



universität
wien

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Traumatic Experiences and Posttraumatic Stress Disorder
in a Sample of Migrants and Refugees – An Explorative Study
Focusing on Pre- and Peri-Migration Interval“

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of Science (MSc)

Wien, 2016

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

A 066 840

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Masterstudium Psychologie

Betreut von / Supervisor:

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The migrants and refugee¹ migration crisis is one of the most challenging issues facing Europe. In the years following the Arab Spring, the influx of displaced people to Europe has steadily increased. The refugee migration reached a peak in the year 2015 with Syrians fleeing the war and travelling to Northern Europe through countries, the so called “Balkan-route”, of Eastern Europe. With the indefinite closure of the “Balkan-route” in March 2016, the Central Mediterranean route became the priority route once again (Al Jazeera and agencies, 2016).

In the first 5 months of 2016, over 46,700 migrants and refugees made the journey to Italy by sea via the Mediterranean route, with a total of 154,000 people in the year 2015. In addition to the 46,700, more than 2,000 drowned in the attempt. In the week of 23th – 29th of May 2016, more than 13,000 people have been rescued on the Central Mediterranean route and of that, at least 880 died in their attempt (Il Fatto Quotidiano, 2016; UNHCR, 2016a). Spindler, a (Office of the) United Nations High Commissioner for Refugees (UNHCR) spokesperson, described the situation as follows: “The North Africa-Italy route is dramatically more dangerous: 2,119 of the deaths reported so far this year are among people making this journey, making for odds of dying as high as one in 23” (UNHCR, 2016c, para. 7).

The crossing of the Mediterranean Sea is the last step in the journey of many migrants and refugees. Most of the people coming to Italy by sea are originally from Sub-Saharan-Africa with Nigeria (15%), Gambia (10%) and Somalia (9%) among the top three nations in the first half of 2016. Seventy-four percent of individuals arriving in Italy by boat are adult males with 10% adult females and the remaining 16% under 18 years old (UNHCR, 2016a).

Before crossing the Mediterranean Sea, those refugees and migrants have crossed other African countries as well as the Sahara and Libya. The journey preceding the crossing

¹ The term “refugee” refers to every person fleeing his or her country: “owing to well founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it” (United Nations, 2011, p.10).

The term “migrant” refers to people who are claiming asylum, but do not fall under the definition of “refugee” by the United Nations (UNHCR, 2016d, para. 11).

of the Mediterranean is a perilous journey as well and many die or get injured before they reach the sea (De Haas, 2008). Therefore, the occurrence of traumatic experiences likely to lead to the development of trauma and stress related disorders is highly probable among the refugee and migrant population trying to reach the shore of Italy. The long and perilous conditions through the desert and the sea include a broad range of adverse and traumatic experiences for those who left their home country. Not only does the sea have to be crossed in un-seaworthy and overloaded dinghies, but the desert must be crossed in cars where humans are packed in overloaded cars (Frontex, 2016; UNHCR, 2016c). Additionally, migrants and refugees are exposed to kidnapping, war, rape, imprisonment and many other stressors which are likely to lead to a wide range of mental disorders, with Posttraumatic Stress Disorder (PTSD) as the most frequent negative mental health effect (Böttche, Heeke, & Knaevelsrud, 2016; Fazel, Wheeler, & Danesh, 2005; Huemer et al., 2011; Sundquist, Johansson, DeMarinis, Johansson, & Sundquist, 2005).

The experienced traumatic events and adverse conditions refugees and migrants have undergone before fleeing their home countries and the psychological outcomes of these multiple influences have been well investigated by psychological research over the years and the various mental health outcomes have been covered thoroughly (Silove et al., 2014; Mollica, Brooks, Tor, Lopes-Cardozo, & Silove, 2014; Gerritsen et al., 2006; Steel, Silove, Bird, McGorry, & Mohan, 1999; Neuner et al., 2004; Berntsen & Rubin, 2007; Nickerson et al., 2011). Previous studies have focused on these outcomes, with concentration on events and experiences in the home countries, meaning the pre-flight period, and relating them to mental disorders such as PTSD and its comorbid disorders (Huemer et al., 2011; Murray, Davidson, & Schweitzer, 2010; Nickerson et al., 2014; Schock, Rosner, & Knaevelsrud, 2015; Steel, Silove, Bird, McGorry, & Mohan, 1999). Just as many studies were focusing on the post-flight period with its effect for mental disorders and its various psycho-socio interventions in the resettlement context such as therapy-forms, social challenges and integrational issues (Birck, 2004; Böttche et al., 2016; Kivling-Bodén & Sundbom, 2002; Murray et al., 2010; Silove et al., 2006).

However, even if the importance of traumatic events for mental health outcomes in refugees and migrants on their flight is hinted in some studies (Böttche et al., 2016; Murray et al., 2010), research examining the various influencing events and conditions on the flight itself as well as linking those adverse and traumatic experiences to the diverse mental health outcomes can be denoted as far from exhaustive. What is missing when concentrating on the

mental health status and its causes for refugees and migrants is an in-depth insight into the interval between pre- and post-flight, regarding those crossing the Mediterranean by boat and, additionally, crossing the desert to come to Europe.

This so called “boat-people”² are coming from different countries – some flee from war, some not – and are distinguishable between refugees and migrants. They run higher and lower risks in their home countries of exposure to traumatic experiences and adverse conditions. Nonetheless, what they have in common is the journey through the desert and sea and are therefore, during the flight, victims of the same pool of stressor events and adverse conditions. As a result, this subpopulation can be considered as one group in contrast to other studies which find significant differences between the groups of refugees and migrants (Steel et al., 1999). The distinction between migrants and refugees is attributable to the different background in terms of traumatic events of the examined groups which is present but, due to the same flight-route, subsidiary in the considered sub-group of refugees and migrants.

To assess the different categories of traumatic experiences for the sample respondents, a qualitative approach has been chosen because of its explorative nature. Besides, “quantitative data is a weak voice of personal trauma as compared with refugee life histories; numbers appear to be lacking the rich texture of human life and meaning” (Mollica, 2001, p.60). In this paper, an insufficiently considered group of people are the focus of psychological research. The distinguishing circumstances of the flight itself as well as the related outcome regarding PTSD are taken into account precisely because the psychological outcomes of this specific group of migrants and refugees can be estimated only if individual traumatic experiences are ventilated and examined, as Prof. Dr. Dean Ajdukovic in a lecture at the University of Vienna remarked (personal communication, May 19, 2016).

² The term boat-people, mostly used by European media, refers to migrants and refugees crossing the Mediterranean Sea by boat to reach Europe.

Theoretical Background

In the following information concerning external factors of the flight-route of migrants and refugees, their traumatic experiences and subsequent prevalence rates regarding this specific subpopulation are provided. Primarily, there will be an overview about the objective conditions refugees and migrants are exposed to when coming to Europe by sea. Likewise, PTSD and its aspects will be introduced and discussed as it is a predominant disorder among refugees and migrants (Fazel, 2005). The following subchapters will focus on the various subdivisions and specifiers of the aforementioned disorder and provide a framework of the phenomena among migrants and refugees carried out in various studies conducted in recent years.

External Influences on the Flight-Route in Africa

“Persecution, conflict and poverty forced over 1 million people to flee to Europe in 2015. Many came seeking safety for themselves and their families, risking their lives and facing a treacherous journey”, the UN announces (UNHCR, 2016a, para. 1).

The death tolls in the Mediterranean Sea are frequently reported by media, but records about deaths and serious injuries as well as human rights violations and various abuses en-route before reaching the sea are difficult to track and can't be translated into numbers. Nonetheless, reports about witnessing corpses in the desert are frequent. Deaths and injuries in the Sahara are often the result of climate conditions and, predominantly for individuals coming from the Horn of Africa, a result of deliberate murder, violence, mistreatment, torture and sexual abuse by smugglers and human traffickers. Extortion, kidnapping and exploitation are other frequently occurring events regarding migrants and refugees moving from Sub-Saharan Africa to northern regions. (IOM, 2016a; IOM, 2016b; UNHCR, 2016e; Frontex, 2014)

An important aspect for many of those en-route, in addition to the crossing of the desert and the Mediterranean, as aforementioned, are the frequent human rights violations in civil-war-torn Libya. The state where refugees and migrants embark on their journey to Italy records a long list of various traumatic events: serious abuses, ill-treatment and torture, killings, indefinite detention, exploitation and kidnappings and other conditions and events are potential causes and risk-factors for the development of a mental disorder. Migrants and refugees are especially affected in the previously mentioned external influences (Amnesty International, 2016; IOM, 2016a). An article, investigating the situation in the Mediterranean

area, states: “The situation in Libya is anything but normal and safe” (Carta, Moro, & Bass, 2015, p.36).

Posttraumatic Stress Disorder and Traumatic Experiences

PTSD (see Figure 1) is among the most frequent negative outcomes concerning the mental health of refugees and migrants (Böttche et al., 2016; Jensen, Fjermestad, Granly, & Wilhelmsen, 2015; Nickerson et al., 2014; Silove et al., 2006; Knipscheer, Sleijpen, Mooren, ter Heide, & van der Aa, 2015) Focusing on criterion A for this disorder in the Diagnostic and Statistical Manual of Mental Disorders, DSM-5 (American Psychiatric Association, 2013a), the reason for the high prevalence of PTSD among this specific subpopulation becomes plausible.

PTSD criteria in the DSM-5. The criteria for PTSD in the DSM-5 are listed as follows:

A	Exposure of an individual to actual or threatened death, serious injury or sexual violation experiencing it in one or more of the following ways: - Directly experiencing one or more traumatic events - Witnessing one or more traumatic events happening to other people - Learning that one or more traumatic events occurred to a close family member or friend. In the case of actual or threatened death of a family member or friend, the events have to be either violent or due to accident. - Being confronted repeatedly or extremely with adverse details of one or more traumatic events indirectly.
B	Recurrent symptoms of intrusion (e.g. nightmares) and dissociative reactions (e.g. flashbacks).
C	Avoidance of stimuli which the person associates with the traumatic experience.
D	Negative alterations in cognition and mood.
E	Clear alterations in reactivity and arousal (e.g. angry outbursts, self-destructive behavior...).
F	The criteria B, C, D and E have a duration of more than one month.
G	The clinical picture causes clinically and symptom-related significant distress or impairment in social, professional or other important functional areas.
H	The clinical picture is not due to the physiological effect of a substance, medication or illness.

Figure 1. Criteria A-H for the diagnosis of the PTSD in the DSM-5 (American Psychiatric Association, 2013a).

According to the Handbook of PTSD (Friedman, Keane, & Resick, 2007), there are different theories explaining the development of PTSD: conditioning theories, schema theories, emotional processing theories, cognitive theory and theories which invoke multiple representation structures, for example the Dual-Representation theory or the SPAARS Model (for more see p. 55-76). However, according to the DSM (American Psychiatric Association, 2015) and the International Statistical Classification of Diseases and Related Health Problems (ICD) (WHO, 1990), there is one specific and necessary requirement for the development of PTSD: the experience of one or more traumatic events.

Traumatic experiences. PTSD is listed as a stress-related disorder and can therefore not be diagnosed solely on the premise that an individual shows a certain interaction of specific symptoms. “A diagnosis of PTSD is only to be made when the stressor satisfies Criterion A, even if an individual’s experiences some of the characteristic symptoms of the disorder” (Weathers & Keane, 2007a, p.112). Hence, in the diagnostic criteria for the disorder of PTS (Posttraumatic Stress), the stressor itself has to be included (Weathers & Keane, 2007b). However, most researches focus on the mental health outcomes themselves, not on the cause (Gerritsen et al., 2006; Sundquist et al., 2005; Gäbel, Ruf, Schauer, Odenwald, & Neuner, 2006; Fazel et al., 2005; Huemer et al., 2011; Nickerson et al., 2014; Birck, 2004; Roth, Ekblad, & Ågren, 2006).

Nonetheless, trauma exposure acts as the primary etiological factor for the onset of PTSD as the development of this specific disorder is due to the traumatic nature of the experience. Biological, psychological and social factors act as influences enhancing or reducing the likeliness of the onset of PTSD. That is to say, an individual is equipped with risk and/or resilience-factors, but it is the severity and nature of the traumatic exposure which is linked directly to the appearance of PTSD (Weathers & Keane, 2007a). Although PTSD has biological as well as psychosocial risk-factors, the exposure to actual or threatened death, serious injury or sexual violation is an essential requirement and a necessary condition to the diagnosis of this disorder (Flatten, 2004; Ford, 2009; Maercker, 2013; WHO, 1990). The onset of the PTSD must therefore present a distinct etiological criterion, an external factor – in this paper referred to as traumatic experience, traumatic event or stressor event – as the DSM-5 defines the criterion A (Steel et al., 1999; Terr, 1991).

The ICD, currently revision number 10, lists PTSD under the section of neurotic, stress-related and somatoform disorders, precisely under 43.1. Traumatic experiences which can lead to the onset of the disorder are defined as “a stressful event or situation (of either

brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone” (WHO, 1990).

Traumatic experiences in the DSM-5, on the other hand, are defined as events where a person is confronted with threatened or actual death, serious injury or a sexual violation (see Figure 1). Objective external factors are here taken into account. The subjective component as emotional reactions (e.g. fear, helplessness, horror) are not taking part of the A-criterion as the emotional response to a stressor does not influence whether the clinical picture of PTSD will be developed or not (PTSD: National Center for PTSD, 2016).

According to further research, traumatic events can be allocated as follows:

- Type I traumata: characterized by one sudden, non-repeated event as a car accident or an isolated case of rape.
- Type II traumata: characterized by a series of repeated, reoccurring and/or long-term traumatic events such as repeated torture, long-term abuse or the experience of multiple, consecutive various stressor events (Terr, 1991).

Secondly, traumatic experiences can be classified moreover into:

- Accidental or non-interpersonal and
- man-made traumata

The first term intends events such as serious injuries at work, the second terminology refers to traumatic experiences potentially leading to PTSD which are specifically caused by other human beings such as killings, being held for ransom and so on (Maercker, 2013).

Sequential traumatization. In an approach to Keilson’s (1979) concept of sequential traumatization, trauma can be trifurcated into three consecutive sequences:

1. Sequence 1: period of the beginning, including the first moments of persecution
2. Sequence 2: the flight-period itself holding aspects of persistent hiding
3. Sequence 3: post-flight period with its moments of difficulties of re-integration in society.

In the first sequence, moments of persecution, assaults on one’s dignity and on the integrity of the family, annihilation of economical existence, fearful suspense and the dissolution of the familiar environment prevail.

The second sequence, on the other hand, is characterized by a direct threat of life, lawlessness of one's situation, being at the mercy of the hostile environment and especially by constant stress contingent on deprivation, malnutrition and illness. According to Keilson (1979), the permanent menace in this time interval is ubiquitous.

In the last sequence, the individual transfers from the state of lawlessness into a legally recognized and bureaucratic status. Hereby, the return happens into another environment as the former one left. The permanent threat is terminated and rehabilitating arrangements are starting to take place (Keilson, 1979).

Despite the fact that Keilson refers in his work with Jewish children during the era of the pogrom, the quintessence of its theory can be applied to pre-flight, flight and post-flight intervals of the subpopulation focused on in this paper due to its concordances with the distinguishing characteristics of the consecutive sequences.

A recently conducted study from Germany affirms the long flight-period, comparable with the described sequence 2, to be a time interval of often sequential traumatization. The flight itself constitutes, in addition to traumatic experiences in the home country, an often burdensome and life-threatening event (Böttche et al., 2016). In addition, a study with Sudanese refugees describes the constant danger in sequence 2 with survival as the paramount preoccupation of respondents (Goodman, 2004).

Moreover, above described sequences 1, 2 and 3 bear several typical aspects which can be applied to the pre-flight, flight and post-flight intervals commonly shared of the group of refugees and migrants reaching Italy by boat. In particular, the flight-period contains many occasions for possible trauma exposure. The interval between the starting of the flight and the reaching of Europe's shore is often an endeavor to many and occurs most frequently in prolonged life-threatening conditions. Not only are external factors as malnutrition, thirst, cold and extreme hot ubiquitous, but also severe human rights violations. This makes the second sequence of major interest when it comes to PTSD in the migrant and refugee population (Carta et al., 2015; Goodman, 2004). However, most refugees and migrants show a long history of multiple and sequential traumatization (Mollica, 2001).

Risk-factors for the onset of the clinical picture of PTSD. Risk-factors are not the direct cause of PTSD and therefore neither necessary nor sufficient for its onset, but they enhance the probability of occurrence (WHO, 1990). Objective risk-factors for the onset of PTSD are the character of trauma experienced, its intensity and duration as well as the

repeated exposure to it, the degree of physical injury, being victim of a man-made disaster and being intentionally caused (Flatten, 2004). Certain classifications of trauma, for example repeated torture, as well as a cumulative exposure to traumatic experiences (*OR* 2.01 and *OR* 1.52 respectively) emerged as the strongest factors in association with the onset of a PTSD in a meta-analysis when compared to various other potentially traumatic events (PTE), demographic data, place of survey, the Political Terror Scale score, residency status and the time since conflict assessed in 181 surveys (Steel et al., 2009). Other paramount risk-factors the exposed individual can be subject to have been carried out in a meta-analysis evaluating 77 studies focused on the various risks developing PTSD. The factors, ranked by effect-size, lack of social support ($r = .40$), life stress ($r = .32$) and the severity of the traumatic experience ($r = .23$) are all risk-factors refugees and migrants are highly susceptible (Brewin, Andrews, & Valentine, 2000, p. 751).

The dose-response model. The dose-response model originates from the field of biology and has, in a second step, been adapted to the field of psychology. It states the magnitude of an event is directly proportional to the clinical outcome. Adapted to the disorder of PTS, the model suggests certain forms of stressor events and duration of exposure to traumatic experience bear a higher risks for the development of PTSD than other domains of traumatic experiences and shorter duration of exposure respectively (Kaysen, Rosen, Bowman, & Resick, 2010). The following empirical findings are in accordance with the theory of the dose-response relation:

- In research carried out among asylum-seekers³ in Germany it was found individuals with PTSD report a higher amount of traumatic experiences compared to individuals with no PTSD diagnosis ($M = 3.9$; $SD = 2.1$ vs. $M = 2.7$; $SD = 1.9$) (Gäbel, Ruf, Schauer, Odenwald, & Neuner, 2006, p.16).
- Research conducted on asylum-seekers under the age of 18 in Norway found a significant correlation of number of stressful life events with the onset of symptoms of PTSD ($r = .50$, $p < .001$) (Jensen, Fjermestad, Granly, & Wilhelmsen, 2015).
- In a study conducted among West Nile refugees it is suggested with a certain number of traumatic experiences anyone will develop PTSD and: "That there may be no ultimate resilience to ward off PTSD or that a psychobiological breaking point exists

³ The term asylum-seeker is described as follows: "An asylum-seeker is someone whose request for sanctuary has yet to be processed" (UNHCR, 2016b).

for even the most resistant individual” (Neuner et al., 2004, p.5f.). The number of stressor events in life correlated significantly with the Posttraumatic Stress Diagnostic Scale (PDS) score ($p < .001$; $r = .49$) (Neuner et al., 2004).

Mental health and PTSD in refugees and migrants. Taken together, migrants and refugees are highly vulnerable to various psychologic disorders and somatic impairment of mental health. Depression, anxiety and PTSD are the most frequently observed disorders among this subpopulation (Böttche et al., 2016; Jensen et al., 2015; Nickerson et al., 2014; Silove et al., 2006). In research examining African individuals under the age of 18 resettled in Austria, the most common psychiatric disorders were adjustment disorder (22%), PTSD (19,5%) and dysthymia (14,6%). In total, 56% out of 41 respondents were diagnosed with a clinical disorder (Huemer et al., 2011). Anxiety disorders, depression, suicide-risk, substance-abuse and somatization are comorbid with PTSD (Maercker, 2013). From January 1st to September 22nd, 2011, for example, 1,231 refugees have been brought to the hospital in Lampedusa, Italy, as a result of attempted suicide (Pasta et al., 2012).

The onset of PTSD is highly correlated with the individual’s degree of exposure to traumatic events. The greater probability to develop the clinical picture of PTSD is, according to literature, associated with interpersonal and trauma of type II (Charuvastra & Cloitre, 2008; Neuner et al., 2004; Stotz, Elbert, Müller, & Schauer, 2015). Empirical research shows refugees and migrants, as a subpopulation, are a high risk group to develop stress-related disorders as they are exposed to several continuous stressors (Beiser, Simich, Pandalangat, Nowakowski, & Tian, 2011; Fazel et al., 2005; Gäbel et al., 2006; Jensen et al., 2015; Nickerson et al., 2014; Silove et al., 2006; Vogelgesang, 2011). Therefore, PTSD prevalence rates among refugees and migrants are significantly higher (see Table 1) than in non-refugee populations at any given time.

Notwithstanding, not every exposure to traumatic events leads to stress-related disorders (for more see Yehuda, Flory, Southwick, & Charney, 2006), nonetheless the subpopulation focused on in this paper show a higher probability of a specific pool of disorders when compared to a population of non-refugees: According to the National Comorbidity Survey (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), the lifetime-prevalence of PTSD in the USA reaches 7,8%. Germany, on the other hand, reports a lifetime-prevalence of 1.3% and, in another study, a one-month-prevalence of 2.3% (Maercker, Forstmeier, Wagner, Glaesmer, & Brähler, 2008; Perkonigg, Kessler, Storz, & Wittchen, 2000).

Table 1

Examples of PTSD prevalence rates of asylum seekers in Western countries

Study	Sample size (N)	Country of origin	Prevalence rate
(Gäbel et al., 2006)	76	Various African countries, Eastern countries, China, South America and Eastern Europe	40.0%
(Lie, 2002)	240	Non-specified refugees	15.0%
(Nickerson et al., 2014)	248	Mandean community	25.0%
(Sundquist et al., 2005)	163	Bosnian women	28.3 %
(Momartin, Silove, Manicavasagar, & Steel, 2003)	126	Bosnian Muslim refugees	63.0%
(Huemer et al., 2011)	41	African unaccompanied refugee minors	19.5%

As shown in Table 1, refugees and migrants have a higher risk to develop PTSD when compared to the aforementioned prevalence rates of populations. For example, Bosnian Muslim refugees with a percentage of 63. In a meta-analysis from 2005, 17 surveys regarding the disorder among refugees and migrants have been examined. The prevalence among the studies varied as much as from 3% up to 86% among adult refugees ($N = 5.499$) with one out of 10 refugees showing the symptoms of PTSD (Fazel et al., 2005). Likewise, in an analysis published in 2009 (Steel et al., 2009), however, authors found that methodological factors accounted for 12,9% in the diagnosis of PTSD among refugee and conflict affected populations.

Assessing traumatic experiences in sequence 1. A wide range of studies use instruments such as the Harvard Trauma Questionnaire (HTQ) (Mollica & Caspi-Yavin, 1991; Silove et al., 2006; Steel et al., 1999) or the Life Events Checklist (LEC) (Weathers et al., 2013) to assess trauma exposure occurred in the pre-flight context. Research is concentrating on etiological aspects for the onset of PTSD in the home country of participants when conducting research focused on the refugee-subpopulation (Birck, 2004; Huemer et al., 2011; Lie, 2002; Silove et al., 2007). In research, focus lays primarily on war or conflict in relation to traumatic exposure (Huemer et al., 2011). A research examining traumatic events in postconflict countries found a reported percentage of 25,5 of experienced torture reported from Ethiopians. People from Gaza, on the other hand, reported the experience of torture in 15% of cases and respondents from Algeria reported a percentage of 8,4%. Furthermore, 59,3% and 91,9% of Palestinians and Algerians, respectively, reported to have experienced conflict-related events (De Jong et al., 2001). Further traumatic experiences pertaining to the home country of respondents taken into consideration in other research are, for example, rape, imprisonment, kidnapping, beating, murder, violent death of a family member and other typically life-threatening events and experiences (De Jong et al., 2001; Gray, Litz, Hsu, & Lombardo, 2004; Oruc et al., 2008).

However, the discourse over trauma focuses almost exclusively on stressors happened before the escape (Ryan, Dooley, & Benson, 2008). “The extent of pre-migration trauma exposure may explain some of the variations in PTSD rates across refugee studies.” (Silove, Steel, Bauman, Chey, & McFarlane, 2007, p.468). On the other hand, focusing exclusively on traumatic experiences during sequence 1 can raise no claim to completeness when it comes to the so-called boat-people reaching Europe and, additionally, risks to disregard mental health of migrants in considering only individuals from war-torn countries.

Sequence 3: Post-migration influences on PTSD. Over the years, many studies have been conducted to carry out post-migration influences on mental disorders among refugees and migrants. Therapy-forms have been examined to establish whether they lead to a mental health improvement or not (Birck, 2004). Post-migration living difficulties have been assessed to predict the mental health status (Silove et al., 2006) and the relation between stressor events in the host country and its correlation to PTSD symptoms has been analyzed (Steel et al., 1999). Additionally, social and economic factors such as unemployment and denied family reunion have been considered in establishing risk-factors for the mental health outcome in the refugee- and migrant-population. (Lie, 2002).

Traumatic experiences during migration vs. pre- and post-migration influences on PTSD. Undoubtedly, pre-migration and post-migration aspects contribute significantly to the mental health of the here considered subpopulation, as empirical findings above show. Besides, the location of PTSD-triggering events in the home country is necessary when it comes to war-afflicted refugees.

Studies focus mostly on the pre-migration period when segregating etiological criteria for the onset of PTSD among refugees and migrants. “Trauma discourse focuses on high-impact events that occurred in the pre-migration environment” (Ryan et al., 2008, p.2). The assessment of trauma exposure, often considered as the reason for flight (Huemer et al., 2011), located in the home country of refugees and migrants is relevant to assess if it affects refugees and migrants with little or no record of a perilous and long-lasting flight period. Research conducted in Australia (Steel et al., 1999) found pre-migration aspects to account for 20% of the variance of PTSD symptoms, but research concentrating only on the home country of the considered subpopulation lacks of completeness and contains various biases when the examined group shows a history of a difficult peri-migration interval characterized by severe and persistent trauma exposure.

Furthermore, distinguishing between refugees, asylum-seekers and migrants is generally necessary to establish the PTSD prevalence rate properly since those two subgroups are frequently exposed to higher or lower risk, respectively, of experiencing traumatic events. As reported: “The level of trauma exposure for asylum-seekers ($M = 6.7$, $SD = 5.5$) was similar to that of refugees ($M = 6.3$, $SD = 5.7$) but statistically greater than that of immigrants ($M = 2.1$, $SD = 3.3$)” (Steel et al., 1999, p. 425). Therefore, in addition to the consideration of the influence of methodological factors when examining the differing PTSD rates among refugees and migrants, it is necessary to subdivide this large group. Due to different backgrounds and therefore different magnitude and nature of the various stressor events, other components have to be taken into account. The subpopulation cannot be compared with each other. Differences in the prevalence rates is certainly attributable to differing measuring methods and settings (Fazel et al., 2005), but also to a diverse trauma history among the group of refugees and migrants and the important role of key risk-factors, for example the character and frequency of trauma exposure, has to be taken into account (Steel et al., 2009; The Lancet, 2005).

However, the group of refugees and migrant arriving in Italy can be compared despite the distinction between migrant and refugee because of the shared experiences on the

peri-migration interval. The duration and circumstances of the flight-period is usually highly variable among refugees and migrants (Ryan et al., 2008), but shows only little variability in migrants and refugees arriving to Italy by boat. Migrants are, sequential to the journey they made, not to be distinguished from refugees in terms of traumatic experiences. Therefore, further attention to the flight period of escape, especially when it comes to this specific subgroup of the large pool of refugees, may provide insight into a more complete trauma history. “Thus, it is critical to assess for traumatic experiences during this period.” (Ngo, Tran, Gibbons, & Oliver, 2000, p.237)

There are only a few studies to be found focusing, even if only in part, on the peri-migration phase of refugees and migrants when it comes to linking traumatic events to the clinical picture of the PTSD. Authors passively consider the difficult circumstances of the flight-period itself and do not thoroughly explore the possibility of cumulative and prolonged danger and loss in this interval. They indicate the experience of traumatic experiences on the period between the leaving of the home country and the arrival in the host-country and mention that traumatic experiences, danger and hardship, such as violence, death, hunger, and thirst have been reported to occur during the peri-migration period. The importance of the assessment of traumatic events during the flight-period is urgently required, authors conclude (Beiser et al., 2011; Böttche et al., 2016; Carta et al., 2015; Ryan et al., 2008; Schweitzer, Melville, Steel, & Lacherez, 2006; Ngo et al., 2000; Thomas, Nafees, & Bhugra, 2004; Goodman, 2004).

Thence, research carrying out and focusing on the specific events and following effects of the flight-period itself has, to the authors knowledge, not yet been conducted. The characterizing conditions on escape, its traumatic events, their nature as well as magnitude and linking them altogether to the presence of symptoms of PTSD have not yet been investigated. Therefore, it is indicated that: “Treatment approaches for PTSD, which have tended to focus on a key trauma or on a discrete sequence of traumatic events, should encompass not only index events but also the limbo period...” (Beiser et al., 2011, p.333).

Research Questions

As previously discussed, there is lack in research when it comes to traumatic exposure during the peri-migration interval and its links to the clinical picture of PTSD. Therefore, this research will investigate the following issues:

1. Which potentially traumatic events are the ones most frequently reported by migrants and refugees regarding sequence 1 and sequence 2?
2. Which traumatic experiences emerge during the two sequences?
 - 2.1 What is the frequency of those events?
 - 2.2 Are traumatic experiences concentrated rather on sequence 1 or sequence 2?
3. Can the crossing of the Mediterranean by boat qualify in the sample as a potentially traumatic experience according to criterion A of DSM-5?
4. What aspects of subjective appraisal do respondents report regarding traumatic experiences and adverse external conditions which they are exposed to and which they undergo during escape?
5. How high is the prevalence of PTSD in the sample population?
 - 5.1 How are type I and type II traumata distributed along the two sequences?
6. Are there traumatic experiences which can be labeled as indicative for the group of the boat-people, and which are not listed in usually applied instruments (e.g. HTQ) to assess the anamnesis of traumatic events among asylum seekers?

Considering that this study is of an explorative character targeting to isolate and to analyze traumatic experiences of a specific, not yet examined subpopulation and their influence on the occurrence of PTSD, hypotheses could not be established.

Method

“In the last ... years, there has been considerable progress in the development of assessment instruments for measuring PTSD. There are dozens of self-report and interview measures now available, and several have been sufficiently well investigated as to be considered psychometrically mature. However, far less progress has been made with respect to measuring trauma exposure” (Weathers & Keane, 2007a, p.116). Therefore, this research aims to explore the traumatic experiences which refugees and migrants are exposed to in the context of their escape. Besides, the described traumatic experiences are, in a second step, linked to the occurrence of PTSD symptoms (see Figure 2). In addition to trauma exposure and PTSD symptoms, potentially traumatic experiences as well as the subjective appraisal of influencing external factors are assessed and analyzed.

To do so, the following instruments have been used:

- Qualitative interviews with subsequent content analysis (Mayring, 2015).
- PCL-5 (Weathers et al., 2013).

The methodological approach of this research has been orientated, partially, on the following premise of the Grounded Theory from Glaser & Strauss: The researcher should disregard all consisting theory regarding a certain research-field to encounter the phenomena preferably impartial and unbiased. Sound empirical theories can be expected only if the researcher gains its categories from the data itself (Flick, Kardorff, & Steinke, 2000, p. 268; Kardorff, Steinke, & Flick, 2005).

Nonetheless, a completely non-theory based approach in this research has not been possible due to the prerequisites the criterion A has established for traumatic experiences. Yet, to determine whether an event is fulfilling criterion A, the events have not been compared to or based on commonly applied questionnaires to assess trauma history and therefore, a range of categories are gained from the data itself. Furthermore, the occurrence of symptoms of PTSD have been assessed with approved instrument: the PCL-5 (Weathers et al., 2013) (see Appendix F).

In conclusion, the qualitative gained data (qualitative interview) are linked to quantitative gained data (PCL-5) to assess the occurrence of PTSD symptoms among interview-partners. The combination of qualitative and quantitative assessment and analysis as well as a following correlation of results of research is quite common in research practice (Flick et al., 2000; Mayring, 2015). Hereby, the concept of triangulation has been chosen:

Different aspects and criteria of the same phenomena, namely PTSD, are assessed partly in a qualitative, partly in a quantitative approach, and, in a second step, integrated into a holistic perspective (Flick, 1995; Flick et al., 2000).

PTSD criteria according to DSM-5		Assessed by
A	Exposure to actual or threatened death, serious injury or sexual violation	Qualitative interviews + deductive categories by the use of content analysis (Helfferich, 2011; Mayring, 2015) PCL-5(2013)
B	Symptoms of intrusion and dissociative reactions	
C	Avoidance of stimuli which the person associates with the traumatic experience	
D	Negative alterations in cognition and mood	
E	Clear alterations in reactivity and arousal	
F	The clinical picture has a duration of more than 1 month	

Figure 2. Methodological procedure of research.

Instruments

Qualitative interviews. As this research aims primarily to isolate and to specify traumatic experiences on the peri-migration interval of refugees and migrants – and no theoretical background regarding this specific period and its characterizing elements was available – a case-centered approach through qualitative interviews with an informative focus has been chosen to data collection. This type of qualitative interview, namely with informative focus, is indicated when questions focusing on “there are” are foregrounded and the specific region of interest needs to be isolated of a pool of phenomena (Helfferich, 2011).

In the present research, the procedural structure of the course of peri-migration, focusing on potentially traumatic events, traumatic experiences and psychological strains, is of main interest. As Weathers (2007a) states: “Clearly more studies are needed in which a wide variety of stressors is examined with respect to their ability to elicit PTSD symptoms.”

(p.114). Regardless of how Criterion A is officially defined, investigators can and should empirically evaluate the impact of alternative definitions on the prevalence of trauma exposure and PTSD” (p.114f.).

The type of interview applied in this paper is therefore based on the problem centered interview but contains aspects of an explorative dialogical interview as well. The interview is guideline based, directing the conversation without predetermining the responses, problem-centered and characterized of a prior acquisition of basic knowledge to stabilize appropriate questions and counter-questions (Flick, 1995; Helfferich, 2011).

Moreover, the interview is based on the theoretical background related to trauma exposure and potentially traumatic experiences, therefore the questions are orientated onto the informative content of the reported. According to literature, in a case of interest on the objective and pertinent information given by the interview-partner, the given information is assumed to be true and has not to be queried as this interview focuses on the revelation of traumatic experiences and not on the construction of meaning. Hereby, narrative-generating strategies are combined with strategies of comprehension-generating questions (Helfferich, 2011).

The guideline (see Appendix C) consists of a list of broad questions in which the interviewer orientates the ongoing of the conversation. Thus, the interviewer can determine which topic to approach next, when he pones the single questions, whether a question has already been answered and if some questions have no necessity to be asked for (Flick, 1995). Guideline-questions are bundled chronologically and divided into sequence 1 and sequence 2. Besides, between the two sequences as well as between the different stages of the narrative a smooth transition is guaranteed by a chronologically orientated question-style (Helfferich, 2011).

What the interview-partners produce can be described as a subjective report about objective aspects influencing the individual and its environment. The subjective knowledge of the individual is hereby not directly and genuinely accessible, albeit it constitutes the most important data base (Flick et al., 2000).

Regarding the role of interviewer and interview-partner, the applied interview of this research can be designated as open conversation where the interviewer directs the topic but within the character of a conversation. Herewith, the narrative is encouraged with the aim to achieve the goal of the interview, namely the rehearsal and description of traumatic exposure (Helfferich, 2011).

Interviews with traumatized participants. In interviews with this high-risk group, it is crucial to conduct the interviews with individuals who volunteer to undergo this process. For interviews focalizing on tabooed content, a guideline-based system with the possibility of counter questions is indicated (Helfferich, 2011, p.168). The sensitive nature of questions regarding the traumatic experiences must be kept in mind throughout the entire process.

Furthermore must be considered that in a high-risk-group, as in this research presented, it is important to recognize signals which mark the limits to address a subject. If the interview-partner is not willing to disclose certain events, no further demands should be placed to minimize the risk of re-traumatization (for more see Maercker, 2013). However, the ambivalence between the urge to narrate vs. not wanting to narrate is in this specific group of individuals quite common (Helfferich, 2011).

Additionally, it was a principal concern of the author to minimize the similarities of the conversation to those of the interrogation of commission when asylum seekers have to state why they had to leave their home country which have a stressful impact on migrants and refugees (Schock et al., 2015; Steel et al., 1999). Therefore, the interview was adapted to a daily conversation rather than a clinical setting or inquiry to point out psychological strain and traumatic experiences the asylum seekers have been exposed to in the framework of their escape to Italy.

Interview setting. An important aspect is the interview setting: it should be as natural as possible. The more scientific a setting, the more the interview partner realizes the scientific system of relevance with the demand of adjustment (Helfferich, 2011).

The interviews were conducted and simultaneously audio-recorded in the office of two refugee-camps in Southern Italy. No one other than the author and the respective respondent were present. Within the room, the setting was organized in the way that interviewer and interview-partner are sitting in front of each other around the corner of a table as it is the optimal procedure recommended by literature (Helfferich, 2011, p. 177). Drinking water as well as tissues were provided. To ease the beginning of conversation, a topic from the daily life of the interview-partners has been brought on (e.g. How was the match yesterday? Were there many people from your home country?). The address of different institutions (e.g. psychotherapist) was provided prior to the interview in case of necessity. Mean time for interviews was 38,53 minutes (range 16 minutes-110 minutes). In conclusion, the produced narrative has been transcribed and analyzed following the standards of content-analysis.

Qualitative content analysis. The conducted interviews have been analyzed following the standards of the frequency-analysis (Lissmann, 2001; Mayring, 2015, p.15). The basic model of the frequency-theory is displayed below (see Figure 3), though applied in a modified version on the analysis of the interviews of this research. In detail, step 3 and 4, the establishing and defining of categories respectively, is postponed. This procedure is required because the research aims to explore new elements which meet the criterion A of DSM-5.

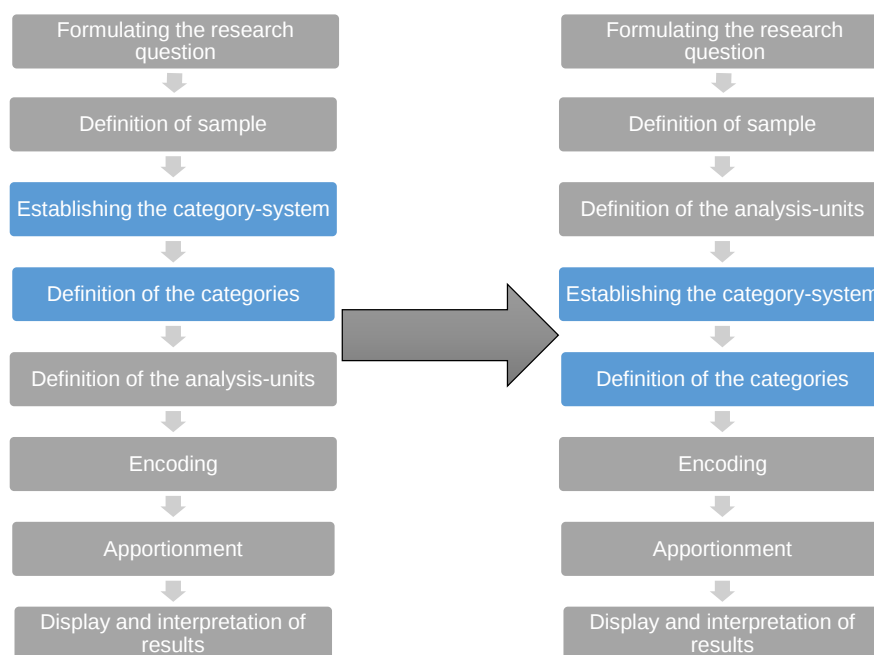


Figure 3. Basic model of the frequency-analysis (Mayring, 2015, p.15) vs. the model of frequency-analysis applied on the case under consideration.

Moreover, the frequency-analysis aims to determine the appearance of certain elements and to compare them, in their rate, to the occurrence of other elements (Mayring, 2015). This is to say, in this study traumatic experiences are determined, counted and analyzed – theoretically and based on adequate literature – in their influence on the occurrence of PTSD symptoms. Categories are established according to the so called “definition-theory”: Sufficient and indispensable conditions which determine whether an element takes part of a category or not are provided (Mayring, 2015, p.48). Applied to this research, all categories are defined according to the conditions of the criterion A of DSM-5:

Exposure to actual or threatened death, serious injury or sexual violation experiencing it in one or more of the following ways: directly experiencing it, witnessing it in person as it occurs to others, learning that the traumatic event occurred to a family member or close friend, experiencing repeated or extreme exposure to aversive details of the traumatic event.
(American Psychiatric Association, 2013a, p.369).

Therefore, a deductive category-system is applied to the research: The analysis of the material is characterized by the orientation on theoretical considerations when examining the narratives. The establishment of the specific types of categories proceeds bottom-up, in an interrelationship between the theory (research questions) and the narrative produced by the sample (qualitative interviews). The specific categories are hereby established according to rules of assignment and construction and a typical example of the consequential category is listed. In this way, the intersubjective verifiability is granted (Mayring, 2015).

In addition to clearly as traumatic labeled experiences, potentially traumatic events which the migrants and refugees are exposed to during sequence 1 and 2 have been included in the analysis, inasmuch as some external conditions and events could not be clearly identified as traumatic stressors but may take part of this categories (e.g. lack of food/water, concerns about family members living in dictatorship-countries etc.).

Also, the subjective appraisal of traumatic experiences has been incorporated in the research but not assigned to the defined categories. Albeit the criterion A2 (for more see American Psychiatric Association, 2000) is no longer part of the criteria of the newest version of DSM, the subjective appraisal of traumatic experiences underlines the magnitude of stressor events on the wellbeing of respondents and describes their psychological impact on migrant's and refugees' mental health.

Altogether, the procedure was conducted systematically according to a priori established rules (criterion A of DSM-5) and orientated on the research questions. Hereby it has to be considered that reasons regarding the content have priority over reasons regarding the measurement: Validity comes before reliability (Mayring, 2015, p.53).

The PTSD Checklist for DSM-5 (PCL-5). The PCL-5 is a self-report measurement to assess the symptoms of PTSD. The fifth version of the PTSD Checklist is adapted to the new requirements to diagnose a PTSD in the DSM-5 (Blevins, Weathers, Davis, Witte, & Domino, 2015). It consists of 20 items, rated according to a 5-point Likert-scale, assessing the symptom-severity from 0 (*not at all*) to 4 (*extremely*).

The 20 items cover the criteria B to E according to the DSM-5:

- Criterion B: items 1-5
- Criterion C: items 6-7
- Criterion D: items 8-14
- Criterion E: items 15-20

With the premise of an occurrence of symptoms throughout the last month, the PCL-5 covers the criteria F (duration of symptoms for more than one month) as well. The PCL-5 screening instrument has been chosen due to its wide use and acceptance among applied psychology professionals (PTSD: National Center for PTSD, 2016). Also, the testing format and criteria were deemed to be adequate for the subject population as a high English language proficiency is not required to successfully administrate the questionnaire.

A provisional diagnosis can be supplied by following the criteria of DSM-5: at least one item of cluster B, one of cluster C, two of cluster D and two of cluster E are rated as 2 (*moderately*) or higher. Also, a general cut-point of 33 (minimum score 0 – maximum score 80) is specified as a reasonable value by the PTSD: National Center for PTSD (2016). Three versions of the PCL-5 are available whereas the first version does not assess criterion A and is indicated if the specific criterion is gathered with other measurements, as it applies to this research (Blevins et al., 2015).

In the present sample, participants have been asked to refer to experiences related to their flight (actuator of escape or events on escape itself) when filling in the self-report and rating the symptom-severity of PTSD. The PCL-5 refers to it as “the traumatic experience” (Weathers et al., 2013). The PCL-5 was conducted in a single-setting and has been filled in in presence of the author to supply further explanation if needed and to assure the comprehension of questions in respondents with inability to read.

Psychometric properties. The PCL-5 shows strong internal consistency ($\alpha = .94$), test-retest reliability ($r = .82$) and convergent as well as discriminant validity ($r_s = .74$ to $.85$; $r_s = .31$ to $.60$ respectively). Furthermore, superior fit with the 6-factor and 7-factor model

regarding the PTSD ($\chi^2 (164) = 318.37, p < .001$; $\chi^2 (164) = 291.32, p < .001$ respectively) have been found. (Blevins et al., 2015. For more see Armour et al., 2015; Liu et al., 2014)

For those two respondents interviewed in Italian language, the PCL-5 has been translated and back-translated.

Participants and Procedure

The sample, 15 male respondents, have been recruited solely on the premise of the ability to speak English or Italian and the crossing of the Mediterranean Sea by boat. Due to this premise, the recruitment cannot be designated as random.

Ten out of 15 participants were illiterate or had great difficulties with written English or Italian. Consent, therefore, was obtained orally rather than written, due to the partial illiteracy-rate among participants, as mentioned, and their fear to sign documents. By cause of this restriction, respondents have been acquainted orally about the aims of the research, the procedures and about privacy and its limits.

All participants were informed that no compensation in any form or financial incentives would be given for participation. Furthermore, respondents have been informed about possible negative outcomes and risks due to the nature of the questions and have therefore been provided with address and phone number of further help and assistance (e.g. the psychotherapist in charge of migrant and refugee mental health in Palermo), if needed. Participants were also given the information that they could interrupt both interview and self-report questionnaire at any time if they do not feel comfortable to proceed. All respondents arrived in Italy at least 8 weeks before undergoing the PCL-5 procedure. All but one individual had already applied for asylum in Italy but not yet been granted asylum.

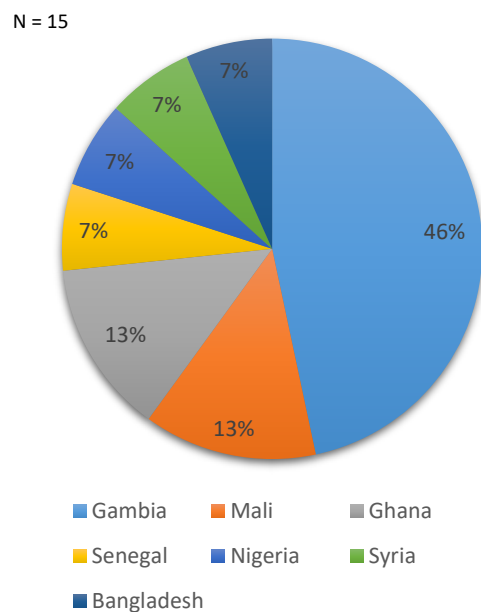
Therefore, it can be referred to respondents as asylum-seekers, regardless of their further subdivision in to migrant or refugee. Due to the fact respondents have already applied for asylum or did not want to apply for asylum in Italy, the authenticity of the obtained reports could be assured once more. That is to say, it was clear to respondents that the information given in the interview will not contribute to their asylum-status as the report for commission has already been done.

All respondents were recruited during the authors sojourning of a 3-months-interval in Sicily from mid-July 2015 to mid-October 2015. The long recruiting interval was necessary to build confidence to respondents and to assert the participants that the research was not conducted to supply private information to government and authorities.

Interviews were conducted in two refugee-camps in Palermo, Sicily. Interview-situation can be described as highly burdensome, often characterized by many interruptions due to the psychological strain of reported experiences and a need for recovery in order to proceed.

Demographic data.

Figure 4. Country of origin of participants.



The mean age of the 15 respondents, all male, was 25,93 years with a range from 19 up to 36 years. Ten respondents attended school up to grade 6, four finished high school and one individual degreed from university. Ten stated to be single, three were married and two were widowers.

Seven participants were from Gambia, two from Ghana, two from Mali, one from Senegal, one from Bangladesh, one from Nigeria and one from Syria. Percentages are displayed above (see Figure 4).

Results

The results of this research are reported with corresponding number of category and respective examples. Sequence 1 will be used in the following instead of pre-migration interval, as it refers to the critical moments which lead to sequence 2 and doesn't cover the whole period before escaping the home country. Therefore, the term *sequence 1* is more appropriate for the time-period aimed at.

Potentially Traumatic Events during Sequence 1 and 2

Category 1: Most frequently reported potentially traumatic events during sequence 1.

Table 2

Potentially Traumatic Events during Sequence 1

Category	Designation of category	Number of reports (%)	Characteristic example
C 1.1	Inability to take farewell to family	5 (33,33)	"No, I did not have the chance to tell the family."
C 1.2	Oppressions and killings by government	3 (20)	"Even lots of students get killed by...because of political opposition party, they kill each other, you know."
C 1.3	Precarious economic situation	3 (20)	"After, if you got the job, also, the money is not easy. Is very small. You can not help yourself with your family."

Category 2: Most frequently reported potentially traumatic events during sequence 2.

Table 3

Potentially Traumatic Events during Sequence 2

Category	Designation of category	Number of reports (%)	Characteristic example
C 2.1	Dehydration and malnutrition	10 (66,67)	"That place we spent three days before they leave, they leave us. No food, only water. Even the water is toilet water."
C 2.2	Precarious economic situation/lack of shelter	10 (66,67)	"I always sleep outside...you put a cardboard, under the sand, that's how I sleep...It's so cold...raining. All this things. My god, it's awful. Very awful. If you don't have money, it's not possible to go and rent a house, for Africans..." ^a
C 2.3	Being exposed to extreme heat/cold	7 (46,67)	
C 2.4	Being transported on over-packed cars through the Sahara	6 (40)	"Maybe car of, of 15 persons, ok, we uhm... we were maybe 50 persons. Yes, over each other for about 12 hours...Yeah, like camels or, or, or sheep, or, ok, or animals..."
C 2.5	Being victim of racism	5 (33,33)	"That was very difficult. If you are black like this, you can't get that...this kind of work."
C 2.6	Overcrowding in connection house/jail	4 (26,67)	"We have 300 people...In a room like this. Maybe this one, and this one [indicating approx.. 40 square meters]...and just people spent there one week. Is very difficult. Is very, very difficult."

^a "Sempre dormo fuori...tu metti cartone, sotto sabbia, dormo così...C'è freddo assai...Piove. Tutte cose. Mamma mia, è brutto. Molto brutto...Se tu non hai soldi, non è possibile che tu vai a prendere una casa, per africani..."

With the categories 2.1, 2.2 and 2.3 (see Table 3) as the most frequently reported potentially traumatic experiences (66,67%, 66,67% and 46,67% respectively), external

conditions and experiences during sequence 2 count for the most frequent PTE's.

Furthermore, the inability to say farewell to one's family and the life in a country ruled by dictatorship (33,33% and 20% of reports respectively), are the aspects which account most frequently for potentially traumatic events in the home country of the sample (see Table 2). Overall, three different PTE's (total number of occurrence: 11) have been located in the home country whereas the peri-migration period contains six different credited categories (total number of occurrence: 42) of potentially traumatic events.

Traumatic Experiences during Sequence 1 and 2

Category 3: Nature and frequency of traumatic experiences during sequence 1.

Table 4

Traumatic Experiences during Sequence 1

Category	Designation of category	Number of reports (%)	Characteristic example
C 3.1	Escape from home country under threat	3 (20)	"Because if I have to go to Guinea Bissau I cross through the borders straight, and it's not safe for me...And the securities are there, you know, so I, I don't know...is not safe for me."
C 3.2	Threat to be arrested in dictatorship-country	3 (20)	"We're supposed to be arrested....I will not have a fair trial if I take me to court...if they take me to court or...and....before those court did and...I will be tortured and you know...so I don't want all that to happen to me..."
C 3.3	Witnessing violent death of others	3 (20)	"We saw every bad thing in the, in this revolution, ok?...We saw arrestments, we saw killing by guns, we saw killing by, uhm...rockets, on our heads...On our heads. Not on other peoples heads, no. Ok? Rockets went over our, our, our heads, our

			houses, our buildings, ok? People died on streets."
C 3.4	Family members being interrogated because of oneself in dictatorship-countries	2 (13,33)	"So...they come...they...when they come about my home, they did not meet me the first day. The second day they came there again so...they have to...take my brother to...for some questions in general, so..."
C 3.5	Being beaten by body	2 (13,33)	"So, the police slapped me. I, I had the big crying. Four, three police, I had the big crying... They will beat me, that's why my tooth, tooth... [indicating broken tooth] They beat me seriously! Even my...this thing...my tooth. I used to feel pain, every time, every time! Because they beat me the, the..."

Category 4: Nature and frequency of traumatic experiences during sequence 2.

Table 5

Traumatic Experiences during Sequence 2

Category	Designation of category	Number of reports (%)	Characteristic example
C 4.1	Life-threatening difficulties with the boat while crossing	9 (60)	"Yeah we was, we was...discouraged we...we discouraged because of, we think that we will not survive, no one will survive in that boat. Because of the way we were seeing the things...Because of our boat was so...it was so dangerous the way we see the boat. Which was...the water was entering inside the boat. So the boat also is closing, closing, closing... Yeah, smaller and smaller. You never know."
C 4.2	Being robbed	7 (46,67)	"They told me: Money or telephone...So the money I give them, that's the only money they see. So then they in...insult me, telling me

			nonsense, scream on me. I, I will not, I do...I can, how...I can not talk."
C 4.3	Witnessing others being shot	7 (46,67)	"Yeah, they shot many people...Some other people they....oh my God...So, many people who worn there you know..."
C 4.4	Hiding from border-control/being smuggled into countries	6 (40)	"You have to go through the desert to get into Libya, by foot, yeah...We go by foot at night. There are securities though but at night we...but we struggle to get in...Because that part the security...where are they...the police, there is a soldier camp there. But we deviant the place we go to a long...far...I deviant the place to cross the checkpoint, soldier they will see us."
C 4.5	Witnessing war	6 (40)	"There are guns. I don't know. You just hear guns. You don't even know. Because, we don't go out just like that...If I hear guns, I hear them, yeah, outside. But, continuously, not stop...Not stop, yeah. Not stop. Not stop."
C 4.6	Being beaten by body	6 (40)	"So, if they see they will just come and beat me. Beat, beat, beat."
C 4.7	Witnessing dead bodies in the desert	5 (33,33)	"If the driver doesn't know...you can miss the way also. If you miss the, the way also, you are going to run like that. If the water finish, everything is finish you are going to death there...Yeah, I used to see the dead body...Lot of people are dead in there. Because the desert is not easy."
C 4.8	Being threatened by gun	5 (33,33)	"The time we are from the work they told me that I remove the money. I say I don't have money. They beat me. Yes. Two...uhm...three boys. Because they have a gun, one man...one boy have a gun, he stands like this [pointing finger on the front] This two people they are beating me."

In addition to the aforementioned traumatic events for sequence 1 (see Table 4), the following traumatic events have been mentioned:

- Categories 3.6 – 3.17: escaping jail in dictatorship-country, being interrogated by police in dictatorship-country, witnessing family members being threatened by gun, witnessing war, witnessing violent revolution, learning about death of close friends during war, learning about death of family member in war, witnessing family member being killed in war, experiencing terrorism attacks, being attacked by rebels, being held captive and being jailed with each one time reported respectively.

The total number of mentioned traumatic experiences during sequence 1 was of 17 different categories with a clear affliction to man-made-traumata. The occurrence of these 17 different categories has been reported, in total, 25 times.

The number of reported traumatic experiences during sequence 2 was, in total, 44 as different evaluated categories (total number of occurrence: 115) with human-instigated-traumata prevailing (see Table 5). Besides the domains listed in Table 5, the following non-interpersonal traumatic experiences have been reported for sequence 2:

- Category 4.9: three reported cases: witnessing break down in desert.
- Categories 4.10 – 4.14: two reported cases each: witnessing other people getting sick on boat, witnessing dead people in the sea, swimming to survive, losing a family member in the sea, witnessing other people die in the sea.
- Categories 4.15 – 4.20: one reported case each: having break down in desert, witnessing other people getting sick in the desert, continuous hiding in connection-house, witnessing people die on boat, being separated from family/friends in sea, swimming through cadavers.

On the other hand, the following man-made traumatic experiences for sequence 2 could be filtered out of the interviews additionally to the ones listed above:

- Categories 4.21 – 4.24: four reported cases each: witnessing the killing of others, witnessing people being robbed, being jailed, being held for ransom/captive.
- Categories 4.25 – 4.26: three reported cases each: escaping jail/captivity, witnessing people being beaten violently.
- Categories 4.27 – 4.31: two reported cases each: people breaking into the house, witnessing rape, hiding in the bush from war, witnessing people getting stabbed with knife on ship, witnessing people being beaten on ship.

- Categories 4.32 – 4. 44: one reported case each: getting stabbed with knife, being shot by police, witnessing people shortly after being shot, witnessing people being pushed out of the boat willingly, pushing people personally in sea to survive, witnessing people being killed on boat, continuous hiding in Libya, hiding from rebels on the way, witnessing people beaten to death, being sold, being kidnapped, witnessing people disappear traceless in captivity, being put on boat in chains.

As numbers of frequency show, traumatic experiences are distinctly concentrated on the peri-migration interval rather than on sequence 1, with 17 vs. 44 reported different categories of traumatic experience related to the peri-migration interval.

Category 5: The Crossing of the Mediterranean by Boat as a Potentially Traumatic Experience Meeting the Criterion A of DSM-5

Table 6

The Crossing of the Mediterranean as a Potentially Traumatic Event

Category	Designation of category	Number of reports (%)	Characteristic example
C 5.1	Life-threatening difficulties with the boat	9 (60)	"Our boat yah, our boat have problem because the last ending, the time they rescue us it was the end...It was the end. If, if we spent another five hours everybody can not...Because the boat was broke, the machine...Yeah, the machine was destroyed. Yeah, the machine was dirty. Boat even...the water is getting inside... And the front is broken...So we are just waiting for Gods help."
C 5.2	Aggravation of people's physical condition on boat	4 (26,67)	"Some people are very, very sick...our one of our...uncle is want to dead, because no food, no water...Is end, is the ending, because he has died now, we don't know what to do. You don't have no food, no water. His eyes was...great."

C 5.3	Witnessing people dying/ cadavers in the sea	3 (20)	"I see many people dying there in the water. They are running...water is running there so...we can not do anything there you know...Because we also we are thinking about ourselves.
C 5.4	Swimming to survive	2 (13,33)	"I've covered my family, three...the three of my family in my hands and we went directly down the water, we lost everything we have and we started to, to, to try to survive our lives."
C 5.5	Witnessing a family member dying while crossing	2 (13,33)	"Then I looked at, uhm, my wife and uhm...tried to reach her hand. She told me: I'm dying, I'm dying, I'm dying...maybe without forces, so tired...So, I said: No, no, no you are ok. I hit her fist two, three times and nothing, no respond, ok? I swam her for more than half an hour, trying to get her head over the water...sometimes, uhm... goes down a little than goes up, but no respond. No respond, no respond..."
C 5.6	Witnessing people being beaten/stabbed with knife on boat	2 (13,33)	"So I see one guy. He used his leg to...uhm...push the people..."
C 5.7	Witnessing other people dying on boat	1 (6,67)	"The same time the...we are sweating, they sweating, the sweat so...the heat, the heat is the one cause the big problem. Aha. Because of, if you don't...you don't have water to drink. If you have believe, I can the...and everything, you can manage it, but you don't have water. Believe no come, the, there's no come the...Even you don't see light, just dark. So, definitely... I have seen many people! [dying on boat]"
C 5.8	Being separated from close friends/family members in the sea	1 (6,67)	"So, he went far away from us. Maybe five or six meters. Five or six meters in this situation you, you, you can not...uhm, bring, bring him

			or, uhm, go to him, ok? I saw some African men who caught him, ok?"
C 5.9	Swimming through cadavers	1 (6,67)	"Oooohhh, you can't, you can't imagine that. We removed a body, and go on. Removed a body, and go on...Removed a body, and go on. While we, uhm, we were swee – uhm swimming. You can not imagine. Really."
C 5.10	Witnessing people being pushed out of the boat on purpose	1 (6,67)	"And then all the guys they are...they lose hope... And then they started fighting. So they want to fight so that people...if you don't know how to swim they just fall inside the water, that means you are going down...So....Yeah, they want to do that so that people leave from the boat so that they...the...those who are strong enough they can stay inside the boat."
C 5.11	Pushing people in the sea to survive oneself	1 (6,67)	"I have the life jackets and others doesn't have and doesn't know to swim. Please help me, I'm dying, please help me I'm dying... Well I, I...I hit three or four people to let them out, far from me, because it's my life and my... Finally someone picked my legs and I couldn't beat him. It's faith."
C 5.12	Witnessing the killing of people on boat	1 (6,67)	"Say, we are more than...we will see, let me thinking about, will say 130 people. It's left 60...Some are who die, like a pregnant woman and a small, small children are inside there [dinghy]...Yeah, they die, and then they throw them out, inside the water."

According to the reported experiences in Table 6, the crossing of the Mediterranean itself unambiguously contains exposure to actual or threatened death and/or serious injury by directly experiencing it, witnessing it or learning that it occurred to a close friend or family member as stabilized to fulfill the criterion A of DSM-5 (2013a). The occurrence of the above listed 12 different categories has been reported 28 times.

Furthermore, to be exposed to actual/threatened death and/or serious injury does apparently not necessarily postulate a capsizing of the dinghy or boat or another kind of defect regarding the means of carriage: reported categories 5.2, 5.3 and 5.6 are named by three respondents who didn't have any difficulty regarding the means of carriage.

Subjective Appraisal of Traumatic Experiences and Adverse External Factors Occurring During Escape

The following elements, underlining the psychological impact of sequence 1 and 2, have been expressed from respondents concerning the potentially traumatic events and traumatic experiences they have been exposed to:

Table 7

Subjective Appraisal of Traumatic Experiences

Psychological impact	Description
Irredeemability	"And then all the guys they are...they lose hope...And then they started fighting..."
Intrusive thoughts	"That's the problem, I'm always thinking. Since I left my home country up to now, I'm always thinking." ^a
Perception of danger/description of fear	"I always, once in a while, I go to Foro Italico [shore] I sit down there to watch the sea, you understand...uhm...when I see then I remember when...[laugh] Because in my opinion I don't have to forget this, you understand. It is...the most dangerous moment, the most important one in my life because...it was...my god, first time, and I don't think it will happen again, no. The sea is not good. Once in a while I go to Foro Italico to sit there to watch the water, how the water is. It's awful, awful."^b "Before I wasn't afraid because I was happy to see a sea big like...but it's never ending, never ending, never ever ending. At the end we were all afraid...I didn't know that...I see, I see land once again."^c

Negative alterations in
mood and cognition

"Because of they think that we are coming to die now... Yeah we was, we was...discouraged we...we discouraged because of, we think that we will not survive, no one will survive in that boat."

"Is too painful for me to explain my story."

"That's why, you know, sometimes if I think, you know, my mind, I can not be happy."

"It is a wound, it is a wound, in the heart. Will not close until the death. Because, every single minute, we are here, in Europe, we will remember. Every single minute we look at each other, the survivors, we will remember the lost, you know that... I told you that dream of Europe doesn't equal in any way what happened to us, ok, and it will be a wound – or it is a wound, will not close, forever. Until the time of the death, of the death."

"No... Sometimes if I, if I think, you know... I use to cry. Because, can not know, I make a suffer. I make a suffer, since 2013."

"Because they think that I'm crazy the way I am."

"Is too stress, is too stress, you know. Because this way is not easy. This Libya really hell, you never know. Only God can safe you."

Lack of
perspective/choice

"I say: my God, today I don't know where I will sleep, I don't know where I will go."

"We don't have no choice. Yah. You can't go back to Libya, you go and die there. Family don't see you, no. Nobody prays for that. We try to escape to...to something better...To save our life. That's why we...all of...doing this thing."

"Is very bad. I don't know by...I don't know that this is the kind of journey this people are taking to this place. But once you have entered inside this, you can't even get back. You can't get back."

"But, how for do? You have to sacrifice and go. Because if you are there, the Libya, you can dead every day. Every, every day you can dead."

Feelings of shock and horror	"So, it happened. What I expected, really has happened...It's 50%. 50%...50% we live, 50% we die. We are going on a deadly here, trip...Everyone knows. But is the shock! Everyone knows, but no one expect. You know, you know, you know the difference between know and expect? Know – mind, expect – heart. So, no one could expect that, this would really happen." "Horror movie. More than half an hour, horror movie."
Alterations in reactivity and arousal	"When I think, you know, my sister daughter, you know. The one who is dead, you know, sometimes I used to fuck off...Yah. Is too stress." "We are sitting like this. ...getting wicked on this sea."
Avoidance of stimuli related to the traumatic experience	"Oh, I pray to god not...that I will never see it again...But you don't have to remember, you must not look back."^d

^a"Così è la problema, sempre pensare. Quando mi ho lasciato il mio paese fino oggi, sempre pensare." ^b"Io sempre, ogni tanto vado a Foro Italico....mi siedo là a guardare mare, capito... Uhm...quando vedo anche mi ricordo quando... [laugh] Perché secondo me non devo dimenticare questo, capito. È un...un momento più pericoloso, più importante della mia vita perché ...è stata...mamma mia, prima volta, e non penso che non succederà mai ancora, no. Mare non buono. Ogni tanto io vado a Foro Italico a sedere là a vedere l'acqua, com'è acqua. È brutto, brutto." ^c"Prima io non avevo paura perché ero felice di vedere mare così grande come...ma non finisce, non finisce, non finisce mai. Finalmente abbiamo avuto paura tutti.... non sapevo che vo...che vedo, che vedo ancora terra." ^d"Oh, prego dio non...non lo vedrò mai...Ma non ricordare dietro, no devi guardare dietro."

PTSD and Distribution of Trauma Type on Sequences

Prevalence rate of PTSD.

Table 8

Results of the PCL-5

PCL-5 scores			Cut-point 33 <i>n</i> (%)		DSM-5 criteria <i>n</i> (%)	
<i>M</i> (<i>SD</i>)	Minimum	Maximum	PTSD	No PTSD	PTSD	No PTSD
36,26 (11,17)	17	52	9 (60)	6 (40)	9 (60)	6 (40)

Note. *n* = number of respondents. *M* = Mean (score). *SD* = Standard deviation.

As shown in Table 8, a total of 60% of respondents fulfill the provisional diagnosis of PTSD following a cut-point of 33 as well as the criteria of DSM-5 either way. The mean score of the PCL-5 was 36,27 points. Assessing a probable linear correlation in a monotonic relationship between type of traumata and PCL-5-score using Spearman's rho, however, no significant correlation resulted ($r_s -.186, p > .05$, two-tailed).

Distribution of trauma type on sequence 1 vs. sequence 2.

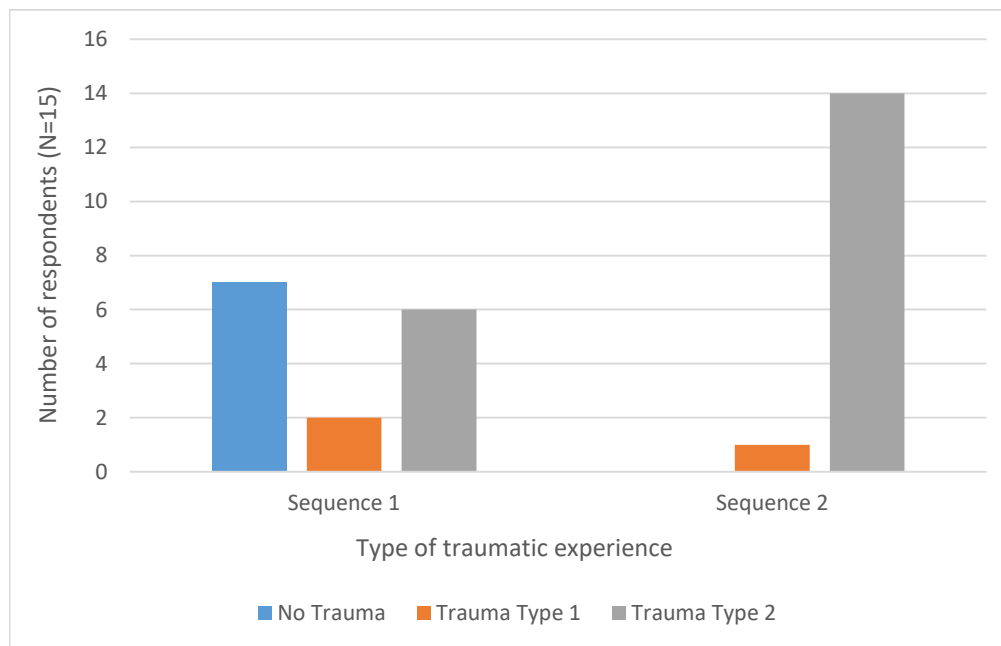


Figure 5. Trauma Types During Sequence 1 and 2 for Each Respondent.

Traumatic experiences were isolated for sequence 1 and sequence 2 equally for each respondent. As can be concluded from the graph (see Figure 5), the peri-migration interval shows a clearly higher number of reported traumatic experiences, especially type II, compared to sequence 1. None of the respondents could report any kind of traumatic experience during sequence 2 and a total of 14 participants reported to be exposed to trauma type II during their escape whereas seven respondents didn't report any kind of traumatic experience in their home country.

Comparison of Items of the HTQ and Emerged Traumatic Experiences in the Sample

HTQ Original version	Traumatic experiences specific for the sample
- Ill health without access to medical care - Imprisonment - Rape or sexual abuse - Forced isolation from others - Being close to death - Forced separation from family members - Lost or kidnapped - Torture - Murder of family or friends - Unnatural death of family or friends - Murder of stranger or strangers - Lack of food or water - Lack of shelter - Serious injury - Combat situation - Brain washing - Any other situation that was very frightening or in which you felt your life was in danger	- Escape from home country under threat of serious injury/torture/death - Threat to be arrested in country ruled by dictatorship - Family members being interrogated because of oneself in country ruled by dictatorship - Escaping jail in dictatorship-country/war-afflicted country - Being interrogated by police in dictatorship-country - Witnessing family members being threatened by gun - Life-threatening difficulties with the boat while crossing - Being robbed under threat of gun outside/in the house - Continuous hiding from border-control/authorities - Witnessing of cadavers died of same circumstances in which person is actually - Being hold for ransom - Murder of others to survive oneself - Witnessing people being beaten to death - Being sold - Being put on chains on boat - Witnessing break down in desert/having break down in desert - Witnessing the drowning of others - Being separated from family/close friends in the sea - Swimming through cadavers

Figure 6. HTQ-items and traumatic experiences reported from the sample. HTQ adapted from “Measuring torture and torture-related symptoms,” by R. F. Mollica and Y. Caspi-Yavin, 1991, *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3(4), p. 587 and “Pathways from war trauma to posttraumatic stress symptoms among Tamil asylum seekers, refugees, and immigrants,” by Z. Steel, D. Silove, K. Bird, P. McGorry, and P. Mohan, 1999, *Journal of Traumatic Stress*, 12(3), p. 426.

The original version of the HTQ, initially developed for the use with Indo-Chinese refugees, consists of 4 sections with the first section assessing traumatic events which the respondent has been exposed to as a direct victim, by witnessing it, by learning it or not having experienced it at all (Ward, Flisher, Zissis, Muller, & Lombard, 2004). The items assess the events mentioned in Figure 6.

Subsequently, the HTQ has been adapted and validated for other refugee-populations (for more see Kivling-Bodén & Sundbom, 2002; Lie, 2002; Nickerson et al., 2014; Oruc et al., 2008; Silove et al., 2006; Steel et al., 1999; Ward, Flisher, Zissis, Muller, & Lombard, 2004; Knipscheer et al., 2015; Shoeb, Weinstein, & Mollica, 2007), but not specifically targeting those migrants and refugees coming to Europe by boat.

The categories listed on the right in Figure 6 are not (specifically) assessed in the HTQ, but, in addition to the items of the HTQ, reported by the sample of this research.

Discussion

Overall, the results show a continuous and multiple exposure of migrants and refugees to traumatic events on their way to Europe. Type II traumata appear to be very frequent and multiple man-made traumata have been reported in relation to the peri-migration period. Moreover, the crossing of the Mediterranean Sea bears various traumatic experiences both man-made and accidental. Assessing those stressor events seems to be an important challenge for the future as no screening and diagnostic tools adapted to this specific group of asylum seekers are yet available.

In detail, the following aspects emerged analyzing the interviews and the self-report instrument for PTSD of respondents.

Interpretation of Results

Potentially traumatic events during sequence 1 and peri-migration interval. The most frequent reported categories during sequence 1, namely: the inability to say farewell to one's family, living in a country with oppressions and killings by government as well as the precarious economic situation are not clearly designated as traumatic experiences as they cannot be identified with certainty as events where an individual is exposed to actual or threatened death, serious injury or sexual assault.

Nonetheless, a precarious economic situation as well as the residency in countries ruled by dictatorship actually bear the risk of death and/or injury. Thus, those elements should be taken into consideration. The HTQ assesses explicitly lack of food, water, and shelter as traumatic events (Knipscheer et al., 2015; Steel et al., 1999), but in the interviews conducted it did not unequivocally emerge whether respondents were actually at risk of death or injury due to their precarious economic situation or their physical conditions derived from dehydration or malnutrition.

The psychological impact of the burden to live in a country ruled by dictatorship was reported by two Gambian and one Bangladeshi participant. According to the Annual Report of Amnesty International, the sojourn in these countries actually bear the risk of death and/or serious injury (2016).

Besides, the inability to say farewell and the consequential effects of being removed from a familiar support system have been shown to have an influence on the onset of PTSD.

As research from 2014 states: “Loss of culture and support predicts membership in a group with high levels of PTSD symptoms“ (Nickerson et al., 2014, p.9). Furthermore, in a study from 2016, the forced separation from family members has been reported from 74% of respondents and was listed as a self-experienced traumatic event. When specific domains of traumatic events were isolated applying a principal component analysis, separation from others constituted a specific trauma domain and accounted for 6.9% of total variation. (Knipscheer et al., 2015, p. 180).

Dehydration and malnutrition as potentially traumatic events, on the other hand, are reported specifically for the peri-migration interval as the most frequently occurring adverse condition, precisely ten occurrences could be isolated from the narrative. This coincides with reports of a precarious economic situation, being exposed to extreme climatic influences, the transport on overloaded cars through the Sahara, experience of racism and living in overcrowded places. All of these aspects may bear the risk of death or injury, even if not directly mentioned or associated to it by respondents. The lack of necessities, specifically, has been reported from 77% of respondent refugees resettled in the Netherlands as well and comprised a specific domain of traumatic events in a principal component analysis with 8.7% of total variation (Knipscheer et al., 2015, p.180).

Overall, the findings are in line with the results of another study where harsh conditions on the journey itself along with other difficulties to reach the host-country as, for example, having to pay money to intermediaries, have been reported from 53% of refugees from Africa, Middle East and Asia resettled in Australia (Silove et al., 2006, p.7). Nonetheless, those domains of difficulties on the journey were not designated as traumatic event in the aforementioned research.

Finally, the categories of potentially traumatic events listed above cannot be excluded considering the mental health of migrants and refugees. To map predictors for PTSD in this subpopulation, assessments need to focus on a broader range of stressors, including those related to forced migration such as safety of family in the home country and social support (Knipscheer et al., 2015, p.181).

Nature and frequency of traumatic experiences during sequence 1.

In total, participants have been exposed to 17 different classifications of traumatic experiences during sequence 1 with a reported number of 25 of occurrence. Part of the categories listed as traumatic experiences during sequence 1 are of similar nature as those reported from refugees from war and conflict zones as for example Bosnia Herzegovina. The exposure to combat situation (89,4%) as well as the murder or death of family members or friends due to combat situation (57,9%) have been reported from Bosnia-Herzegovinian refugees (Oruc et al., 2008, p. 109) as well as from the sample in this study (26,67% and 20% respectively).

A study with refugees conducted in the Netherlands finds similar traumatic experiences regarding circumstances in association with war and conflict (Knipscheer et al., 2015) as well as one research examining refugee children resettled in the USA (Betancourt et al., 2012) and a study conducted in Norway with asylum-seeking children (Jensen et al., 2015).

However, only a small number of participants of this study originate in war and conflict afflicted countries (Syria, Nigeria and Mali), traumatic experiences associated with combat exposure are not typical for this sample.

Other experiences, on the other hand, especially those associated with dictatorship, are more indicated to the sample and could be isolated in this research as new events and experiences bearing the risk of death and/or serious injury according to reports of Amnesty International (2016) and of UNHCR (United Nations, 2016a, 2016b).

Nature and frequency of traumatic experiences during sequence 2. As results show, respondents' traumatic experiences are concentrated rather on sequence 2 than on sequence 1. During the peri-migration interval, 44 different categories of trauma were found with a number of occurrence of 115. Similar high exposure to traumatic events (96,7%) have been found in a study with Bosnian refugees (Oruc et al., 2008, p.113), but with stressor events located in the home country of respondents.

The most frequent occurred category of trauma in this sample were the life-threatening difficulties with the boat or dinghy which is explored in detail below. Other frequently named stressor events include being robbed, the witnessing of a violent death of others, the continuous hiding to cross borders or within countries as well as combat exposure, being beaten by body, the witnessing of corpses in the Sahara and the threat by a gun. Part of these stressors, especially combat exposure, the witnessing of others being shot and the threat by a weapon (reported seven, six and five times respectively) are traumatic experiences

exemplary to refugees fleeing from war and conflict zones and located commonly, as studies above-mentioned (Betancourt et al., 2012; Knipscheer et al., 2015; Oruc et al., 2008) and further investigations show (Kivling-Bodén & Sundbom, 2002; Lie, 2002; Schweitzer et al., 2006; Steel et al., 1999), in the home country of refugees. In this research these traumatic experiences appear to be especially inherent to the flight-period.

Many other aspects from the one recorded in the present case are not investigated in other psychological research: nor as associated in the home country and even more unlikely in association with the peri-migration interval. Having a break-down in the desert or the capsizing of one's boat, for example, have not been taken into consideration as traumatic experiences in other studies since the focus was laid especially on the home country of asylum seekers as the place comprising the events which are probable to lead to negative mental health outcomes.

Therefore, it becomes clear that inadequate assessment of traumatic events can lead to biases in research and hinder psychological science in progression. "Discerning which experiences are most salient to generating and perpetuating disorders such as posttraumatic stress disorder (PTSD) is critical to the mounting rational strategies for targeted psychosocial interventions" (Momartin et al., 2003, p. 775). Investigating traumatic experiences during the flight is not a pressing issue when it comes to refugees who have been brought to their host country through humanitarian programs and who have never been displaced. However, taking into consideration that thousands of people – especially from Sub Saharan Africa – make a journey very similar to those interviewed in this research (UNHCR 2016a), biases in assessing the criterion A of DSM-5 are inevitable if the focus will not be primarily on the peri-migration interval. A focus on discrete episodes of war-related violence and exposure fails to capture the full range of traumatic experiences among asylum seekers (Betancourt et al., 2012).

The categories entrenched in the present case need to be revised and, in some cases, possibly combined, but it was an aim of the research to investigate the stressors appearing during the flight-period in their full range and facets. Some other categories, on the other hand, may be added as traumatic experiences after they have been investigated in their relation to the PTSD. For example, the loss of journey-mates in the sea even if not witnessed personally and not having any problems with the boat or the dinghy. Considering that respondents made the same perilous journey as their drowned journey-mates, this association could lead to the onset of a stress-related disorders. Further investigations are needed.

The crossing of the Mediterranean by boat as a potentially traumatic experience. The flight, in addition to traumatic experiences in the home country, constitutes a life threatening event which increases the probability of the development of PTSD significantly (Böttche et al., 2016).

As can be deduced from the frequency of life threatening situations and serious injuries during the crossing of the Mediterranean, this undertaking holds clear aspects of traumatic experiences according to criteria A of DSM-5 (2013a). In addition, even if risk of capsizing or drowning is nonexistent the crossing can bear traumatic experiences. In total, the experience of traumatic events related to the crossing has been reported 27 times.

“Exposure to traumatic events continue during the escape, which occurs most often in inhumane conditions with a high risk of death from...drowning” (Carta et al., 2015, p. 34). Thus, traumatic experiences while crossing of the Mediterranean seem to be typical for people coming to Europe by boat.

Generally, the different background of migrants and refugees results in heterogeneity focusing on traumatic experiences. “The unique risk factor per sample, suggest that public mental health programs need to consider that symptoms of PTSD in different populations could result from different determinants” (De Jong et al., 2001). Nonetheless, in the perilous journey boat-people are undertaking in the attempt to reach Europe, individuals become a homogenous group regarding traumatic stressors which they are exposed to in common. This applies especially to the crossing of the Mediterranean. Therefore, this specific group of migrants and refugees can be denoted as one group.

Subjective appraisal of traumatic experiences and adverse external factors occurring during escape. The assessment of psychological impact of events was ancillary aim of this research. As mentioned above, the subjective appraisal of traumatic experiences is not required anymore as a criterion for PTSD in the newest version of the DSM. „Individuals who develop PTSD do so primarily because of the catastrophic nature of the stressor, not because they lack sufficient fortitude“ (Weathers & Keane, 2007a, p. 111). Therefore, the primary focus of this research was on objective aspects of adverse conditions and traumatic experiences.

Nonetheless, the psychological impact of events emphasizes the magnitude of stressor events and has therefore been included in this study to obtain a holistic point of view of the situation. Additionally, some aspect of PTSD symptoms become evident in the description of respondents, that is: intrusive thoughts, negative alterations of mood and

cognition, alterations in reactivity and arousal and avoidance of stimuli related to the traumatic experience. On the other side, participants were describing their perception of trauma related emotions and feelings as well as non-trauma related experiences during their journey: irredeemability, perception of danger and fear, lack of perspective and choice as well as feelings of shock and horror during the exposure to adverse events (see Table 7).

As Ryan (2008, p.12) describes: “The migration journey is highly variable in terms of both its duration and its circumstances. At best, it may be a question of stepping on and off an airplane. At worst, it can involve prolonged periods of danger and suffering.”

PTSD and its affiliation with the exposure to traumatic experiences divided per sequence. According to results, nine (60%) out of 15 respondents show a provisional diagnosis of PTSD. This is, according to a cut-point of 33 as well as when following the DSM-5 criteria. A noteworthy higher prevalence among refugees and asylum seekers compared to the population of their Western host-countries goes in line with other studies (Gäbel et al., 2006; Gerritsen et al., 2006; Jensen et al., 2015; Kivling-Bodén & Sundbom, 2002; Oruc et al., 2008; Steel et al., 2009; Sundquist et al., 2005). In a meta-analysis focusing on the prevalence rate of PTSD of refugees and conflict-affected populations, the unadjusted weighted prevalence rate across surveys for PTSD was 30.6% (95% CI, 26.3%-35.2%) (Steel et al., 2009, p.537).

Following the premises of the dose-response model, the high prevalence rate among the sample is expected as 14 respondents report type II traumata and a total of 140 exposures to a wide range of different categories of traumatic events has been reported. As various literature shows, an exposure to cumulative traumatic events is a main predictor for the onset of PTSD (Kaysen et al., 2010; Knipscheer et al., 2015; Momartin et al., 2003; Neuner et al., 2004; Stotz et al., 2015).

For instance, in a study aiming attention at adolescent refugees, the number of traumatic stressors was associated significantly with posttraumatic stress disorder symptoms ($r = .50, p < .001$) (Jensen et al., 2015, p.106). Likewise, long-lasting and multiple exposure to stressor events often lead to long-term changes in functioning and negative mental health outcomes (Jensen et al., 2015).

However, the prevalence rate of 60% obtained in the present case cannot be compared, at this point, to those of other refugees and migrants as no results of a comparable group to the here mentioned one is available. Therefore, comparison seems inadequate

(Silove et al., 2007, p.473). Nonetheless, in many researches carried out in the past, refugees and migrants are grouped together and results have been presented for the group as one homogenous subpopulation. The difference in prevalence rates is, however, not only due to methodological factors, but primarily to substantive population risk-factors (Murray et al., 2010; Steel et al., 2009). “Different prevalence rates and different risk-factors were identified despite using the same methods and variables” among various post-conflict countries (De Jong et al., 2001).

Notwithstanding, in some studies distinctions between sub-groups are made: “More asylum seekers than refugees had symptoms of PTSD (28.1 and 10.6% respectively; $p = 0.000$)” (Gerritsen et al., 2006, p.18). Further on, in other studies, refugees and asylum seekers are distinguished by nation (De Jong et al., 2001).

The broad term migrant masks the substantial differences that exist in the overall situation and health needs of different migrant groups...Where data for migrant health are available, as in several western European countries, they often point in contradictory directions, because of the diversity of migrants in terms of...type of migration (Rechel, Mladovsky, Ingleby, Mackenbach, & McKee, 2013, p. 1237).

De Jong (2001) found a different likelihood for people across countries to have been exposed to traumatic experiences. According to the author, different PTSD prevalence rates may emerge due to different compositions of multiple trauma per country. Heterogeneity of refugees and asylum seekers according to kind and level of exposure has been found in one further study (Momartin et al., 2003). Besides, different prevalence rates of negative mental health outcomes are assumed to be attributed to various aspects of migration among others (Lien, Thapa, Rove, Kumar, & Hauff, 2010).

In some studies, an attempt in associating aspects of the flight-period to PTSD has been made. It has been investigated whether the number of years in transit of Sudanese refugees to Australia has any influence on the disorder, but the link has not been found to be significant (Schweitzer et al., 2006). However, these refugees came to a Western country by humanitarian programs and did not undergo the same journey as the sample here analyzed. One further study with a sample of $n = 1,200$ Ethiopians, however, found that 43,8% of participants reported to have been exposed to traumatic events during their flight and mentioned the relevance of these events for refugees from Ethiopia (De Jong et al., 2001), but not specifying any further. However, the sample has still been in Ethiopia, even if displaced.

A study concerning West-Nile populations – refugees and non-refugees – showed a decreased risk of PTSD in individuals with a history of migration – but only after controlling for traumatic experiences. Simultaneously, the likelihood for PTSD symptoms increased with the witnessing of stressor events (Karunakara et al., 2004). Another study listed “being trafficked to the UK” as a potentially traumatic event among other variables, all pertaining to the home country of respondents. All variables, including “being trafficked to the UK”, were listed under the voice “primary reasons for flight” (Thomas et al., 2004).

Consequently, it is indicated to compare different subpopulations according to their common exposure to traumatic experiences. This applies to the present study not primarily regarding their country of origin, but by cause of the peri-migration interval with a wide range of shared traumatic events. As results of a study display: “The number of stresses of passage increased the probability of PTSD” (Beiser et al., 2011, p.333).

Furthermore, causality between one specific traumatic experience and the score above cut-point in PCL-5 was not investigated. Nonetheless, research found the adjusted odds ratio reflecting the relative importance of different adverse events whereas an association of PTSD with the number of traumatic experiences was found (De Jong et al., 2001). “Studies investigating the relationship between the objective severity of single events and PTSD are restricted to a narrow variance of traumatic exposure” (Neuner et al., 2004). This goes in accord with the dose-response model.

Finally, the non-significant outcome in statistical analysis regarding the correlation between type of trauma and the presence of an initial PTSD diagnosis may be explained by the low sample size and the fact that all but one respondent presented the experience of trauma type II – regardless of the following outcome in PCL-5. Therefore, significance between the two variables cannot be established.

The HTQ and for the boat-people as indicative labeled traumatic experiences. As shown above, the original version of the HTQ cannot be designated as adequate for the group of asylum seekers coming to Italy by boat. Other instruments, as the Life Events Checklist (LEC), which is available from the homepage of the National Center for PTSD in conjunction with the PCL-5, is assessing similar traumatic events as the HTQ (Mollica & Caspi-Yavin, 1991; Silove et al., 2006; Steel et al., 1999; Weathers et al., 2013).

The HTQ has been adapted throughout the past to many refugee-populations as for example the adaption to Cambodian refugees (Mollica et al., 2014) or to the Vietnamese population (Silove et al., 2007). In addition, the HTQ has been adapted to people from Afghanistan, Iran and Somalia where, for example, the experience of hiding for an extended period was added to the original version of the HTQ (Gerritsen et al., 2006, p. 20).

As concluded above, an adaption of the HTQ or another instrument, tailored for asylum seekers coming to Italy by boat and focusing especially on the flight-period itself, is needed to adequately assess traumatic events to which this specific group is exposed to during the peri-migration interval like the one added by Gerritsen (2006). The instruments are biased against specific groups and lack encounters if not designed for it specifically as shown in a study targeting Vietnamese refugees (Ngo et al., 2000).

The stressor criterion serves as a “gatekeeper” for PTSD, in that it is the initial and fundamental requirement for the diagnosis (Weathers & Keane, 2007a, p.116). Therefore, assessing the criterion A inadequately can also lead to a false negative diagnosis. “The probability of detecting a relationship between trauma exposure and the PTSD symptoms depends on the range of frequencies and variance of trauma exposure” (Stotz et al., 2015, p. 5). In specific, traumatic experiences like problems with the boat or dinghy or breakdowns as well as other life-threatening circumstances in the Sahara in addition to the high number of traumatic experiences especially reported from Libya need to be listed in an adequate assessment. The expression from HTQ “being close to death” or “any other situation that was very frightening or in which you felt your life was in danger” (Mollica & Caspi-Yavin, 1991; Steel et al., 1999) may have unsatisfactory results. To some respondents, the actual danger of life they have been in during this sequences may not even be directly clear. Additional validation studies for the HTQ “are needed in several other cultural settings in which their implementation and utilization would be beneficial to the given population” (Oruc et al., 2008, p. 114).

Mental health care professionals can therefore be hindered in acquiring sufficient information due to the lack of reliable and valid diagnostic instruments (Bean, Derluyn, Eurelings-Bontekoe, Broekaert, & Spinhoven, 2006; Oruc et al., 2008). Hence, appropriate instruments in respect to trauma-related circumstances must be developed (Oruc et al., 2008).

The flight experience, in its difference among individuals depending on duration and conditions of the escape, is critically important to understand (Murray et al., 2010). Furthermore, the appropriate assessment of criterion A is needed with respect to its influences

on specific symptoms and symptom-clusters of PTSD as well as its interconnection with the dose-response model:

In psychological literature, research has been carried out examining whether different categories of traumatic experiences lead to different PTSD symptom profiles among refugees. In Bosnian refugees, for example, threat to life was shown to be associated to the onset of PTSD in a univariate analysis ($t = 2,5$; $df = 74$; $p < .01$) (Momartin, Silove, Manicavasagar, & Steel, 2004, p. 235). The association of different stressor events and the clinical picture of PTSD has been found in other studies as well (Nickerson et al., 2014; Oruc et al., 2008).

Other studies are investigating the dose-response model. An increase of symptom severity in PTSD in association with an increased number of different self-experienced traumatic stressors was found to be significant with the total number of self-experienced stressors to account for 8% of the variation in PTSD symptom severity. (Knipscheer et al., 2015, p.180).

Also, different severity of clusters of symptoms appear to correlate significantly with a high number of traumatic experiences: intrusion ($r = .57$; $p < .01$) avoidance ($r = .54$; $p < .01$) and hyperarousal ($r = .58$; $p < .01$) (Stotz et al., 2015, p.4). Similar results can be found in other studies (Mollica, Brooks, Tor, Lopes-Cardozo, & Silove, 2014). Therefore, omitting to assess stressor events can lead to biases when PTSD symptoms are analyzed thoroughly and treatment of the disorder takes place (Hauff & Vaglum, 1993; Ngo et al., 2000; Thomas et al., 2004).

Future Research

Taken together, present research shows a high rate of traumatic experiences among a sample of 15 asylum-seeking males from different nations. What respondents have in common is a comparable and long journey – in most of the cases through the Sahara-desert – into Libya and sequentially up to Italy by boat. During the way, as results show, the frequency of traumatic events increases dramatically. Additionally, type II traumata have been reported more frequently than those of type I. Therefore, it could be concluded, compared to stressors acting as stimuli for the flight, the peri-migration itself bears a wide range of often severe traumatic exposure and therefore its prior role in the onset of PTSD symptoms needs to be highlighted. Following the premises of the dose-response model, the outcome in the sample corresponds to a 60% provisional diagnosis of PTSD according to DSM-5 (American Psychiatric Association, 2013a).

In spite of the fact that many authors recognize the flight experience as an important factor regarding the clinical picture of PTSD (Betancourt et al., 2012; Böttche et al., 2016; Carta et al., 2015; George, 2012; Murray et al., 2010; Ryan et al., 2008), to the authors knowledge, no research has been carried out to examine this specific time-interval in all its facets and literature has fallen short of detailed and valid explanations of an apparently well-known matter.

As research ascertained: “PTSD is the end result of a complex process reinforced by stresses of passage to a new life” (Beiser et al., 2011, p.339). Inasmuch as traumatic events are a significant factor regarding the mental health of refugees and migrants, and therefore a predictor for long-term mental health outcomes with disturbances still present years later (Lie, 2002), appropriate instruments need to be developed to assess the criterion A of DSM-5 adequately. “As long as PTSD is conceptualized as a stress-response syndrome, the stressor will need to be incorporated somehow in the diagnostic criteria” (Weathers & Keane, 2007b, p. 917).

Due to the small sample size in this research, other research needs to be carried out assessing the criterion A and its outcomes in larger samples and with different methodological approach. Nature, frequency and duration of stressor events, their mental health impact on this specific sub-group of refugees and migrants as well as their interconnection needs to be confirmed in further investigations in order to allow for generalization of the various findings throughout this research.

Strengths and Limitations

In the present research, the focus shifted from poor mental health of migrants and refugees to the potential cause of it: the adversity of external influences.

The time-consuming procedure of recruitment, contingent on a high diffidence of potential participants, in association with a complex methodological approach as well as low English and Italian language proficiency of migrants and refugees limited the available sample size. The refusal rate, reasoned by approached potential respondents mostly with trusting issues, was 79%. Additionally, it was possible to conduct the research by the mere fact that the author established relatively long and effective collaboration with various refugee-camps as institutions don't allow the entrance of people not being inherent to the centers.

By cause of the relatively small sample size, the representativeness of the recruited sample is unclear. The findings, at this point, can be designated only as indicative for the group of migrants and refugees coming to Italy by boat and limit generalization. Nonetheless, the reported high number of different traumatic stressors in addition to their elevated occurrence along the way up to Europe, in conformity with aforementioned data and reports from UNHCR, Amnesty International, International Organization for Migration and other valid institutions, confirm the high risk of the peri-migration interval on mental health of refugees and migrants. Besides, with an increase in occurrence of categories in qualitative approach, their importance has to be isolated (Mayring, 2015). Furthermore, as asylum seekers are granted asylum in relation to adverse conditions in their home countries, the articulation of comparatively much more frequent traumatic episodes during the flight-period enhances the assumption of authenticity.

Additionally, the emergence of a high prevalence rate of PTSD among this sample is in line with other research investigating the mental health of the refugee- and migrant population (see section PTSD under the heading “Discussion”). According to Fazel (2005), at least several tens of thousands of current refugees in Western countries show a diagnosis of PTSD (p. 1313). Nonetheless, the high rate of PTSD among this sample could be still underestimated according to studies which suggest a higher risk of psychopathology for nonparticipants (Beiser et al., 2011, p.339), as well as by the cause of general optimism after as positive perceived events (Nickerson et al., 2014) as the reaching of Europe can be designated.

Altogether, the qualitative approach reveals to be useful in approaching traumatic experiences of the asylum-seeking population and the individual reports demonstrate a contextualized and culturally embedded understanding of personal experienced events among this subpopulation. This goes in line findings from other studies (Goodman, 2004).

Limitations of the study include the fact that only male subjects participated and therefore results may be others for female respondents. Furthermore, comorbid disorders as well as somatization, an important point among the refugee population, especially from the African continent (Aragona, Rovetta, Pucci, Spoto, & Villa, 2012; Rasmussen, Smith, & Keller, 2007; Silove et al., 2007) has not been assessed. Additionally, socio-economic and other potentially influencing aspects have not been considered in the investigations but may account for and be related partially with the results regarding PTSD. Also, the presence of

PTSD symptoms was assessed with a self-report instrument and is therefore not tantamount to a valid clinical diagnosis.

Besides, not the lifetime-history of traumatic events has been focused on but a specific period of time, namely sequence 1 up to the arrival in Italy. However, a study regarding the West-Nile populations – Ugandan, Sudanese and Sudanese refugees with a total of $N = 3,323$ – showed the recent witnessing of a stressor event to be the most relevant predictor for the onset of PTSD (Karunakara et al., 2004).

Moreover, it has not been stabilized which specific stressor event directly caused PTSD and therefore the attribution of causal determinants cannot be stabilized. Even so, according to literature following the dose-response model, in nonwestern populations exposed to conflict situations PTSD is associated with the number of lifetime traumatic events and not explicitly to one specific traumatic experience (De Jong et al., 2001; Karunakara et al., 2004).

Further, the application of instruments valid and reliable in Western countries may not be adequate among a culturally highly different subpopulation. Per contra, trauma-related conditions were found among the Mandinka-tribe, a tribe inherent to eight of the respondents of the sample examined in the present research paper. Symptoms in line with the clinical picture of PTSD as flashbacks, nightmares, hypervigilance, exaggerated startle response, sleep disturbance, rapid heart rate, trembling, easily angered and dissociation as well as the avoidance of stimuli related to the trauma were found among Mandinka respondents likewise and evidently related to exposure of traumatic events (Fox, 2003). Therefore, the absence of a cultural “label” – in this case the one inherent to Western countries – to identify the suffering may result in the neglect of their [Western African population] needs (Steel et al., 2009, p.362). However, more research regarding posttraumatic stress disorder among Africans is needed (Rasmussen et al., 2007).

A further outstanding point is the validity of retrospective and subjective narrations: “Inaccuracy in recall— particularly for distant events—might affect responses to inquiries about previous potentially traumatic events” (Silove et al., 2014, p. 297). On the other side, research demonstrated traumatic experiences to show an enhanced integration in one’s memory and accurate recall is therefore not hindered (Berntsen & Rubin, 2007).

Moreover, what could have been influencing the narratives of respondents are the factors “guilt” and “shame.” Not only are feelings of guilt and shame to be found among the screening for the fulfilling of criteria for PTSD in DSM-5 (Weathers, Litz, et al., 2013), but a study conducted in 2015 found a significant association of guilt and shame with the number

of traumatic events subjects have been exposed to. Intensity, duration and frequency of shame episodes have been found to be strongly related to the reported number of traumatic events of refugees ($r = .46, p < .008$) and displayed the higher number of traumatic events as a significant predictor of high levels of feelings of shame. (Stotz et al., 2015, p.4).

Finally, it has to be mentioned that, although a distinction between sequence 1 and sequence 2 has been made, at the time when the study was carried out, sequence 2 has not yet been terminated following the theory of Keilson (1979) as none of the respondents has been granted asylum to this point.

In conclusion, the here presented group appears to be highly vulnerable due to high frequency and extended duration of traumatic exposure. Under the premise of representativeness of this sample, further investigations are needed with the result that valid and reliable measurements can be taken for this high risk group. That is, if the following conclusions are reliable, the group of migrants and refugees of which the sample takes part of, need adequate interventions and preventive arrangements already prior – especially from the political side – and upon their arrival: “ With the number of traumatic event types ranging from 23% in respondents who reported three or fewer traumatizing experiences to 100% prevalence of PTSD in those who report 28 or more traumatic event types in their past,” (Neuner et al., 2004, p.4) and therefore: “We conclude that there is no ultimate resilience to traumatic stress and that the repeated occurrence of traumatic stress has a cumulative damaging effect on the mental health of the victim” (Neuner et al., 2004, p.6).

In consequence, damage containment when symptoms of disorders already appear is unrewarding especially due to the fact not infrequently the onset of symptoms among refugees and migrants appear after the termination of sequence 2. The flight presents difficult challenges and it is therefore vital to be physically and psychically stable. Recovery or psychological stabilization is, in consequence, impeded (Birck, 2004; Schweitzer et al., 2006; Goodman, 2004) and starts, if appropriate measures are taken, when migrants and refugees reach the shores of Europe. With numbers of migrants and refugees reaching Europe as high as listed in the introduction of this paper, appropriate research, assessment and intervention are urgently needed.

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Appendix C

Interview Guideline

Opening questions	Check: has that been mentioned?	Concrete questions	Upkeeping and guidance-questions
Start: questions preparing for the topic: friends from the same country... → “Could you tell me, in your own words, the story of when you left (home country)? There is no wrong or right answer. Just tell me in your own words and in the most comfortable way to you.”	Events leading to flight Say farewell to family/friends Difficulties leaving the home country Treatment in... Conditions in...	Would you like to tell me what happened so that you had to leave...? How did you manage to...? Do you remember when you left...? Did you have the chance to say farewell to your family? Did you encounter any difficulties when leaving...?	Non-verbal upkeeping Could you tell me some more about it? And then? What happened next? Could you describe...to me? Could you explain that to me so that I can understand the situation/event when....? Could you provide an example? What did you experience there? What have you seen in...?
How did your journey proceed after leaving...? Could you tell me something about your situation on the way and how all of it proceeded?	Harsh conditions and difficulties while crossing border Harsh conditions and difficulties in... Events happening in/to... Crossing conditions and events when crossing the desert Daily life in Libya Conditions and events in connection house Conditions, difficulties and events when crossing the sea	Which was the first country you entered after leaving...? Did you encounter any difficulties entering/passing through...? How long have you been there? How did they treat you/other people with you in...? Can you describe how daily life in...was? How was a typical day in...? Have you seen that? Did this happen to a family member/friend? Did this happen to you? How did you manage to...? How many people have been in...with you?	Could you tell me some more about it? And then? What happened next? Could you describe...to me? Could you explain that to me so that I can understand the situation/event when....? Could you provide an example? What did you experience there? What have you seen in...?

We now talked about
your way from...up to
Italy. Did we forget to
talk about something
that you would like to tell
me?

Is there something else
that you would like to tell
me?
Is there anything else
that I should know about
your journey?

*Appendix D***Abstract**

Posttraumatic stress disorder (PTSD) is one of the most frequently observed negative mental health outcomes in refugees and migrants. Many influences leading to the disorder have been examined. However, little is known about traumatic experiences occurring during the flight-period of the aforementioned group reaching Europe by boat, as psychological research focuses primarily on traumatic events pertaining to the home countries of respondents.

The central objective of this thesis is to isolate and examine the nature and frequency of traumatic experiences germane to the peri-migration interval as well as linking them, conclusively, to the appearance of PTSD symptoms.

Qualitative interviews with 15 male asylum seekers, residing in Southern Italy, were conducted to abstract the exposure to traumatic events during their escape. Respondents were screened with the PCL-5 to assess the symptoms of PTSD. The interconnection of outcomes was theoretically examined referring to relevant literature.

Results show a high exposure to frequently occurring traumatic events during peri-migration interval (44 different categories with a number of occurrence of 115) and an elevated PTSD provisional diagnosis of 60%. Analyses indicate the peri-migration interval may have a significant influence on PTSD prevalence rates among the here investigated subpopulation. As discussed in the research, the lack of consideration of the peri-flight influence may lead to biases in PTSD diagnosis.

To establish representativeness of the observed results and to substantiate the explorative obtained outcomes, further research is needed.

*Appendix E***Abstract**

Die psychische Gesundheit von MigrantInnen und Flüchtlingen wurde in vergangenen Jahren vielfach untersucht. Vor allem das Störungsbild der Posttraumatischen Belastungsstörung (PTBS) war Untersuchungsgegenstand einer Reihe von Studien. Demzufolge wurden auch Auslösefaktoren der PTBS ergründet und analysiert – meist in Verbindung mit dem Heimatland der jeweiligen (Sub-) Population. Eine adäquate Analyse und Registrierung von traumatischen Ereignissen in ihrer Auftretenswahrscheinlichkeit während des Fluchtprozesses derjenigen MigrantInnen und Flüchtlinge, die Europa mit dem Boot erreichen, wurde bisher hingegen nicht vorgenommen.

Das Ziel dieser Studie ist demzufolge die Dokumentation von Art und Häufigkeit traumatischer Erlebnisse im Rahmen der Flucht der genannten Sub-population und ihre Verbindung zum Störungsbild der PTBS.

Realisiert wurde das Forschungsziel mithilfe der Durchführung von qualitativen Interviews und anschließender Inhaltsanalyse sowie der Erfassung von PTBS-Symptomen bei 15 männlichen Interviewpartnern, die Italien mit dem Boot erreicht hatten. In einem dritten Schritt wurden die Resultate schließlich unter Einbeziehung fachrelevanter Literatur in Zusammenhang gesetzt.

Die Ergebnisse zeigen sowohl ein erhöhtes Auftreten von traumatischen Ereignissen während des Fluchtprozesses (insgesamt 44 verschiedene Kategorien deren Vorkommnis insgesamt 115 berichtet wurde) sowie eine provisorische Diagnose der PTBS bei 60% aller Interviewpartner. Demzufolge scheint der Fluchtprozess im untersuchten Sample einen maßgebenden Einflussfaktor auf die PTBS-Auftretensrate darzustellen. Eine insuffiziente Analyse und Berücksichtigung traumatischer Erlebnisse hinsichtlich des Fluchtweges kann entsprechend zu Versäumnissen in PTBS-Diagnosen und entsprechenden Forschungsfeldern führen.

Um Repräsentation der Untersuchungsergebnisse sowie deren Validität zu gewährleisten sind weitere Studien mit größerer Stichprobenanzahl sowie differierende methodische Herangehensweisen indiziert.

Appendix F

PCL 5

PCL 5

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