1-1-2012

# Narrative exposure therapy to treat traumatic stress in middle eastern refugees: a clinical trial

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# NARRATIVE EXPOSURE THERAPY TO TREAT TRAUMATIC STRESS IN MIDDLE EASTERN REFUGEES: A CLINICAL TRIAL

by

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**DISSERTATION**

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

**DOCTOR OF PHILOSOPHY**

2012

MAJOR: PSYCHOLOGY (Clinical)

Approved By:

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Advisor Date

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## ACKNOWLEDGEMENTS

I would like to thank my advisor, Mark Lumley, Ph.D. for his unwavering belief in me, his support of my ambition, and for all his dedicated guidance and mentoring throughout the past 6 years. I truly feel fortunate to have had him as my mentor. I would like to thank Ms. Cheryl Madeja, who was of great assistance in helping me recruit participants through the Chaldean American Ladies of Charity. I will always be grateful for the assistance of Dr. Luay Haddad, Suzanne Manji, and Wiam Yousif at the Arab American Chaldean Council for their unwavering support and help with recruitment. I am thankful for Brett Ankawi, whom I completely trusted with my data, and who was very diligent, reliable and gracious about assisting me with my files and data. A special thank you to Maisa Ziadni, who bravely plunged into my dissertation in her first year of graduate school, recruited and ran many of our participants, and whom without, I would not have been able to complete my project in time. I am also grateful for my father and mother, who instilled in me the importance of education and an expectation of perseverance throughout my childhood. Finally, this dissertation is a tribute to my grandmother, who passed away last November, and who was forever a model of a strong, ambitious, and spirited woman.

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# Chapter 1

## INTRODUCTION

In 2007, the United Nations Higher Commission for Refugees estimated that there were16 million refugees worldwide, 26 million internally displaced persons, and 12 million stateless persons (United Nations High Commissioner for Refugees, 2007). According to the United Nations Geneva Convention Relating to the Status of Refugees, refugees are persons who fled their countries of origin due to "a well founded fear of being persecuted for reasons for race, religion, nationality, or membership in a particular social group or political opinion" (Fagen, 1990, p. 8).

Refugees represent a distinct subgroup that is particularly vulnerable to physical and mental problems due to a variety of risk factors. One way to understand the multiple difficulties and stressors associated with the refugee experience is to break down their journey into stages each characterized by its unique set of stressors. One such model (Dejarlais, Eisenberg, & Kleinman, 1996) outlines four stages. The first stage, *preflight*, is when refugees witness violence, political and social upheaval, loss of property, loss of loved ones to displacement or death, and physical or emotional torture (Mollica, Wyshak, & Lavelle, 1987). During the *flight* stage, refugees may have a difficult escape, a perilous journey to the host country, and possible separation from family members. Stressors associated with the *reception* phase, when refugees await a resolution of their situation, often include uncertainty over the future, poor living conditions, and possible re-exposure to violence. Finally, the *resettlement* stage often involves stressors related to adjustment in the new country, culture shock, negotiating new family roles, and exposure to discrimination and prejudice.

The cumulative nature of refugees' stressors and trauma often places them at an increased risk for psychological problems, especially depression, post traumatic stress disorder, and other anxiety disorders (Keys, 2000; Fazel, Wheeler & Danesh, 2005). However, data about refugee mental health is often conflicting and widely divergent due to different instruments and methods, challenges with translation, and cultural differences between assessors and participants (De Vries &Van Heck, 1994; Westermeyer & Janca, 1997). Estimates of depression range between 3% and 80%, whereas estimates of PTSD range from 3% to 86% (Fazel et al., 2005, Keys, 2000). A recent meta-analysis of mental health outcomes among populations exposed to mass conflict and displacement (Lindert, Ehrenstein, Priebe, Mielk, & Brahler, 2009) found that the weighted prevalence rate across studies was 30.6% for PTSD and 30.8% for depression. Similarly, most community studies of PTSD (e.g., de Jong et al., 2001;Karunakara et al.,2004, Scholte et al., 2004) estimate the point prevalence is between 15% and 50% in countries such as Afghanistan, Sudan, and Rwanda, even 8 years post-conflict (Pham, Weinstein, & Longman, 2004). Thus, even when considering the lowest probable estimates, mental health problems, particularly depression and PTSD, are very important considerations in understanding the refugee experience.

Moreover, regardless of the estimate, studies indicate that refugees often experience multiple symptoms and high rates of comorbidity, probably as a result of the multiple and cumulative traumas they experience. As such, there is often an exceptionally high pattern of comorbidity between depression and PTSD. For example, Fazel et al.'s (2005) metanalysis found that 71% of individuals with major depressive disorder also had PTSD and 44% of individuals with PTSD also had major depressive disorder. Studies find that comorbidity between depression

and PTSD may be a more important predictor of disability than the presence of PTSD alone (e.g. Mollica et al., 2001; Momartin, Silove, Manicavasagar & Steel, 2003).

In addition to the high prevalence of PTSD and depression, many refugees have high rates of physical complaints including dental, nutritional, and infectious illnesses (Gavagan, & Brodyaga, 1998). Keyes (2000) conducted a review of research with refugees, with countries of origin ranging from South East Asia to Europe to the Middle East and New Zealand. She found that refugees across those varying cultures indicated physical symptoms such as sleep difficulties and headaches as primary complaints associated with depression and PTSD.

These data are about refugee populations in general, typically aggregated from studies with refugees from various regional conflicts. Moreover, most studies investigating specific refugee groups have focused on refugees from the Balkans and South East Asia, and far fewer studies have investigated Arabic speaking refugees, despite the recent increase in their numbers and the fact that Arabic culture may be very different from those cultures. At the same time, the adaptation and mental health of Arab refugees, the majority of whom are Muslim, may be further complicated by the presence of anti-Arab or anti-Muslim attitudes in Western countries of resettlement. Thus, it may be helpful to review data specifically about Arab refugees. However, because there are no studies describing Arabic refugees in general, and most studies break them down by country of origin such as Iraq or Palestine, data about Iraqi refugees will be examined for the purpose of this study.

There are a handful of studies investigating psychological and physical morbidity among Iraqi refugees, many of whom became refugees before the 2003 war. For example, a retrospective study (Jamil et al., 2002) investigated the medical records of 156 Iraqi refugees arriving in the 1990's after the Persian Gulf War. The study found that the Iraqi refugee

subgroup had more health problems than another Arab subgroup in the study. Moreover, PTSD was found to be a primary diagnosis in 30% of the Iraqi sample compared to 4.5% in the other Arab sample.

Another study (Jamil, Nassar-McMillan, & Lambert, 2007) investigating three waves of Iraqi immigration to the U.S., found that 12% of the participants from post-1990 group (most likely refugees following the war) had PTSD, in contrast to 3% from the 1980-1990 group, and 0% from the pre-1980 group. Similarly, 65% of participants meeting criteria for depression were from the 1990 group, compared to 20% and 16% in the other two groups. These data suggest that fleeing the Persian Gulf War represented a discrete risk factor that placed those fleeing at significantly higher risk for mental health problems.

A community study explored the mental health of 294 Iraqi asylum seekers in the Netherlands (Laban, Gernaat, Komproe, Schreuders, & de Jong, 2004). Results suggested that the overall prevalence of psychiatric disorders was 54%, whereas depression rates ranged between 43% and 25%, PTSD rates ranged between 31% and 41%, and anxiety rates ranged between 14% and 30% depending on the length of the asylum-seeking period.

In a study with 105 male Iraqi refugees (Takeda, 2000), three-quarters of the sample scored above the criterion on a depression measure, and their scores were significantly higher than other immigrant groups. Yet another study with 241 Arabic speaking Mandaean (a pre-Christian minority in Iran and Iraq) found that rates of PTSD ranged between 9% and 50%, depression rates ranged between 18% and 50%, and mental health related disability ranged between 25% and 50% depending on temporary versus permanent residency status(Steel et al., 2006).

A more recent study of Iraqi refugees (Kira et al., 2007), found that 14% of the sample met full criteria for PTSD, and that cumulative trauma resulting from exposure to multiple traumatic events was a significant predictor of neurological, circulatory, endocrine, and musculoskeletal disorders.

Al Obaidi and Atallah (2009) conducted psychosocial surveys with Iraqi refugees in Egypt. The study reported that 59% of the participants endorsed suffering from psychological symptoms, most notably depression and anxiety. About half of those endorsing symptoms reported that their symptoms started in Iraq, while the other half reported that they started in Egypt.

An important consideration when discussing mental health of Arab refugees is the cultural tendency to express psychological distress thorough somatic complaints, possibly due to the shame and stigma associated with endorsing mental distress (Nassar-Mcmillan & Hakim-Larson, 2003). For example, in their discussion of studies with civilian victims of Middle Eastern conflicts, Shoeb, Weinstein, and Mollica (2007) found that the majority of participants across Lebanon, Palestine, and Iraq endorsed distinct somatization reactions.

Jamil et al. (2005) conducted a study of medical complaints among Iraqi American refugees who were seeking or already receiving mental health services and found very high rates of somatic complaints. For example, 86% of the sample complained of irregular sleep, nearly 70% complained of lower back pain, and about 60% complained of chronic headaches, and 50% complained of frequent stomach aches.

*A Closer Look at Trauma and PTSD*

The DSM-IV (American Psychiatric Association, 1994) defines a traumatic event as an event that involves the actual or threatened death or serious injury, or a threat to the physical

integrity of self or others. For a diagnosis of post traumatic stress disorder to occur, the response of the person must have involved an alarm response that includes fear, horror, or helplessness. The person must also display the three hallmarks clusters of PTSD symptoms.

The first cluster involves *reexperiencing* symptoms, which include:

- Recurrent and intrusive distressing recollections of the event, including images, thoughts or perceptions.
- Recurrent distressing dreams of the event
- Acting or feeling as if the event was occurring, which can occur in the form of illusions, hallucinations, or dissociative flashback episodes.
- Intense psychological distress and/or physiological reactivity at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

The second cluster of symptoms relates to *avoidance* of stimuli associated with the trauma, which include:

- Efforts to avoid thoughts, feelings, or conversations associated with the trauma
- Efforts to avoid activities, places, or people that arouse recollections of the trauma
- Inability to recall an important aspect of the trauma
- Markedly diminished interest or participation in significant activities
- Feeling of detachment or estrangement from others
- Restricted range of affect
- Sense of foreshortened future

The third cluster is *hyperarousal* symptoms, which include:

- Difficulty falling or staying asleep
- Irritability or outbursts of anger
- Difficulty concentrating
- Hypervigilance
- Exaggerated startled response

*Complex PTSD*

A major debate in the field of trauma is about simple trauma versus complex trauma. For example, Hermann (1992) distinguishes between the classical diagnosis of PTSD that more neatly describes circumscribed traumatic events (e.g., a car accident) and the more complicated

symptom picture of individuals who survive repeated prolonged traumatic experiences (e.g., domestic abuse, prisoner of war). Hermann argues that individuals who suffered repeated prolonged trauma develop symptoms beyond the more "simple" PTSD symptoms to include deeper characterological changes that frequently affect their identity, affect regulation, system of meaning, and the way they relate to others.

Kira et al. (2006) argue that refugees are a population for whom the prevalent PTSD models fail to account for the multifaceted consequences of their cumulative traumas. They explain that in addition to experiencing *repeated* traumas like other populations discussed in complex trauma models (e.g., domestic violence victims), refugees often experience *different* types of traumas. As such, Kira proposes that a cumulative trauma model considers type, severity, duration, and accumulation of traumas when working with refugees.

*Psychological Models of PTSD*

*The Behavioral Model*

The behavioral model conceptualizes PTSD in terms of an association through classical conditioning between the precipitating trauma and the subsequent fear symptoms. According to this model, the original trauma (unconditioned stimulus) precipitates a natural fear and arousal reaction (unconditioned response). Eventually, various internal and external cues associated with the original trauma (conditioned stimulus) will come to precipitate the same fear response that occurred during the original trauma (conditioned response).

The resistance of PTSD symptoms to habituation or spontaneous extinction has been explained in light of Mowrer's two factor model (Boudewyns, 1996; Mowrer, 1960). According to this model, "simple" or classic conditioning explains why there is an aversive emotional arousal experience to cues associated with the trauma (e.g., sounds of gunshot). Operant

conditioning (specifically, negative reinforcement) explains the avoidance of these cues. Traumatized individuals learn that they can further minimize their distress by avoiding a wider array of internal and external cues associated with the trauma (e.g., memory of the event). The reward of minimizing distress through avoidance serves to maintain the behavior, prevent it from extinction, and expand the avoidance behaviors to more cues.

*A Behavioral-Information Processing Model*

Alternatively, PTSD symptoms can be conceptualized as a disruption in neurobiological processes that is behaviorally reflected in impaired stimulus discrimination (van der Kolk, 1996). According to this model, the trauma impairs a person's ability to focus on appropriate fear stimuli and ignore other innocuous stimuli, as well as his or her ability to inhibit responses and actions when stimulated (loss of impulse control). Because they are constantly "on guard for the return of the trauma" (van der Kolk, Van Der Hart, & Marmar, 1996, p. 305), traumatized individuals narrow their attention onto sources of potential threat, and then have difficulty attending to other neutral or pleasant stimuli (van der Kolk et al., 1996).

*The Cognitive Model*

Cognitive psychology postulates that our core beliefs about ourselves and the world are organized into knowledge structures called schemata, which allow us to make sense of our emotional experiences and prevent us from being overwhelmed (Epstein, 1991; Foa, Rothbaum, & Steketee, 1993). By helping us integrate new information into existing structures, our schemata balance between allowing us to be flexible to changing realities while safeguarding our core perspectives and values (Shalev, Bonne, & Eth, 1996). Yet, information from a traumatic event is often so out of the ordinary, shocking and terrifying that it is difficult to accommodate and assimilate it into pre-existing schema.

Individuals often experience intense distress and negative emotions such as shock, loss, and anger when their core schemas about themselves and the world are challenged by discrepant information (e.g., Epstein, 1990; Wilson, 1989). Moreover, people's inability to incorporate trauma information into their preexisting schema often means that they generalize information from their traumatic incident into a new schema that holds maladaptive beliefs, such as appraisal of the world as a dangerous place, or of the self as helpless and vulnerable (Shalev et al., 1996). Furthermore, intrusive thoughts and memories may occur due to "incomplete assimilation of trauma-related information into preexisting schemata or from incomplete accommodating of the preexisting schemata to the new information" (Lepore, 1997, p.1031). Successful integration of this information into a more coherent whole thus requires exposure to traumatic stimuli such as memories. Yet, traumatized individuals' reluctance to think and talk about the trauma due to its painful nature perpetuates the cycle of distress, as it may impede assimilation, prolong intrusions, or even prompt new intrusions (Gold & Wegner, 1995).

*Psychodynamic Models*

Psychodynamic models of trauma can be highly varied and complicated. Yet, at their base, most of them conceptualize PTSD symptoms as not having worked through the trauma sufficiently or having been unable to integrate the traumatic experience into the self (Horowitz, 1974). The traumatic experience and the difficulty in working through it create a "traumatized self", characterized by collapse of structure and altered rules of mental functioning that impair self healing (Benyakar, Kutz, Dasberg, & Stern, 1989; Shalev et al., 1996). The dysfunctional system is then reflected in the person's alternation between phases of denial and intrusive symptoms. Denial, avoidance and emotional numbing represent defensive overcontrol, which

when overwhelmed, results in intrusive thoughts, flashbacks or nightmares, or undercontrol (Horowitz, 1974**).**

Lansky (2000) also explains that trauma results in a "fragile, fragmentation-prone posttraumatic state," and that the tendency of traumatized individuals to dwell on details and memories of the trauma represents an avoidance of confronting their disorganization, fear of dependency, and the ensuing shame. He adds that this post traumatic state must be considered in the context of the individual's history and preexisting patterns, as the traumatic state and the associated PTSD symptoms reactivate this history. Lansky also notes that the trauma disrupts people's connection to their social order, which places them at risk for disorganization and accompanying shame, which in turn causes them to constrict and withdraw from social participation.

To summarize, most of the psychological approaches to PTSD have many elements in common. Most of them see traumatic reactions as stemming from some type of inability to integrate the traumatic experience into the self, whether by unlearning the fear in the behavioral model, or by not integrating it pre-existing schemata in the cognitive models, or by not fully understanding how it alters the self and views of the world in the psychodynamic model. Moreover, most models attribute at least some of the PTSD symptoms to faulty affect regulation, whether by over-responding to stimuli in the behavioral model, or having emotional reactions to distorted thoughts and appraisals in the cognitive model, or by a problem with the "apparatus" of the self and with function of the defenses in the dynamic model. Moreover, these three models see avoidance of talking thinking about trauma related stimuli as a central factor inhibiting recovery as it prevents habituation of the fear response, integrating it into schemas and perceptions, or being able to work through it.

*Possible Mechanisms Underlying PTSD Symptoms*

*The Role of the Fear Network*

Foa and Kozak (1991) propose the existence of a fear network in memory that includes three types of information; information about the feared stimulus, information about verbal, physiological, and behavioral responses to the stimulus, and information about the meaning of the various elements in the network. Pathological fear, as in the case of PTSD, stems from a pathological fear network that involves faulty associations between various elements in the network and faulty interpretive information, which then gives rise to excessive response elements, such as escape, avoidance, and physiological activation.

What makes the fear network particularly prone to "misfiring" or excessive responding is that there are an unusually large number of fear structures encoded during a traumatic event (Schauer, Neuner, & Elbert, 2005). Moreover, these structures span several modalities, such as emotions, physical sensations, visual images, and sound. The large number and variety of fear elements makes it more likely that the network will be easily activated, as there are many stimuli in the environment that will be sufficiently similar to one of these elements and can therefore act as triggering cues.

Another unique factor about the fear network is that when fear structures are encoded during a traumatic event, the interconnections between different elements of the structures (e.g., sight and smell) are unusually strong, where exposure to one type of stimulus (e.g., a certain sound) can activate the entire network (Schauer et al., 2005). The activation of the network, in turn, triggers the associated emotional, physiological, and behavioral responses.

Many of the symptoms of PTSD can therefore be explained by the nature of the fear network. For example, the traumatized individual is constantly *hyperaroused* and vigilant for the

numerous internal and external stimuli reminiscent of the trauma that trigger the network and cause a fear response. Once these stimuli are encountered and the fear network activated, intrusive traumatic memories, flashbacks, or *re-experiencing* are also likely to occur. In turn, efforts are made to *avoid* any internal or external stimuli that trigger the network and cause painful re-experiencing. Moreover, because any physiological arousal has the potential to trigger the fear network and its painful sequelae, the traumatized individual may come to avoid any emotions—both positive and negative—and essentially "shuts down" and becomes emotionally numb (Litz & Keane, 1989; Schauer et al., 2005).

*The Nature of Traumatic Memories*

It is helpful to make a distinction between "cold" and "hot" memories in the context of discussing traumatic memories. Cold memories are part of a system that contextualizes information about one's life (Conway & Pleydell-Pearce 2000). It includes three levels of information; a first level that describes "life time periods", or discrete phases of someone's life. The second level organizes information about "general events", single or repeated, (e.g., drive to work). The third and least easily accessible level organizes contextual information about "specific life events" (e.g., funeral). Specific event memories are connected to sensory and perceptual information or "hot memories" (Schauer et al., 2005) as discussed below.

In contrast to the contextualized, autobiographical, and verbal nature of "cold" memories, "hot" memories form an intertwined system of sensory, physiological and motor response, as well as cognitive and emotional perceptions. "Hot" memories also seem to be more influenced by input from the limbic system, which regulates emotions, than "cold" memories.

There is increasing evidence that traumatic memories may be encoded differently than memories of ordinary events. Traumatic memories are created during states of intense emotional

valence and acute physiological arousal, which makes them more strongly "laid down" and more readily accessed in subsequent states of high physiological arousal (van der Kolk, 1996). Moreover, traumatic memories, at least initially, are constituted of sensory and perceptual information (e.g. sounds, smells) organized at a non-verbal perceptual level with no linguistic components (Schauer et al., 2005; van der Kolk, 1996). The non verbal, perceptual nature of traumatic memories makes them more prone to fragmentation and disorganization. For example, van der Kolk (1996) explains that "memories of the trauma tend, at least initially, to be experienced as fragments of the sensory components of the event; as visual images; olfactory, auditory, or kinesthetic sensations, or intense waves of feeling" that traumatized patients feel represent elements of the original trauma(p. 287). He explains that many traumatized patients initially seem unable to put their traumatic experiences into words, or to construct a narrative or a story of what happened to them, but instead "remember" the trauma as somatosensory flashbacks. In fact, the lack of contextual autobiographical information within which to embed the traumatic memory and the fragmented nature of the traumatic memory itself may help explain why trauma narratives are often disorganized, fragmented, and incoherent

Furthermore, as discussed in the section about fear networks, the number of fear structures in the network is large, and the interconnections between individual fear elements from various modalities (e.g., visual and auditory) are exceptionally strong. Hence, trauma related memories embedded in the network are easily triggered by a multitude of internal and external cues, where the activation of one or a few elements is enough to trigger the whole network. This activation of the network is thought to cause the subjective experience of intrusive flashbacks, where traumatized patients feel as if they are reliving the trauma with all its sights, sounds, feelings, and thoughts (Schauer et al., 2005).

## *Psychological Treatments for PTSD*

### *Behavioral Interventions*

Behavioral treatments aim at inhibiting the fear response through habituation and eventual extinction (Foa & Kozack, 1991). This process takes place through exposure to trauma related stimuli, which activates the fear network and associated memories. However, exposure to trauma related stimuli in a safe environment also allows for the integration of corrective information that is incompatible with the original faulty associations between various internal and external cues and the fear response. By continually exposing the person to fearful stimuli, along with incompatible information, the maladaptive associations between the stimulus (fearful memories) and response (PTSD symptoms) are gradually weakened, and the fear and emotional arousal habituate, thus reducing symptoms.

Exposure to fearful stimuli can include external trauma related cues, or internal ones such as thinking or talking about the trauma. Exposure can be gradual such as in systematic desensitization or more intense as in flooding, where the person is exposed to their most feared stimuli at once. Exposure can also be in vivo, which involves exposing the person to feared situation in real life (e.g., scene of a rape) or imaginal, where the person imagines being in the feared situation or is exposed to fearful memories.

### *Cognitive Treatment*

Attributions are people's way of making meaning of their experiences and the world around them and understanding the reasons behind things that happen to them. However, when attributions and other beliefs and assumptions are distorted, they can result in a dysfunctional thought system that contributes to depression, anxiety, and PTSD symptoms (Foa, Rothbaum, Riggs, & Murdock, 1991**;** Foa, Steketee, & Rothbaum, 1989). Cognitive therapy hence focuses

on helping people identify their dysfunctional beliefs about themselves and the world, as well as their appraisal and attributions of the traumatic event. Once these distorted or maladaptive beliefs are identified, they are gradually modified and replaced them with more reality based interpretations and attribution of why the traumatic event happened. Therapy also helps traumatized individuals not generalize a distorted or negative set of appraisals about the trauma to their whole life, and assists them in rebuilding their sense of safety and self worth (Shalev et al., 1995)

Trauma focused cognitive behavioral therapies are often "packages" that combine several elements. Many include prolonged exposure to mental images, memories and other stimuli associated with the trauma combined with some type of skills trainings. Some of these skills include relaxation and breathing techniques, anxiety management techniques, and stress inoculation training. Trauma focused CBT also focuses on identifying and modifying distorted and maladaptive beliefs about the self or the traumatic event (Rothbaum & Foa, 1996).

*Psychodynamic Interventions*

The main goal of psychodynamic treatment is to help the traumatized individual understand the traumatic event and integrate it through "therapeutic reexperiencing in a safe environment" (Horowitz, 1974). One way to do this is to help people develop insight about the meaning of the traumatic event for them and understand the conscious and unconscious meanings and functions of the trauma related symptoms. By gaining insight about the meaning of their symptoms, they can build mastery of the trauma and their inner experiences and restore functioning. Also, in psychodynamic treatment, the therapist awards particular attention to how the traumatic event is superimposed on someone's personal history and pre-existing coping and

defensive strategies. Another main task of therapy is for the therapist to build a strong alliance with the client within which issues of transference and counter transference can be explored.

*Efficacy of Psychological Treatments for PTSD*

Several reviews and meta-analyses exploring the efficacy of various psychological treatments for PTSD have been conducted in last two decades. Shalev et al. (1996) reviewed biological and psychological approaches including behavioral, cognitive behavioral, psychodynamic, as well as others such as group and hypnotherapy. Most studies of behavioral therapies including imaginal or live flooding and systematic desensitization were effective in reducing symptoms. However, in a few studies, all of which were conducted with Vietnam or Israeli Lebanon war veterans, treatment caused an increase in symptoms (Hyer, Woods, Bruno, Boudewyns, 1989; Pitman et al., 1991; Solomon et al., 1992). The handful of cognitive therapy studies reviewed resulted in decreases in PTSD symptoms that were maintained at several months follow-ups. The review also included a handful of psychodynamic therapy studies, many of which were also found to be effective in reducing symptoms. In addition, the reviewers found that symptoms of depression, anxiety, and detachment generally improved more than intrusiveness and avoidance.

Sherman (1998) conducted a meta-analysis of 17 studies of psychological intervention for PTSD with a comparison group. With the exception of one psychodynamic study, and a few lesser known treatments, most of the treatments were behavioral or cognitive behavioral, and all but two of all had exposure components. The average effect sizes in the study were d= 0.54, with similar effect sizes for periods of follow-up ranging between 3 months and 2 years. The treatments had effect sizes between 0.55 and 0.79 for the three clusters of PTSD symptoms, as

well as for depression and anxiety, suggesting moderate clinical improvements across various symptoms.

A more recent meta-analysis by Bradley, Greene, Russ, Dutra and Westen (2005) reviewed 26 studies between 1980 and 2003. Nineteen of the studies involved some form of behavior/exposure therapy, cognitive behavior therapy, EMDR, or a combination of the above. The overall effect sizes ranged between 0.83 and 1.43, depending on the design and type of control used, and 67% of patients who completed treatment no longer met criteria for PTSD. There were no effect sizes reported for therapy modalities not in the cognitive behavioral family.

A more recent meta-analysis conducted by Bisson et al. (2007) investigated 38 randomized trials for *chronic* PTSD. Trauma-focused cognitive behavioral therapy showed clinically significant improvement compared to waitlist or usual care on all measures of PTSD symptoms, and some evidence of clinically significant improvement for anxiety and depression. Other therapies (supportive/nondirective, hypnotherapy, and psychodynamic therapy) did not demonstrate clinically significant effects on PTSD symptoms; however, there was a very limited number of studies investigating these modalities.

The above reviews suggest several conclusions. Thus far, exposure-based therapies and trauma focused cognitive behavioral therapies have the strongest support for efficacy in reducing PTSD and other symptoms. Yet, the various treatment modalities most commonly used with PTSD have many common elements. McFarlane (1994) notes that all treatments seek to help the individual reduce cognitive, behavioral, and affective avoidance of internal and external cues associated with the trauma. All treatments seek to help the individual develop a more realistic appraisal of the traumatic event and their current safety. All treatments seek to help people make meaning of their traumatic experience, integrate it into their life and gain a sense of mastery over

the distressing symptoms. In other words, all therapies somehow embody Horowitz's (1974) conceptualization of trauma therapy as helping the person work through the trauma through gradual re-exposure and re-experiencing of it in a safe therapeutic environment. Hence, although exposure based treatments may be the most represented in reviews of the literature on controlled studies due to their sheer number, one must not ignore that other treatment modalities may have similar active therapeutic mechanisms.

There are also several limitations to the current literature. First, broad conclusions about the particular effectiveness of exposure based therapies to the potential exclusion of other therapies must be tempered with recognizing that most other modalities are heavily under-represented in reviews of the literature (possibly because they are less frequently examined in the context of randomized controlled trials). Another limitation of the literature is that few of the studies have been conducted on individuals who have experienced multiple and severe traumatic events, whether in the context of war or other organized violence. When such studies have been conducted, treatment of combat related PTSD demonstrated the lowest effect sizes compared to other populations (Bradley et al., 2005) and in some cases worsening and deterioration of symptoms. It is unclear why this is the case, but it is possible that this population is more difficult to treat and is set apart by the multiplicity and severity of traumatic events experienced in a war context (Silove, 1999).

One explanation could be that interventions often limit desensitization to a single traumatic event. In fact, a study investigated physiological response to mental imagery of the trauma before and after exposure and found that the desensitization to one set of imagery from the event does not generalize to other traumatic images or incidents provoked by the same event (Shalev, Orr, & Pitman, 1992). These findings suggest that usefulness of exposure therapy in

treating prolonged and cumulative trauma must be further examined. Also, despite the overall efficacy of exposure therapy in reducing symptoms, conclusions from the several studies with veterans that indicated deterioration in functioning must be carefully considered.

Finally, this review of the literature highlights how very few of these studies were conducted with victims of organized violence in general and refugees in particular, which is a notable shortcoming, because refugees as a population are highly vulnerable to trauma and PTSD and have unique needs.

Research about trauma interventions with refugees is still nascent, but has especially grown over the past 4 years. There are 5 reviews to date of psychological interventions with refugees. One of the reviews is about the effectiveness of Narrative Exposure Therapy (NET) with several sub-groups of survivors of organized violence, including refugees, and this form of therapy, which is the focus of this dissertation, is reviewed in the section below (Robjant & Fazel, 2010).

An earlier review by Nicholl and Thompson (2004) found only 10 studies specifically exploring the topic, which included some medical studies, a few controlled randomized trials, and mostly qualitative and anecdotal sources. Also, these studies often had vague descriptions of treatment modalities. For example, one uncontrolled study (Brune et al., 2002) found that a therapy consisting of various medical and psychosocial interventions helped reduce distress in a sample of refugees. Another uncontrolled study (Weine, Duzbur Kulnovic, Pavkovic, & Gibbons, 1998) found that Bosnian survivors of state sponsored violence who engaged in testimony therapy (involves detailed narration and documentation of life story) demonstrated improvement on measures of PTSD, depression, and global functioning. Finally, Paunovic and Ost (2001) randomized refugees into either an exposure only group or to a cognitive behavior

therapy group that included both exposure and cognitive restructuring. Both groups demonstrated equivalent improvement on measures of PTSD symptoms, anxiety, depression, and quality of life.

Since the above review, there have been additional studies investigating the effectiveness of psychological and other interventions in treating PTSD among refugees and asylum seekers, and three additional reviews have been published. Crumlish and O'Rourke (2010) conducted a systematic review of randomized controlled clinical trials of interventions for PTSD among refugees and asylum seekers. Two of these trials included medications as one of the interventions, one included exposure therapy, four included trauma focused cognitive behavioral therapy or general CBT, and five were of Narrative Exposure Therapy. The authors also reviewed the quality of the randomized trials using the Moncrieff scale. Based on the evidence from the trials and the ratings of their quality, the authors argued that to date, NET had the strongest evidence, with "cautious support" for trauma focused CBT in refugee samples.

Another review by Palic and Elkilt (2011) used broader criteria to include any studies of psychological interventions that at least used a pre-post design. Twenty five studies were reviewed, most of which included some form of cognitive behavioral, trauma focused cognitive behavioral, or exposure therapies, as well as Narrative Exposure Therapy. Other types of interventions included were multi-disciplinary interventions -which often incorporated some form of psychotherapy and psychoactive medication-, music therapy, psychodynamic psychotherapy, and thought field therapy (acupuncture, chiropractics and psychotherapy). The authors argue that CBT (including NET) demonstrate large effect sizes, notably on PTSD as an outcome. However, because it is proposed that reactions to trauma may include symptoms that expand beyond the diagnostic symptoms of PTSD, more research is needed to investigate the

effectiveness of these interventions in more complex presentations. The authors also conclude that non CBT studies were less methodologically rigorous and fewer in number, which precludes firm conclusions about their effectiveness.

Yet another review by Nickerson, Bryant, Silove, and Steel (2011) proposes that psychological interventions for refugees can often be divided into trauma focused and multimodal interventions. The review includes 19 studies for both types of interventions. Most of the trauma focused ones were included in the above reviews. Multimodal interventions include general resettlement assistance, advocacy, acculturation assistance, referrals to language and medical services, and psychological interventions that often are not trauma focused per se, but may include supportive psychotherapies and present focused interventions. The authors argue that despite the complicated situation of refugees, which often includes numerous psycho-social stressors, the few multimodal intervention studies conducted and reviewed have not demonstrated substantial reductions in PTSD and other mental health symptoms. However, the authors point out that no randomized studies were conducted with these types of interventions, making it difficult to ascertain the reasons for their lack of effectiveness.

*Narrative Exposure Therapy*

Narrative Exposure Therapy (NET) is a promising new intervention developed specifically for traumatic stress disorders after war, terror, torture or other forms of organized violence (Schauer et al., 2005). The therapy is originally designed as a manualized short-term to intervention to meet pressing mental health needs of victims in emergency situations, such as refugee camps. Given the limited resources in refugee camps and other emergency situations, the therapy was also designed to be easily learned and delivered by lay staff without extensive training. Moreover, given that many cultures value the oral tradition and history telling, the

"narrative" nature of this therapy is likely to be adaptable and palatable to patients from many cultures.

Narrative Exposure Therapy (NET) was developed as a fusion between traditional cognitive and behavioral methods (see above) and testimony therapy, which involves survivors of organized violence constructing detailed narratives of their story and experiences (Neuner, Schauer, Elbert, & Roth, 2002; Neuner et al., 2004). The unique combination of exposure to traumatic cues within the context of a life time narrative integrates and embeds the traumatic experience into an organized autobiographical context. As such, the theory of NET is developed and informed by the theoretical understanding of the role of fear networks in and the nature of traumatic memories.

In fact, research suggests that patients most likely to benefit from exposure are those who are able to synthesize organized, coherent narratives of their traumatic experiences (Foa, Molnar, & Cashman, 1995), suggesting that habituation of the fear response and constructing a meaningful narrative may be equally important and complementary healing factors. Moreover some researchers propose that inhibiting the fear response and reducing PTSD symptoms requires a process that is more evaluative and complex than the simple habituation thought to occur in traditional exposure. In such a process, the automatic fear response is tempered by evaluating information about the current situation to assess its level of threat (LeDoux, 2000). This process is thought to incorporate traumatic memories, as memories about past events often provide context for evaluating current situations. Yet, the distorted and fragmented nature of traumatic memories, may interfere with the evaluative process and hence with the inhibition of the fear response (Brewin, 2001; Schauer, 2005 manual). As such, targeting traumatic memories

and seeking to organize them into a consistent narrative facilitates the process of exposure, which in turn aids in further processing of the traumatic memories.

*How does Narrative Exposure Therapy Work?*

Traditional exposure generally focuses on the worst traumatic event the person has experienced; however, most refugees (and other victims of organized violence) have likely experienced multiple traumas and it may be impossible to identify a single worst event. Hence, instead of asking the person to identify a single event, individuals construct an entire chronological narration of their life, from birth to present, in which they contextualize details of their traumatic experiences.

As patients narrate their life story, traumatic memories and the associated fear networks are triggered. A main focus of NET is to aid the patient in constructing new declarative autobiographical memories about the trauma (cold memories) as the hot memories are activated. During this process, the patient works through the physical sensations, thoughts and emotions (hot memories) embedded in the network and labels and places the fragments until they are able to create an autobiographical representation of the traumatic event (cold memory) that fits within the larger narrative of their whole life. As autobiographical memories infuse more contextual information into the "hot" sensory memories in the fear network, the network gradually "cools down", there is a gradual habituation of the emotional response to the traumatic memory, and the PTSD symptoms attenuate.

This process of cooling down or habituation of the fear network can happen in several ways. For example, the fragmented and disorganized narration of traumatic memories by patients usually impairs their ability to see the continuity between their various life experiences and the contexts in which they occur (Ehlers & Clark, 2000). Talking about the traumatic events in

context of their life narrative helps them integrate their psychophysiological and somatosensory experiences and responses into the time and space context in which they occurred. Anchoring the traumatic memory to a specific time and space in turn helps reduce perceptions of current threat, as it helps them understand the original conditions under which they acquired the fear response, how it continues to occur in their current life (Robjant et al., 2010), and the internal and external cues that trigger it.

Ultimately, the person is able to weave the fragments of their story into a "cool-system framework" which enables them to regulate the triggers associated with the "hot" emotional memories (Schauer et al., 2005). van der Kolk et al. (1996) eloquently summarized the process by explaining that "one of the reasons why reliving a trauma in nightmares and flashbacks is not an effective means of memory processing is that some fragments of the event remain dissociated from other elements of what has to become an integrated, semantically represented, autobiographical memory"( p. 322).

Another advantage of Narrative Exposure Therapy is that the process of constructing a narrative allows the people to feel that they have been accompanied through the re-experiencing, narration and documentation of their traumatic experiences, where the therapist acts as an audience and witness to the ordeals of the patient (Neuner et al. 2002; Schauer et al. 2005). Finally, the element of feeling that one is narrating his or her story perhaps as a way of testifying to injustice and possibly to submit to human rights organizations may restore an element of the person's dignity and feelings of instrumentality in his or her life.

*Research Support for Narrative Exposure Therapy*

Robjant and Fazel (2010) conducted a recent review of Narrative Exposure Therapy with different sub-groups of survivors of organized violence, including refugees. They reviewed

evidence from16 trials, both published and unpublished (6 of them with adolescents and children) that lend support to the effectiveness of Narrative Exposure Therapy. These trials have been conducted in a variety of contexts, ranging from refugee settlements in low income developing countries, to Western repatriating countries. All the trials demonstrate significant reduction in PTSD symptoms for participants in the NET groups. Moreover, dropout rates have been consistently low. Trials also indicate that NET is helpful in alleviating symptoms in chronic PTSD as well as with recent onset PTSD. Finally, lay counselors from refugee camps, who were frequently refugees themselves, were able to effectively disseminate the treatment with only 6 weeks of training. The effectiveness of NET across a variety of settings, locations, and type of provider attests to its promise as a culturally adaptable and effective treatment for various types and severities of trauma and stress reactions. The next section will sample some of the key studies supporting the effectiveness of NET.

Neuner et al. (2004) conducted the first trial of NET with refugees. The sample included 43 Sudanese refugees living in a Ugandan settlement who were diagnosed with PTSD. Participants were randomized to receive 4 sessions of NET, 4 sessions of supportive counseling (SC), or 1 session of psychoeducation. Supportive counseling focused on problem solving and enhancing personal and social resources. None of the 16 NET patients dropped out, whereas 2 of the 14 patients in SC dropped out. At post treatment, NET had a larger effect size than SC. In the year following treatment, 93% of participants had experienced at least one additional traumatic event. Yet, only 29% of NET participants still met criteria for PTSD, compared with 79% and 80% of the supportive and psychoeducation groups, respectively. Moreover, there was some evidence that NET participants had improved living and social skills than the other two groups, as they were more likely to find jobs, or move away to safer locations. These findings suggest

that even in the volatile context of a refugee settlement, where refugees are exposed to new traumas, and where other "immediate" needs may also be lacking, a brief psychological intervention may bring about significant relief.

In another study, Neuner et al. (2008) investigated whether trained lay counselors in a refugee camp can effectively disseminate trauma related treatment to traumatized refugees in the camp. They randomized 277 Ugandan and Somalian refugees diagnosed with PTSD into one of three groups, NET, flexible trauma counseling, and a no treatment monitoring group. The flexible trauma counseling was model of therapy that allowed counselors trained in NET to conduct therapy based on intuition without strictly following the manual. The counselors for both groups were themselves refugees from the camp, and approximately half met criteria for PTSD and were treated with NET as part of their training. The two trauma treatment groups did not differ from each other and were superior to the no treatment group in reducing PTSD symptoms and physical health problems. At a 9-month follow-up, 37% of the no treatment group no longer met PTSD criteria, in contrast to 65% and 70% for the flexible trauma and NET treatment groups, respectively. Moreover, at 6-month follow-up, participants in both treatment groups had reduced physical symptoms, whereas participants in the no treatment group had increased physical symptoms. Finally, only 4% of participants in NET dropped out, in contrast to 21% in the flexible counseling condition. These findings indicate that NET and trauma counseling in general are effective in reducing distress and PTSD symptoms in a sample of African refugees, and that trained lay counselors in refugee camps can be a valuable resource in making treatment more widely available.

Another trial (Schaal, Elbert, & Neuner, 2009) randomized Rwandan orphans (age range 14-29, mean 19.4) who were diagnosed with PTSD into either 4 sessions of NET or a group

adaptation of interpersonal therapy. For those in the NET group, PTSD rates dropped from 58% at 3-month follow-up to 25% at 6-month follow-up. In contrast, 71% of the participants in the IPT group continued to meet criteria for PTSD at both time points.

Although originally developed in the context of refugee settlements, NET is being more widely investigated in Western and higher income countries. Refugees seeking asylum in Western countries may also face their own sets of challenges such as uncertainty regarding their legal status, possible discrimination, struggles with acculturation, loss of social status and support networks, and language barriers. Four trials have been conducted with NET in high income European countries (Robjant et al., 2010).

The first trial of NET in a Western country was conducted by Neuner et al. (2009) in a German outpatient clinic. The investigators randomized 32 asylum seekers with PTSD and a history of organized violence into NET or treatment as usual (TAU, included medications in half of the cases and psychotherapy in the other half). NET patients showed a significantly greater reduction in PTSD symptoms (63%) than TAU patients (19%). Moreover, only 2 (out of 16) NET patients compared to 8 (out of 16) TAU patients showed worsening of symptoms.

A smaller study from a larger trial (Halvorsen & Stenmark, 2010) investigated the effectiveness of NET in a sample of tortured refugees and asylum seekers in Norway. Torture survivors (n=16), mainly from Iraq, were treated with ten sessions of NET. There was a significant reduction in PTSD symptoms from pretreatment to post-treatment. The PTSD scores also decreased significantly between post treatment and 6-month follow-up. Finally, between 45% and 65% of participants no longer met criteria for PTSD at follow-up.

Another trial of NET, which included investigators from the original NET developer and research group, was also conducted in Germany (Hensel-Dittmann et al., 2011). The study

randomized 28 patients who experienced war and torture, most of whom were asylum seekers, into a group that received 10 sessions of NET or 10 sessions of Stress Inoculation Training (SIT). NET, but not SIT, resulted in significant decreases in PTSD symptoms between baseline and 6-month and 1-year follow-up. However, NET had no effect on depression and other co-morbid conditions.

Another trial of NET similarly included investigators from the original NET developer and research group and was conducted in Germany (Adenauer et al., 2011). This trial randomized 34 refugees into a NET or waitlist control group. Participants who received the 12 sessions of NET demonstrated significant decreases in PTSD and depression at 4-month follow-up compared to the waitlist control group. Moreover, NET participants evidenced increased parietal and occipital activity in response to threatening pictures. This suggests "increased cortical top-down regulation of attention towards aversive pictures. The increase of attention allocation to potential threat cues might allow treated patients to re-appraise the actual danger of the current situation and, thereby, reducing PTSD symptoms." (p. 127).

In essence, studies have demonstrated the effectiveness of NET in reducing PTSD symptoms to remission, as well as effectively reducing other symptoms such as depression and physical complaints. NET has also demonstrated effectiveness across a variety of cultural groups, resettlement countries and contexts, and severity/chronicity of PTSD symptoms. Furthermore, the benefits from NET are frequently sustained up to 6 months of assessment, and in some cases in spite of repeated traumatization. Finally, some trials have demonstrated the superiority of NET to other established psychological treatment approaches (Robjant et al., 2010).

These reviews are promising because they suggest that Western based psychological interventions, including NET, are helpful in providing relief to non western refugees. Yet, they also demonstrated how knowledge about appropriate treatments for PTSD among refugees is still growing and at times suffers from methodological problems. Moreover, very few of these studies were conducted in the US or with Arabic speaking refugees. Thus, there is a continued need for developing and adapting effective treatments for refugees and other survivors of organized violence from different cultures who have likely experienced multiple traumas.

*Goals of This Study*

This study seeks to further our knowledge of psychological treatments for PTSD and comorbid conditions that may be adaptable and effective when implemented with refugee samples. This study seeks to address some of the limitations in the refugee literature in general and the NET literature specifically by utilizing a randomized controlled trial design with a larger sample size to evaluate the effectiveness of NET in a sample of Arabic speaking, mostly Iraqi, refugees, who have come to the Metro Detroit area. This is to date also the first study of NET to be conducted in the U.S.

The current study recruited Arabic speaking refugee participants from the community and randomized them into an experimental group that received three sessions of NET or into a wait-list control group. Both groups completed baseline assessments of their trauma history and symptoms, depression, sleep quality, physical health problems, overall wellbeing, post traumatic growth, and various indices of daily functioning. They were re-assessed at 2-month and at 4-month follow-up to report their symptom levels. Results from the two groups were compared with each other.

*Hypotheses*

It was hypothesized that the group receiving three sessions of NET will demonstrate significantly more improvement in their functioning and post-traumatic growth at the 2-month and 4-month follow-ups compared to the waitlist, no treatment control group.

# CHAPTER 2

# METHODS

*Participants*

Participants were 53 Arabic speaking refugees, above the age of 18, who endorsed having experienced one or more traumatic events and being bothered by emotional and physical symptoms related to the trauma on a screening survey or phone screening. See Table 1 for a sample of the traumatic events that the participants experienced. Refugees who had a current psychotic disorder, active homicidal intent, dementia, or mental retardation, as evident during baseline assessment were excluded. The sample included 26 men (49.1%) and 27 women (50.9%), and had a mean age of 48.4 years (SD = 8.5). Although all participants originated from Iraq, they differed in terms of ethno-religious background, with 75.5% identifying as Chaldean Catholic, 9.4% as Muslim Arab, and 15.1% as Mandean (a Gnostic religious minority from Iraq). Most of the participants (92.5%) fled to a temporary host country before being resettled to the U.S., with 53% having fled to Syria, 18.4% to Jordan, 16.3% to Turkey, and the rest to other countries including Lebanon, Bahrain, Egypt, Saudi Arabia, and Slovakia. Participants had spent a mean of 2.4 years in the U.S. (SD = 2.4). Regarding educational level, 24.5% of participants had completed primary school, 49.1% completed secondary school (includes either or both middle and high school), and 14% had completed anything beyond secondary school. Most of the participants were married (73.6%), 11.3% were single, 9.4% were widowed, and 5.7% were divorced.

Table 1. Traumatic Events Experienced: Full Sample ($N$ = 53), Narrative Exposure Therapy Group ($n$ = 35) and Waitlist Control Group ($n$ = 18) as Endorsed on the Harvard Trauma Questionnaire

| Type of Traumatic Event | | Full Sample ($N$ = 53) | Narrative Exposure Therapy ($n$ = 35) | Waitlist Control ($n$ = 18) |
|---|---|---|---|---|
| Oppressed because of race, ethnicity or religion | $N$ (%) | 49 (92.5) | 34 (97.1) | 15 (83.3) |
| Exposed to combat situation (explosion, mines, shelling) | $N$ (%) | 48 (90.6) | 32 (91.4) | 16 (88.9) |
| Witnessed the destruction of religious shrines | $N$ (%) | 38 (71.7) | 28 (80) | 10 (55.6) |
| Witnessed murder | $N$ (%) | 37 (69.8) | 28 (80) | 9 (50) |
| Property looted, confiscated or destroyed | $N$ (%) | 33 (62.3) | 21 (60) | 12 (66.7) |
| Witnessed someone being physically harmed | $N$ (%) | 33 (62.3) | 23 (65.7) | 10 (55.6) |
| Murder or violent death of family or friends | $N$ (%) | 32 (60.4) | 22 (62.9) | 10 (55.6) |
| Witnessed rotten corpses | $N$ (%) | 31 (58.5) | 22 (62.9) | 9 (50) |
| Kidnapping of family or friends | $N$ (%) | 29 (54.7) | 19 (54.3) | 10 (55.6) |
| Witnessed torture | $N$ (%) | 24 (45.3) | 16 (45.7) | 8 (44) |
| Witnessed arrest, torture or execution of religious leaders | $N$ (%) | 23 (43.4) | 13 (37.1) | 10 (55.6) |
| Physically harmed | $N$ (%) | 21 (39.6) | 13 (37.1) | 8 (44.4) |
| Imprisoned arbitrarily | $N$ (%) | 16 (30.2) | 12 (34.3) | 4 (22.2) |
| Tortured | $N$ (%) | 15 (28.3) | 8 (22.9) | 7 (38.9) |
| Witnessed mass execution of civilians | $N$ (%) | 15 (28.3) | 12 (34.3) | 3 (16.7) |
| Kidnapped | $N$ (%) | 14 (26.4) | 9 (25.7) | 5 (27.8) |
| Serious physical injury from combat situation/mine | $N$ (%) | 13 (24.5) | 8 (22.9) | 5 (27.8) |
| Taken as a hostage | $N$ (%) | 10 (18.9) | 7 (20) | 3 (16.7) |
| Sexually abused or raped | $N$ (%) | 4 (7.5) | 3 (8.6) | 1 (5.6) |

*Procedure*

The study was approved by the Wayne State University Human Investigation Committee, using both English and Arabic versions of the consent form and measures. The trial was registered with clinicaltrials.gov (NCT01288690), and recruitment was initiated in October 2010, and continued through November 2011; follow-up was completed in March, 2012.

Recruitment and screening of the participants occurred through four sites: The Arab Center for Economic and Social Services (ACCESS), the Chaldean American Ladies of Charity (CALC), the Arab American Chaldean Council, and Lutheran Services. We also recruited by posting flyers at community venues.

The ACCESS organization provides all newly arrived Middle Eastern refugees with their initial health screening and services. Initially, it was planned that as part of their routine medical check-up, the ACCESS medical providers would determine if the refugee meets eligibility for the study and be provided more information. However, this plan did not materialize, and ACCESS staff referred very few participants to the study. In the case of these participants, ACCESS staff provided the participants with information about the study and obtained their permission to provide the research team with their contact information. There was another later attempt at recruitment through ACCESS where the research assistant would meet with newly arrived refugees awaiting their initial medical screening, describe the study to them, and briefly screen them for eligibility criteria. However, almost none of the participants met eligibility criteria at that point.

The CALC agency administered demographic and psychosocial surveys to Iraqi refugees in the area as part of a larger mental health needs assessment. The survey asked respondents to provide contact information if they were interested in learning more about research

opportunities. The screening survey included a subset of items that assessed trauma exposure and post traumatic stress symptoms from the Harvard Trauma Questionnaire (Mollica, McDonald, Massagli & Silove, 2004). CALC shared with the research team the surveys and contact information of respondents who stated on the survey that they wanted to learn about available research studies. Additionally, CALC had two large mailings of flyers advertising social services to immigrants and refugees. The research team attached recruitment flyers to these mailings that advertised the study and provided their contact information. In this case, interested participants called the research team, and were screened for the study on the phone.

The Arab American Chaldean Council operates a Trauma Recovery Center that provides psychosocial services to refugees who have experienced trauma, torture, and other human rights abuses. The team at ACC provided information about the study to their clients, obtained their permission to give their contact information to the study team, and the study team subsequently contacted them.

The research team also provided brief presentations about the study and distributed flyers at English as Second Language Classes provided through Lutheran Services. Relatively unsuccessful strategies included leaving study flyers at local churches and grocery stores and giving brief presentations about the study at local community events.

The research assistants were two Arabic-speaking doctoral students in clinical psychology, who were supervised by a licensed clinical psychologist. The research assistants conducted the recruitment, the phone screening, the baseline session, the three therapy sessions, and managed the follow-up process. The research assistants telephoned or returned the phone calls of any interested participants. They provided more details about the study and conducted a brief phone interview to determine eligibility criteria. Potential participants were asked if they

were exposed to a violent or traumatic event related to being a refugee, to the war, or to sectarian strife, and were given examples of such events. If participants endorsed such an event, they were asked to briefly indicate what it was, and were then asked if they continue to be "haunted" by this event, if they repeatedly think about it, feel that they can't overcome it, and if they would like to talk about it with someone. Participants were disqualified from the study if they were unable to pinpoint a single traumatic event that continued to bother them or if they identified an event but reported that it no longer bothers them or results in emotional symptoms. If participants were eligible, the assistants scheduled an initial meeting with the participants at the participants' choice of location at ACCESS, CALC, the participant's home, or a library conference room, which ensured the presence of a private room. Most of the participants elected to be seen in their home. During the initial visit, the study was explained in full, questions answered, and written informed consent obtained.

Participants who consented completed the baseline assessment measures, which included measures of trauma symptoms, depression, physical symptoms, post-traumatic growth, quality of life, sleep, and daily functioning. This process took about 45 minutes. Although all but one participant were literate, the research assistants often read the questions to the participants at their request, which appeared to expedite the baseline assessment process as well. The participants were then dismissed, and they were called a few days later by a research assistant to affirm their interest in continuing the study. If the participant remained interested, the researcher consulted the randomization scheme to determine if the participant is in the waitlist control or experimental group.

The randomization scheme was constructed by a team member not involved with recruiting or running participants using a computer randomization website (randomization.com)

prior to the start of recruitment. Randomization occurred in a 2:1 (treatment: control) ratio and was stratified by blocks of 6. This randomization ratio was utilized to ensure a sufficiently large sample size in the experimental group for subsequent analyses of predictors. Undergraduate research assistants made envelopes that included a randomization number and a slip of paper with the corresponding experimental or control condition as per the original randomization scheme. Randomization was also stratified by recruitment site, where series of 6 consecutive numbers were used as needed according to the number of participants from the site. The randomization scheme was concealed from the research assistants until they were on the phone with the participant and consulted the randomization scheme to determine if the participant was in the waitlist control or experimental group.

Participants who were in the waitlist control group completed follow-up questionnaires (the same measures as at baseline) at 2 months and 4 months after baseline, and they were offered the treatment at the end of the study (after the 4-month follow-up assessment). The post-treatment and follow-up measures were mailed to the participants in self-addressed, stamped envelopes at 2 months and 4 months from baseline, and participants mailed them back. Participants were given a reminder phone call if the follow-up measures were not received within 2 weeks.

For participants who were assigned to the experimental group, the research assistant and participant met for three therapy sessions at 1-week intervals. These 60-90 minute sessions also took place in the participant's home, ACCESS, CALC, or a neutral site that ensured the presence of a private room. Therapists followed a structured, published manual on Narrative Exposure Therapy (Schauer et al., 2005), which essentially asked participants to tell and re-tell their story about the traumatic events, elaborating it each time by integrating it into their life story and

reflecting on their emotions, thoughts, and sensory experiences (more detailed description below). The post-treatment and follow-up measures were mailed to the participants in self-addressed and self-stamped envelopes at 2 months and 4 months from baseline, and these were mailed back.

Participants in both groups received a gift of $35 after finishing the first set of questionnaires (baseline), $20 for the second set of questionnaires, and $20 for the third set of questionnaires.

*Treatment: Narrative Exposure Therapy*

This is a standardized short-term psychological intervention developed by a European team of researchers and service providers with expertise in the fields of psychotraumatology, public health, behavioral neuroscience, and human rights advocacy (Schauer et al., 2005). It was developed with the purpose of alleviating PTSD and other psychological symptoms in survivors of organized violence and is anchored in traditional trauma focused cognitive behavior therapy as well as testimony therapy. NET involves having the patients repeatedly talk about their traumatic events and process their emotional reactions. As the patients continue to process the trauma and their reactions to it, they are also better able to weave a coherent narrative about what happened to them. The process of re-experiencing and constructing a narrative eventually leads to the gradual habituation of the emotional response in most patients, which leads to a reduction of symptoms.

The treatment manual does not specify a certain number of sessions, and the literature suggests that anywhere between four and 10 sessions can be effective in reducing distress. Due to limited financial resources and availability of Arabic speaking therapists who could provide the treatment, and in light of the expressive writing literature which generally utilizes three

sessions of about 20 minutes (Frattaroli, 2006), this study was constituted of three, 60-90 minute sessions organized as follows.

*First Session*

The first session included psycho-education, normalization of the patient's experience, and explanation of the mechanism of the therapeutic procedure. Psycho-education included explaining to the patient various normal and common reactions to trauma, the nature of PTSD, and reasons behind the symptoms. The therapist then explained the process of therapy and what is expected of that patient. This part also prepared the patients for the high fear and arousal they might experience during the process.

Following the educational part, the therapist and the patient prepared to construct the narrative. The therapist started by asking the patient about their family background and how they grew up. In addition to describing facts, the patient was also encouraged to engage in emotional processing of positive as well as negative events growing up. In practice, time often did not permit at length processing of positive events, and participants often shared one or two positive anecdotes or memories from their childhood. This process took about 30 minutes, which then left time to discuss the first traumatic event in the first session.

The following section outlines the steps of exposure and narration of the traumatic event that took place throughout the sessions.

- Recognizing the traumatic event and cuing the patient to it. This was often signaled by more fragmented and incoherent thoughts and descriptions and observable changes in the patient (e.g., physiological activation, avoidance behavior).

- Discussing the context of the traumatic event, particularly the period just before it occurred, to help the patient anchor it within the context of their greater life story. It was important to establish the time and setting of the event, the location where it occurred and what the person was doing, and how/when the traumatic experience actually began.
- Narrating in slow motion. This process involved asking the patient to imagine the beginning of the incident, focus on their perceptions during the incident (e.g., sensory experiences, thoughts, actions, smells), process their emotional reactions, and put the traumatic incident in the context of the rest of that day. Throughout this process, the therapist assisted the patient in putting these memory fragments into words. The process often unfolded as follows: narrating-re-experiencing trauma in greater depth-labeling in more detail-integrating details into the narrative again- further narrating-continuing the sequence.
    - Activating "hot" memories: the therapist used several strategies such as asking direct questions about the patient's sensory, cognitive, and emotional experiences during the trauma and giving feedback about therapists' observations of patient's reactions and responses while narrating.
- Habituation: Exposing the patient to the painful emotional experiences of the trauma expectedly resulted in a peak of fear and arousal. Every effort was made to discontinue the session only once this distress somewhat abated. The manual originally specifies that sessions should continue until habituation has occurred, as interrupting a session before habituation has occurred may actually exacerbate

symptoms. Thus, the length of the time during which the patient activates hot memories and processes emotional experiences must be long enough for habituation to occur. Generally, at least 45 minutes were allotted to narrate and expose a patient to a traumatic event.

- Ending a session: The therapist brought closure to a session by demarcating a clear ending to the traumatic event that was processed, which was most easily done by discussing the event that occurred immediately after the trauma. The patient discussed the time period following the event in detail to help contextualize the trauma in that particular day and into the overall life story. The therapist also assessed the patient's arousal and ascertained that it has decreased and the patient was more relaxed. Participants often reported feeling less distressed, but also more fatigued or exhausted.
- The therapist processed with the participant any reactions to the exposure, inquired about their physical and emotional state and helped them anticipate any adverse reactions they might expect over the following week, such as irritability, increased dreaming about the trauma, etc.
- The therapist held a note pad and wrote the spoken narrative of the patient (in Arabic) throughout the session. However, the therapist paused during the exposure segments to ensure full engagement and support of the patient as they processed painful trauma information. The therapist then typed up what was written in session and brought it with her to the next session.

*The Second Session*

- The therapist started by asking the participant about how they have felt over the past week, and about any reactions they had to the last session. The therapist normalized reactions.
- The therapist read the patient's written narration at the beginning of the session as the slow reading of the document facilitates further emotional exposure and processing. The patient was again asked to imagine and relive the traumatic incidents, which provided an opportunity for correcting and detailing the narrative. The therapist also asked the patient how their perceptions have changed as they were talking about the trauma again to help him/her increase awareness of affective and cognitive changes.
- Once the patient and therapist reached the end of the document, the patient was encouraged to move along the autobiography and continue to process and narrate subsequent life stages and events, where it was often the case that another traumatic event arose. The process of reading-integrating additional detail- and rereading the narrative was completed with as many traumatic events as time permitted and embedded in correct chronological order within the greater life story.
- As with the first session, the therapist processed with the participant any reactions to the exposure, inquired about their physical and emotional state, and helped them anticipate any adverse reactions they might expect over the following week.
- The therapist held a note pad and wrote the spoken narrative of the patient (in Arabic) throughout the session. However, the therapist paused during the exposure segments to ensure full engagement and support of the patient as they

processed painful trauma information. The therapist then added the narrative of that session to the one from the first and brought it with her to the next session.

*Third Session*

- As with the second session, the therapist started by asking the participant about how they have felt over the past week, and about any reactions they had to the last session. The therapist normalized reactions.
- Also as with the second session, the therapist read the patient's written narration at the beginning of the session as the slow reading of the document facilitates further emotional exposure and processing. The patient was again asked to imagine and relive the traumatic incidents. The therapist also asked the patient how their perceptions have changed as they were talking about the trauma again to help him/her increase awareness of affective and cognitive changes.
- The original protocol specified that a narrative should be constructed of the participant's life from birth to present day. This was often not feasible, and narration of the participant's life often stopped either at their flight to the temporary settlement country (e.g., Syria) or to the beginning of their journey to the U.S.
- However, in the third session, the therapist and participant spent some time discussing the future. The therapist helped the participant explore and discuss fears, hopes, goals, and expectations for living and for the future.
- The therapist gave the participant a copy of their narrative.
- The therapist then processed any reactions the participant had either to that session or to the treatment as a whole, as well as any feelings about termination.

- The original protocol specified that the therapist must ensure that closure has occurred, and that the narrative of the trauma no longer triggers intense emotional arousal in the patient. However, this often did not occur, and participants still appeared to show some distress, albeit significantly less than at baseline, to the traumatic events.

*Outcome Measures*

*Exposure to traumatic events and post traumatic stress symptoms* was assessed using parts of an Arabic adaptation of the Harvard Trauma Questionnaire (Shoeb, Weinstein & Mollica, 2007). The original Harvard Trauma Questionnaire (Mollica, McDonald, Massagli & Silove, 2004) was designed to measure exposure to torture and other organized violence and to assess trauma and other symptoms based on DSM-IV criteria. The original instrument is widely used among refugee populations from various cultures (e.g., Cambodian, Laotian, Vietnamese). The Arabic adaptation was conducted with 60 Iraqi refugees in the Metro Detroit area. This adaptation, as well as the original and other language adaptations includes four parts: A) exposure to traumatic events; B) personal description of events; C) brain injury incidents; and D) post traumatic symptoms. Part A includes 42 traumatic incidents often reported by Iraqi refugees, which are endorsed as "yes" or "no." Part B includes a qualitative personal description of the original traumatic event and its context and experience of current stressors. Part C includes six incidents that may have led to brain injury, and assesses loss of consciousness. Part D includes 45 items about PTSD symptoms and other culturally relevant psychological complaints that are scored on a 4-point system with 1 being "not at all", 2 being "a little", 3 being "quite a bit", and 4 being "extremely". (Although not used in this study, the instrument also includes an optional 35-item torture checklist based on Iraqi experiences endorsed as "yes" or "no.") In this

study, Part A was used at baseline to obtain information about the type and extent of trauma exposure that the participants survived. Part D, the PTSD symptoms portion of the scale, was used in this study as the primary outcome, at baseline and at both follow-up points. In this study, Part D demonstrated excellent reliability at baseline (Cronbach's alpha = .92), 2-month follow-up (Cronbach's alpha = .97), and 4-month follow-up (Cronbach's alpha = .97).

*Depression* symptoms were assessed using an Arabic adaptation of the Beck Depression Inventory-II (translation by Ghareeb, 2000). The BDI-II is a 21-item scale that assesses the severity of depression symptoms over a 2-week period on a 4-point scale ranging from 0 to 3 (Beck, Steer & Brown, 1996). The Beck-II has been validated with various adult populations and demonstrates excellent test-retest reliability, high internal consistency, and moderate to high convergent validity (Dozois, Dobson & Ahnberg, 1998). The Arabic version was translated by an Egyptian psychologist and is widely used in Arab countries. The Arabic Beck-II demonstrated excellent internal validity with alphas ranging between .82 and .93 in samples of male and female college students across 18 Arabic countries (Alansari, 2006). The scale demonstrated good reliability at baseline (Cronbach's alpha = .86) and excellent reliability at the 2-month follow-up (Cronbach's alpha = .92), and 4-month follow-up (Cronbach's alpha = .89).

*Psychological Wellbeing* was measured using the World Health Organization's Wellbeing Index (WHO-5; Bech, 1998). This scale assesses markers of mental wellbeing such as positive mood, vitality, and interest, instead of symptoms. The 5-item scale covers a 2-week period with response options ranging from "all the time" to "at no time." The internal consistency of the WHO-5 ranges between .82 and .95 (Bech, Olsen, Kjoller, & Rasmussen, 2003). The WHO-5 also demonstrates moderate to high inverse correlations with measures of depression, which provides evidence for discriminant validity (Lowe, 2004). TheWHO-5 has

been translated into more than 28 languages, including Arabic. The scale demonstrated good reliability at baseline (Cronbach's alpha = .88) and excellent reliability at the 2-month follow-up (Cronbach's alpha = .95), and the 4-month follow-up (Cronbach's alpha = .94).

*Post-Traumatic Growth* was assessed using a translated version of the Post Traumatic Growth Inventory (PTGI; Tedeschi, & Calhoun, 1996). The PTGI assesses positive and growth outcomes sometimes experienced by people who have experienced traumatic events. The scale assesses five domains of post-traumatic growth including greater appreciation of life and changed sense of priorities; warmer, closer relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one's life; and spiritual development. The scale has 21 items that range from 0 "I didn't experience this change at all as a result of my stressor" to 6 "I experienced to a very great degree as a result of my stressor." The inter-item consistency of the PTGI has been reported as alpha = .90, test-retest reliability is .71, and the scale demonstrates good convergent and discriminate validity (Tdeschi & Calhoun, 1996). The PTGI was translated to Arabic and back translated by a three-person panel of bilingual mental health professionals (Kira, personal communication, June 28, 2010). The scale demonstrated excellent reliability at baseline (Cronbach's alpha = .93), the 2-month follow-up (Cronbach's alpha = .96), and the 4-month follow-up (Cronbach's alpha = .95).

*General physical symptoms* were measured using an Arabic translation of the Patient Health Questionnaire (PHQ-15; Kroenke, Spitzer, and Williams, 2002). This is a 15-item scale that assesses the severity of physical symptoms over a 4-week period. Responses range from 0 "not bothered at all", 1 "bothered a little" and 2 "bothered a lot." The scale demonstrates good test-retest reliability, internal validity, and convergent and discriminate validity (Kroenke et al., 2002). An Arabic translation of the PHQ-15 has been validated in a primary care setting in Saudi

Arabia (Becker, Zaid, & AlFaris, 2002). However, this Arabic translation was not available in the literature or obtainable through personal correspondence. The scale was thus translated by a bilingual psychologist, in consultation with a bilingual health researcher and back translated. The two English versions were assessed for equivalence by the clinical psychologist who is the primary investigator of the study. The scale demonstrated good reliability at baseline (Cronbach's alpha = .81), the 2-month follow-up (Cronbach's alpha = .82), and the 4-month follow-up (Cronbach's alpha = .87).

*Quality of Sleep* was assessed using five items from the Karolinska Institute Sleep Questionnaire (Kecklund , Åkerstedt, 1992, Åkerstedt, 2002). The items assess overall sleep quality, nighttime awakening, difficulty falling asleep, and feeling rested refreshed in the morning. The items are on a 5-point scale ranging from "very good" to "very poor. The scale has been validated by comparing it to electroencephalographic measurements, shift work behavior, and endocrine parameters. The scale was also translated by a bilingual psychologist, in consultation with a bilingual health researcher and back translated. The two English versions were assessed for equivalence by the clinical psychologist who is the primary investigator of the study. Unfortunately, the scale demonstrated only fair reliability at baseline (Cronbach's alpha = .54), but better reliability at the 2-month follow-up (Cronbach's alpha = .71) and the 4-month follow-up (Cronbach's alpha = .79).

*Daily Functioning* was assessed using eight separate items. The first item assessing interfering of physical and emotional symptoms in social and daily functioning was adapted from an item on the Short Form 12 Health Survey. The remaining seven items were designed by the research team, translated, and back translated by a bilingual professional. These items assessed frequency of spending time with family, friends, and relatives, participating in hobbies such as

reading and walking, utilizing medical services, utilizing English language teaching services, utilizing immigration related services, and attending meetings at social or religious clubs and organizations. The items assessing utilization of medical and immigration services were later dropped from analysis because participants often had difficulty understanding them, and unlike most other scales and items on the daily functioning scale, these items did not correlate with any other measures. Because the remaining items capture differing domains of functioning, they were analyzed separately, and no index of inter-scale reliability was calculated.

*Data Analyses*

Analysis first determined whether randomization was successful in creating equivalent groups with respect to demographic characteristics and baseline values of the outcomes measures. Analysis of Variance (ANOVA) and chi-square analyses were used to compare the two groups. Next, analyses compared baseline scores and group assignments of those who completed the two follow-up assessments versus those who completed only one or no follow-up assessments.

Intent to treat analyses were used to compare the effects of the group on the entire sample. For participants who were missing either of the follow-up visits, their values from the last visit were carried forward to replace the missing values. For participants who were missing a scale within a visit, imputation was conducted to replace that value. The imputation used regression modeling in which the prior visit's value of that scale as well values from other measures for the visit that were significantly correlated with the scale in question were used to approximate a value for the missing scale. No variable required imputation of more than 10% missing data points.

A series of analyses of covariance (ANCOVA) were conducted to test the hypothesis that the group receiving NET improved significantly compared to the wait-list control group. The ANCOVA models covaried baseline levels of the outcome. The two follow-up points were analyzed separately. Analyses also included calculating effect sizes for the differences in scores between groups and within groups. Within group Cohen's d effect size estimates were calculated for each follow-up time point for the NET and control group by subtracting the baseline mean from the follow-up mean and dividing that by the standard deviation of the baseline mean. Between-group Cohen's d effect size estimates were calculated using the following equation: [(NET group follow-up *M*) – (baseline *M*)] – [(control group follow-up *M*) – (baseline *M*)] / *SD* of the change scores. The standard deviation of the change scores assumed a correlation of r = .5 between baseline and follow-up scores for each measure.

# CHAPTER 3

# RESULTS

*Preliminary Analyses*

Of the 53 participants, 35 (66%) were in the experimental group, and 18 (34%) were in the waitlist control group. To determine the success of randomization, the experimental and control groups were compared on demographics and baseline measures. The two groups did not differ significantly or meaningfully on any of the demographic measures or most of the baseline measures, but the experimental group was more likely to have used English language training services ($p < .05$), see Table 2, Table 3, and Table 4. Despite this difference, it was determined that this variable will not be a used as a covariate when analyzing the two groups because it is not a key demographic variable and is a stand-alone item.

No participants formally dropped from the study, and all participants completed at least one of the two follow-up assessments: 2-month follow-up questionnaires were received from 96% ($n = 51$) of the sample, and 4-month follow-up questionnaires were received from 90.6% ($n = 48$) of the sample. Of these 7 people who did not complete one follow-up assessment, 5 participants were from the experimental group, and 2 were from the waitlist group; these proportions did not differ from the 2:1 allocation ratio. There were no differences in demographics or baseline characteristics between the 46 participants who completed both follow-up assessments and the 7 participants who only completed one follow-up assessment, except that completer sample was older ($p = .05$) and endorsed going to church, mosques, or other social and religious meetings more often ($p < .05$). See Figure 1 for the flow of participants through the study.

Of the experimental group, all but one of the participants completed all three intervention sessions. This participant completed only one session, as she missed scheduled appointments and it became difficult to continue to reschedule them. However, among participants completing the three sessions, three were judged as not following the protocol for one or more of the sessions. One of these participants was about to be evicted from his house and was experiencing significant suicidal ideation in the third session, which necessitated a suicide assessment that precluded protocol adherence. The other participant disclosed a trauma in the second session that he never disclosed before and felt very ashamed and distressed and asked to discontinue interventions. However, the participant later agreed to have a third session in which he and the therapist processed his reactions to the disclosure, but did not complete the protocol. Finally, one participant attempted to begin narrating her trauma in the first session but experienced significant psychosomatic symptoms such as nausea and dizziness and did not want to continue the process. The therapist met with the participant for two other sessions that constituted general supportive therapy for current stressors. The third session included a discussion of the participant's hopes and goals for the future.

Figure 1. Flow Chart of Participants through the Study

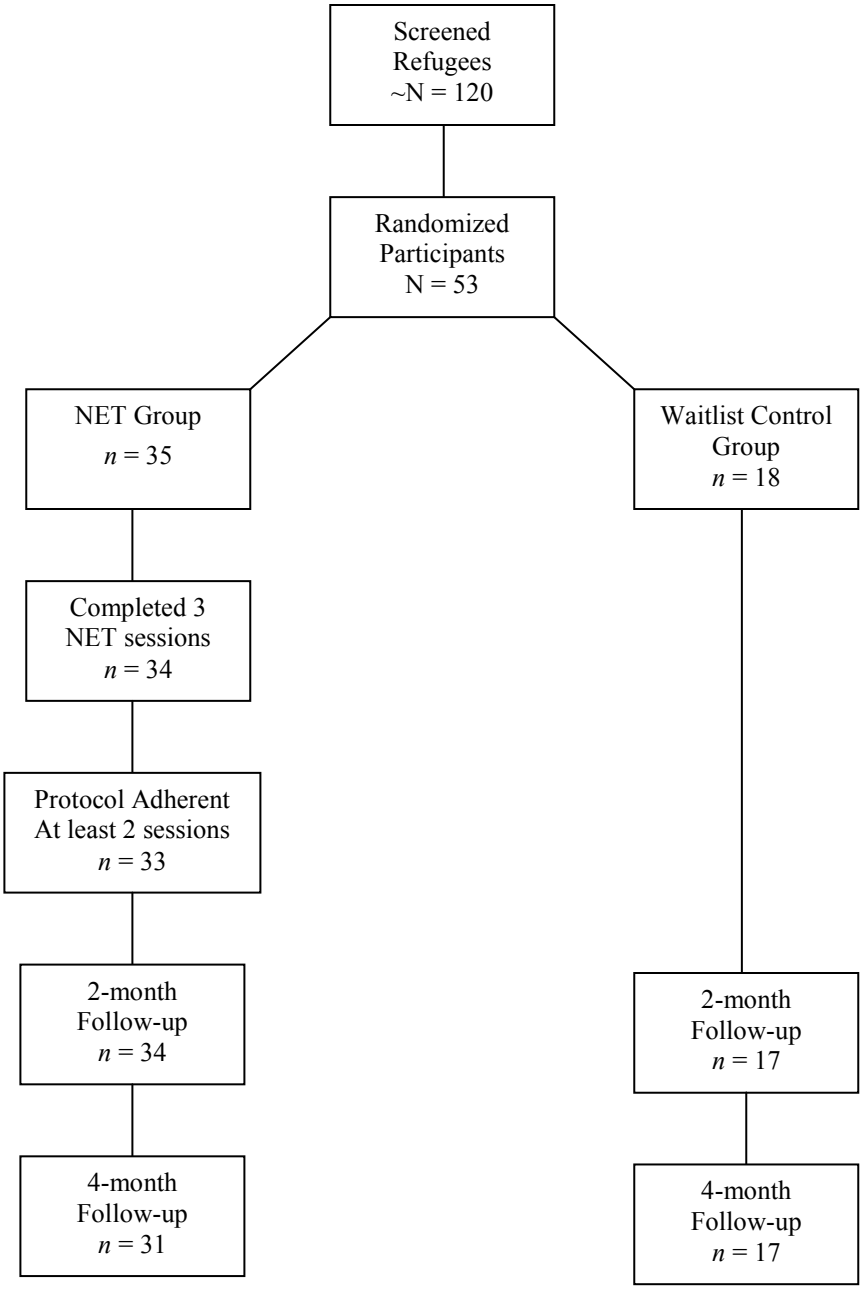

Table 2. Demographic Variables for the Full Sample and Comparisons between the Narrative Exposure Therapy Group and the Waitlist Control Group.

| *Variable* | | Total Sample ($N = 53$) | Narrative Exposure Therapy ($n = 35$) | Waitlist Control Group ($n = 18$) | $t(51)$ or $\chi^2$ | $p$ |
|---|---|---|---|---|---|---|
| Age (years) | *M* (*SD*) | 48.4 (8.5) | 47.2 (7.8) | 50.7 (9.4) | -1.46 | .15 |
| Gender | | | | | | |
| Men | *N* (%) | 26 (49.1) | 15 (42.9) | 11 (61.1) | 1.59 | .21 |
| Women | | 27 (50.9) | 0 (57.1) | 7 (38.9) | | |
| Marital status | | | | | | |
| Married | *N* (%) | 39 (73.6) | 25 (71.4) | 14 (77.8) | 0.25 | .62 |
| Not Married | | 14 (26.4) | 10 (28.57) | 4 (28.6) | | |
| Education | | | | | | |
| Primary school | *N* (%) | 13 (24.5) | 11 (31.4) | 2 (11.1) | 2.73 | .26 |
| Secondary school | | 26 (49.1) | 16 (45.7) | 10 (55.6) | | |
| Post Secondary | | 14 (26.4) | 8 (22.9) | 6 (33.3) | | |
| Ethno-religious group | | | | | | |
| Catholic-Chaldean | *N* (%) | 40 (75.5) | 26 (74.3) | 14 (77.8) | 0.08 | .78 |
| Other (Muslim Arab/Mandean) | | 13 (24.5) | 9 (25.7) | 4 (22.2) | | |
| Years in the US | *M* (*SD*) | 2.4 (2.4) | 2.3 (1.4) | 2.5 (3.7) | 0.20 | .84 |
| Country before US | | | | | | |
| Iraq | *N* (%) | 4 (7.5) | 1 (2.9) | 3 (16.7) | NA[1] | NA[1] |
| Syria | | 26 (49.1) | 19 (54.3) | 7 (38.9) | | |
| Jordan | | 9 (17.0) | 6 (17.1) | 3 (16.7) | | |
| Turkey | | 8 (15.1) | 6 (17.1) | 2 (11.1) | | |
| Other | | 6 (11.3) | 3 (8.6) | 3 (16.7) | | |
| Number of traumas | *M* (*SD*) | 19.3 (6.6) | 19.7 (6.8) | 18.4 (6.2) | 0.71 | .48 |

1. Cell sizes too small to conduct a valid chi-square analysis.

*Primary Analyses*

*Intent to treat analyses*

Tables 3 and 4 present descriptive statistics for the three time points (baseline, 2-month and 4-month follow ups) and results of group comparisons for primary and secondary outcomes, respectively. Table 3 also presents within-group and between-group treatment effect sizes (Cohen's d) for primary outcomes at the 2-month and 4-month follow ups. There was one significant difference between the two groups and several group differences showing meaningful trends in the expected direction (See Tables 3 and 4). At the 2-month follow-up, the NET group showed a trend towards lower PTSD scores compared to the control group ($F(1, 50) = 2.75$, $p = .10$, $d = -.35$ ). Paired $t$ tests indicated a significant decrease in PTSD symptoms in the NET group, $t(34) = -2.42$, $p = .02$, $d = 0.39$, but no change in the control group, $t(17) = -0.19$, $p = .86$, $d = 0.03$.

The NET group also showed a trend towards lower depression scores ($F(1, 50) = 2.64$, $p = .11$, $d = -.37$) compared to the control group at the 2-month follow-up. Paired t tests indicated a significant decrease in depression in the NET group, $t(34) = -3.93$, $p < .001$, $d = -0.64$, but only a minimal decrease in the control group, $t(17) = .80$, $p = .43$, $d = -0.16$. Moreover, the NET group showed a trend towards higher wellbeing scores ($F(1, 50) = 2.89$, $p = .095$, $d = .57$) compared to the control group at the 2-month follow-up. There was a significant increase in wellbeing in the NET group, paired $t(34) = -2.74$, $p = .01$ $d = 0.58$, but a slight, nonsignificant decrease in the control group, paired $t(17) = .21$, $p = .83$ $d = -0.06$.

Finally, the NET group also showed a trend towards spending more time with family and friends ($F(1, 50) = 3.40$, $p = .085$) compared to the control group after 2 months. There was a trend towards the NET group spending more time with family and friends, paired $t(34) = -1.61$, $p$

= .117, but a small, non-significant decrease in spending time with family and friends in the control group, paired $t(17) = 1.29$, $p = .22$.

Most of the between group differences were lost at the 4-month follow-up, except for the trend towards increased wellbeing, ($F(1, 50) = 2.57$, $p = .12$, $d = .58$). There was a significant increase in wellbeing in the NET group, paired $t(34) = -3.66$, $p = .001$ $d = 0.87$, but a slight, nonsignificant increase in the control group, paired $t(17) = -.82$, $p = .42$ $d = 0.23$.

Moreover, the NET group demonstrated significantly higher levels of post-traumatic growth compared to the waitlist control group ($F(1, 50) = 7.29$, $p = .009$, $d = .69$). There was a significant increase in post-traumatic growth in the NET group, paired $t(34) = -2.35$, $p = .025$, $d = 0.41$, compared to a slight decrease in the control group, $t(17) = 1.25$, $p = .23$, $d = -0.25$.

The NET group also demonstrated a meaningful trend toward less interference of physical and emotional symptoms with daily functioning compared to the control group ($F(1, 42) = 2.87$, $p = .098$). There was also a meaningful trend toward decrease in symptom interference in the NET group, paired $t(30) = 1.82$, $p = .079$, but a trend for an increase in the control group paired $t(13) = 1.71$, $p = .11$.

Table 3. Comparison of Primary Outcomes by Group at Baseline, 2-month Follow-up and 4-month Follow-up.

| *Outcome* | Narrative Exposure Therapy ($n$ = 35) | | Waitlist Control ($n$ = 18) | | | | |
|---|---|---|---|---|---|---|---|
| | *M (SD)* | $d_{tx}$ | *M (SD)* | $d_{tx}$ | $F(1,50)$[1] | *p* | *d* |
| *PTSD Symptoms* | | | | | | | |
| Baseline | 121.8 (20.7) | | 122.3 (20.8) | | | | |
| 2-month follow up | 113.7 (29.7) | -0.39* | 122.9 (22.0) | 0.03 | 2.75 | .10 | 0.34 |
| Adjusted *M* (*SE*)[2] | 113.8 (3.1) | | 122.5 (4.3) | | | | |
| 4-month follow up | 112.0 (29.9) | -0.47** | 116.7 (24.5) | -0.27 | 0.58 | .45 | 0.17 |
| Adjusted *M* (*SE*)[2] | 112.9 (3.2) | | 116.4 (4.4) | | | | |
| *Depression* | | | | | | | |
| Baseline | 32.5 (10.1) | | 33.01(12.1) | | | | |
| 2-month follow up | 26.1 (13.5) | -0.64** | 31.14 (12.1) | -0.16 | 2.64 | .11 | -0.37 |
| Adjusted *M* (*SE*)[2] | 26.2 (1.6) | | 30.83 (2.3) | | | | |
| 4-month follow up | 24.1 (13.1) | -0.83** | 25.16 (10.0) | -0.65 | 0.06 | .81 | -0.05 |
| Adjusted *M* (*SE*)[2] | 24.3 (1.6) | | 24.88 (2.2) | | | | |
| *General Well-Being* | | | | | | | |
| Baseline | 5.3 (5.31 | | 6.3 (4.9) | | | | |
| 2-month follow up | 8.4 (6.7) | 0.58* | 6.0 (5.7) | -0.06 | 2.89 | .095 | 0.57 |
| Adjusted *M* (*SE*)[2] | 8.5 (1.0) | | 5.7 (1.4) | | | | |
| 4-month follow up | 9.9 (7.1) | 0.87** | 7.4 (5.2) | 0.23 | 2.57 | .12 | 0.58 |
| Adjusted *M* (*SE*)[2] | 10.0 (1.1) | | 7.1 (1.5) | | | | |
| *Post-Traumatic Growth* | | | | | | | |
| Baseline | 48.5 (23.8) | | 49.5(23.9) | | | | |
| 2-month follow up | 53.0 (25.7) | 0.19 | 44.4 (21.3) | -0.21 | 2.35 | .13 | 0.40 |
| Adjusted *M* (*SE*)[2] | 53.2 (3.57) | | 44.0 (4.9) | | | | |
| 4-month follow up | 58.3 (23.8) | 0.41** | 43.5 (18.1) | -0.25 | 7.29 | .009 | 0.69 |
| Adjusted *M* (*SE*)[2] | 58.4 (3.3) | | 43.2 (4.6) | | | | |

*Note*. Cohen's d effect sizes calculated within-group treatment effect ($d_{tx}$) and between-group effect (*d*) = [(NET Follow-up – Baseline) – (Control Follow-up – Baseline)] / SD change scores.

1. ANCOVA, adjusting for baseline score;

2. Adjusted *M* (*SE*) = ANCOVA-adjusted mean and standard error.

*$p < .05$. **$p < .01$.

(table continues…)

| *Outcome* | Narrative Exposure Therapy ($n$ = 35) | | Waitlist Control ($n$ = 18) | | | | |
|---|---|---|---|---|---|---|---|
| | *M (SD)* | $d_{tx}$ | *M (SD)* | $d_{tx}$ | $F(1,50)$[1] | *p* | *d* |
| *Physical Symptoms* | | | | | | | |
| Baseline | 18.40 (5.6) | | 18.31 (6.5) | | | | |
| 2-month follow up | 15.67 (6.5) | -0.49** | 17.52 (5.8) | -0.12 | 1.64 | .20 | -0.32 |
| Adjusted *M* (*SE*)[2] | 15.65 (0.9) | | 17.56 (1.2) | | | | |
| 4-month follow up | 15.56 (7.2) | -0.51** | 15.94 (4.1) | -0.36 | 0.07 | .80 | -0.08 |
| Adjusted *M* (*SE*)[2] | 15.54 (0.9) | | 15.97 (1.3) | | | | |
| *Sleep Quality* | | | | | | | |
| Baseline | 8.27 (2.6) | | 7.9 (2.5) | | | | |
| 2-month follow up | 9.73 (3.1) | 0.56** | 8.7(2.5) | 0.34 | 1.29 | .26 | 0.24 |
| Adjusted *M* (*SE*)[2] | 9.65 (0.1) | | 8.8 (0.6) | | | | |
| 4-month follow up | 10.01 (3.6) | 0.67** | 9.2 (2.6) | 0.55* | 0.40 | .53 | 0.13 |
| Adjusted *M* (*SE*)[2] | 9.93 (0.5) | | 9.4 (0.7) | | | | |

*Note*. Cohen's d effect sizes calculated within-group treatment effect ($d_{tx}$) and between-group effect (*d*) = [(NET Follow-up – Baseline) – (Control Follow-up – Baseline)] / SD change scores.

1. ANCOVA, adjusting for baseline score;

2. Adjusted *M* (*SE*) = ANCOVA-adjusted mean and standard error.

*$p < .05$. **$p < .01$.

Table 4. Comparison of Secondary Outcomes by Group at Baseline, 2-month Follow-up and 4-month Follow-up

| | | Narrative Exposure Therapy ($n$ = 35) | Wait List Control ($n$ = 18) | | |
|---|---|---|---|---|---|
| *Outcome* | | *M (SD)* | *M (SD)* | *F (1,50)* [1] | *P* |
| *Symptoms interfering with daily functioning*[a] | Baseline | 3.6 (1.1) | 3.3 (1.1) | | |
| | 2-month follow-up | 3.1 (1.1) | 2.9 (1.1) | | |
| | Adjusted *M* (*SE*)[2] | 3.0 (0.2) | 2.9 (0.3) | 0.03 | 0.88 |
| | 4-month follow | 3.1 (1.3) | 3.7 (0.2) | | |
| | Adjusted *M* (*SE*)[2] | 3.1 (0.2) | 3.7 (0.3) | 2.87 | .098 |
| *Spending time with family, friends* | Baseline | 2.8 (1.1) | 2.9 (0.9) | | |
| | 2-month follow-up | 3.1 (0.9) | 2.7 (0.9) | | |
| | Adjusted *M* (*SE*)[2] | 3.1 (0.1) | 2.7 (0.2) | 3.10 | .09 |
| | 4-month follow-up | 3.1 (0.9) | 2.8 (0.8) | | |
| | Adjusted *M* (*SE*)[2] | 3.1(0.2) | 2.8 (0.2) | 1.14 | .29 |
| *Participating in hobbies* | Baseline | 2.4 (1.2) | 2.2 (1.3) | | |
| | 2-month follow-up | 2.5 (1.0) | 2.3 (1.2) | | |
| | Adjusted *M* (*SE*)[2] | 2.5 (0.2) | 2.4 (0.3) | 0.15 | .70 |
| | 4-month follow-up | 2.5 (1.1) | 2.1 (0.9) | | |
| | Adjusted *M* (*SE*)[2] | 2.5 (0.2) | 2.2 (0.2) | 1.39 | .24 |
| *Learning English Services* | Baseline | 2.5 (1.4) | 1.8(1.1) | | |
| | 2-month follow-up | 2.4 (1.3) | 2.3 (1.1) | | |
| | Adjusted *M* (*SE*)[2] | 2.3 (0.2) | 2.5 (0.3) | 0.63 | .43 |
| | 4-month follow-up | 2.3 (1.2) | 2.1 (1.2) | | |
| | Adjusted *M* (*SE*)[2] | 2.2 (0.2) | 2.3 (0.3) | 0.00 | .96 |
| *Utilizing job training/ placement services*[b] | Baseline | 1.6 (1.0) | 1.3 (0.9) | | |
| | 2-month follow-up | 1.6 (0.9) | 1.4 (1.0) | | |
| | Adjusted *M* (*SE*)[2] | 1.5 (0.2) | 1.4 (0.2) | 0.10 | .76 |
| | 4-month follow-up | 1.8 (1.1) | 1.8 (1.1) | | |
| | Adjusted *M* (*SE*)[2] | 1.8 (0.2) | 1.8 (0.2) | 0.16 | .69 |
| *Going to social/religious meeting* | Baseline | 2.7 (1.2) | 2.2 (1.3) | | |
| | 2-month follow-up | 2.5 (1.2) | 2.3 (1.3) | | |
| | Adjusted *M* (*SE*)[2] | 2.5 (0.2) | 2.4 (0.3) | 0.12 | .74 |
| | 4-month follow-up | 2.7 (1.2) | 2.6 (1.2) | | |
| | Adjusted *M* (*SE*)[2] | 2.6 (0.2) | 2.7 (0.3) | 0.02 | .89 |

1. ANCOVA, adjusting for baseline score;

2. Adjusted *M* (*SE*) = ANCOVA-adjusted mean and standard error.

[a] Data missing on 8 participants at both time points.

[b] Data missing on 4 participants at both time points.

*Ancillary Analyses*

To explore whether covarying other demographic or baseline variables and analyzing the sample without non-treatment-adherent participants would change the pattern of results, two sets of ancillary analyses were conducted. The preceding analyses were repeated, covarying demographic or baseline variables that were different between the two groups at a $p < .20$. Age, frequency of utilizing English language teaching services, and going to meetings at a religious or social organization were included as covariates. In this case, the tendency of the NET group to demonstrate higher levels of wellbeing at the 2-month follow-up became significant ($F(1, 47) = 4.20$, $p = .046$). The trend towards lower depression and PTSD scores in the NET group at 2 months became nonsignificant, whereas the trend towards the NET group spending more time with family and friends remained ($F(1, 47) = 2.73$, $p = .105$).

At the 4-month follow-up, the finding regarding the NET group demonstrating significantly higher levels of post-traumatic growth remained significant ($F(1, 47) = 6.21$, $p = .016$), but the trend towards decreased symptom interference with daily functioning in the NET group became nonsignificant. However, increased frequency of participating in hobbies in the NET group now showed a meaningful trend ($F(1, 47) = 4.01$, $p = .051$).

The primary analyses were also repeated, dropping the participant who only completed one intervention session and the participant who completed the three sessions but was not protocol adherent in any of them.

At the 2-month follow-up, the trend towards increased wellbeing in the NET group remained marginally significant ($F(1, 48) = 3.25$, $p = .078$) and the trend towards lower depression in the NET group approached significance, ($F(1, 48) = 3.95$, $p = .053$). The trend towards lower PTSD symptoms in the NET group remained marginally significant ($F(1, 48) =$

3.04, $p$ = .088), as did the tendency for the NET group towards spending more time with family friends ($F$(1, 48) = 3.72, $p$ = .06).

At the 4-month follow-up, a previously nonsignificant difference between groups in levels of wellbeing became marginally significant ($F$(1, 48) = 3.34, $p$ = .074) . The finding regarding the higher levels of post-traumatic growth in the NET group remained significant, ($F$(1, 48) = 7.54, $p$ = .008). The finding regarding less symptom interference in daily functioning in the NET group also remained marginally significant ($F$(1, 48) = 3.30, $p$ = .076).

# CHAPTER 4

# DISCUSSION

The goal of this study was to advance the literature regarding effective interventions for refugees who are experiencing post traumatic stress symptoms or other comorbid psychological disorders. This study examined the effectiveness of Narrative Exposure Therapy (NET) in a sample of 53 Iraqi refugees from metro Detroit, who were randomized into an intervention group that received three sessions of NET, or a waitlist control group. Participants' post traumatic stress symptoms, depression, sleep quality, overall wellbeing and quality of life, post traumatic growth, physical symptoms, and daily functioning were assessed at baseline, 2 months from baseline and 4 months from baseline. It was hypothesized that participants in the experimental group would demonstrate greater improvements in their psychological and physical wellbeing and symptoms than the waitlist control group at both follow-up points. In general, the hypothesis that traumatized adults treated with Narrative Exposure Therapy would improve psychological and physical wellbeing as compared to untreated waitlist controls was somewhat supported. Narrative Exposure Therapy led to small but meaningful effects on psychological symptoms and wellbeing after 2 months. Although all these effects were maintained at 4 months, the differences between the groups were no longer significant, as the waitlist control group showed some improvements as well. NET also led to greater post-traumatic growth after 4 months compared to the waitlist group.

*The Effect of NET on Post-Traumatic Growth*

The most robust finding was that participants who received NET demonstrated significantly higher levels of post-traumatic growth at the 4-month follow-up compared to wait-list control participants, and that this difference had a relatively large magnitude. Post-traumatic

growth is a relatively new concept, often conceptualized as positive psychological changes that trauma, adversity, or loss could spark in someone's life. Such growth could manifest in areas such as greater appreciation of life and changed sense of priorities; warmer, closer relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one's life; and spiritual development.

This is a particularly exciting finding that contributes to the growing research about positive effects of trauma in lieu of focusing exclusively on post traumatic stress. Moreover, most literature regarding post-traumatic growth has been descriptive, mainly investigating correlates and predictors of growth, especially in medical populations such as cancer survivors. To date, there have been only a handful of experimental findings investigating whether interventions can increase post-traumatic growth in survivors of adversity and trauma. A smaller subset of these studies investigated whether trauma-focused interventions can increase post-traumatic growth. Our findings appear consistent with these studies. An uncontrolled study of prolonged exposure in patients with PTSD found an increase in the new possibilities and personal strength domains of post-traumatic growth relative to baseline (Hagennars & van Minnen, 2010).

Other studies that had randomized control groups provide a better test of whether interventions increase post-traumatic growth. For example, one study (Wagner, Knaevelsrud, & Maercker, 2007) randomized participants with complicated bereavement into either a waitlist control group or a treatment condition. The treatment included an internet-based intervention that incorporated cognitive reappraisal strategies, exposure to bereavement cues, and discussions of integration and restoration. At follow-up, participants in the intervention group demonstrated significantly higher levels of post-traumatic growth compared to the control group.

Another study (Zoellner, Rabe, Karl, & Maercker, 2011) randomized survivors of motor vehicle accidents into a group that received trauma-focused CBT or a waitlist control condition. The treatment group demonstrated marginally greater increases in the post traumatic growth sub-domains of new possibilities and personal strength compared to the control group.

A study by Smyth, Hockemeyer, and Tulloch (2008) randomized participants with PTSD into either a trauma focused writing condition or a control writing condition. The group that wrote about their traumatic experiences reported significantly higher levels of post-traumatic growth compared to the control writing condition.

Another study by our lab group (Slavin-Spenny, Cohen, Oberleitner, & Lumley, 2011) randomized participants with unresolved stressors to control conditions or disclosure conditions, (written, private spoken, talking to a passive listener, talking to an active facilitator). Participants in all disclosure conditions reported significant increases in post traumatic growth compared to the control conditions.

The specific mechanisms by which the interventions in these prior studies increased post-traumatic growth are unclear. However, it is arguable that NET, prolonged exposure, trauma-focused CBT, brief spoken disclosure, and expressive writing—even when not explicitly emphasizing growth—share other elements that may promote post-traumatic growth. For example, Tedeschi and Calhoun (2004) argue that it is not the trauma itself that necessarily creates the growth, but the effect of the trauma on challenging or even shattering survivors' assumptive world belief, and their subsequent struggle to find meaning, rebuild their beliefs, or integrate their trauma into their life story. However, such processing, meaning making, and integration necessitates a need to come into contact with the story of the trauma and the emotions, distress, and cognitions it stirs up. At the same time, one of the hallmarks of

maladaptive responses to trauma is avoidance of memories, thoughts, sensations and feelings associated with it. As such, it is likely that in individuals who struggle with PTSD symptoms, avoidance of internal stimuli associated with the trauma may preclude them from engaging in the cognitive and affective processing that could result in post-traumatic growth. In contrast, it is likely that any treatment that encourages the survivor to confront the trauma through cognitive processing, exposure, narration, or writing, facilitates survivors' abilities to expose themselves to and tolerate the myriad of internal stimuli associated with the trauma. This exposure may lead to decreases in experiential avoidance, which in turn could facilitate more opportunities for meaning making and cognitive processing of the trauma, and thus post-traumatic growth.

These hypotheses appear to have some support in the literature. For example, a study by Kashdan and Kane (2011) investigated the interaction between PTSD symptoms, post-traumatic growth, and experiential avoidance. Experiential avoidance is a construct from the Acceptance Commitment Therapy literature that is broader than PTSD avoidance, and that describes a tendency towards cognitive inflexibility and unwillingness to be in contact with various thoughts, feelings, memories, and sensations. The study found that among individuals who had high levels of post traumatic distress, those who were also high on experiential avoidance reported the least amount of post-traumatic growth. Hagennars and van Minnen's (2010) study also found an association between increased avoidance, and especially emotional numbing symptoms of PTSD, and decreased post-traumatic growth.

Yet another way in which NET could promote post-traumatic growth is through the process of narrating something powerful and horrifying in the context of a warm empathic relationship. Tedeschi and Calhoun (2004) argue that the process of narrating such stories elicits strong emotions about the event and about the survivor, and that when this is done with another

person, it can foster strong feelings of connectedness and intimacy. These feelings of intimacy and connectedness within the therapeutic dyad may then gently nudge the survivors' willingness towards seeking and fostering that with others, which is a facet of post-traumatic growth. In fact, one of the explicit tenets proposed by the developers of Narrative Exposure Therapy is that narrating *to* and *with* another person is central to recovery because it allows the survivor to share the burden of the trauma and to have another person bear witness to the suffering (Schauer et al., 2005), both of which can be powerful, healing, and promoting of growth.

*NET Effects on Other Outcomes at the 2-Month and 4-month Follow-Up*

The primary hypothesis—that adults receiving Narrative Exposure Therapy would demonstrate greater improvements in psychological and physical functioning than would adults awaiting waitlist treatment—was partially supported. Adults who engaged in Narrative Exposure Therapy generally showed fewer symptoms of post-traumatic stress depression, higher psychological wellbeing and quality of life, and more time spent with family and friends at the 2-month follow-up as compared to the waitlist group. There were no other differences between the two groups on physical symptoms, sleep quality, and other indices of daily functioning.

Although the aforementioned group differences in post traumatic stress symptoms, depression and spending time with family and friends were maintained at the 4-month follow-up, the differences between the two groups were no longer significant. However, the trend for higher overall wellbeing remained and there was a trend towards less frequent interference of physical or emotional symptoms with social activities in the NET group compared to the control group.

Thus, the effect of NET on symptoms and functioning was in the expected direction, consistent across several measures, but somewhat weaker than anticipated or desired. However, the direction and trend of results, specifically for PTSD symptoms is generally consistent with

past trials of NET with refugees and asylum seekers, which also found that NET is helpful in reducing PTSD symptoms.

A close examination of the five trials of NET with refugees or asylum seekers reveals different patterns of improvement, depending on the specific follow-up point. For example, some trials evidenced improvement at 4 weeks post treatment, as we did (Halvorsen & Stenmark, 2010; Neuner et al., 2004), whereas others found it only at later follow-up points, such as 6 months or 1 year (Hensel-Dittman et al., 2011; Neuner at al., 2009). Moreover, in the study of Neuner et al. (2004), symptoms decreased at 4-week post test, increased nearly to baseline level at the 4-month follow-up, before decreasing again at the 1 year follow point.

It thus appears that the effect of NET on PTSD symptoms varies across measurement points among the studies. In our study, participants who had NET demonstrated decreases in PTSD symptoms at the 4-week post treatment. Although this between-groups effect was no longer present at the 4-month follow-up, closer examination of the data reveals that the NET group actually maintained their improvement, but that the control group also decreased somewhat in symptoms, rendering the group differences nonsignificant. Thus, consistent with findings from some of the aforementioned studies, our sample who received NET demonstrated some immediate decreases in symptoms that were subsequently maintained through 4 months.

Our findings on decreases in depression following NET compared to the control group are understandable in light of the significant comorbidity between depressive symptoms and post-traumatic stress symptoms. This finding is also consistent with some trials of NET (e.g., Bichescu et al., 2007; Halvorsen & Stenmark, 2010; Neuner et al., 2008), but not with others that found no effect of NET on depression (e.g., Neuner et al., 2010). It is possible that the pattern of comorbidity between depression and PTSD in the sense of which diagnosis is primary and which

one exacerbates the other differed across samples. For example, the pattern of comborbidity between depression and PTSD could be different in samples that had more significant torture versus more traumatic bereavement. As such, it is possible that in our sample, a subset of participants may have been experiencing depression subsequent to the isolation, avoidance and distress caused by PTSD symptoms and thus a decrease in PTSD symptoms may have corresponded to a decrease in depressive symptoms.

Moreover, at a broad level, many of our participants had experienced several losses, including traumatic bereavements, which could contribute to PTSD as well as to depression symptoms. It is, therefore, possible that because NET allows for some processing of losses through narration, participants also found some relief in that aspect of the intervention. Furthermore, within the trauma treatment literature, particularly for cognitive or cognitive behavioral interventions (e.g., cognitive processing therapy, prolonged exposure), it is often found that a reduction in PTSD symptoms is accompanied by a reduction in depression symptoms.

This reduction in depression symptoms is consistent with our other finding that participants who received NET tended to show improved psychological wellbeing and quality of life. We utilized the WHO-5 Well Being Index, which is a relatively new measure that captures aspects of wellbeing and quality of life such as cheerful mood, feelings of calmness, relaxation and good spirits, activity, refreshing sleep, and interest. The WHO-5 is not yet widely used, particularly in the English language and in American research, and especially as an outcome rather than as a screener or predictor measure, making it somewhat difficult to contextualize our finding within the larger literature. However, several studies have demonstrated the WHO-5's superiority to other measures in screening and predicting depression and suicidal ideation (Bech,

Olsen, Kjoller, & Rasmussen, 2003; Lowe et al. 2004) suggesting that this finding of an increased tendency towards wellbeing is clinically meaningful. This finding is also exciting because it suggests that NET effects may go beyond reducing core PTSD symptoms and that the process of narration and habituation can also promote vitality, calmness, and wellbeing that is maintained for several months after treatments.

Further supporting the notion that NET may promote positive effects was the NET participants' trend toward spending more time with family, relatives, and friends. It is possible that a general reduction in distress and improvement in mood may make people more interested in engaging with others and may make it easier for others to reciprocate their interest. Another explanation could relate to the process of narrating the trauma itself. Trauma is often thought to exercise a powerfully isolating effect on its survivors, whereby they may feel isolated and burdened by upholding the secrecy of the horrors they witnessed. It is possible that the act of sharing what they once thought was unspeakable, in the context of a warm empathic relationship with a therapist, gradually mitigates some of that isolating and silencing effect of trauma and frees them to recreate that experience with others as well.

Finally, our finding at the 4-month follow-up —that participants receiving NET tended to report less interference in their social and daily life by their physical and emotional symptoms than the waitlist group—is interesting in light of how other group differences became nonsignificant at that assessment point. However, all findings at the 2-month follow-up, including the reduction in PTSD symptoms, depression, and improvement in wellbeing and frequency of social contact, were actually maintained for the NET group at the 4-month follow-up. Hence, it likely that this maintenance of symptom reduction was associated with decreased interference of symptoms in daily life.

*Discussion of General Patterns of Findings*

Two general patterns of findings across the study that warrant further discussion are the small magnitude of findings for some measures, and the tendency of the control group to demonstrate some improvement at follow-up as well. Regarding the small magnitude of findings in some instances, in retrospect, and upon examination of the results, most of which are small but meaningful, it is possible that these results can be explained by the smaller therapeutic dose available in the study. The clinical observations of the therapists also corroborate this hypothesis for a number of reasons. NET specifies that the narration of a survivor's life should include, at least briefly, pre-trauma history, the traumatic events experienced, and other experiences a typical refugee experiences, such as flight to a host country, temporary residence, and then resettlement. Most of our sample had more than one traumatic event, and the therapists typically did exposure with the participants to the first traumatic event in the first session, and the second traumatic event in the second session. The fact that the protocol unfolded this way could have diluted the therapy for several reasons. There was often minimal time left in the three sessions to narrate the flight of the refugee to the temporary host country, of their stay in that country, or of their resettlement in the U.S., all three processes that were often fraught with difficulty and distress. This may have, in turn, undermined the treatment's intent at creating a sense of a coherent and completed life narrative that follows the survivors until the present day.

Moreover, due to the limited number of sessions, and given that habituation usually does *not* occur within one session, it often seemed to the therapists that the clients did not habituate to the traumatic events by the end of treatment. The first traumatic event would have been read back to the participant twice, and the second one would have only been read back once,

providing minimal opportunity for habituation or desensitization, which is one of the active ingredients in the treatment.

Although it now appears that a larger number of NET sessions would have been warranted for greater symptoms relief, there were several considerations of the research team that led them to select three sessions for the study design. The developers of NET originally specified that as few as 4 sessions of NET could bring relief from PTSD symptoms, and two trials supported that (Neuner et al. 2004, Schaal et al., 2009). Moreover, research from the expressive writing field reveals that three 20-minute writing sessions generally have small to medium effect sizes on distress and sometimes post traumatic stress symptoms (Frattaroli, 2006). Although at this point there are several trials of NET with refugees, some of them are uncontrolled, or have quite small sample sizes. Moreover, there is a dearth of intervention studies with Middle Eastern, and especially Iraqi refugees. The research team also had limited available resources for provision of clinical services. The research team hence prioritized conducting a randomized controlled trial with a somewhat larger sample size with the minimal number of possible sessions.

In terms of how our study contrasts with four-session NET trials, one study (Schaal et al., 2009) was done with Rwandan orphan genocide survivors. Although that study did not provide information about the nature of traumatic events the participants witnessed, it reported that the protocol was adapted so that the fourth session was a bereavement session, implying that traumatic bereavement or witnessing murder or injury was a primary traumatic event for the participants. The second study was with done with Sudanese refugees in an African settlement (Neuner et al., 2004). The authors listed some of the traumatic events with the percent of participants experiencing them as: being threatened with weapons and kidnappings (17%),

physical attacks (12%), and torture (7%). In contrast, within the experimental group of the current sample, 46% witnessed torture, 54% experienced kidnapping of family member, or child, or friend, 37% were physically harmed, 25% were kidnapped, and 23% were tortured. It is thus possible that the higher prevalence of severe traumatic events in our sample resulted in a more severely traumatized and distressed sample that was less likely to benefit from three sessions only.

Moreover, the study with the Sudanese refugees in the African settlement noted that many of their participants left the settlement within a year and returned to their country, settled in a better place, or sought jobs in the surrounding areas. Although this occurred after the participants received the treatment, it is arguable that those participants had more autonomy and access to resources than participants in the current sample did, and that such psychosocial resources enhance the effect of the intervention.

Another factor that may have contributed to our sample benefiting less from treatment was that half our sample was recruited from a local community organization that provided psycho-social services to trauma survivors, including various forms of counseling. It is thus possible that a more chronic, treatment non-responsive PTSD was overly represented in our sample than if it was a more representative community sample.

At a broader level, the smaller effects of NET in our study may be due to a combination of a smaller than ideal therapeutic “dose” (sessions) and psychosocial factors that are uniquely associated with being a refugee in the U.S. Of the other NET trials conducted with refugees or asylum seekers, almost all were conducted either in refugee camps or in European countries such as Germany or Sweden. It is possible, perhaps likely, that those settings are more psychosocially advantageous than the U.S. For example, aside from obvious difficulty of obtaining employment

when not speaking the language of the host country (most of the current participants did not speak English), this study took place in the Metro Detroit area, which has one of the highest unemployment rates in the U.S., and most of the participants were unemployed. Further complicating the situation was that the participants received funding for only the first 8 months of their resettlement. Many participants were often taxed by extenuating financial circumstances, which likely exacerbated their mental health symptoms.

Furthermore, many participants were angry at the United States government, feeling that by its invasion of their country, the U.S. helped unleash the sectarian violence by which most of them were traumatized. Participants often noted that from their perspective, it only added insult to injury to have to forcibly flee a home country they did not want to leave, be settled in the country that invaded theirs, *and* then obtain minimal financial assistance as they adjusted to their new country. These observations suggest this hypothesis: seeking refuge in a country that one perceives as directly or indirectly responsible for his/her victimization creates a set of conflicted feelings and a chronic undercurrent of deep resentfulness that goes unprocessed and exacerbates one's recollection and experience of the trauma. Such a complicated post-traumatic experience might complicate or interfere with treatment efforts. In contrast, it is possible that participants who received NET in European countries have had a different set of psychosocial circumstances that interplayed differently with their treatment. For example, the better network of social services available in most European countries may have been a supportive factor that enhanced treatment gains in the NET trials conducted there.

What about the studies of NET conducted in refugee camps? They are typically lacking in resources and possibly in safety, which would create a set of significant stressors and challenges. However, it is possible that some elements of being in a refugee camp may have

interacted positively with treatment in those studies that examined NET in refugee camps. For example, many of our participants felt isolated from their religious/ethnic community, and extremely lacking in social support, which also likely exacerbated their symptoms. In contrast, participants in refugee camps may not only view themselves as part of a collective group that shares their struggles and background but also live in closer physical proximity to others, which might confer some benefits and social support.

Regarding the finding that the control group also showed reductions in symptoms at the 4-month follow-up but not the 2-month follow-up; one explanation is the recruitment source of many of our participants. Half of our sample was recruited from a local organization that provided various psychosocial services, including counseling, to trauma survivors. It is our understanding from meeting with the mental health providers at that organization that the counseling they provided was mostly supportive and problem-focused and therapy did *not* typically revisit the traumatic events of the patients. However, it is not possible to rule out that some of the reduction in symptoms our waitlist control group experienced was due to receiving some form of counseling. Another possibility is that improvements or symptom reduction in the waitlist control group could be an artifact of repeated assessments and the experience of simply being in a study focusing on one's mental health. Finally, it is possible that the old adage of "time heals all wounds" was true for some wounds in our current sample. Depression symptoms and sleep quality showed moderate improvement among the untreated group at 4 months, indicating that these problems improve over time without intervention. However, it appears that left untreated, levels of post traumatic growth actually *decrease* over time, and treatment offers considerable benefits. Thus, although the comparative effect diminished over time, NET appears to speed the healing process and likely maintain some advantage over time.

We were pleasantly surprised by the relatively high levels of engagement and low levels of drop out from the treatment and study in general. No participants formally dropped from the study, and all participants completed at least one of the two follow-up assessments: 2-month follow-up questionnaires were received from 96% of the sample, and 4-month follow-up questionnaires were received from 90.6% of the sample. Of the experimental group, all but one of the participants completed all three intervention sessions. Among participants completing the three sessions, three were judged as not following the protocol for at least one of the sessions. One participant was about to get evicted and felt suicidal, which necessitated a suicide assessment in lieu of the usual protocol for the third session. The other participant felt so ashamed by the narrative of a trauma he disclosed in the second session that he only agreed to meet for a third session to discuss his reactions but not continue with the protocol. One participant completed only one session, and another participant completed three sessions but was mostly non adherent to protocol following extreme physiological distress in the first session. The remaining 31 participants who received the treatment were often engaged in treatment and shared being highly appreciative of the investigators' efforts to "relieve our pressure and pain" and to hear their stories. The acceptability of this treatment and relatively low levels of drop outs are consistent with other trials of NET. These observations also lend support to the findings that NET seems to have much better retention rates than other cognitive behavioral trauma interventions, whose drop-out rates at times are reported to be as high as 30-40%.

We were also especially impressed with this high level of engagement in treatment, in light of the significant concern about stigma and mental health treatment that is often reported in Arab samples. It appears that as the developers of NET intended, the oral narration nature of the treatment lends itself well to many cultures and feels non-threatening and natural.

Moreover, as the participants were fully informed about the purpose of the study, they were aware that this was the writer's doctoral dissertation. Most participants voiced a desire to help a fellow Arab obtain her degree and help "make us proud" which may have also explained the high engagement in the study.

One caveat must be made, however. Although unlikely, one alternative explanation for our high retention rate is that most participants requested home visits when asked about their preference for a meeting place. It is thus possible that participants would have found it difficult to refuse to welcome someone into their home or refusing the clinician's attempts at scheduling subsequent sessions.

Limitations

One major limitation of our study relates to our screening and diagnostic procedures. Almost all prior NET studies were conducted with individuals who formally met PTSD criteria according to structured diagnostic interviews (e.g., CAPS, CIDI). For several reasons, our study utilized a less structured and less exclusive approach. We were interested in investigating the effectiveness of NET on people with history of trauma and PTSD symptoms even if they did not formally meet criteria. This is in line with a growing number of researchers studying post traumatic stress symptoms in lieu of PTSD as a disorder. Moreover, in addition to seeking to expand the available literature on NET, one of the study's main goals was to more broadly test the feasibility and effectiveness of a psychological intervention in a randomized study with a Middle Eastern sample. This was especially important in light of the cultural obstacles that sometimes surround mental health treatment in this population, and given the dearth of formal research investigating effectiveness of Western interventions with them. Our less structured and formalized inclusion process may have thus deviated from the goal of investigating and

demonstrating the efficacy of NET as a formal treatment for formal PTSD diagnosis. However, the levels of trauma in our sample were very high and it appeared in our clinical judgment that our sample was rather traumatized and at times suffering from more complex/complicated forms of PTSD.

Although the study had a larger sample size than many trials of NET, one limitation was too small of a sample size to have sufficient power to detect significant between group findings. Thus, most of our findings were lacking significance by the standard p value criterion. However, both within group and between group effect sizes indicated the presence of several meaningful trends towards reduction in symptoms and improvement in wellbeing in the NET group.

Another limitation of our study is that the clinicians providing NET and the primary investigator supervising them had no formal training in NET. This appears to be in contrast to most other published trials of NET. It is thus not possible to know the extent of adherence of the treatment team to the original NET protocol. However, the two therapists are mental health professionals and the primary investigator who supervised and trained them has extensive experience with exposure based therapies. The adaptation of NET to occur over three rather than four or more sessions may have also represented deviation from protocol. This small dosage may have interfered with our ability to provide the protocol as intended, for it to cover the various life stages and journeys of a refugee as it was supposed to, or for thorough habituation to occur through repeated exposure.

The fact that our control comparison group was a waitlist control group, rather than a condition containing active treatment or supportive therapy represents another limitation. It is not possible to rule out non specific therapy common factors, such as the presence of an empathic, attuned, and sensitive listener rather than trauma processing or the active ingredients of

habituation and exposure as being the curative factors in this intervention. Utilizing an active control group or a comparison therapy may be helpful in future trials.

Another major limitation of our sample was that about half of it was recruited from a local organization where they may have already been receiving some form of supportive counseling. Although it is our understanding from meeting with the other mental health providers that most of them have *not* discussed the traumatic events with their clients, the fact that our sample was not treatment naïve may have in some ways diluted the power of the intervention.

Furthermore, we did not monitor in either of the groups the nature and frequency of any other relevant services they received, such as medication management or psychological interventions. These other services might have influenced outcomes in unknown ways.

Finally, it would have been helpful to have a longer follow-up in our study, such as 6 months or even a year. This would have been more consistent with prior studies of NET and would have allowed us to track changes in symptoms across both groups, which could have revealed a different pattern of results than the current ones. A longer follow-up could have been especially helpful for monitoring PTSD symptoms, especially since the pattern of improvement in some NET trials changed drastically from one follow-up point to the other.

Future Directions

Further research could more strongly ascertain the effectiveness of NET in reducing PTSD symptoms to non clinical levels utilizing larger doses of treatment through a greater number of sessions. Moreover, as the control group for this study was a waitlist control group, future research could have more robust control or comparison groups, such as supportive counseling, or alternative psychological treatments to rule out that the effects were mainly attributed to non specific therapeutic factors.

It would also be interesting for future research to contrast and distinguish between NET and other established and widely tested cognitive behavioral therapies, such as prolonged exposure or cognitive processing therapy within the same sample. These findings could further illuminate if there are unique factors about NET that make it needed for survivors of organized violence, or if NET simply repackages other curative elements, such as telling one's story and being exposed and working through the feelings, sensations and thoughts it stirs up.

Additional studies could investigate whether certain subtypes of traumatic events have different patterns of response to a narrative exposure protocol. For example, it is possible that the response of traumas such as torture may be different than traumatic loss or bereavement. Similarly, it may be helpful to explore individual differences moderating the effects of treatment, such as gender, age, cultural background, religious coping, and current psychosocial circumstances.

In light of the robust finding about the effectiveness of Narrative Exposure Therapy in increasing post traumatic growth, it would be interesting for future NET and other trauma interventions to include more measures of positive constructs and outcomes. This would parallel the larger trend in the trauma field to think of trauma not just in terms of pathology and symptoms, but in terms of predictors of resilience, recovery, and growth.

## Conclusion

In conclusion, this study demonstrated that Narrative Exposure Therapy had positive effects on participants' post traumatic stress, depression, wellbeing and vitality, post traumatic growth, frequency of spending time with family and friends, and frequency of symptom impairment. This study represents an important contribution to research investigating feasibility and acceptability of interventions with Arabic speaking samples. It also represents a contribution

to the larger field of refugee mental health. The study also supports the notion that effective PTSD treatment includes components of active trauma processing, thus contributing to the body of evidence based approaches to PTSD treatment.

# APPENDIX A: APPROVED HIC LETTER

WAYNE STATE UNIVERSITY

HUMAN INVESTIGATION COMMITTEE
87 East Canfield, Second Floor
Detroit, Michigan 48201
Phone: (313) 577-1628
FAX: (313) 993-7122
http://hic.wayne.edu

Full AAHRPP Accreditation

## NOTICE OF FULL BOARD APPROVAL

**To:** Mark Lumley
Psychology
Department of Psychology

**From:** Ellen Barton, Ph.D. S Mills/ for
Chairperson, Behavioral Institutional Review Board (B3)

**Date:** September 17, 2010

**RE:** HIC #: 082810B3F
Protocol Title: Stress Reduction in Arab Refugees
Sponsor: ° Psychology
Protocol #: 1008008633

**Expiration Date:** August 18, 2011

**Risk Level / Category:** Research not involving greater than minimal risk

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The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Full Board Review* by the Wayne State University Institutional Review Board (B3) for the period of 09/17/2010 through 08/18/2011. This approval does not replace any departmental or other approvals that may be required.

- Revised Protocol Summary Form, received 09-16-10.
- Behavioral Research Informed Consents (English and Arabic versions), revised 09-16-10.
- Letters of Support received -- (1) ACCESS, (2) CALC.

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° Federal regulations require that all research be reviewed at least annually. You *may* receive a *"Continuation Renewal Reminder"* approximately two months prior to the expiration date; however, it is the Principal Investigator's responsibility to obtain review and continued approval ***before*** the expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research data.

° All changes or amendments to the above-referenced protocol require review and approval by the HIC **BEFORE** implementation.

° Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframe specified in the HIC Policy (http://www.hic.wayne.edu/hicpol.html).

**NOTE:**

1. Upon notification of an impending regulatory site visit, hold notification, and/or external audit the HIC office must be contacted immediately.
2. Forms should be downloaded from the HIC website at **each** use.

**APPENDIX B: RECRUITMENT FLYERS**

WAYNE STATE UNIVERSITY

# RESEARCH OPPORTUNITY

**You are invited to participate in a research study about a program to reduce physical and emotional symptoms among refugees.**

## Who is eligible?

- If your are a refugee
- You experienced a deeply upsetting or traumatic event.
- You are experiencing emotional or physical symptoms.

## What does participation involve?

- Filling out questionnaires about your mood, physical and emotional health, 3 times.
- Meeting with a counselor for 3 sessions to work through your experiences.

## All participants will receive $75 to thank them for their participation.

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If interested, we would love to tell you more about our study. Please call Alaa Hijazi at (313) 577-2882.

WAYNE STATE UNIVERSITY

# فرصة للمشاركة في مشروع بحثي

## نود دعوتكم للمشاركة في دراسة بحثية عن تخفيف الضغط النفسي و الأعراض الصحية عند اللاجئين

### قد تكون مؤهلاً لهذا البرنامج اذا كنت:

~لاجئاً
~ تعرضت لصدمة أو حدث مؤلم
~ لديك متاعب نفسية (شعور بالحزن، القلق، التفكير كثيراً بالحدث)

### ما الذي سيطلب منك؟

~الإجابة على استبيانات عن مزاجك و صحتك النفسية و الجسدية ثلاث مرات
~ احتمال الاشتراك في ثلاث جلسات إرشاد يعاونك المرشد فيها على استيعاب آثار الصدمة و تجاوزها

### جميع المشاركين سيتسلمون هدية بمبلغ $75 لشكرهم على مشاركتهم في الدراسة

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يسرنا أن نقدم لك المزيد من المعلومات إذا كنت مهتماً. الرجاء الاتصال 2882 –577 (313) و السؤال عن آلاء حجازي

## APPENDIX C: TELEPHONE SCRIPT

Telephone Script for Stress Reduction in Middle Eastern Refugees

Hello <*insert patient's name*>, my name is _____ and I'm calling from Wayne State University. I received your name and number from CALC/ACCESS who said that you were interested in learning more about research opportunities for refugees. Can I tell you briefly about this project? If you are interested, we can set up an appointment at ACCESS/CALC/WSU to go over the details and the consent form.

This study is designed to evaluate whether a brief treatment works in helping people reduce their physical and emotional symptoms.

If you participate, you will fill out questionnaires about your mood as well as your physical and emotional wellbeing three times in the next four months. You will complete them today and again in your home one month from today and four months from today and you will mail in the last two. The questionnaires should take about 30-45 minutes each time.

Also, there might be a 2 in 3 chance that you are assigned to starting counseling now or a 1 in 3 chance that you start counseling once the study is over, about four months from now. Whether you start the counseling now or later will be determined randomly, by the flip of a coin. There will be three counseling sessions, each lasting about an hour.

To thank you for your participation, you will receive a gift of 25$ for the first set of questionnaires, 15$ for the second set, and 15$ for the third set. The counseling is given to you for free.

We hope that you are open to meeting, learning more about the study, and possibly participating. Are you interested in participating?

نص المحادثة الهاتفية لدراسة تخفيف الضغط النفسي عند الاجئين الشرق أوسطيين

و رقم مرحباً <ضع اسم المشارك هنا >، أنا اسمي _____ و أتحدث من جامعة وين ستايت. حصلت على اسمك هاتفك من من المركز العربي للخدمات الاجتماعية و الاقتصادية أو رابطة النساء الكلدان الامريكيات للبر
الذين قالوا لي أنك مهتم بعرفة المزيد عن فرص المشاركة في أبحاث مع لاجئين عرب. هل من الممكن أن احدثك قليلاً عن هذا المشروع؟ إن كنت مهتم، يمكننا أن نحدد موعد في مركز الخدمات او في الرابطة الكلدانية أو في مقر الجامعة لشرح تفاصيل الدراسة و الموافقة على المشاركة.

الهدف من هذه الدراسة هو معرفة ما إذا كان علاج نفسي موجز سيساعد الناس على تخفيف أعراضهم الجسدية و النفسية.

إذا شاركت في هذه الدراسة، ستقوم بالإجابة على استبيانات عن مزاجك و صحتك العاطفية و الجسدية ثلاث مرات خلال الأربع أشهر القادمة. سوف تملئ هذه الاستبيانات اليوم ثم تملؤها في منزلك بعد شهر من اليوم و أربع أشهر من اليوم ثم تقوم بأرسال آخر مجموعتين من الاستبيانات بالبريد. تستغرق الاجابة على هذه الاستبيانات حوالي 30-45 دقيقة كل مرة.

إضافة إلى ذلك، هناك احتمال 2 من 3 (أو 66% ) أن تبدأ جلسات الارشاد الآن و 1 من 3 (أو 33%) أن تبدأ جلسات الارشاد بعد انتهاء الدراسة في حوالي أربع أشهر من اليوم. احتمال حصولك على الارشاد الان او مستقبلياً يتم تحديده عشوائياً مثل الاقتراع بالعملة المعدنية . سيكون هناك ثلاث جلسات إرشاد متتالية، مدة كل منهاحوالي ساعة واحدة.

كي نشكرك على مشاركتك، ستستلم هدية عبارة عن 25 دولار لمجموعة الاستبيانات الأولى، 15 دولار لمجموعة الاستبيانات الثانية، و 15دولار لمجموعة الاستبيانات الثالثة. جلسات الارشاد مجانية.

نأمل أن ترحب بلقائنا، ومعرفة المزيد من المعلومات عن الدراسة، و احتمال المشاركة. هل لديك رغبة في المشاركة؟

# APPENDIX D: INFORMED CONSENT FORMS

## Behavioral Research Informed Consent

**Title of Study:** Stress Reduction in Middle Eastern Refugees

**Principal Investigator (PI)**: Mark A. Lumley, Ph.D.
Alaa Hijazi, M.A.
Department of Psychology, Wayne State University
(313) 577 - 2773

**Purpose**

You are being asked to be in a research study of a brief treatment for post traumatic stress because you reported that you have experienced a traumatic or stressful event and are having physical or emotional symptoms as a result of those experiences. This study is being conducted by researchers at Wayne State University. Approximately 80 participants will be enrolled. **Please read this form and ask any questions you may have before agreeing to be in the study.**

In this research study, we are testing whether a brief treatment will help people reduce their physical and emotional symptoms and feel better. This approach involves you developing a narrative or a story of your whole life while focusing on details of your traumatic or stressful experiences.

**Study Procedures**

If you agree to take part in this research study, you will be asked to fill out questionnaires about your mood, emotional and physical well-being, and sleep quality three times during the next four months. You will complete them today, and you will complete them again at your home one month from today, and four months from today. For the questionnaires completed one month and four months from today, a researcher will telephone you at home and read the questions with you over the phone, while you write the answers. It will take 30 – 45 minutes to fill out the questionnaires each time. You can mail the questionnaire from your home to the researchers (we will give you a stamped envelope), or we will pick them up from you.

In addition, some people will be assigned to start the counseling in the next week, and others will be offered the treatment after the study ends (in four months). You have a 2 out 3 chance of starting the counseling now, and a 1 out of 3 chance of being offered the counseling after the study. Whether you have the counseling now or are offered it later will be decided randomly (like by flipping a coin).

There will be three counseling meetings, each lasting about 1 hour. These will be held over the next three weeks. During these three meetings, you will meet with a counselor. You and the counselor will develop your life narrative or story and explore details about the traumatic or stressful events that you experienced. At the end of each session, you will rate your experience of

the session. Throughout the sessions, you and the counselor will create a written document of your story. The document will be kept for the study records and will remain confidential.

In total, if you are assigned to attend the counseling sessions now, you will spend approximately 5 hours on the study over a period of 4 months. If you are assigned to attend the counseling sessions later, you will spend a total of 2 hours on the study over a period of 4 months, and you will be offered the counseling sessions after you are done.

**Benefits**

The possible benefits to you for taking part in this research study are that you may decrease your symptoms and reduce your stress. However, you may not benefit from being in this study. Additionally, information from this study may benefit other people now or in the future

**Risks**

By taking part in this study, you may experience the following risks: Answering questions about your stressful experiences or the counseling sessions may be briefly upsetting or uncomfortable, or may cause you to feel some anxiety and sadness. However, any discomfort will most likely pass quickly. You will also be provided with a list of referrals to mental health services if you would like to seek further assistance. Additionally, there is some risk to you of losing confidentiality. Although most information will be kept confidential, there are some instances where we are required to report our concerns to the authorities. The following information must be released or reported to the appropriate authorities if at any time during the study there is concern that:

- abuse of a child, elder or disabled person has possibly occurred
- you might cause substantial harm to yourself or others

There may be risks involved from taking part in this study that are not known to researchers at this time.

**Alternatives**

As an alternative to this study, you may choose to consult with your physician about the best way for you to manage your physical and emotional symptoms. You may choose to not participate in this study.

**Study Costs**

Participation in this study will be of no cost to you.

**Compensation**

Each participant will receive a gift of $35 after finishing the first set of questionnaires, $20 for the second set of questionnaires, and $20 for the third set of questionnaires.

**Research Related Injuries**

It is highly unlikely that your participation in this study will result in any injuries. In the event that participating in this research results in an injury, treatment will be made available including first aid, emergency treatment, and follow-up care as needed. No reimbursement, compensation, or free medical care is offered by Wayne State University. If you think that you have suffered a research related injury, contact the PI right away at (313) 577 – 2773.

**Confidentiality**

All information collected about you during the course of this study will be kept confidential to the extent permitted by law. You will be identified in the research records by a code name or number. Information that identifies you personally will not be released without your written permission. However, the study sponsor, the Human Investigation Committee (HIC) at Wayne State University, or federal agencies with appropriate regulatory oversight [e.g., Food and Drug Administration (FDA), Office for Human Research Protections (OHRP), Office of Civil Rights (OCR), etc.) may review your records.

When the results of this research are published or discussed in conferences, no information will be included that would reveal your identity.

**Voluntary Participation/Withdrawal**

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you decide to take part in the study you can later change your mind and withdraw from the study. You are free to only answer questions that you want to answer, and to participate in the sessions to the degree that you wish. You are free to withdraw from participation in this study at any time. Your decisions will not change any present or future relationship with Wayne State University or its affiliates, or other services you are entitled to receive.

The PI may stop your participation in this study without your consent. The PI will make the decision and let you know if it is not possible for you to continue. The decision that is made is to protect your health and safety, or because you did not follow the instructions to take part in the study

**Questions**

If you have any questions about this study now or in the future, you may contact Alaa Hijazi, doctoral student, or Dr. Mark Lumley at the following phone number: (313) 577–2773. If you have questions or concerns about your rights as a research participant, the Chair of the Human Investigation Committee can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call (313) 577-1628 to ask questions or voice concerns or complaints.

**Consent to Participate in a Research Study**

To voluntarily agree to take part in this study, you must sign on the line below. If you choose to take part in this study you may withdraw at any time. You are not giving up any of your legal rights by signing this form. Your signature below indicates that you have read, or had read to you, this entire consent form, including the risks and benefits, and have had all of your questions answered. You will be given a copy of this consent form. The consent process was conducted by a bilingual research assistant who was available to explain the form and answer any questions in both Arabic and English.

| | |
|---|---|
| _____ | _____ |
| Signature of participant | Date |
| _____ | _____ |
| Printed name of participant | Time |
| _____ | _____ |
| Signature of witness** | Date |
| _____ | _____ |
| Printed of witness** | Time |
| _____ | _____ |
| Signature of person obtaining consent | Date |
| _____ | _____ |
| Printed name of person obtaining consent | Time |

**Use when participant has had this consent form read to them (i.e., illiterate, legally blind, translated into foreign language).

| | |
|---|---|
| _____ | _____ |
| Signature of translator | Date |
| _____ | _____ |
| Printed name of translator | Time |

## نموذج الموافقة على الاشتراك في دراسة

**عنوان الدراسة:** تخفيف الضغط النفسي عند اللاجئين الشرق أوسطيين
**الباحث الرئيسي:** الدكتور مارك لاملي، آلاء حجازي، قسم علم النفس في جامعة وين ستايت
**تلفون:** 2773 -577 (313)

**الغاية**

مطلوب منك المشاركة في دراسة بحثية عن علاج موجز للضغوط النفسية ما بعد الصدمة لأنك ذكرت أنك تعرضت لصدمة أو موقف أليم تسبب لك بأعراض جسدية و نفسية. تجري هذه الدراسة من قبل جامعة وين ستايت. يقدر عدد عينة البحث من المشاركين 80 مشارك.

- **الرجاء قراءة هذا النموذج و طرح أي اسئلة لديك قبل الموافقة على الاشتراك في هذه الدراسة.**

هدف هذه الدراسة البحثية هو معرفة ما إذا كان علاج نفسي موجز سيساعد على تخفيف حدة الأعراض النفسية و الجسدية لدى المشتركين ومساعدتهم على الشعور بتحسن. خلال هذا الأسلوب العلاجي سوف تقوم بصياغة قصة أو رواية لحياتك مع التركيز على تفاصيل الصدمات أو التجارب الأليمة التي مررت بها.

**خطوات الدراسة**

إذا وافقت على المشاركة فستقوم بالإجابة على استبيانات (عن مزاجك وصحتك العاطفية و الجسدية و جودة نومك) ثلاث مرات خلال الأربع أشهر القادمة. سوف ستجيب على هذه الاستبيانات اليوم ثم ستجيب عليها في منزلك بعد شهر و أربع أشهر من اليوم. بالنسبة للاستبيانات التي ستملؤها بعد شهر و أربع أشهر من اليوم، سوف يقوم أحد الباحثين بمحادثتك على الهاتف و قراءة الاستبيانات معك فيما تقوم أنت بالإجابة على الأسئلة. تستغرق الإجابة على هذه الاستبيانات حوالي 30-45 دقيقة كل مرة. يمكنك إرسال الاستبينات بالبريد إلى فريق البحث (سوف نقوم بتزويدك بمغلف و طوابع) أو يمكننا أن نحضرها منك.

إضافة إلى ذلك، سيتم تعيين بعض الأفراد لابتداء جلسات الإرشاد الأسبوع القادم فيما سيمنح الآخرون فرصة العلاج بعد إنتهاء الدراسة (في أربع شهور). احتمال أن تبدأ في الإرشاد الآن هو 2 من 3 (أو 66%) واحتمال أن تمنح هذه الفرصة بعد انتهاء الدراسة هو 1 من 3 (أو 33%). احتمال حصولك على الإرشاد الآن أو بعد انتهاء الدراسة يتم تحديده عشوائياً مثل الاقتراع بعملة معدنية.

سيكون هناك ثلاث جلسات إرشاد متتالية، مدة كل منها ساعة واحدة ،وستعقد خلال الثلاث أسابيع المقبلة. في خلال هذه الجلسات ستقوم بلقاء مرشد نفسي يعاونك على صياغة قصة حياتك و استوضاح تفاصيل الصدمات أو التجارب الأليمة التي واجهتها. ثم سوف تقيم تجربتك بعد كل جلسة. خلال الجلسات سوف تقوم أنت و المرشد بكتابة وثيقة عن قصة حياتك. سيُحتفظ بهذه الوثيقة كجزء من سجلات الدراسة و ستحاط هذه الوثيقة بالسرية.

إذا تم تعيينك لابتداء الإرشاد الآن فسيكون مجموع الوقت الكلي للاشتراك في الدراسة 5 ساعات خلال 4 أشهر. أما اذا تم تعيينك للإرشاد لاحقاً ، فيستغرق إشتراكك في الدراسة ساعتين خلال 4 أشهر، وسوف يتم منحك فرصة العلاج بعد انتهاء الدراسة.

**المنافع**

المنافع المحتملة من مشاركتك في الدراسة هي تخفيف أعراضك و ضغوطك النفسية، و لكن قد لا تحصل على منافع من مشاركتك في الدراسة. إضافة إلى ذلك، قد تنفع المعلومات المستحصلة من الدراسة أشخاصاً آخرين الآن أو في المستقبل.

**المخاطر**

قد تواجه المخاطر التالية عند مشاركتك في الدراسة:إجابة أسئلة عن تجاربك الأليمة أو المشاركة في جلسات الإرشاد قد يضايقك مؤقتاً أو تسبب لك شعور بالحزن أو القلق، لكن أي انزعاج غالباً ما يمر سريعاً. سوف نقوم بتزويدك بقائمة خدمات للصحة نفسية في حال رغبت في الحصول على مساعدة إضافية. إضافة إلى ذلك، هناك احتمال أن تفقد سرية معلوماتك. مع أن معظم المعلومات ستحاط بسرية، إلا أن هناك بعض الحالات التي تقتضي منا أن نبلغ مخاوفنا إلى السلطات. يتوجب علينا إبلاغ السلطات المختصة في حال وجود مخاوف أي وقت خلال الدراسة من احتمال:

- حدوث إيذاء لطفل، شخص كبير السن، أو شخص معاق.
- أن تسبب بأذى بالغ لنفسك أو للآخرين.

قد تكون هناك مخاطر أخرى متعلقة بمشاركتك في الدراسة لاعلم للباحثين بها في هذا الوقت.

**البدائل**

كبديل لمشاركتك في هذه الدراسة، يمكنك ان تقوم باستشارة طبيبك عن الطريقة المثلى لتخفيف أعراضك الجسدية و النفسية. يمكنك أيضاً اختيار عدم المشاركة في الدراسة.

**التكاليف**

لن تترتب عليك أي تكاليف عن مشاركتك في الدراسة .

**التعويض**

سيستلم كل مشارك هدية عبارة عن 35 دولار بعد إنهاء مجموعة الاستبيانات الأولى، 20 دولار بعد إنهاء مجموعة الاستبيانات الثانية، و 20 دولار بعد إنهاء مجموعة الاستبيانات الثالثة.

**الاصابات المتعلقة بالمشاركة**

من غير المتوقع أن تؤدي المشاركة في الدراسة إلى أية عوارض أو إصابات. في حال أدت المشاركة في الدراسة إلى إصابة سيتم توفير العلاج ويتضمن : الإسعافات الأولية وعلاج الحالات الطارئة و المتابعة

العلاجية حسب الحاجة . ليس هناك تعويضات أو علاج طبي مجاني من قبل جامعة وين. إذا اعتقدت أنك تعاني من إصابة متعلقة بالدراسة اتصل مباشرة بالباحث الرئيسي على الرقم2773 -577 (313).

**الكتمان**

سيتم إحاطة كافة المعلومات التي تجمع عنك خلال الدراسة بكامل السرية التي يسمح بها القانون. سيكون تعريفك في سجلات الدراسة بواسطة رقم تعريفي أو اسم مستعار و لن يتم الكشف عن المعلومات التي تشير إلى هويتك إلا بموافقتك الخطية ،إلا أن ممول الدراسة (لجنة التقصي الإنساني) في جامعة وين أو الوكالات الفدرالية المختلفة المخولة قانوناً يمكن أن تطلع على هذه السجلات.

عندما سيتم الإعلان عن نتائج الدراسة أو نشرها أو مناقشتها في المؤتمرات لن يتم إعطاء أي معلومات عن هوية المشاركين.

**الإشتراك الطوعي\ الانسحاب**

الاشتراك في الدراسة تطوعي فلديك الحق في عدم المشاركة. إذا قررت المشاركة تستطيع فيما بعد أن تغير رأيك و تنسحب. من حقك الإجابة على الأسئلة التي تختار الإجابة عنها و أن تشارك في الجلسات التي تريد المشاركة فيها. لديك الحرية في الإنسحاب من الدراسة متى شئت. قراراتك لن تغير أي علاقة حاضرة أو مستقبلية مع جامعة وين و ما يتبعها أو الخدمات
التي هي من حقك.

يمكن للباحث الرئيسي إيقاف مشاركتك في الدراسة دون موافقتك. يمكن للباحث الرئيسي أن يتخذ هذا القرار و يقوم بإخبارك بعدم إمكانية استمرارك. هذا القرار سيكون لغرض حماية صحتك و سلامتك أو لأنك خالفت تعليمات المشاركة في الدراسة.
خلال مشاركتك في الدراسة سيتم إخبارك بأي مستجدات مهمة ربما تغير من رغبتك بالاستمرار في الدراسة.

**الأسئلة**

إذا كانت لديك أي أسئلة حول الدراسة الآن أو في المستقبل يمكنك الاتصال بآلاء حجازي، طالبة الدكتوراة، أو الدكتور مارك لاملي على الرقم التالي 2773 -577 (313) . إذا كان لديك أسئلة أواهتمامات حول حقوقك كمشارك في البحث يمكنك الاتصال برئيس لجنة التقصي الانساني على الرقم 1628-577 (313). إذا لم تستطيع الاتصال بأحد أعضاء فريق البحث أو إذا أردت التحدث إلى شخص خارج فريق البحث يمكنك الاتصال بالرقم السابق لطرح التساؤلات أو إبداء التخوفات أو الشكاوي.

**الموافقة على الاشتراك في دراسة بحثية**

كي تعلن موافقتك الطوعية على المشاركة في هذه الدراسة عليك التوقيع على الخط المنقط أدناه .إذا اخترت المشاركة في الدراسة فيمكنك الانسحاب في أي وقت من الأوقات .توقيعك بالموافقة لا يسقط أي حق من حقوقك القانونية .توقيعك أدناه يعني أنك قد قرأت أو أن أحداً قد قرأ لك كامل وثيقة الموافقة وما تتضمنها من فوائد ومخاطر وأن جميع استفساراتك قد أجيب عليها. سيتم إعطاؤك نسخة من نموذج الموافقة هذا.

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توقيع المشارك أو من يمثله قانونياً التاريخ

---------- ----------

اسم المشارك أو من يمثله قانونياً التوقيت

---------- ----------

توقيع الشاهد التاريخ

---------- ----------

اسم الشاهد التوقيت

---------- ----------

توقيع مسجل البيانات التاريخ

---------- ----------

اسم مسجل البيانات التوقيت

| | |
|---|---|
| | استخدم هذا الجزء عندما يكون المشارك غير قادر على القراءة بسبب الجهل أو فقدان البصر المثبت طبياً أو عندما يحتاج إلى مترجم إلى لغة أخرى . |

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توقيع المترجم التاريخ

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اسم المترجم التوقيت

# APPENDIX E: MEASURES

## Demographic Questionnaire

Gender:_____

Age:_____

Marital status:_____

Level of education:_____

Country of Origin:_____

Ethnicity: _____

Religious preference:_____

Language(s):_____

Number of years in the U.S.A:_____

Which countries were you in before the U.S.A.(other than country of origin)?_____

Number of years in these countries:_____

الجنس (ذكر أو أنثى):_____

السن:_____

الحالة الاجتماعية: _____

المستوى التعليمي (ابتدائي، إعدادي، ثانوي، جامعة، الخ):_____

البلد الأصلي:_____

العرق( كلداني، عربي، الخ):_____

الديانة:_____

اللغة:_____

عدد السنوات في أمريكا:_____

في أي بلد كنت قبل قدومك إلى أمريكا؟ _____

عدد السنوات التي عشتها في هذا البلد:_____

عدد البلاد التي عشت فيها قبل قدوك إلى أمريكا:_____

ما هي هذه البلاد؟_____

**Sleep Questionnaire**

1- How would you rate your sleep overall?

Very poor  Rather Poor  Fair  Rather good  Very Good

| | Always | Often | Sometimes | Rarely | Never |
|---|---|---|---|---|---|
| 2- Do you have difficulties falling asleep? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3- Do you frequently wake up at night with difficulties going back to sleep? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4-Do you feel rested when you wake up in the morning? | ☐ | ☐ | ☐ | ☐ | ☐ |

**استبيان النوم**

1-؟كيف تقيم نومك بشكل عام؟

جيد جدا  جيد الى حدٍ ما  لا بأس به  سيئ إلى حدٍ ما  سيئ جدا

| | دائماً | كثيراً | أحياناً | نادراً | أبداً |
|---|---|---|---|---|---|
| 2- هل تجد صعوبة في الخلود إلى النوم؟ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3- هل تستيقظ مراراً خلال الليل و تجد صعوبة في العودة إلى النوم؟ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4- هل تشعر بالراحة والانتعاش عندما تستيقظ في الصباح؟ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Physical Symptoms (PHQ-15)

**During the past 4 weeks, how much have you been bothered by any of the following problems?**

| | Not Bothered at all (0) | Bothered a little (1) | Bothered a lot (2) |
|---|---|---|---|
| a. Stomach pain …….…….. | ☐ | ☐ | ☐ |
| b. Back pain ……..…….. | ☐ | ☐ | ☐ |
| c. Pain in your arms, legs, or joints (knees, hips, etc.) .. | ☐ | ☐ | ☐ |
| d. Menstrual cramps or other problems with your periods [***Women only***] ……. | ☐ | ☐ | ☐ |
| e. Headaches …….…….. | ☐ | ☐ | ☐ |
| f. Chest pain …….…… | ☐ | ☐ | ☐ |
| g. Dizziness …… | ☐ | ☐ | ☐ |
| h. Fainting spells …..……. | ☐ | ☐ | ☐ |
| i. Feeling your heart pound or race …….. | ☐ | ☐ | ☐ |
| j. Shortness of breath ……..…… | ☐ | ☐ | ☐ |
| k. Pain or problems during sexual intercourse…… | ☐ | ☐ | ☐ |
| l. Constipation, loose bowels, or diarrhea …… | ☐ | ☐ | ☐ |
| m. Nausea, gas, or indigestion …… | ☐ | ☐ | ☐ |
| n. Feeling tired or having low energy ……. | ☐ | ☐ | ☐ |
| o. Trouble sleeping …….. | ☐ | ☐ | ☐ |

## الأعراض الجسدية

خلال الأربع أسابيع الماضية، ما مدى انزعاجك من اي من الاعراض التالية؟

| | لم أنزعج ابداً | انزعجت قليلًا | انزعجت كثيراً |
|---|---|---|---|
| 1- آلام في المعدة | ☐ | ☐ | ☐ |
| 2- آلام في الظهر | ☐ | ☐ | ☐ |
| 3- آلام في الذراعين، الساقيين، أو المفاصل (الركبتين، الأوراك، إلخ.) | ☐ | ☐ | ☐ |
| 4- تشنجات الطمث أو مشاكل أخرى في الدورة الشهرية (للنساء فقط). | ☐ | ☐ | ☐ |
| 5- الصداع | ☐ | ☐ | ☐ |
| 6- آلام في الصدر | ☐ | ☐ | ☐ |
| 7- الدوخة أو الدوار | ☐ | ☐ | ☐ |
| 8- نوبات إغماء | ☐ | ☐ | ☐ |
| 9- الشعور بخفقان أو تسارع نبضات القلب | ☐ | ☐ | ☐ |
| 10- ضيق التنفس | ☐ | ☐ | ☐ |
| 11- آلام او مشاكل أثناء الجماع | ☐ | ☐ | ☐ |
| 12- إمساك أو إسهال أو ليونة في التبرز | ☐ | ☐ | ☐ |
| 13- الشعور بالغثيان، غازات، أو عسر الهضم | ☐ | ☐ | ☐ |
| 14- الشعور بالتعب أو قلة الطاقة | ☐ | ☐ | ☐ |
| 15- صعوبة في النوم | ☐ | ☐ | ☐ |

## Questions about Daily Functioning

**During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?**

| All of the time | Most of the time | Some of the time | A little of the time | None of the time |
|---|---|---|---|---|
| ☐1 | ☐2 | ☐3 | ☐4 | ☐5 |

**During the past 4 weeks, how much did you engage in the following activities:**

| | Quite Often | Sometimes | Occasionally | Never |
|---|---|---|---|---|
| 1- Spending time with family, relatives and friends | ☐1 | ☐2 | ☐3 | ☐4 |
| 2- Participating in hobbies you like such as reading or walking | ☐1 | ☐2 | ☐3 | ☐4 |
| 3- Utilizing medical services | ☐1 | ☐2 | ☐3 | ☐4 |
| 4- Utilizing English language training services | ☐1 | ☐2 | ☐3 | ☐4 |
| 5- Utilizing job skills training or placement services | ☐1 | ☐2 | ☐3 | ☐4 |
| 6- Utilizing immigration services | ☐1 | ☐2 | ☐3 | ☐4 |
| 7- Going to a meeting of a church, mosque, club, team, or other group | ☐1 | ☐2 | ☐3 | ☐4 |

## أسئلة عن الآداء اليومي

**خلال الأسابيع الأربعة الماضية، ما مقدار الوقت الذي تعارضت فيه صحتك الجسمية أو مشاكلك النفسية مع نشاطاتك الاجتماعية (مثل زيارة الأصدقاء و الأقارب و غير ذلك)؟**

| في كل الأوقات | في معظم الأوقات | في بعض الأوقات | في قليل من الأوقات | اطلاقا |
|---|---|---|---|---|
| ▼ | ▼ | ▼ | ▼ | ▼ |
| ☐1 | ☐2 | ☐3 | ☐4 | ☐5 |

**في الأربع أسابيع الماضية كم من الوقت شاركت في النشاطات التالية:**

| | عدة مرات | أحياناً | نادراً | إطلاقاً |
|---|---|---|---|---|
| | ▼ | ▼ | ▼ | ▼ |
| أ.قضاء وقت مع الأسرة و الأقارب و الأصدقاء | ☐1 | ☐2 | ☐3 | ☐4 |
| ب.مارست بعض الهوايات التي تحبها مثل القراءة و المشي | ☐1 | ☐2 | ☐3 | ☐4 |
| ج. استخدمت خدمات صحية | ☐1 | ☐2 | ☐3 | ☐4 |
| د. اسخدمت خدمات تعليم مهارت اللغة الإنجليزية | ☐1 | ☐2 | ☐3 | ☐4 |
| ه. استخدمت خدمات توظيف أو تدريب مهارات العمل | ☐1 | ☐2 | ☐3 | ☐4 |
| ز. استخدمت خدمات متعلقة بالهجرة (إلى الولايات المتحدة) | ☐1 | ☐2 | ☐3 | ☐4 |
| ح. ذهبت إلى تجمع في جامع أو كنيسة أو نادي أو فريق أو مجموعة اجتماعية أخرى | ☐1 | ☐2 | ☐3 | ☐4 |

**Psychiatric Research Unit**
WHO Collaborating Centre in Mental Health

## WHO (Five) Well-Being Index (1998 version)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box with the number 3 in the upper right corner.

| | *Over the last two weeks* | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
|---|---|---|---|---|---|---|---|
| 1 | **I have felt cheerful and in good spirits** | ☐ 5 | ☐ 4 | ☐ 3 | ☐ 2 | ☐ 1 | ☐ 0 |
| 2 | **I have felt calm and relaxed** | ☐ 5 | ☐ 4 | ☐ 3 | ☐ 2 | ☐ 1 | ☐ 0 |
| 3 | **I have felt active and vigorous** | ☐ 5 | ☐ 4 | ☐ 3 | ☐ 2 | ☐ 1 | ☐ 0 |
| 4 | **I woke up feeling fresh and rested** | ☐ 5 | ☐ 4 | ☐ 3 | ☐ 2 | ☐ 1 | ☐ 0 |
| 5 | **My daily life has been filled with things that interest me** | ☐ 5 | ☐ 4 | ☐ 3 | ☐ 2 | ☐ 1 | ☐ 0 |

# WHO معيار التقدم (5)

من فضلك ضع دائرة حول الإجابة التي تصف كيف شعرت في **الأسبوعيين الماضيين .** لا حظ بأن درجة أعلى تعني شعور أفضل.

| في الاسبوعيين الماضيين | دائماً | أكثر الأحيان | أكثر بقليل من نصف الوقت | أقل بقليل من نصف الوقت | قليل من الوقت (نادراً) | إطلاقاً |
|---|---|---|---|---|---|---|
| **1- كنت سعيداً و بمزاج جيد** | 5 | 4 | 3 | 2 | 1 | 0 |
| **2- كنت أشعر بالهدوء و الاسترخاء** | 5 | 4 | 3 | 2 | 1 | 0 |
| **3- كنت أشعر بالحيوية و النشاط** | 5 | 4 | 3 | 2 | 1 | 0 |
| **4- كنت استيقظ نشطاً و مرتاحاً** | 5 | 4 | 3 | 2 | 1 | 0 |
| **5- كانت أيامي مليئة بأشياء محببة إلى نفسي** | 5 | 4 | 3 | 2 | 1 | 0 |

# BDI-II

Date:

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

**Instructions:** This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

**1. Sadness**

0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

**2. Pessimism**

0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

**3. Past Failure**

0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

**4. Loss of Pleasure**

0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

**5. Guilty Feelings**

0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

**6. Punishment Feelings**

0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

**7. Self-Dislike**

0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

**8. Self-Criticalness**

0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

**9. Suicidal Thoughts or Wishes**

0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

**10. Crying**

0 I don't cry anymore than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

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Subtotal Page 1

Continued on Back

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**11. Agitation**

0 I am no more restless or wound up than usual.

1 I feel more restless or wound up than usual.

2 I am so restless or agitated that it's hard to stay still.

3 I am so restless or agitated that I have to keep moving or doing something.

**12. Loss of Interest**

0 I have not lost interest in other people or activities.

1 I am less interested in other people or things than before.

2 I have lost most of my interest in other people or things.

3 It's hard to get interested in anything.

**13. Indecisiveness**

0 I make decisions about as well as ever.

1 I find it more difficult to make decisions than usual.

2 I have much greater difficulty in making decisions than I used to.

3 I have trouble making any decisions.

**14. Worthlessness**

0 I do not feel I am worthless.

1 I don't consider myself as worthwhile and useful as I used to.

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

**15. Loss of Energy**

0 I have as much energy as ever.

1 I have less energy than I used to have.

2 I don't have enough energy to do very much.

3 I don't have enough energy to do anything.

**16. Changes in Sleeping Pattern**

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1–2 hours early and can't get back to sleep.

**17. Irritability**

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

**18. Changes in Appetite**

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

**19. Concentration Difficulty**

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

2 It's hard to keep my mind on anything for very long.

3 I find I can't concentrate on anything.

**20. Tiredness or Fatigue**

0 I am no more tired or fatigued than usual.

1 I get more tired or fatigued more easily than usual.

2 I am too tired or fatigued to do a lot of the things I used to do.

3 I am too tired or fatigued to do most of the things I used to do.

**21. Loss of Interest in Sex**

0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

____ Subtotal Page 2

____ Subtotal Page 1

____ Total Score

## مقياس (د-2) BDI -II

**توجيهات**

الرجاء أن تقرأ كل مجموعة من العبارات بعناية ، ثم اختار من كل مجموعة عبارة واحدة والتي تصف بطريقة أفضل الطريقة التي تشعر بها **خلال الأسبوعين الأخيرين** .ضع دائرة حول الرقم جوار العبارة التي اخترتها. ولو بدا لك أن اكثر من عبارة في مجموعة العبارات تنطبق عليك بطريقة متساوية ، ضع دائرة حول أعلى رقم في هذه المجموعة وتأكد أنك لا تختار أكثر من عبارة في أي مجموعة بما في ذلك المجموعة 16 ( تغيرات في نمط النوم ) أو المجموعة 18 ( تغيرات في الشهية ).

**1- الحزن**
0 لا أشعر بالحزن
1 أشعر بالحزن أغلب الوقت
2 أنا حزين طول الوقت
3 أنا حزين أو غير سعيد لدرجة لا أستطيع تحملها

**2- التشاؤم**
0 لا أشعر بالاحباط حول مستقبلي
1 أشعر بالاحباط حول مستقبلي أكثر من العادة
2 لا أتوقع أن تسير الأمور بشكل جيد بالنسبة لي
3 أشعر أن مستقبلي بلا أمل وأنه سوف يزداد سوءا

**3- الفشل السابق**
0 لا أشعر بأنني شخص فاشل
1 فشلت أكثر مما يجب
2 عندما أنظر إلى الماضي أرى الكثير من الفشل
3 أشعر بأني شخص فاشل تماماً

**4- فقدان الاستمتاع**
0 أستمتع بالأشياء التي أحبها كما في السابق
1 لا أستمتع بالأشياء كما في السابق
2 أحصل على قدر قليل جداً من الاستمتاع بالأشياء التي كنت استمتع بها سابقا
3 لا أستطيع الحصول على أي استمتاع من الأشياء التي كنت استمتع بها سابقاً

**5- مشاعر الذنب ( تأنيب الضمير)**
0 لا أشعر بالذنب ( تأنيب الضمير )
1 أشعر بالذنب ( تأنيب الضمير ) عن العديد من الأشياء التي فعلتها أو كان علي فعلها
2 أشعر بالذنب ( تأنيب الضمير ) أغلب الوقت
3 أشعر بالذنب ( تأنيب الضمير ) طول الوقت

**6- مشاعر العقاب**
0 لا أشعر بأنه يقع على عقاب
1 أشعر بأنه ربما يقع على عقاب
2 أتوقع أن يقع على عقاب
3 أشعر بأنه يقع على عقاب

**7- عدم حب الذات**
0 شعوري نحو نفسي كما هو
1 فقدت الثقة في نفسي
2 خاب أملي في نفسي
3 أنا لا أحب نفسي

**8- نقد الذات**
0 لا أنتقد أو ألوم نفسي أكثر من المعتاد
1 انقد نفسي أكثر عما كنت في السابق
2 أنقد أو ألوم نفسي على كل أخطائي
3 ألوم نفسي على كل شيء سيء يحصل

**9- الأفكار أو الرغبات الانتحارية**
0 ليس لدي أي أفكار للانتحار
1 لدي أفكار للانتحار ولكن لا يمكنني تنفيذها
2 أريد أن انتحر
3 قد أنتحر لو سنحت لي الفرصة

**10- البكاء**
0 لا أبكي أكثر من السابق
1 ابكي أكثر من السابق
2 أبكي لأبسط الأمور
3 أريد أن أبكي لكني لا أستطيع

**11- التهيج والاستثارة (قلة الاستقرار أو الهدوء)**
0 لست أكثر تهيجا أو استثارة عن المعتاد
1 أشعر بالتهيج والاستثارة أكثر من المعتاد
2 أهتاج أو استثار لدرجة أنه من الصعب على البقاء بدون حركة أو البقاء هادئاً
3 أهتاج أو استثار لدرجة يجب علي الاستمرار بالحركة أو فعل شيء

**12- فقدان الاهتمام**
0 لم أفقد اهتمامي بالآخرين أو بالنشاطات
1 أصبحت أقل اهتماماً بالاخرين أو بالنشطات عن السابق
2 فقدت أغلب اهتمامي بالآخرين و الأمور الأخرى
3 من الصعب أن أهتم بأي شيء

**13- التردد**
0 اتخذ القرارات بنفس كفاءتي المعتادة
1 أجد اتخاذ القرارات أصعب من المعتاد
2 لدي صعوبة أكثر بكثير عن السابق في اتخاذ القرارات
3 لدي مشكلة في اتخاذ أي قرارات

**14- انعدام القيمة**
0 لا أشعر بأنني عديم القيمة
1 لا أشعر بأن لي قيمة أو فائدة كما في السابق
2 أشعر بأنني أقل قيمة من الآخرين
3 أشعر بأنني عديم القيمة أو بلا فائدة

**15- فقدان الطاقة**
0 طاقتي لا تختلف عن السابق
1 طاقتي أقل من المعتاد
2 ليس لدي طاقة كافية لعمل الكثير من الأشياء
3 ليس لدي طاقة كافية لعمل أي شيء

**16- تغيرات في نمط النوم**
0 لم أشعر بتغير في نمط ( نظام) نومي
1- أ أنام أكثر من المعتاد
1- ب أنام أقل من المعتاد
2- أ أنام أكثر بكثير من السابق
2- ب أنام أقل بكثير من السابق
3- أ أنام أغلب اليوم
3 - ب أستيقظ من نومي مبكراً ساعة أو ساعتان ولا أستطيع أن أعود للنوم مرة أخرى

**17- القابلية للغضب أو الانزعاج**
0 قابليتي للغضب أو الانزعاج لم تتغير عن المعتاد
1 قابليتي للغضب أو الانزعاج أكبر من المعتاد
2 قابليتي للغضب أو الانزعاج أكبر بكثير من المعتاد
3 لدي قابلية للغضب أو الانزعاج طول الوقت

**18- تغيرات في الشهية**
0 لم يحدث أي تغير في شهيتي
1- أ شهيتي أقل من المعتاد إلى حد ما
1 - ب شهيتي أكبر من المعتاد إلى حد ما
2 - أ شهيتي أقل بكثير من السابق
2 - ب شهيتي أكبر بكثير من السابق
3 - أ ليست لدي شهية على الإطلاق
3 - ب اشتهي الطعام طول الوقت

**19- صعوبة التركيز**
0 أستطيع التركيز كما في السابق
1 تركيزي ليس جيداً كما في السابق
2 من الصعب علي أن أركز عقلي علي أي شئ لمدة طويلة
3 أجد نفسي غير قادر على التركيز على أي شئ

**20- التعب و الإرهاق**
0 لست أكثر تعباً أو إرهاقاً من المعتاد
1 أشهر بالتعب أو الأرهاق بسهولة أكثر من المعتاد
2 يعوقني التعب أو الأرهاق عن عمل الكثير من الأشياء التي اعتدت عملها
3 أشعر بالتعب و الارهاق بحيث لا يمكنني عمل أغلب الأشياء التي اعتدت عليها

**21- فقدان الاهتمام بالجنس**
0 لم ألاحظ أي تغير في اهتمامي بالجنس مؤخراً
1 أنا أقل اهتماماً بالجنس مما اعتدت
2 أنا اقل اهتماماً بالجنس الأن بدرجة كبيرة
3 فقدت الاهتمام بالجنس تماماً

# Harvard Trauma Questionnaire

## Instructions:

We would like to ask you about your past history and present symptoms. This information will be used to help us provide you with better medical care. However, you may find some questions upsetting. If so, please feel free not to answer. This will certainly not affect your treatment. Your responses will be kept confidential.

### Part I: Trauma Events

Please indicate whether you have experienced any of the following events (check "YES" or "NO" for each column).

| | Yes | No |
|---|---|---|
| 1. Oppressed because of ethnicity, religion, or sect | | |
| 2. Present while someone searched for people or things in your home. | | |
| 3. Searched arbitrarily | | |
| 4. Property looted, confiscated, or destroyed | | |
| 5. Forced to leave your hometown and settle in a different part of the country with minimal services | | |
| 6. Imprisoned arbitrarily | | |
| 7. Suffered ill health without access to medical care or medicine | | |
| 8. Suffered from lack of food or clean water | | |
| 9. Forced to flee your country | | |
| 10. Expelled from country based on ancestral origin, religion, or sect | | |
| 11. Lacked shelter | | |
| 12. Witnessed the desecration or destruction of religious shrines or places of religious instruction | | |
| 13. Witnessed the arrest, torture, or execution of religious leaders or important members of tribe | | |
| 14. Witnessed mass execution of civilians | | |
| 15. Witnessed shelling, burning, or razing of residential areas or marshlands | | |
| 16. Witnessed chemical attacks on residential areas or marshlands | | |
| | **YES** | NO |

| | | |
|---|---|---|
| 17. Exposed to combat situation (explosions, artillery fire, shelling) or landmine. | | |
| 18. Serious physical injury from combat situation or landmine | | |
| 19. Used as a human shield | | |
| 20. Serious physical injury of family member or friend from combat situation or landmine | | |
| 21. Witnessed rotting corpses | | |
| 22. Confined to home because of chaos and violence outside | | |
| 23. Witnessed someone being physically harmed (beating, knifing, etc.) | | |
| 24. Witnessed sexual abuse or rape | | |
| 25. Witnessed torture | | |
| 26. Witnessed murder | | |
| 27. Forced to inform on someone placing them at risk of injury or death | | |
| 28. Forced to destroy someone's property | | |
| 29. Forced to physically harm someone (beating, knifing, etc.) | | |
| 30. Murder or violent death of family member (child, spouse, etc.) or friend | | |
| 31. Forced to pay for bullet used to kill family member | | |
| 32. Received the body of a family member and prohibited from mourning them and performing burial rites | | |
| 33. Disappearance of family member (child, spouse, etc.) or friend | | |
| 34. Disappearance or kidnapping of a family member or a friend | | |
| 35. family member (child, spouse, etc.) or friend taken as a hostage | | |
| 36. Someone informed on you placing you and your family at risk of injury or death. | | |
| 37. Physically harmed (beaten, knifed, etc.) | | |
| 38. Kidnapped | | |
| 39. Taken as a hostage | | |
| 40. Sexually abused or raped | | |
| 41. Tortured (i.e., while in captivity you received deliberate and systematic infliction of physical and/or mental suffering) | | |
| 42. Please specify any other situation that was very frightening or in which you felt your life was in danger: | | |

## Part II: Trauma Symptoms

The following are symptoms that people sometimes have after experiencing hurtful or terrifying events in their lives. Please read each one carefully and decide how much the symptoms bothered you in the past week.

| | Not at all (1) | A little (2) | Quite a bit (3) | Extremely (4) |
|---|---|---|---|---|
| 1. Recurrent thoughts or memories of the most hurtful or terrifying events | | | | |
| 2. Feeling as though the event is happening again | | | | |
| 3. Recurrent nightmares | | | | |
| 4. Feeling detached or withdrawn from people | | | | |
| 5. Unable to feel emotions | | | | |
| 6. Feeling jumpy, easily startled | | | | |
| 7. Difficulty concentrating | | | | |
| 8. Trouble sleeping | | | | |
| 9. Feeling on guard | | | | |
| 10. Feeling irritable or having outbursts of anger | | | | |
| 11. Avoiding activities that remind you of the hurtful event | | | | |
| 12. Inability to remember parts of the most hurtful events | | | | |
| 13. Less interest in daily activities | | | | |
| 14. Feeling as if you don't have a future | | | | |
| 15. Avoiding thoughts or feelings associated with the hurtful events | | | | |
| 16. Sudden emotional or physical reaction when reminded of the most hurtful events | | | | |
| 17. Poor memory | | | | |
| 18. Feeling exhausted | | | | |
| 19. Troubled by bodily pain or physical problems | | | | |
| 20. Feeling that you have less skills than you did before. | | | | |
| 21. Difficulty paying attention | | | | |

| | Not at all (1) | A little (2) | Quite a bit (3) | Extremely (4) |
|---|---|---|---|---|
| 22. Feeling unable to make daily plans | | | | |
| 23. Having difficulty dealing with new situations | | | | |
| 24. Feeling that you are the only one who suffered these events | | | | |
| 25. Feeling that others don't understand what happened to you | | | | |
| 26. Feeling guilty for having survived | | | | |
| 27. Blaming yourself for things that have happened | | | | |
| 28. Spending time thinking why these events happened to you | | | | |
| 29. Feeling a need for revenge | | | | |
| 30. Feeling others are hostile to you | | | | |
| 31. Feeling that someone you trusted betrayed you | | | | |
| 32. Feeling no trust in others | | | | |
| 33. Feeling that you have no one to rely upon | | | | |
| 34. Hopelessness | | | | |
| 35. Feeling powerless to help others | | | | |
| 36. Feeling ashamed of the hurtful or traumatic events that have happened to you | | | | |
| 37. Feeling humiliated by your experience | | | | |
| 38. Feeling that you are a jinx to yourself and your family | | | | |
| 39. Finding out or being told by other people that you have done something that you can't remember | | | | |
| 40. Feeling as though you are split into two people and one of you is watching what the other is doing | | | | |

# استبيان هارفارد للإصابات و الأعراض النفسية
# النسخة العراقية

**إرشادات:**

نود أن نسألك عن قصة معاناتك السابقة و الأعراض التي تشكو منها حالياً. كما أن هذه المعلومات تساعدنا على تزويدك بعناية أفضل. قد تجد بعض هذه الأسئلة مزعجاً أو محرجاً. فعند ذلك لك مطلق الحرية في عدم الإجابة. و اطمئن أن هذا لن يؤثر في برنامج علاجك. كما أن إجاباتك على هذه الأسئلة سوف تحفظ في سرية تامة.

## الجزء الأول: الحوداث المؤلمة

نرجو أن تذكر إن كنت قد تعرضت لأي من الحوادث التالية (ضع علامة √) في العمود المناسب تحت "نعم" أو "لا".

| | نعم | لا |
|---|---|---|
| 1- هل تعرضت للاضطهاد بسبب عرقك، دينك، أو مذهبك | | |
| 2- هل تم تفتيش دارك بحضورك بحثاً عن أشخاص أو أشياء | | |
| 3- هل فتشت اعتباطاً | | |
| 4-هل تم نهب ممتلكاتك الشخصية أو مصادرتها أو تدميرها | | |
| 5- هل فرض عليك الرحيل من مدينتك والسكن في منطقة أخرى تقل فيها الخدمات | | |
| 6- هل سجنت اعتباطاً | | |
| 7- هل عانيت من عدم امكانية حصولك على الرعاية الطبية أو الدواء خلال مرضك | | |
| 8- هل عانيت من عدم وجود الطعام أو المياه الصافية | | |
| 9- هل اضطررت للهروب من بلدك | | |
| 10- هل فرضت عليك الهجرة من بلدك بناءً على أصل أجدادك، دينك أو مذهبك | | |
| 11-هل لم يكن لديك مسكن (مشرد) | | |
| 12- هل شاهدت انتهاك حرمة العتبات المقدسة أو المراكز الخاصة بدينك أو مذهبك أو تدميره | | |
| 13- هل شاهدت اعتقال شخصيات مهمة من عشيرتك، دينك، أو طائفتك أو تعذيبهم أو إعدامهم | | |
| 14- هل شاهدت إعداماً جماعياً للمدنيين | | |
| 15- هل شاهدت قصف الأماكن السكنية أو الأهوار أو إحراقها أو تدميرها | | |
| 16- هل شاهدت هجمات كيميائية على الأماكن السكنية أو الأهوار | | |
| 17- هل تعرضت لأجواء القتال\حالة حرب (انفجارات، قصف ، شظايا) أو للألغام | | |

| | نعم | لا |
|---|---|---|
| 18- هل أصبت إصابة جسمية خطيرة بسبب التعرض لأجواء القتال\حالة حرب\ ألغام | | |
| 19- هل استخدمت كدرع بشري | | |
| 20- هل أصيب أحد أفراد عائلتك أو أصدقائك إصابة جسمية خطيرة بسبب أجواء قتال\حالة حرب أو ألغام | | |
| 21- هل شاهدت جثث متعفنة | | |
| 22- هل أجبرت على البقاء في الدار بسبب الفوضى و العنف في الخارج | | |
| 23- هل شاهدت شخصاً ما يتعرض للأذى الجسمي (الضرب، الطعن، ...الخ) | | |
| 24- هل شاهدت عملية إساءة جنسية أو اغتصاب | | |
| 25- هل شاهدت حالة تعذيب | | |
| 26- هل شاهدت حالة قتل | | |
| 27- هل أجبرت على التبليغ عن شخص ما مما عرضه لخطر الإصابة أو الموت | | |
| 28- هل أجبرت على تدمير ممتلكات شخص آخر | | |
| 29- هل أجبرت على إلحاق الأذى الجسمي (الضرب، الطعن ..الخ) بشخص ما | | |
| 30- هل قتل أحد أفراد عائلتك (طفلك، زوجك، الخ) أو صديقك أو مات نتيجة العنف | | |
| 31- هل أجبرت على دفع قيمة الطلقة المستخدمة لقتل أحد أفراد عائلتك | | |
| 32- هل أستلمت جثة أحد أفراد عائلتك ومنعت من البكاء و إقامة الجنازة عليه | | |
| 33- هل اختفى أحد أفراد عائلتك (طفلك، زوجك، أو صديقك..الخ) | | |
| 34- هل اختطف أحد أفراد عائلتك (طفلك، زوجك، أو صديقك..الخ) | | |
| 35- هل أخذ أحد أفراد عائلتك (طفلك، زوجك..الخ) أو صديقك كرهينة | | |
| 36- هل بلغ شخص ما عنك مما عرضك لخطر الأصابة أو الموت | | |
| 37- هل تعرضت للأذى الجسمي (الضرب، الطعن، ..ألخ) | | |
| 38- هل اختطفت | | |
| 39- هل أخذت كرهينة | | |
| 40- هل تعرضت للإساءة الجنسية أو اغتصبت | | |
| 41- هل تم تعذيبك، بمعنى أثناء وجودك في الأسر تعرضت إلى المعاناة النفسية أو الجسدية بشكل متعمد و منتظم) | | |
| 42- نرجو أن تحدد أي مواقف أخرى مخيفة أو شعرت عندها أن حياتك معرضة للخطر | | |

## الجزء الثاني
## أعراض الشدة

إن الأعراض التالية هي أعراض يشعر بها أحيانا الأشخاص الذين تعرضوا لحوادث مؤلمة أو مفزعة في حياتهم. الرجاء قراءة كل بند بدقة، وتحديد مدى معاناتك من هذه الأعراض خلال **الأسبوع الماضي** بوضع علامة( √)في المربع المناسب.

| | لا أبداً (1) | قليلاً (2) | إلى حدٍ ما (3) | بشدة (4) |
|---|---|---|---|---|
| 1- هل تعاودك الذكريات والأفكار لأكثر الحوادث ألماً و فزعاً | | | | |
| 2- هل تشعر و كأنك تعيش الحادثة مرة أخرى | | | | |
| 3- هل تأتيك كوابيس متكررة | | | | |
| 4- هل تشعر بالانفصال أو الانعزال عن الناس | | | | |
| 5- هل تجد نفسك غير قادر على الإحساس بالعواطف | | | | |
| 6- هل تجد نفسك سريع الجفلان أو الاستثارة | | | | |
| 7- هل تجد صعوبة في التركيز | | | | |
| 8- هل تجد صعوبة في النوم | | | | |
| 9- هل تجد نفسك متوجساً أو على حذر | | | | |
| 10- هل تجد نفسك سريع الانفعال أو تنتابك سورات من الغضب | | | | |
| 11- هل تتجنب الأعمال التي تذكرك بالحادثة المؤلمة | | | | |
| 12- هل تجد نفسك غير قادرعلى تذكر بعض الوقائع لأكثر الحوادث ألماً | | | | |
| 13- هل تجد نفسك أقل اهتماماً بالأعمال اليومية | | | | |
| 14- هل تشعر و كأنه لا مستقبل لك | | | | |
| 15- هل تتجنب الأفكار أو الأحاسيس المرتبطة بالحوادث المؤلمة | | | | |
| 16- هل تشعر بردة فعل في مشاعرك أو جسمك عند تذكيرك بالحوادث المؤلمة | | | | |
| 17- هل تجد نفسك كثير النسيان | | | | |
| 18- هل تشعر بتعب شديد على الدوام | | | | |
| 19- هل تعاني من آلام أو مشاكل جسمية | | | | |
| 20- هل تشعر أنك عاجز عن القيام بما كنت تعمله في السابق | | | | |
| 21- هل تجد صعوبة في الانتباه | | | | |

| | لا أبداً (1) | قليلاً (2) | إلى حدٍ ما (3) | بشدة (4) |
|---|---|---|---|---|
| 22- هل تجد نفسك غير قادرعلى اتخاذ قرارات في حياتك اليومية | | | | |
| 23- هل تجد صعوبة في التعامل مع المواقف الجديدة | | | | |
| 24- هل تشعر أنك الوحيد الذي عانى مثل هذه الحوادث | | | | |
| 25- هل تشعر أن الآخرين غير قادرين على فهم ما جرى | | | | |
| 26- هل تشعر بالذنب لأنك نجوت و ما زلت على قيد الحياة | | | | |
| 27- هل تلوم نفسك على ما حدث | | | | |
| 28- هل تتساءل لماذا قدّر الله لك أن تواجه مثل هذه الحوادث | | | | |
| 29- هل تشعر بالحاجة للانتقام | | | | |
| 30- هل تشعر أن الآخرين عدائيون تجاهك | | | | |
| 31- هل تشعر ان شخصاً ما وثقت به قد خانك | | | | |
| 32- هل ليست لديك ثقة بالآخرين | | | | |
| 33- هل تشعر أنك لا تستطيع الاعتماد على أي شخص إلا الله | | | | |
| 34- هل فقدت الأمل | | | | |
| 35- هل تشعرأنك عاجزعن مساعدة الآخرين | | | | |
| 36- هل تشعر بالعار بسبب الحوادث المؤلمة التي تعرضت لها | | | | |
| 37- هل تشعر بالإذلال بسبب ما جرى لك | | | | |
| 38- هل تشعر أنك جلبت السوء على نفسك أو عائلتك | | | | |
| 39-هل اكتشفت بنفسك أو أخبرك أحد أنك قمت بعمل لا تستطيع أن تتذكره | | | | |
| 40- هل تشعر أنك انقسمت إلى شخصين، وأن أحدهما يراقب ما يفعله الآخر | | | | |
| 41- هل أنت ضايج | | | | |
| 42- هل قلبك مقبوض | | | | |
| 43- هل أنت عصبي | | | | |
| 44- هل تشعر بضيق النفس وكأنك على وشك الاختناق | | | | |
| 45- هل نفسيتك تعبانة | | | | |

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# ABSTRACT

## NARRATIVE EXPOSURE THERAPY TO TREAT TRAUMATIC STRESS IN MIDDLE EASTERN REFUGEES: A CLINICAL TRIAL

by

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**August 2012**

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**Degree:** Doctor of Philosophy

There are millions of refugees and displaced persons around the world. Refugees often experience multiple stressors and traumas across the various stages of their journey such as witnessing political upheaval, loss of property and loved ones, a perilous journey, and difficulty in countries of resettlement. The multiple stressors that refugees experience place them at significant risk for various mental health problems, especially depression and post traumatic stress disorder, as well as physical health problems. Yet, despite the growing number of refugees and their vulnerability to various mental and physical health problems, knowledge about appropriate treatments for PTSD and other conditions among refugees is still growing and at times suffers from methodological problems. One promising treatment developed specifically for survivors of organized violence, such as refugees, is Narrative Exposure Therapy (NET), which combines elements of traditional exposure therapy as well as the construction of detailed life narratives found in testimony therapy. There is growing evidence from various trials that NET is effective in reducing PTSD symptoms to remission, as well as effectively reducing other

symptoms such as depression and physical complaints. NET has also demonstrated effectiveness across a variety of cultural groups, resettlement countries and contexts, and severity/chronicity of PTSD symptoms. The goal of this study was to evaluate NET in a sample of Arabic speaking, mostly Iraqi, refugees, who have come to the Metro Detroit area. Fifty three Iraqi refugees who experienced a traumatic incident and reported related distress due to the incident were recruited and randomized into an experimental group that received three sessions of NET or into a wait-list control group. Both groups completed baseline assessments of their trauma symptoms, depression, sleep quality, physical health problems, overall wellbeing, daily functioning, and post traumatic growth. They were re-assessed at 2-month and at 4-month follow-up to report their symptom levels. Results indicate that the group that received NET reported significantly higher levels of post traumatic growth at the 4-month follow-up compared to the control group. The group that received NET also reported small but meaningful trends towards lower depression and PTSD scores and higher levels of psychological wellbeing and frequency of spending time with family and friends at the 2-month follow-up compared to the control group. This study shows that a trauma focused intervention, such as NET, can increase levels of post traumatic growth among trauma survivors. Moreover, the study suggests some promise of NET in treating psychological symptoms in Middle Eastern samples.

# AUTOBIOGRAPHICAL STATEMENT

Alaa Hijazi completed her undergraduate degree in Psychology at the American University in Cairo in 2005. She is completing her Ph.D in Clinical Psychology with minor specializations in Health and Developmental Psychology at Wayne State University.

Alaa's main research interests broadly seek to understand how life stressors and trauma impact physical and psychological health. Within this umbrella, she is particularly interested in the role of gender, emotional expression, and cultural or ethnic background. She has additional general interests in issues relating to ethnic identity and acculturation, psychological needs of survivors of armed conflict, human rights, and psychology of gender and sexuality.

Alaa sought to further her experience in the field of trauma and PTSD treatment through completing a clinical internship at the Jesse Brown Veterans Affairs Medical Center. She also accepted a post doctoral fellowship at the Bay Pines Veterans Affairs Medical Center where she will be working with women in primary care and survivors of combat and sexual trauma.

Alaa is looking forward to continuing her career in an academic or veterans medical center where she is able to integrate her interests in direct clinical work, research, and supervision. In her free time, Alaa enjoys ethnic and street food, dancing, running barefoot in the outdoors, jogging, film festivals, and travel.