-way interaction time*livelihood support and the three-way interaction time*SHLCPTS*livelihood are not significant (F (1, 91) = 0.368, p = 0.545; F (1, 91) = 0.644, p = 0.424, respectively).

Regarding the subscale capability, 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 for capability changed during the research. The interaction time*SHLCPTS is significant (F (1, 91) = 69.565, p<0.01), which indicates that during the research the scores for capability did not change equally for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported higher capability scores. Again, the two-way interaction time*livelihood support and the three-way interaction time*SHLCPTS*livelihood are not significant (F (1, 91) = 0.644, p = 0.424; F (1, 91) = 0.644, p = 0.424, respectively).

Regarding the subscale social, 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 for social changed during the research. The interaction time*SHLCPTS is significant (F (1, 91) = 22.474, p<0.01), which indicates that during the research the scores for social did not change equally for the two and seven video conditions. Inspection of the estimated means indicates that those who received seven videos of SHLCPTS reported higher social scores. The two-way interaction time*livelihood support and the three-way interaction time*SHLCPTS*livelihood are not significant (F (1, 91) = 0.808, p = 0.371; F (1, 91) = 0.091, p = 0.763, respectively).

In summary, the results indicate that the social and economic resilience of refugees increased due to the SHLCPTS programme, which consisted of two educational videos and five coaching and exercises videos, and that this effect was not established by the educational videos alone. In addition, livelihood support did not have any significant effect on social and economic resilience. Furthermore, none of the three-way interactions time*SHLCPTS*livelihood were significant indicating that the impact of receiving both SHLCPTS and livelihood support is not larger than the sum of each programme independently (no multiplier effect). Remarkably, the SHLCPTS programme resulted in improvements to the participants' perceptions of their income levels, even when actual income levels stayed the

same and even where provision of livelihood support had no such an effect.

Suitability of the SHLCPTS as an app in a refugee camp

The results in terms of psychosocial improvements indicate the potential of the trauma support delivery approach used in the SHSCPTS programme. Indeed focus group discussions, as well as individual feedback, highlighted the main advantages of delivering trauma support via ICTs (for a full report see Kidane & Stokmans, 2018). 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 obtain information and treatment in your own language was another advantage raised by many. Finally, the ability to go over things again and obtain additional information on aspects that were not initially clear was another advantage of the approach.

However, the approach was not without its problems. Delivering a service via an app and through social media proved difficult, and even impossible in some cases, due to lack of connectivity and the unreliability of the weak connection in the camp for downloading videos. Alternatives suggested by the refugees themselves to address some of these concerns included downloading all the videos to one phone (from a memory card) and then sharing them using Bluetooth. This worked well and resolved much of the technical hurdles, but it also meant that the interactive aspect of the service was lost. Participants could no longer leave messages and feedback, as was the original idea.

This led to an additional and more serious problem: participants felt alone, as they were processing potentially difficult material by themselves without the interactive features of the app. This gave rise to the possibility of participants dropping out altogether or at least losing the motivation to fully process traumatic memories. Many participants found the resourcing techniques (breathing exercises and 'safe calm place') more attractive than the bilateral stimulation, which requires greater commitment and deeper engagement to focus on and

process traumatic memories. Feedback from one of the most severely traumatised participants captured this well during the interview:

> *…It [the SHLCPTS programme] is really helpful. It made sense to me, it touched everything I felt and 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 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, interview, Hitsats, 14 August 2017)

Without major improvements to the technology, delivering the whole SHLCPTS programme via ICT risks either a high dropout rate or unnecessary distress for those who carry on with the programme.

Discussion

Much of the individual trauma found in the camps can be described as complex PTSD, as it has resulted from prolonged exposure to traumatic events in the context of conflict and political violence. Trauma treatment literature is consistent that the phase-oriented approach we took in developing the trauma intervention is most effective in such circumstances (Briere & Scott, 2006; Brown, Scheflin, & Hammond, 1998; Courtois & Ford, 2009; Ford, Courtois, Steele, Van der Hart, & Nijenhuis, 2005; Van der Hart, Nijenhuis, & Steele, 2006). The objective of the intervention was to both relieve the symptoms of PTSD and help the refugees develop the skills to improve their functioning and relationships.

One clear advantage inherent in the EMDR technique used in the SHLCPTS programme is the opportunity to focus on the traumatic experiences and associated beliefs and behaviours that hold victims back. The programme helps the brain to process the traumatic memory, enabling the person to resume normal information processing (Shapiro, 2007), addressing the alterations to the ability to process contextual information, including information related to

danger and safety, caused by PTSD. This means that with the lowering of trauma levels, that refugees would be able to assess their prospects and protection in their current location, taking into account all available contextual information, rather than basing their decision on the emotional fight-flight response. The results of this study support this line of reasoning. The full seven-session programme enhances social and economic resilience and perception of income, although this did not necessarily change objectively.

The research did not specifically ask about imminent decisions pertaining to secondary migration, as this is seldom answered truthfully in formal circumstances; however, there was plenty of 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 programme, hesitantly asked: "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 PTSD?" (Kidane & Stokmans, 2018). Nearly everyone in the group was interested in the answer to this. The question and the enthusiasm to hear the answer was a reflection of their increased capacity to begin taking in relevant information.

Perhaps surprisingly, neither trauma levels, nor social and economic wellbeing, was impacted on by the availability of livelihood support. This is surprising given the link between resources and resilience. It seems that the little livelihood support available in the camps is not perceived by the recipients as contributing to their social and economic resilience, nor is livelihood support currently contributing to protection against the impacts of trauma or collective trauma, as measured by social capital.

Conclusion

Post-traumatic stress is not only the result of fear-inducing circumstance, it also creates a state of fear and this explains that

continuous threats push refugees into a continuous flight mode. Such a state of mind results in what Kahneman refers to as a 'thinking fast' mode, which is no longer a rational decision-making process. We have argued that if this is the case, providing information about the risks of migration will aggravate the negative mind-set and increase the risk of further flight. The main research question of this research was: *Can trauma support for refugees decrease trauma levels and increase social and economic resilience?* It was investigated with an experimental set up of a treatment provided on the mobile phone in a refugee camp in Ethiopia where Eritrean refugees are protected. The majority of the refugees had high levels of trauma, as measured in this research.

The programme, called Self Help Low Cos Post Traumatic Stress programme (SHLCPTS) was provided through seven short videos offered on a mobile phone. Despite the shortness of the programme (given the high levels of traumatic stress and its complex nature), as well as the difficulties associated with delivering therapy through ICT, the programme was successful in decreasing trauma levels and increasing social economic resilience. It can be concluded that the SHLCPTS programme did decrease levels of individual trauma and collective trauma (operationalised as social capital), and increase the participants' perceived social and economic resilience. Treating PTSD had positive impacts on mental health and perceptions of socio-economic status, as well as community-wide relationships.

The results further show that the full seven-session programme of treatment was significantly more effective than the short two-session programme in reducing individual and collective trauma and in enhancing social economic resilience. Based on these results it can be determined that it is not sufficient to educate refugees about PTSD (component 1, two videos treatment), but that treatment must include coaching and actions to relate the treatment to the social network of the participant (component 2 and 3, full seven videos treatment).

The findings of this study have wider implications for migration policy. Increasing the obstacles for refugees seeking protection will only further increase the stress on their mental health, increasing risk-

taking ways to seek protection. Therefore, in designing interventions, trauma counselling should be recognised as necessary in order to enhance the social and economic resilience of refugees suffering from PTSD and, thereby, their ability to cope with and recover from the hazards they have experienced. We recommend that each rehabilitation intervention targeted at refugees suffering from PTSD should start with trauma counselling. The critical flaw in current European migration policies is the rationale that refugees' decisions about migration are rationally based on push and pull factors, whilst in the reality of lived experiences, fleeing is not a rational process and often happens in the context of severely traumatising events, which, left untreated, can prompt refugees to take life threatening risks.

One of the barriers to delivering trauma support in emergency contexts, such as the Eritrean refugee camps in Ethiopia, is the level of resources required for mental health services. This research has proved that even a short self-help programme focused on treatment of PTSD delivered by a mobile phone app can make a significant difference to decrease trauma and increase resilience.

Would a brief trauma support delivered on her phone, in her language, have prevented Yohanna, the young woman who drowned as she gave birth from making the decision to embark on that ill-fated journey to Lampedusa in October 2013? It is difficult to conclude one way or another. However, what is clear is that without the opportunity to deal with the chronic PTSD resulting from experiences endured as a result of violence and conflict, many refugees will continue to make decisions devoid of appropriate information, relying heavily on their emotional response, which is overwhelmed by PTSD. The study has shown that investment in psycho-social support can be cost effective and that it will render positive results by increasing the socio-economic resilience of refugees. It is argued that this will help in strengthening their capacity to make informed decisions. It follows that this would decrease panic-driven ill-informed journeys.

Acknowledgement

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