PSYCHOSOCIAL FACTORS ASSOCIATED WITH RECOVERY OF SURVIVORS OF TORTURE

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A Thesis

Presented to the

Faculty of

San Diego State University

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In Partial Fulfillment

of the Requirements for the Degree

Master of Public Health

with a Concentration in

Epidemiology

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by

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Spring 2014
SAN DIEGO STATE UNIVERSITY

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ABSTRACT OF THE THESIS

Psychosocial Factors Associated with Recovery of Survivors of Torture

by

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Master of Public Health with a Concentration in Epidemiology
San Diego State University, 2014

Background: Torture is indescribably destructive and widely practiced; individuals, families, and communities are destroyed. Outcome studies related to torture treatment programs are limited, and most involve mental health. An understanding of broader psychosocial factors affecting survivors of torture and their impact on recovery is needed.

Methods: A historical retrospective study was conducted on 58 clients of Survivors of Torture, International (SOTI). Intake data were collected when clients registered for services at SOTI. Follow up data were collected after six months of services. All data were collected by self-report and collected by SOTI staff. Fisher’s Exact and Firth logistic regression tests were used to analyze the association between spending time with family and friends and a receiving a shelter or housing referral and a survivor of torture’s recovery. The two outcomes were 1) if symptoms had improved and 2) if they were dealing with daily problems more effectively.

Results: Of the 58 survivors included in this study, 72.41% believed their symptoms had improved, and a similar 70.769% believed they dealt with their daily problems more effectively, since starting services at SOTI. Significant associations between exposures of interest and outcomes were not found. Increased time between arrival to the United States and start of services at SOTI was most significantly associated with improved recovery.

Discussion: Improved data measures and study design, and a larger sample size are needed to better evaluate torture treatment programs and the recovery of survivors of torture. Attenuated recovery among survivors who have been in the United States over 25 months, as compared to those who arrived 7-24 months prior to the start of services is an area to explore in future research.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT .......................................................... iv</td>
</tr>
<tr>
<td>LIST OF TABLES ....................................................... vii</td>
</tr>
<tr>
<td>LIST OF FIGURES ..................................................... viii</td>
</tr>
<tr>
<td>LIST OF TERMS AND ABBREVIATIONS ................................ ix</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS .................................................. x</td>
</tr>
</tbody>
</table>

## CHAPTER

1 INTRODUCTION .................................................................1
   Background .................................................................1
   Statement of the Problem ..................................................4
   Purpose of the Study .......................................................5
   Theoretical Bases and Organization .................................6
      Hypothesis I ...............................................................9
      Hypothesis II ............................................................9
   Limitations .................................................................9

2 LITERATURE REVIEW ......................................................11
   Improved Recovery of Survivors of Torture ..........................14
   Social and Community Involvement: Importance of Family and Friends ..................16
   Referrals: Housing .........................................................17
   Legal Status ...............................................................18
      Age ........................................................................19
      Gender .....................................................................19
   Arrival Time .............................................................20
   Summary .................................................................20

3 METHODOLOGY ..............................................................22
   Design of Investigation ..................................................22
   Population .................................................................22
   Analysis and Procedures .................................................24
Data Analysis & Procedures ................................................................. 25

4 RESULTS ................................................................................................. 26

5 DISCUSSION ............................................................................................. 33
  Key Findings ............................................................................................ 33
  Strengths .................................................................................................. 35
  Limitations ................................................................................................. 35
  Implications ............................................................................................... 36
  Conclusion .................................................................................................. 40

REFERENCES ............................................................................................... 42

APPENDIX

COPY OF CLIENT PROGRESS MONITORING TOOL .................................. 45
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frequencies of Selected Variables from CPMT</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Frequencies of Client by Country of Origin</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>Bivariate Associations Between Selected CPMT Variables and Symptoms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bothering A Client Less Since Starting Services</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>Bivariate Associations Between Selected CPMT Variables and Clients</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dealing With Daily Problems More Effectively</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Final Logistic Model - Symptoms Bothering A Client Less Since Starting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>Final Logistic Model - Clients Dealing With Daily Problems More</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Effectively</td>
<td>31</td>
</tr>
<tr>
<td>7</td>
<td>Correlation Matrix</td>
<td>32</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Maslow's hierarchy of needs pyramid</td>
<td>7</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Dynamic conceptual model of trauma and recovery</td>
<td>16</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Hypothesis</td>
<td>23</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Hypothesis II</td>
<td>23</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Five phases of the impact assessment study</td>
<td>38</td>
</tr>
<tr>
<td>Figure 6</td>
<td>One group pretest-posttest design</td>
<td>39</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Quasi-experimental wait-list design</td>
<td>40</td>
</tr>
</tbody>
</table>
LIST OF TERMS AND ABBREVIATIONS

**ORR** – Office of Refugee Resettlement

**Primary prevention** – Action taken to prevent development of a disease in a person who is well and does not yet have the disease in question.

**PTSD** – Post-traumatic Stress Disorder

**TVRA** – Torture Victims Relief Act

**Secondary prevention** – Identifying people in whom a disease has begun but who have not yet developed clinical signs and symptoms of the illness.

**Tertiary prevention** - Preventing complications in those who have already developed signs and symptoms of an illness and have been diagnosed.

**UNHCR** – United Nations High Commission for Refugees
ACKNOWLEDGEMENTS

Special thanks to: Survivors of Torture, International for doing such important, and inspirational, work and allowing the use of their data in this research; The members of my thesis committee for their expertise and patience, and the faculty of the Graduate School of Public Health; Peace Corps, for changing my view of the world long before this research began, and my colleagues there, who will always be family, for understanding the demands of studying while working; My brilliant and witty friends; and Most importantly, my parents and family, for their continuous support.
CHAPTER 1

INTRODUCTION

BACKGROUND

Men quick to unzip who open and close their flies with masterful swiftness, the result of extensive training. A very masculine way of subduing the enemy.

--Nora Strejilevich

Torture is indescribably destructive and widely practiced. A pervasive form of violence, it bleeds into every part of a survivor’s life. Torture destroys families and communities by eroding the individual and collective spirit, stability, and trust. It creates immense and chronic physical and mental health complications, pain, isolation, and fear. The goal of torture is to break the human spirit, and no one is spared; from infants to the elderly, all may be subjected to torture. Recovering from torture requires treatment to help survivors of torture rebuild all that has been destroyed.

Survivors of Torture International (SOTI) in San Diego, CA is one organization doing such work, and this thesis uses data collected as part of their clients’ journey to recovery. Each survivor’s physical journey, from his or her home country to the United States, and ultimately San Diego, varies widely and, as Quiroga and Jaranson (2005) note, the trauma can be ongoing in countries of final resettlement. Torture must be seen not only as a very important life event, but also as the cause of many other complications. As Joyce, Bunn, and Engstrom (2012) note, torture’s most insidious aftermath is a legacy of internalized psychological vulnerabilities that persist throughout a survivor’s lifetime, even after enduring and surviving the worst of it.

Those arriving in San Diego, or being resettled elsewhere in the United States and around the world, are the lucky minority of a vast number of people who have fled or are fleeing their home countries. As of June 2013, the United Nations High Commission on Refugees (UNHCR) reported a current 15.4 million refugees worldwide. A very small fraction of those (about one percent), are resettled. The UNHCR was established in 1951,
and its *Convention and Protocol Relating to the Statues of Refugees* defines a refugee as someone who:

> owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it. (United Nations High Commission on Refugees [UNHCR], 1951)

In addition to refugees, according to the UNHCR *Global Trends 2012 Report*, nearly one million (937,000) individuals were seeking asylum. The report defines an asylum seeker as someone who “has sought international protection and whose claims for refugee status have not yet been determined.” (UNHCR, 2013, p.25)

Once an asylum seeker is granted asylum, they become an asylee, and for the purposes of this thesis, it is assumed their legal stability is in line with that of a refugee. Throughout this thesis, when a refugee is referenced, an asylee is included as part of that description. For those still seeking asylum, their legal status is unknown. In 2012, the global refugee crisis reached levels unseen in the last decade (UNHCR, 2013). In the United States, the Office of Refugee Resettlement reported in FY 2010 that between 2001 and 2010, 529,773 refugees arrived in the United States. Of the 73,311 refugees and 20,782 asylees admitted in FY 2010, the largest numbers (8,577) were resettled in California (Office of Refugee Resettlement [ORR], U.S. Department of Health and Human Services [HSS], 2010).

Many of these refugees and asylum seekers are survivors of torture. Accurately determining the prevalence rates of torture is difficult because of the secrecy involved; it has been suggested between 5% and 35% of refugees have experienced torture (Jaranson et al., 2004). The definition of torture follows Article 1 of the Office of the High Commissioner on Human Rights [OHCHR, 1984] *1984 Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment* is:

> Any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official
capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions. (p. 1)

Survivors of torture face unique challenges upon resettlement, well beyond those of refugees who have not experienced torture, and the United States government has responded by funding various programs designed to support and treat them. The purpose of the federal Services for Survivors of Torture program is to “provide services to torture survivors in order to restore their dignity, identity, and well-being and therefore enable them to become productive community members. The program also funds training for healthcare, psychological, social and legal service providers on how to appropriately provide care and services to torture survivors” (ORR, HSS, 2010). The most urgent needs of torture survivors and refugees are (Quiroga & Jaranson, 2005):

- Shelter or housing
- Food support
- Income support
- Employment
- Medical care for individual and/or family
- Mental health care for individual and/or family
- Advice on legal or migration matters
- Child care
- Schooling for children
- Local language classes
- Social support

The ultimate aim of torture is not to obtain information, but to break down an individual’s personality and identity. As Quiroga and Jaranson (2005) note, “many very emotionally charged processes, chiefly concerned with loss, are intimately involved with the experience of torture. Survivors of torture may have lost physical health, employment, status, family, and identity.” Toward this goal, torturers destroy their victim’s ability to cope with life situations in a normal way (Jaranson & Popkin, 1998, p. 47). These life situations are compounded by the loss of normal life development due to lost time in prison or waiting for final resettlement, or delays in education, marriage, or accumulation of wealth (Quiroga & Jaranson, 2005). It is important to note that the United States, whose government funds
much of the domestic torture treatment programs, remains one of the 111 countries employing the use of torture (Fleck, 2012).

From a public health perspective, this research is focused primarily on improving tertiary prevention, and possibly secondary prevention. Until the violence of torture and war is abolished, primary prevention is nearly impossible. Primary prevention is the ultimate goal of any public health practitioner, but is outside the scope of this research.

**STATEMENT OF THE PROBLEM**

Although a small percentage of the subject population is actually resettled, the number of refugees, and asylum seekers in San Diego is not insignificant, nor are the challenges these individuals face upon resettlement. For those who have survived torture, these challenges are compounded exponentially. Both physical and psychological scars are difficult to heal, and there are far fewer organizational and professional resources available to help them with recovery than there are to victims of other kinds of trauma. As Kira, Ashby, Odenat, and Lewandowsky (2013) explain, torture is directed towards instilling and reinforcing a sense of powerlessness and terror in victims and their perspective communities, political or religious groups. In this way, torture may be characterized as inter-group victimization with negative effects that go beyond individuals to families and communities.

In addition to fleeing one’s country, dealing with poverty and adjusting to a new community or culture, survivors of torture must deal with the pain and trauma experienced (Engstrom & Okamura 2004a). Tortured refugees and asylees lose their home country, health, security, self-esteem, family, and social contacts and their role in society (Jaranson and Popkin, 1998, p. 10). Common needs include treatment for medical conditions, access to health care, and assistance with housing, education/language, occupation, and legal counsel, among others. These are compounded by potential mental illness, including post-traumatic stress disorder (PTSD), major depressive disorder (MAD) or others, but treating the mental

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1 Secondary and primary prevention are defined as follows (Gordis, 2009):

Secondary prevention – Identifying people in whom a disease has begun but who have not yet developed clinical signs and symptoms of the illness.

Tertiary prevention - Preventing complications in those who have already developed signs and symptoms of an illness and have been diagnosed.
health of the survivor without also addressing stable housing, income, or a social network will be of little value (Jaranson & Popkin, 1998, p. 10).

**PURPOSE OF THE STUDY**

Survivors of Torture International (SOTI) has been providing holistic services focusing on medical, dental, psychiatric, psychological, and social service needs since 1997. SOTI’s services are extensive and include screenings, treatments, legal assistance, and developing coping techniques. Because many survivors of torture are new the United States, isolation and a lack of support system can be particularly cruel for them (SOTI, 2013). SOTI addresses this need through healing groups with other survivors and comprehensive case management to ensure their immediate needs are met. An example from a June 2013 SOTI newsletter, *The Survivors*, describes recent activities and explains that “these outings are a chance for our clients to meet other torture survivors, explore new places with the guidance of our staff and interns, have some fun and continue to heal from having been tortured” (inset).

Most of SOTI’s services are federally funded so clients are eligible for services in accordance with the Torture Victim Relief Act (TVRA) authorizing legislation. This legislation uses the following definition in section 2340(1) of title 18, United States Code:

1. “torture” means an act committed by a person acting under the color of law specifically intended to inflict severe physical or mental pain or suffering (other than pain or suffering incidental to lawful sanctions) upon another person within his custody or physical control;

2. “severe mental pain or suffering” means the prolonged mental harm caused by or resulting from –
   a) the intentional infliction or threatened infliction of severe physical pain or suffering;
   b) the administration or application, or threatened administration or application, of mind-altering substances or other procedures calculated to disrupt profoundly the senses or the personality;
   c) the threat of imminent death; or
   d) the threat that another person will imminently be subjected to death, severe physical pain or suffering, or the administration or application of mind-altering substances or other procedures calculated to disrupt profoundly the senses or personality
As used in the TVRA, this definition also includes the use of rape and other forms of sexual violence by a person acting under the color of law, upon another person under his custody or physical control. (ORR, HSS, 2010)

SOTI is part of the National Consortium of Torture Treatment Programs (NCTTP), a national network of programs which is devoted to the care of survivors of torture through advancing knowledge, technical capacity, and resources.

As Quiroga and Jaranson (2005) note, either torture has increased worldwide or the exposure of torture events has improved. With the increasing number of survivors of torture, it is important to better understand how survivors can best reclaim their strength and lead healthy and productive lives. Locally, in San Diego, there are an estimated 11,000 survivors of torture (SOTI, 2013). This thesis aims to evaluate the association between psychosocial factors such as (1) spending time with family and friends, and (2) receiving a shelter or housing referral, the recovery of survivors. For the purposes of this study, recovery means that since starting services at SOTI, clients (a) find their symptoms bother them less and (b) are dealing more effectively with daily problems. This information is self-reported by the client upon follow up. The objectives of this study are to:

1. Evaluate if and how much spending time with friends and family is associated with recovery among SOTI clients;
2. Evaluate if and how the receipt of a housing referral is associated with recovery among SOTI clients;
3. To make suggestions for improving SOTI’s monitoring and evaluation practices.

Several confounders will be assessed, including legal status, gender, age at start of treatment, and arrival time between coming to the United States and starting services at SOTI. While modifiable confounders are of most interest and relevance for SOTI, the sample size and limited data collected precluded more detailed analysis. Results from studies like these, however, could possibly help with advocacy for improved services and changes in immigration policies.

**Theoretical Bases and Organization**

The sociocultural and political contexts of torture and treatments linked to those contexts are often under emphasized (Isakson and Jurkovic, 2013). Western mental health
treatments often focus on reduction of symptoms of PTSD and other mental health conditions and are interventions that are tailored for the individual.

When considering Maslow’s hierarchy of needs (Figure 1), as Vrana, Campbell, and Clay (2012) described, stating survivors may not be ready for psychological therapy if basic physiological needs (i.e. food and housing) are not met. If a survivor has unstable housing, other problems will be amplified and not be able to be addressed until that basic need is met. Quiroga and Jaranson (2005) note in the early stages of treatment, torture survivors need safety, since symptoms are often suppressed for months or longer until immediate needs are met and the survivor feels safe. Mental health treatment with a Western perspective may diminish the importance of community involvement and social support, but moving up Maslow’s pyramid, it’s clear that category, represented by love, comes before esteem and self-actualization.

More central to torture treatment, Silove (1999) proposed an integrated psychosocial framework, suggesting that torture challenges five core adaptive systems: safety, attachment, justice, identity-role, and existential-meaning. Safety speaks to the need for stable housing, while attachment and identity-role speaks to connections with friends and family. The posttraumatic environment, as Silove (1999) explains, is an important factor in determining recovery. A key disruption caused by torture is the impact on a survivor’s interpersonal bonds, which can include deceased or missing loved ones, as well as the loss of a sense of belonging or social cohesion, and of connection with the land and ancestors, and of culture
and traditions (Silove, 1999). Age, language proficiency, social and economic adversity, and fear of repatriation appear to be influential factors in preventing recovery from PTSD and other forms of psychosocial distress in refugees and asylum seekers (Silove, 1999). Just as the destruction caused by torture is comprehensive, the treatment needs to be as well.

In their recent study, Kira et al. (2013) found that torture trauma was such an emotionally and physically painful experience that victims tend to suppress the experience, decreasing re-experiencing and increasing dissociation. This may explain the sometimes low results of PTSD prevalence found in studies of survivors of torture, as well as why traditional exposure therapy is not recommended for a survivor. This demonstrates the need for a better framework for trauma rehabilitation, one that decreases dissociation and thus allows treatment to be more accessible. A promising alternative intervention is the Trauma Adaptive Recovery Group Education and Therapy (TARGET) as introduced by Courtois and Ford (2009). TARGET views recovery from trauma as a shift from living in survival mode to focusing on personal growth and effectiveness in family, friendship, intimate, work, and community relationships. It addresses topics that include self-esteem, anger, grief, shame, guilt, relationships, victimization, and spirituality.

Knowledge of culture is important in the case of survivors of torture because cultural differences have implications in the assessment of mental health, in the interpretation of a respondent’s behavior or response, and in the treatment or rehabilitation technique. Quiroga and Jaranson (2005) note that it is essential to consider cultural when choosing the methodology of a psychiatric assessment, explaining an assessment of the individual’s larger life experiences are of equal importance to the medical assessments. In the mental health field, a client’s interpersonal network is considered an important factor in the recovery from illness; and, in the case of refugees, it is the emotional support and quality of their networks that are specifically associated with favorable posttraumatic outcome (Jaranson and Popkin, 1998, p. 103). The social network refers to the system of social relationships and institutions that make up the adaptive resources available to an individual, family, or community. Assessing and treating psychological aspects alone will not be enough (Vrana et al., 2012). As Robert Lifton notes, a few words of reassurance and hope can help one maintain his or her determination to heal, even under the most extreme conditions (Jaranson and Popkin, 1998, p. 107).
This is consistent with Engstrom and Okamura’s (2004a) observations that addressing the multiple needs of survivors is essential to effectively treat the psychological effects of torture. Generally, persons who have been tortured do not want to be treated primarily as torture survivors; they prefer a holistic approach that addresses their reality in a culturally sensitive way (Mollica, 2004, p. 7). For these reasons, this research aims to look at psychosocial factors associated with recovery; the variables used as proxies for psychosocial factors as a whole are spending time with family and friends and the need for a housing/shelter referral.

**Hypothesis I**
- There is a positive association between spending time with family and friends and an improvement in symptoms, amongst SOTI’s clients.
- There is a positive association between receiving a shelter or housing referral and an improvement in symptoms, amongst SOTI’s clients.

**Hypothesis II**
- There is a positive association between spending time with family and friends and the ability to deal with daily problems more effectively, amongst SOTI’s clients.
- There is a positive association between receiving a shelter or housing referral and the ability to deal with daily problems more effectively, amongst SOTI’s clients.

**Limitations**
1. This study assumes participants answered the survey questions truthfully, and data were entered correctly.
2. The small sample size (n=58) limits finding significance and analysis of covariates.
3. Data was collected for non-academic purposes, by Survivors of Torture International (SOTI), a San Diego-based non-profit. The survey used for data collection was created to meet the requirements of Office of Refugee Resettlement (ORR) grant support, and designed to be the simplest way possible to evaluate the program. Follow up questions were asked requiring clients to think retrospectively (a copy of the Client Progress Monitoring Tool questionnaire is included in the Appendix).
4. While every attempt was made to ensure data were collected and entered accurately, the student investigator was not able to confirm data collection or survey accuracy.
5. Intensity and frequency of time spent with family and friends cannot be determined from the data; only whether or not it occurred. One may have an extensive network of family and friends they see often, another may have a small network seen infrequently, and they would both be captured as a ‘yes’ on the monitoring tool.

6. There may be a significant reporting bias, as clients complete the questionnaire with SOTI providers.
CHAPTER 2

LITERATURE REVIEW

Though I know the danger of developing a friendship with the girls, sometimes I wistfully think about. Without Chou, I am alone.

--8 year old Loung Ung

After a quarter of a century and dramatic expansion of rehabilitation efforts worldwide, there is still no consensus about the efficacy of treatment for torture survivors (Quiroga and Jaranson, 2005). While there is consensus about the toxic consequences of torture, there are still discrepancies on exactly how this manifests itself. Torture and other pre-migration trauma has been found to be associated with PTSD and depression (Steel et al., 2009) and Quiroga and Jaranson (2005) note that depression and PTSD are widely acknowledged as the most common psychiatric diagnoses in refugees and torture survivors. However, in a new study, Kira et al. (2013) found most studies of the effects of torture have not controlled for the potentially confounding effects of other life traumas that happened before and after the torture, and found great variability in the association between torture and PTSD. Regardless, by improving rehabilitation programs, not only will the lives of the survivors and their families and communities be improved, but they will be able to contribute more to their new community.

With a limited number of facilities offering treatment to survivors of torture, along with limited funding and research, there is a great need for improvement in evaluation and treatment. While much information has been gained in the last three decades in understanding how to tailor programs treating survivors of torture, as Erik Holst notes, “it is not so much that we don’t know how to help these people, but rather how to organize things in such a way that a torture victim arriving in a country can be rapidly identified and referred to the appropriate expert services” (Fleck, 2012). Even less is known about the epidemiology of violence and related health impacts to inform host country efforts to offer screening, prevention, and treatment services to asylum seekers (Kalt, Hossain, Kiss, and Zimmerman, 2013). While some information has been gained, a thorough understanding of how to best
treat survivors of torture is limited. There are numerous methodological complexities of studying individual survivors of torture, including survivor reluctance, dissociation, lack of trust, fear of symptoms worsening, shame, guilt, and language barriers. Further challenges are due to small sample size and a great deal of variation in the amount and type of torture used (Jaranson and Popkin, 1998, p. 21). Being both refugees and immigrants from low-income countries has been found to be a risk factor for poor mental health, so it stands to reason being a survivor a torture would demonstrate an even stronger association.

As mentioned earlier, the “lucky” minority of a vast number of people who have fled or are fleeing their home countries around the world are resettled. Globally, as of June 2013, the United Nations High Commission on Refugees (UNHCR) reported that the refugee population currently stands at 15.4 million refugees. A very small fraction of those, about one percent, are resettled. In the United States, the Office of Refugee Resettlement reported in FY 2010 that between 2001 and 2010, 529,773 refugees arrived in the U.S. Having admitted 73,311 refugees and 20,782 asylees in FY 2010, the largest number (8,577) were resettled in California (ORR, HSS, 2010). An estimated 11,000 survivors of torture live in San Diego County and an estimated 400,000-500,000 live in the United States (SOTI, 2013). Accurately determining the prevalence rates of torture is difficult because of the secrecy involved; it is suggested that between 5% and 35% of refugees have experienced torture (Jaranson et al., 2004).

Torture remains pervasive today. As Engstrom and Okamura (2004a) write, “Torture is not merely the aberrant behavior of a few rogue states. It is practiced on persons of all ages, races, religions, and genders. Despite widespread use of torture, nations seldom publicly admit to practicing it.” Amnesty International reported in their most recent annual report that 111 countries still practice torture, cruel, inhuman, or degrading treatment (Fleck, 2012). With such a large number of countries continuing to torture their citizens, and so many of these citizens now in the United States, we must be prepared and build off of knowledge previously gained.

Survivors of torture face immense challenges in coping. The physical and psychosocial scars are often difficult to heal, and there are limited organizational and professional resources available to help them with recovery. In addition to fleeing one’s country, dealing with poverty, and adjusting to a new community or culture, survivors of
torture must deal with the pain and trauma experienced (Engstrom and Okamura, 2004b). Though the following frequencies from a new study by Kira et al. (2013) are lengthy, it is important to understand the kind of pain and trauma survivors have endured. For primary torture survivors \((n = 200)\), over 90% reported that they had been severely beaten, over 84% had been threatened or received a death threat, and over 69% indicated their relatives had been threatened. Over 11% of them reported having been stabbed, over 32% had suffered crushing injury, and one had his leg amputated. Over 13% reported having been burnt, over 26% having been suspended upside down, 8% had suffered gunshot wounds, and over 12% had been electrocuted. Over 58% of them reported that they had been shackled, over 4% suffered forced experiments, over 7% had their body parts stretched, over 13% had been exposed to extreme heat, or to extreme cold or both, and over 20% forced to walk on their knees. Over 34% reported that they had been subjected to forced labor. Over 47% reported that they had seen dead bodies, and over 73% had to witness others severely tortured. Over 16% had been in solitary confinement. Over 30% reported to witnessing killing, and over 3% reported witnessing mock executions. Over 25% reported that they were forced to confess, over 10% forced to accuse others, over 35% had been falsely accused, and over 22% forced to sign papers. Over 6.5% reported that they had been raped either vaginally or anally or both, and over 55% had been suspended by testicles, or had penis intrusion or both. Over 21% reported that they witnessed rape. Over 65% reported inappropriate toilet, bath, food, sleep, medical care, and overcrowded cells.

It is equally important to understand more about the broader context of the torture. Survivors of the heinous acts previously described may have directly experienced the harm of U.S. foreign policy and may have strong reactions to being forced to find safety and trust in a country they inherently cannot trust (Joyce et al, 2012). When they are resettled here, survivors of torture often lack health insurance (to seek treatment), transportation, housing, and employment, and they frequently experience language barriers. All of these factors demonstrate the importance of providing assistance to access services (Engstrom & Okamura, 2004a).

Cumulative trauma disorder dynamics in refugee survivors are different from the dynamics that characterize single personal identity trauma. As Kira explains (2004), cumulative trauma exists when trauma extends beyond a person’s threshold of resilience, and
essentially breaks the camel’s back (press release). The severity of a survivor’s symptoms may increase exponentially with an increase in trauma, demonstrating that the cumulative impact is different than one observes in a person who has only experienced one trauma. Cumulative exposure to potentially traumatic events (PTEs) has been found to be associated with depression (Steel et al., 2009) and Joyce et al. (2012) explain a triple trauma paradigm used to increase understanding of the multilayered experiences of trauma, those being preflight, flight, and post-flight. Multiple traumas often occur before, during, and after fleeing one’s home country. In the new study from Kira et al. (2013) torture trauma was not predictive of PTSD, but was predictive for more severe Cumulative Trauma Disorders when controlling for other lifetime traumas. Certain extreme torture traumas like anal rape, gunshot wounds, and electric shock, were associated with PTSD and CTD. Torture and oppression traumas challenge not only the individuals’ personal agency, but also their collective and social identity as political actors in their social and/or political groups (Kira et al., 2012, p. 70). Survivors may have been targeted based on who they identify with, or which affiliations they had, which may reduce their comfort in group settings in the future. Given these obstacles, it is nearly impossible for survivors to navigate a recovery on their own.

**IMPROVED RECOVERY OF SURVIVORS OF TORTURE**

Improved recovery of survivors of torture can be categorized in a number of ways, most commonly through how survivors’ experiences translate into improvement in mental health symptoms. In a systematic review of 40 interventions conducted from 1980 – 2010, McFarlane and Kaplan (2012) found 36 victims experiencing significant improvements in at least one of the following outcome indicators: PTSD, depression, or anxiety symptom reduction. Most of these studies (60%) only included those with PTSD but other psychosocial stressors can also significantly influence recovery. Ecological factors that will likely influence improvements (such as physical insecurity, poverty, lack of medical care) are rarely included in research designs (McFarlane and Kaplan, 2012). Few outcome studies exist in the field of torture treatment and all of them have limitations (Jaranson and Quiroga, 2011). This study seeks to contribute to that gap in the research and literature, as well as provide suggestions for how to increase the research design to improve research being conducted.
The scope of the research must be broadened. Investigations of interventions that target other types of symptoms, functioning, impairment, and other treatment goals are needed, and it should be made clear if participants have received refugee status, are seeking asylum, or are displaced (McFarlane and Kaplan, 2012). Until very recently, effective research largely ignores non-treatment factors such as psychosocial stressors. As De C Williams and van der Merwe’s notes (2013), “refugees with a history of torture may display a wide range of psychological and psychosocial symptoms which don’t fall into a classic mental health diagnosis” (p. 101). Additionally, the impact of cross cultural diversity is important for external validity (McFarlane and Kaplan, 2012). We must assess if and how research outcomes from the study of treating survivors of torture from one cultural group can be applied to another cultural group.

Many survivors of torture are part of a collective culture – a culture which values community or group goals over the individual – but have been resettled in a less collective culture. In such collective cultures, healing usually takes place in the group context (Kira, 2012, p. 71). It is important to take this into consideration when studying treatment of survivors of torture.

While the priority is often to treat physical consequences of trauma, psychological consequences are often the most damaging and longest lasting, and untreated trauma may intensify later in life. An analogous example is the insufficient treatment of a broken leg: future re-fracturing and resetting ultimately leads to a more arduous recovery (Jaranson and Popkin, 1998, p. 243). Because of this, psychological treatment must be prioritized as well. Through dealing with past traumas, survivors can reconnect with strengths that have been part of their pre-trauma life (Gangsei and Deutsch, 2007), which ultimately aids in both their physical and emotional recovery.

It is challenging to create individualized treatment plans, as each survivor is different and presents with unique complications. Fortunately, many survivors show an amazing capacity for resilience. While this can aid in one’s recovery, it can also be damaging if it is not culturally appropriate to reveal distress, and therefore the individual does not seek help in a typical, western way (Gangsei and Deutsch, 2007). In summary, complete recovery often requires unique physical and psychological treatment. Recovery can be aided by a person’s
resilience, but if such resilience means it is less culturally appropriate to disclose symptoms in a typical western way, this will further the challenges of finding the right treatment.

A dynamic conceptual model of trauma and recovery (Figure 2) summarizes the processes (Jaranson and Popkin, 1998). The focus of this research is on the treatment and care portion of the cycle, and specifically how social support and a housing referral, predicts the clients symptoms and ability to deal with problems more effectively.

Figure 2. Dynamic conceptual model of trauma and recovery.

SOCIAL AND COMMUNITY INVOLVEMENT: IMPORTANCE OF FAMILY AND FRIENDS

Torture is an assault on both the individual and community. Quiroga and Jaranson (2005) identify a good operational definition of community from Brink as “aggregates of people who share common activities and/or beliefs and who are bound together principally by relations of affect, loyalty, common values, and/or personal concern.” Caution and mistrust is an undeniable by-product of torture, as survivors and their communities are marked by terror and forced by fear into silence (Joyce et al., 2012). This mistrust must linger as survivors become a part of a new community. “The violence of torture is a form of social trauma that targets individuals, their interpersonal relations, and the socio-cultural
order in a community, and rehabilitation of survivors should be understood as a rehabilitation in their medium as well as healing into a society” (Quiroga and Jaranson, 2005). For the individual, separation from family, loss of social and occupational status, deprivation of social support networks and physical needs, uncertainty about the future, problems in settlement in a new country and adaption to a new culture, and housing and economic problems are among many problems faced by refugee survivors of torture (Quiroga and Jaranson, 2005). In the mental health field, the social and community network is considered to be the most significant factor in the recovery from illness; and, in the case of refugees, it is the emotional support and quality of the network that are specifically associated with favorable posttraumatic outcome (Jaranson and Popkin, 1998, p. 103).

There are good arguments for a bio-psychosocial approach to caring for survivors of torture and for a comprehensive treatment and rehabilitative approach that provides long-term flexible involvement to cope with relapses (Quiroga and Jaranson, 2005). A holistic approach takes into account all of the following factors: culture and subculture, family and community, and the economic and political situations. The medical and psychosocial distress resulting from torture and forced exile often impedes survivors’ ability to function or perform activities of daily life and they often struggle with profound isolation experience in their new country (Joyce et al., 2012). Quiroga and Jaranson (2005) note the need for a differentiated approach to problem-solving interventions, as treatment programs often include clients from such varied backgrounds, as well as a psycho-social component linked to the community. Promoting the practice of cultural and religious rituals by families help them to maintain their belief, traditions and connections to “home” (Fabri, 2011). As Mollica (2004) stated, “many have begun to recover from torture with the help of spiritual and religious practices, work, and altruistic activities that benefit their family and community.”

**Referrals: Housing**

Referrals and consultations are the primary resource for these programs (Engstrom and Okamura, 2004a). Though many torture treatment programs lack the resources to provide in-house services, they do have the opportunity and contacts to refer clients where needed. As Engstrom and Okamura (2004a) note, “because torture has a lasting effect on the body, mind, and social system, social workers must play a key role in linking survivors to a
broad array of medical, mental health, legal, and social services.” Combating the effects of torture combines increased safety, stability, and social support, with beliefs and spiritual practices to enable survivors to regain control of their lives (Iskason and Jurkson, 2013). As Joyce et al. (2012) explain, as stable housing and sources of food become more accessible and the most distressing physical and psychological symptoms are addressed, a sense of safety will grow and seeds of trust will be planted. While there is literature on the importance of stable housing and safety, there is little outcome research comparing associations between unstable housing and recovery.

**LEGAL STATUS**

Legal status of an individual can greatly impact recovery as well, or in many cases, be even more deleterious to one’s already fragile health. Kalt et al. (2013) found that more than one third of asylum seekers were survivors of torture, and that number may be even higher in men (p. e40). Mollica (2004) estimated as many as 60% of asylum seekers in the US have been tortured. Asylum seekers continue to face greater challenges, as countries grapple with the increasing number of asylees, and may be in detention centers for more time. As Kalt et al. (2013) notes, “Increased asylum claims in recent decades have led many wealthier countries to adopt deterrence strategies, such as extended detention, restricted health and social service access, threat of deportation, and denial of work permission.”

Survivors who are asylum seekers are essentially victimized again. Steel et al. (2011) highlighted the mounting evidence that the experience of detention can have both short and long-term mental health consequences for refugees. They also found those with a more temporary legal status have growing mental distress, ongoing resettlement difficulties, and difficulty in the acculturation process (Steel et al., 2011). Adding to this, Raghavan, Rasmussen, Rosenfeld, and Keller, (2013) found the strongest correlation of clinical improvement was obtaining legal authorization to remain in the United States. In a systematic review by Robjant, Hassan and Katona (2009), longer periods of detention are associated with worse outcomes, and that the harmful effects of detention remain, despite initial improvement following release. Steel (2006) also note that prolonged detention exerts a long-term impact on the psychological well-being of refugees, that severity of symptoms were related to the length of detention, and that mental health effects persist for a prolonged
period after detention. This is in line, again, with Maslow’s hierarchy of needs; if one’s foundation is not stable, it will impact every other part.

Age

There is limited literature found to date regarding age of onset of torture treatment and recovery, and most of it involves the difference between children and adults. PTSD symptoms were found to decrease in similar ways among youth and adult survivors of torture, between baseline and follow up (Montgomery, 2010, p. 487), and age was not predictive. However, age was more associated with participation in treatment activities; younger survivors were more likely to participate.

Quiroga and Jaranson (2005) present evidence from both clinical and preclinical studies indicating that psychological trauma permanently shapes the brain circuitry regulating stress and emotion. Children are more prone to separation from family, abduction, and the death or disappearance of parents or other caregivers; adaptation depends on the initial experience and secondary stressors (Quiroga and Jaranson, 2005) Relatively little has been published about therapy and outcomes for tortured children.

Gender

Gender is another variable to be assessed in this study. Female refugees and immigrants from low income countries have been found to be at greater risk for poorer mental health outcomes (Hollander, Bruce, Burström, and Ekblad, 2011) than male refugees and immigrants. Most women are relatively innocent victims, compared to more politically active men, and are poorly prepared for the risk of torture (Quiroga and Jaranson, 2005, p. 62). Allodi and Stiasny (1990) found that although men were more physically tortured, women experienced more frequent psychological torture, and had a wider range of psychosomatic and psychological problems, during and after their release” (p. 144). In one study by Thapa and Hauff (2005), on gender differences among immigrants from low- and middle-income countries, higher distress scores among women are hypothesized to be related to hardship experienced in home countries because they mostly came from previous conflict zones. For women, living alone without a partner, aging, and denial of housing are crucial, whereas for men a job seems to be most important; it follows, then, social integration was
associated with lower distress in men (p. 83). Ultimately, there are mental health problems in both genders.

Female survivors are known to experience more sexual abuse, which impacts their mental health outcomes, and may alter their recovery process. Schubert and Punamäki (2011) found females from all cultural groups to suffer more from PTSD and depressive symptoms. Perera et al. (2013) also found gender to be associated with PTSD. As Arcel (2002) noted, “sexual torture harms women’s bodies and minds, controls and stigmatizes them socially, impairs their sexual identities, and in the worst cases turns them into the living dead.” Survivors have increased rates of major depression, suicide ideation and attempts, anxiety disorders, substance abuse, as well as decreased frequency of sexual relations (Quiroga and Jaranson, 2005, p. 64). In considering differences in recovery, it is important to remember “prolonged and repeated sexual torture is the most traumatizing human experience of all” (Arcel, 2002, p. 13). Men are not immune from sexual torture, though it has not been systematically studied (Quiroga and Jaranson, 2005) and the incidence or prevalence is unknown.

**Arrival Time**

It is expected that the time between arriving to the United States and start of treatment services will impact recovery. Masmas et al. (2008) found survivors of torture among newly arrived asylum seekers to be an incredibly vulnerable group, in need of immediate treatment. There is limited literature about associations between this and recovery.

**Summary**

Beyond type of torture and mental health, support with what may be viewed initially as more ordinary aspects of life, seems to have a tremendous influence on recovery. Survivors would benefit from easier access to language and job training, housing, and placement programs (Iskason and Jurkovic, 2013), as well as an extension of financial and health care support. Safety, stability, and having access to more training and education will improve the psychosocial stress survivors of torture face, and help provide more opportunity. Many survivors of torture are well educated individuals who were well respected in their home countries; though the actual torture may have stopped months or years prior, the
repercussions will continue to be felt if individuals are not able to utilize their education and expertise to bring more stability to their lives.

The cultural challenges are vast, and sometimes inhibit optimal recovery because of the Western perspective on treatment many high income country practitioners have. While a great deal of information has been gained and research has been done in the last three decades, there is both a gap in the research, and opportunity to for this study to include broader measures of recovery outside of mental health problem symptom reduction. There is also an opportunity to analyze how more holistic aspects of life, including social support, housing needs, legal status, gender, age, and arrival time impact these broader measures of recovery.

In developing programs which treat survivors of torture, it is important for providers to link survivors to programs and expertise they need. While there is literature verifying the importance of professionals linking survivors to appropriate facilities, there is a gap in literature in assessing the impact referrals have on recovery. This study aims to build on previous research and help fill in these gaps.

It is important to note that justice denied is a persistent irritant to the psychological wounds of a survivor (Jaranson and Popkin, 1998, p. 239). If the society in which survivors live continues to tolerate human rights violations, rehabilitation can never be fully achieved.
CHAPTER 3

METHODOLOGY

DESIGN OF INVESTIGATION

This was a historical prospective, also known as retrospective cohort, study which evaluated the association between spending time with family and friends and the receipt of a shelter or housing referral and a survivor of torture’s recovery. The two outcomes were (1) if symptoms had improved and (2) if they were dealing with daily problems more effectively. Survivors of torture were clients of the San Diego-based non-profit Survivors of Torture International (SOTI). The research was verified exempt on December 19, 2013 by San Diego State University Institutional Review Board.

POPULATION

The eligible population included 89 individuals residing in San Diego, California and registered as clients of Survivors of Torture International (SOTI) in FY 2013 (Figures 3 & 4).

The study sample consisted of 58 clients whose intake and follow up information about social and community involvement, referrals, and other variables were collected through the newly established Client Progress Monitoring Tool (CPMT) (copy included in the Appendix). Beginning FY 2013, the member organizations of the National Consortium of Torture Treatment Programs (NCTTP) adopted the use of the new tool. The CPMT is a questionnaire developed by torture treatment experts, designed to be the most straightforward way to have a question asked and answered. The tool was developed to standardize the way national partners reported client data. SOTI providers conducted interviews with the clients, and the information was self-reported. This practice-based research is not using a scientifically validated instrument.
Figure 3. Hypothesis.

Figure 4. Hypothesis II.
ANALYSIS AND PROCEDURES

Intake data were collected when clients registered for services at SOTI. Follow-up data were collected after six months of services. All data were collected by self-report. Data were collected by SOTI providers and entered by staff at SOTI.

There are two outcome variables which are analyzed to assess for improved recovery. Both are questions from the CPMT (see Appendix – follow up questions 1 and 2): (1) “My symptoms are bothering me less since starting services here” and (2) “I deal more effectively with daily problems since starting services here.” Clients can select from the following Likert-scale options: strongly agree, agree, neutral, disagree, and strongly disagree. Neutral, disagree, and strongly disagree were coded as 0; agree and strongly agree were coded as 1. Firth logistic regression was used in this study to assess the difference between any improvement and no improvement corresponding with strongly disagree/disagree/neutral and agree/strongly agree.

Primary exposures of interest is involvement with both friends and family, compared to involvement with either friends or family (see Appendix – question 5) and whether or not a housing referral was given (see Appendix - question 1). Friends or family was coded as 0, while both friends and family was coded as 1. Not receiving a housing referral was coded as 0, while receiving a referral was coded as 1. Other covariates include:

1. Gender: Male coded as 0; female coded as 1
2. Age at start of services: 5-13 coded as 0; 14-24 coded as 1; 25-64 coded as 2
3. Arrival time: time that passed between arriving in country and starting services. Zero to six months coded as 0; seven to 24 months coded as 1; 25+ months coded as 2.
4. Legal status: asylum seeker or a more permanent status. Asylum seeker coded as 0; more permanent status coded as 1.

The small size of the study sample precluded the multivariate analysis of additional potentially important psychosocial and referral variables such as primary medical care referral, work referral, employment status, improvement in English proficiency, country of origin, participation in religious or cultural activities, and volunteerism. Limited data precluded the use of data about mental health and current housing status.
DATA ANALYSIS & PROCEDURES
Data were analyzed using SAS 9.2. Frequencies and descriptive statistics were evaluated for each independent variable. Fisher’s exact and unadjusted logistic regression was performed to find bivariate associations and unadjusted odds ratios, confidence intervals, and p-values were reported. Multivariate modeling was performed using the primary exposures of interest and any variables which remained in at the 0.3 level, with Firth logistic regression. Covariates were removed if found to be insignificant at an alpha 0.05 level. Upon addition of the variable, if the parameter estimate changed by more than 15%, the covariate remained in the model even if it was insignificant.
CHAPTER 4

RESULTS

Of the 58 survivors included in this study, 72.4% believed their symptoms had improved, and a similar 70.7% believed they dealt with their daily problems more effectively, since starting services at SOTI. Two thirds of survivors spent time with either friends or family, but not both, while 71.2% did not receive a shelter or housing referral (Table 1). Survivors studied came from countries all over the world (Table 2).

Table 1. Frequencies of Selected Variables from CPMT

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No improvement</td>
<td>16</td>
<td>27.6</td>
</tr>
<tr>
<td>Improvement</td>
<td>42</td>
<td>72.4</td>
</tr>
<tr>
<td>Deal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No improvement</td>
<td>17</td>
<td>29.3</td>
</tr>
<tr>
<td>Improvement</td>
<td>41</td>
<td>70.7</td>
</tr>
<tr>
<td>Friends/Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>24</td>
<td>66.7</td>
</tr>
<tr>
<td>Both</td>
<td>12</td>
<td>33.3</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>37</td>
<td>71.2</td>
</tr>
<tr>
<td>Yes</td>
<td>15</td>
<td>28.9</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23</td>
<td>42.6</td>
</tr>
<tr>
<td>Female</td>
<td>31</td>
<td>57.4</td>
</tr>
<tr>
<td>Legal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asylum Seeker</td>
<td>30</td>
<td>55.6</td>
</tr>
<tr>
<td>More permanent status</td>
<td>24</td>
<td>44.4</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-13</td>
<td>10</td>
<td>18.5</td>
</tr>
<tr>
<td>14-24</td>
<td>13</td>
<td>24.1</td>
</tr>
<tr>
<td>25-64</td>
<td>31</td>
<td>57.4</td>
</tr>
<tr>
<td>Arrival (months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>21</td>
<td>38.9</td>
</tr>
<tr>
<td>7-2</td>
<td>15</td>
<td>27.8</td>
</tr>
<tr>
<td>25+</td>
<td>18</td>
<td>33.3</td>
</tr>
</tbody>
</table>


Of those who spent time with friends or family, 83.3% found their symptoms improved, compared to 58.3% who spent time with both friends and family. Spending time with friends or family, as opposed to both friends and family, was found to be moderately significantly associated with symptoms improving; those spending time with only one were 3.3 (95% CI 0.7, 10, p=0.1) times more likely to have had symptoms improve than those spending time with both. Of those who did not receive a housing referral, 86.5% found their symptoms improved, compared to 33.3% of those who received a housing referral. Not
Table 2. Frequencies of Client by Country of Origin

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syria</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Jordan</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Burundi</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Eritrea</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>3</td>
<td>5.2</td>
</tr>
<tr>
<td>Peru</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>El Salvador</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Burundi</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Uganda</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Iraq</td>
<td>21</td>
<td>36.2</td>
</tr>
<tr>
<td>Iran</td>
<td>5</td>
<td>8.6</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Honduras</td>
<td>1</td>
<td>1.77</td>
</tr>
<tr>
<td>Nigeria</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Congo</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Guatemala</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Kenya</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Egypt</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Russia</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>8.8</td>
</tr>
</tbody>
</table>


receiving a housing referral was found to be significantly associated with symptoms improving; those who did not receive a housing referral were 10 (95% CI 2.5, 50), p < 0.001) times more likely to have had their symptoms improve than those who received a housing referral. Almost 81% of females found their symptoms improved, compared to 65.2% of males. Female gender was found to be moderately significantly associated with symptoms improving; females were 2.2 (95% CI 0.6, 7.3, p < 0.3) times more likely to have had their symptoms improve compared to males. Of those ages 5-13 years old when starting services, 90% found their symptoms improved, compared to 84.6% who were 14-24 years old when starting services, and only 64.5% who were 25-64 years old when starting services. Younger age was found to be moderately associated with symptoms improving, the older a client was when services began, the less improvement there was. Clients aged 5-13 when starting services were 1.4 (95% CI 0.1, 10, p=0.7) times more likely to have had their symptoms improve than 14-24 year olds, and 3.3 (95% CI 0.5, 25, p=0.1) times more likely as to have had their symptoms improve than 25-64 year olds (overall p=0.242). Arrival time was found
to be moderately significantly associated with improving symptoms, the more time that passed between the time of arrival in the US and the start the services, the greater the association with improvement. Of those who arrived more than 25 months before starting services, 88.9% found their symptoms improved, compared to 80.0% of those who arrived 7-24 months before, compared to only 57.1% who arrived 0-6 months before starting services. Clients who arrived 7-24 months prior to the start of services were 2.7 (95% CI 0.6, 12.1, p=0.8) times more likely to have had their symptoms improve than those who arrived less than six months before, and clients who arrived more than 25 months prior to the start of services were 5.0 (95% CI 1.0, 25.2, p=0.2) times more likely to have had their symptoms improve than those who arrived less than six months before (overall p=0.1; Table 3).

Table 3. Bivariate Associations Between Selected CPMT Variables and Symptoms Bothersing A Client Less Since Starting Services

<table>
<thead>
<tr>
<th>Variable</th>
<th>n (% improvement)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/Family~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>20 (83.3)</td>
<td>1</td>
</tr>
<tr>
<td>Both</td>
<td>7 (58.3)</td>
<td>0.3 (0.1, 1.4)</td>
</tr>
<tr>
<td>Housing***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>32 (86.5)</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>5 (33.3)</td>
<td>0.1 (0.02, 0.4)</td>
</tr>
<tr>
<td>Gender~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15 (65.2)</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>25 (80.7)</td>
<td>2.2 (0.6, 7.3)</td>
</tr>
<tr>
<td>Legal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asylum seeker</td>
<td>23 (76.7)</td>
<td>1</td>
</tr>
<tr>
<td>More perm status</td>
<td>17 (70.8)</td>
<td>0.7 (0.2, 2.5)</td>
</tr>
<tr>
<td>Age (years~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-13</td>
<td>9 (90.0)</td>
<td>1</td>
</tr>
<tr>
<td>14-24</td>
<td>11 (84.6)</td>
<td>0.7 (0.1, 7.2)</td>
</tr>
<tr>
<td>25-64</td>
<td>20 (64.5)</td>
<td>0.3 (0.04, 2.0)</td>
</tr>
<tr>
<td>Arrival (months~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>12 (57.1)</td>
<td>1</td>
</tr>
<tr>
<td>7-24</td>
<td>12 (80.0)</td>
<td>2.7 (0.6, 12.1)</td>
</tr>
<tr>
<td>25+</td>
<td>16 (88.9)</td>
<td>5.0 (1.0, 25.3)</td>
</tr>
</tbody>
</table>


Key: ~p<0.3 *p<0.05 ** p<0.01 ***p<0.005

Of those who spent time with friends or family, 70.8% found they were dealing with daily problems more effectively, as opposed to 58.3% who spent time with both friends and family. Spending time with both friends and family, as opposed to friends or family, was not found to be associated with dealing with problems more effectively; those spending time with friends or family were 1.7 (95% CI 0.4, 10, p=0.5) times more likely to deal with daily problems more effectively than those spending time with both friends and family. Of those who did not receive a housing referral, 81.1% found they were able to deal with daily problems more effectively, compared to 40.0% of those who did receive a housing referral.
Not receiving a housing referral was found to be significantly associated with clients dealing with their daily problems more effectively; those who did not receive a housing referral were 5 (95% CI 1.7, 10, p=0.007) times more likely to deal with their daily problems more effectively compared to those who received a housing referral. Of those who started services when they were 5-13 years old, 90.0% found they were able to deal with daily problems more effectively, compared to 76.9% who were 14-24 years old and 61.3% who were 25-64 years old when starting services. Younger age was found to be moderately associated with clients dealing more effectively with their daily problems, the younger a client was when services began, the more effectively they dealt with problems; those who were 5-13 years old when starting services were 2 (95% CI 0.2, 10, p=0.9) times more likely to deal with daily problems more effectively than 14-24 years old, and 5 (95% CI 0.6, 25, p=0.1) times more likely to deal with daily problems more effectively than 25-64 years olds (overall p=0.2). Of those who arrived more than 25 months before starting services, 83.3% found they were able to deal with daily problems more effectively, compared to 80.0% of those who arrived 7-24 months before, compared to only 52.4% who arrived 0-6 months before starting services. Arrival time was found to be moderately significantly associated with dealing with daily problems more effectively, the more time that passed between the time of arrival in the US and the start the services, the greater the association with improvement. Clients who arrived 7-24 months prior to starting services were 3.3 (95% CI 0.06, 1.3, p=0.5) times more likely to deal with daily problems more effectively than clients who arrived less than six months before, and clients who arrived more than 25 months before were 4.0 (95% CI 0.9, 17.5, p=0.3) times more likely to deal with daily problems more effectively than clients who arrived less than six months before (overall p=0.1; Table 4).

The final logistic model for symptoms bothering a client less include spending time with friends and family, receipt of a housing referral, age, and arrival time. There was not a statistically significant association between any of these variables and recovery, however. Adjusting for all other variables in the final model, those who spent time with friends or family were 1.7 (95% CI 0.3, 10) times more likely to have had symptoms improve than those who spent time with both friends and family. Adjusting for all other variables in the final model, those who did not receive a housing referral were 2 (95% CI 0.3, 3.4) times more likely to have had symptoms improve than those who received a housing referral. Age
Table 4. Bivariate Associations Between Selected CPMT Variables and Clients Dealing With Daily Problems More Effectively

<table>
<thead>
<tr>
<th>Variable</th>
<th>n (% improvement)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>17 (70.83)</td>
<td>1</td>
</tr>
<tr>
<td>Both</td>
<td>7 (58.33)</td>
<td>0.6 (0.1, 2.5)</td>
</tr>
<tr>
<td>Housing**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>30 (81.08)</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>6 (40.00)</td>
<td>0.2 (0.1, 0.6)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16 (69.57)</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>22 (70.97)</td>
<td>1.1 (0.3, 3.5)</td>
</tr>
<tr>
<td>Legal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asylum seeker</td>
<td>23 (73.33)</td>
<td>1</td>
</tr>
<tr>
<td>More permanent status</td>
<td>17 (66.67)</td>
<td>0.7 (0.2, 2.4)</td>
</tr>
<tr>
<td>Age (years)~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-13</td>
<td>9 (90.00)</td>
<td>1</td>
</tr>
<tr>
<td>14-24</td>
<td>10 (76.92)</td>
<td>0.5 (0.1, 4.3)</td>
</tr>
<tr>
<td>25-64</td>
<td>19 (61.29)</td>
<td>0.2 (0.1, 1.7)</td>
</tr>
<tr>
<td>Arrival (months)~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>11 (52.38)</td>
<td>1</td>
</tr>
<tr>
<td>7-24</td>
<td>12 (80.00)</td>
<td>3.3 (0.1, 13)</td>
</tr>
<tr>
<td>25+</td>
<td>15 (83.33)</td>
<td>4.1 (0.9, 17.5)</td>
</tr>
</tbody>
</table>


Key: ~p<0.3 *p<0.05 ** p<0.01 ***p<0.005

and Arrival remained in the final model, as they changed the parameter estimates of housing by more than 15%. After adjusting for all other variables in the final model, those who were 5-13 years old when starting services were 1.4 (95% CI 0.1, 33.3) times more likely to have symptoms improve than those who were 14-24 years old. Adjusting for all other variables in the final model, those who were 5-13 years old when starting services were 1.4 (95% CI 0.1, 10) times more likely to have symptoms improve than those who were 25-64 years old. Adjusting for all other variables in the final model, those who arrived 7-24 months before starting services were 11.6 (95% CI 0.6, 232.3) times more likely to have symptoms improve than those who arrived 0-6 months before. Adjusting for all other variables in the final model, those who arrived 25+ months before starting services were 2.6 (95% 0.3, 19.7) times more likely to have symptoms improve than those who arrived 0-6 months before (Table 5).

The final logistic model for clients dealing with daily problems more effectively include spending time with friends and family, receipt of a housing referral, and arrival time. A statistically significant association between spending time with both friends and family, and the receipt of a housing referral, with recovery was not found. Adjusting for all other variables in the final model, those who spent time with friends or family were 1.1 (95% CI 0.2, 5) times more likely to deal with daily problems more effectively than those who spent time with both friends and family. Adjusting for all other variables in the final model, those
Table 5. Final Logistic Model - Symptoms Bothering A Client Less Since Starting Services

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/Family</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>1</td>
</tr>
<tr>
<td>Both</td>
<td>0.6 (0.1, 3.9)</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>0.5 (0.1, 3.4)</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>5-13</td>
<td>1</td>
</tr>
<tr>
<td>14-24</td>
<td>0.7 (0.03, 15.6)</td>
</tr>
<tr>
<td>25-64</td>
<td>0.7 (0.1, 7.7)</td>
</tr>
<tr>
<td>Arrival (months)</td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>1</td>
</tr>
<tr>
<td>7-24</td>
<td>11.6 (0.6, 232.3)</td>
</tr>
<tr>
<td>25+</td>
<td>2.6 (0.3, 19.7)</td>
</tr>
</tbody>
</table>


Key: ~p<0.2 *p<0.05 ** p<0.01 ***p<0.005

who did not receive a housing referral were 2 (95% CI 0.3, 10) times more likely to deal with daily problems more effectively than those who received a housing referral. Arrival time was the only variable found to be moderately significant in the final model. Adjusting for all other variables in the final model, those who arrived 7-24 months before starting services were 10.4 (95% CI 1.1, 101.7) times more likely to deal with daily problems more effectively than those who arrived 0-6 months before. Adjusting for all other variables in the final model, those who arrived 25+ months before starting services were 4.3 (95% 0.6, 28.7) times more likely to deal with daily problems more effectively than those who arrived 0-6 months before (Table 6).

Despite the confounding, none of the variables in the multivariate model building were significantly correlated (Table 7). Additionally, all variables had Variance Inflation Factors between 1 and 2. Finally, Chi Square testing found no significant relationship between any of the variables.

Table 6. Final Logistic Model - Clients Dealing With Daily Problems More Effectively

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/Family</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>1</td>
</tr>
<tr>
<td>Both</td>
<td>0.9 (0.2, 5.4)</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>0.5 (0.1, 3.2)</td>
</tr>
<tr>
<td>Arrival (months)</td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>1</td>
</tr>
<tr>
<td>7-24</td>
<td>10.4 (1.1, 101.7)</td>
</tr>
<tr>
<td>25+</td>
<td>4.3 (0.6, 28.7)</td>
</tr>
</tbody>
</table>


Key: ~p<0.2 *p<0.05 ** p<0.01 ***p<0.005
Table 7. Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Family/Friends</th>
<th>Housing</th>
<th>Gender</th>
<th>Legal</th>
<th>Age</th>
<th>Arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family/Friends</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>0.1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.02</td>
<td>0.1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td>0.2</td>
<td>0.3*</td>
<td>0.02</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.1</td>
<td>0.2</td>
<td>-0.1</td>
<td>0.1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Arrival</td>
<td>-0.1</td>
<td>-0.1</td>
<td>-0.1</td>
<td>0.1</td>
<td>-0.3*</td>
<td>1</td>
</tr>
</tbody>
</table>


Key: ~p<0.15 *p<0.05 **p<0.01 ***p<0.005
CHAPTER 5

DISCUSSION

KEY FINDINGS

The single most important finding from this research is the limitations surrounding the data used, and more generally speaking, the challenges that will persist with torture treatment research. As will be discussed, there were significant limitations with the measurements of both the variables and outcome. Neither spending time with friends and family or the receipt of a housing referral were found to be significantly associated with either symptoms bothering a client less or a client able to deal more effectively with daily problems. Of clients who spend time with both friends and family, only 58.3% experienced symptoms bothering them less and only 40.0% found they were dealing with daily problems more effectively, compared to 83.3% and 70.8%, respectively, of those who spent time with only friends or family. Additionally, of clients who received a housing referral, only 33.3% experienced symptoms bothering them less and only 40.0% found they were dealing with daily problems more effectively, compared to 86.5% and 81.1%, respectively, of clients who did not receive a housing referral.

The null of both hypotheses failed to be rejected, both in what the statistical significance proves, and in examining the proportionality of those with improved recovery. The friends and family exposure of interest finding is complicated. It appears to be counter to the literature, in thinking about the crucial importance of rebuilding a survivor’s social network, improving social connectedness, developing trust and relationships that were so often shattered during torture. This finding is believed to be related to the poor quality of the data, which will be discussed later this chapter. However, it could also be related to the limited time a client has had to develop trust in their new community, for those who have only recently arrived; six months is certainly not enough time to begin to work through effects of torture. It would be helpful if there was a longer follow up period. The housing referral exposure of interest finding, however, is logical. Prior to the analyzing the data, it was assumed those who received a referral would benefit from the information received.
What was not taken into consideration is the meaning behind the referral given: clients were in less stable housing conditions. It follows those clients would have more to recover from, and may not have recovered as much, or been able to benefit from other treatment received if they did not feel safe.

In this study, arrival time was the most significant predictor of improved recovery. Those who arrived 7-24 months prior to starting services at SOTI were 11.6 and 10.4 times more likely to have symptoms bother them less or to deal with daily problems more effectively, respectively, adjusting for other variables compared to those who arrived 0-6 months before starting services. Interestingly, clients who arrived more than 25 months prior to starting services at SOTI were only 2.6 and 4.3 times more likely to have symptoms bother them less or to deal with daily problems more effectively, respectively, compared to those who arrived 0-6 months prior to starting services.

There are several reasons this may be. First, survivors who have been dealing privately with their torture symptoms may be more dissociated than those who have only recently arrived, and thus have more to overcome. Another possible reason could be if any of these current or former asylum seekers have experienced detention, as research has shown long term deleterious effects. Lastly, another possible reason, that has been documented in other studies assessing the health of resettled refugees and acculturation, is that while many of the initial challenges survivors of torture face upon resettlement may start to be overcome in the 7-24 month period, such as housing status, improving social networks, more permanent legal status, more comfort in the new social structure, many new challenges of the Western lifestyle may be acquired after living in the United States more than 25 months. While a survivor’s resettlement is more complex than a refugee who has not experienced torture, this could contribute the explanation of the attenuated improvement in recovery. The lack of a dose response effect will be discussed later this chapter.

The older a client was when starting services at SOTI was not significantly associated with symptoms bothering them less, when adjusting for other variables, but the direction pointed to older clients recovering less. Proportionality supported this as well, as only 64.5% of those 25-64 years old felt symptoms were bothering them less, compared to 84.6% of those 14-24 years old and 90.0% or those 5-13 years old. Considering the literature, and long-term developmental impact torture has on children, this is not what we would expect,
and it is expected the small sample size contributes to this finding. Age appears to confound housing, despite not being significantly correlated.

**STRENGTHS**

The main strength of this study is that the data, regardless of quality, is even available. There are enormous data collection challenges in the field of torture treatment, which will be discussed later in this chapter. This is especially true in considering data which allows for outcome evaluation, and researchers have been calling on agencies and non-profits working in the field to change this. It is laudable for SOTI to have prioritized the use of the new CPMT and collection of data, given their limited resources. In a rather scathing 2006 editorial, Matin Basoglu remarks, “In 1988 we noted that the lack of outcome evaluation makes it impossible to judge the effectiveness of these rehabilitation programmes [sic] in facilitating recovery from the trauma of torture. Unfortunately, evidence is still lacking (p. 1231).” As Jaranson & Quiroga (2011) reminded readers, “when developing an outcome study, it is important to remember a caveat by Voltaire: ‘the best is the enemy of the good.’ Even if you can’t do an evaluation that meets all of the scientific criteria perfection, please start doing something.” SOTI has done something good, and despite the limitations, it is a productive step.

An additional strength is that the CPMT used for data collection, while not a scientifically valid instrument, was written by torture treatment experts Dr. Jim Jaranson who has decades of experience in mental health torture treatment and Edward Cohen, Ph.D., Professor at San Jose State University and National Capacity Building Consultant. Questions were designed to be the simplest way for clients to express progress or lack thereof.

**LIMITATIONS**

Most all outcome studies in the field of torture treatment that exist have many limitations (Jaranson and Quiroga, 2011). This study is no exception; this list is likely not exhaustive, but rather the limitations believed to be the most important to the study.

1. The small sample size (n=58) limits finding statistical significance and analysis of covariates. To address this, variables assessed were limited, and proportionality was used to help identify trends in the data, despite insignificance. Sample size calculations indicate:
a) A sample of 102 clients would be needed to more accurately analyze the association between friends and family and symptoms improving;

b) A sample of 238 clients would be needed to more accurately analyze the association between friends and family and dealing with daily problems more effectively.

2. Narrow measurements to capture such complex issues.

3. No control group, or random assignment to a control group, creates selection bias. All participants spent time with at least family or friends, and ethically, SOTI did not fail to issue a housing referral to those who needed one. To address this, the “control” group was determined to be a client that spent time with at least family or friends, but not both, and those who did not receive a housing referral.

4. The family/friends construct does not measure the intensity of a survivor’s social network.

5. Mental health is not controlled for. All clients had PTSD, MAD, or a combination of disorders, and there was no way to measure the severity of the condition or the amount of improvement between intake and follow-up.

6. Each variable had missing data.

7. It is difficult to determine what other factors may have played a role in and improvement of symptoms or lack thereof, decreasing internal validity. The possible variable contributing to the outcome are overwhelming. This includes, among many other issues, the natural history of the mental health condition and different cultures and backgrounds. In both this study and others, to find a study population from one culture or country, proves nearly impossible.

8. Follow up on the housing referral is not available to determine if the client used the referral and if/how they benefited it. There is no way to address this.

9. No generalizability. As was seen in Table 1, clients come from 22 countries. There is no information available on where in the country they came from, or what path they took to ultimately be in San Diego.

10. Natural history of disease – conditions like PTSD and CTD are chronic and there are exacerbations and periods of relief. It was not possible to control for this.

11. Interviewer bias could be present depending on SOTI staff completing the form.

12. Recall bias could be present if clients do not recall exactly how much or little their symptoms improved.

**IMPLICATIONS**

Though there is limited statistical significance, the findings demonstrate the need to closely follow up clients who are in need of a housing referral, as they seem to be an especially at-risk group of an already marginalized group, and may not benefit for other treatment provided until their life stabilizes more. Additionally, special care should be taken
with those who have only arrived 0-6 months prior to starting services, as they are an especially vulnerable group. However, clients who have now been living in the United States more than 25 months prior to starting services may have unique challenges as a result of the delay in treatment and personal levels of dissociation.

The sample size and limited statistical significance prevents more sophisticated analysis, however, the greatest room for advancement is in improving the methods of data collection so outcomes can be more accurately evaluated. Evaluation is “a diligent investigation of a program’s characteristics and merits” (Fink, 1993). The main concern of evaluation is to determine if a program’s goals and objectives have been met (Fink, 2013). It is crucial to note that all local stakeholders, and if possible, survivors of torture themselves be actively involved in the creation of these goals and objectives. Without commitment to the goals and objectives, those implementing the research and collecting the data may become fatigued and disillusioned with the process.

It is also important to note most non-profits working in the field on torture treatment do not have the staff or resources to conduct research to this degree. “Most donor organizations give funds only for the direct care of survivors and are not willing to finance necessary infrastructures for scientific research” (Jaranson and Quiroga, 2011, p. 103). Partnering with local schools of public health would be advantageous to both the university and students, and the possibility of using research grant dollars could help in the long run. Additionally, stakeholders and survivors need to determine the treatment or intervention component. As this study has focused more on psychosocial and socioeconomic factors, this discussion will center around one such possible intervention. Graduate students, while helpful with analytic skills, will have limited knowledge of this population, how best to measure data, and it would be most beneficial to have a research team comprised of local stakeholders, survivors, and researchers.

Five phases outlined in Figure 5: Five Phases of the Impact Assessment Study demonstrate the extensive work that must take place prior to the actual implementation of the study (Jaranson and Quiroga, 2011, p. 113). Phase I demonstrates what was previously discussed, using interviews and questionnaires to explore knowledge and the perception of torture treatment programs. Phase II expands on the first phase to include individuals less directly involved. Phase III compiles the results of I and II to generate outcome indicators

and instrument to capture this information. Phase IV includes a preliminary or trial study, to make adjustments as needed. Finally, Phase V is the actual implementation of the study and the goal is that torture treatment can be effectively evaluated.

From Phase III, measurements are crucial to performing an accurate evaluation. As Fink explains, the phenomenon “garbage in-garbage out” speaks to the need for measurement to be of high quality in order for the evaluation’s results to be sound (p. 112). The main
The purpose of the CPMT and the focus of ORR is for data to, at a minimum, be collected. “Eventually, ORR hopes to assess outcomes but is using this basic data collection as a first step” (Jaranson and Quiroga, 2011, p. 112). In moving forward from here, it is important to develop thorough and accurate measurements that are reliable, meaning they be free from error. For this to happen, they must demonstrate stability, equivalence, homogeneity, interrater reliability and intrarater reliability, as much as possible (p. 112-113). Measurements must also be valid, meaning it must measure what is intended. Two options for improved outcome evaluation are proposed here. For the purposes of this discussion, they will be referred to as (a) basic and (b) enhanced. The basic improvement is designed to be easier to implement, something a non-profit like SOTI could implement without a research staff. The enhanced data collection is designed to be more scientifically valid and would allow for improved epidemiological research, however it would require additional researchers.

A basic data improvement would (a) employ a one group pretest-posttest design (Figure 6), (b) determine intensity and frequency of family and friend network, and (c) obtain follow-up information on if housing referral was used.

<table>
<thead>
<tr>
<th>Pretest</th>
<th>Questionnaire</th>
<th>Posttest 1</th>
<th>Posttest 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1</td>
<td>X</td>
<td>O2</td>
<td>O3</td>
</tr>
</tbody>
</table>

Figure 6. One group pretest-posttest design.

With the current data, only a posttest value is given, which creates possible recall bias. To measure the extent to which a client’s symptoms are bothering them, as well as how effectively they are dealing with daily problems, both upon intake, initial follow-up, and final follow-up will help create a better measurement of change, as well as a longitudinal study. Additionally, better measures of how extensive a client’s social network is, and how often they spend time with this network is needed. Finally, upon follow-up, it needs to be determined which clients used the housing referral. With this basic improvement, only a few extra questions need to be asked both upon intake and follow-up, and one additional visit is needed.

An enhanced improvement would employ a quasi-experimental wait-list design which would randomly assign survivors of torture to either the receipt of a certain type of
treatment immediately (experimental), or after a certain period of time (control), three to six months (Figure 7).

<table>
<thead>
<tr>
<th>Random Selection</th>
<th>Pretest</th>
<th>Treatment 1</th>
<th>Posttest</th>
<th>Treatment 1 (Delay)</th>
<th>Posttest2</th>
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</thead>
<tbody>
<tr>
<td>Immediate</td>
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<td>X</td>
<td>O2</td>
<td></td>
<td>O3</td>
</tr>
<tr>
<td>Wait-list</td>
<td>O1</td>
<td>O2</td>
<td>X</td>
<td></td>
<td>O2</td>
</tr>
</tbody>
</table>

Figure 7. Quasi-experimental wait-list design.

Internal validity remains a challenge with this design, and researchers would need to measure as much about the client’s life as they could, in order to determine if the treatment was the reason for an improvement, or lack thereof in symptoms. An experimental design is the gold standard model, but it is unethical to not treat survivors, so true experimental designs have not been found (Jaranson and Quiroga, 2011, p. 109).

The quasi-experimental wait list design would require a far more in depth revision of the questions asked to clients, in line with the steps outlined in Figure 5. Additionally, a treatment or intervention needs to be created. One possibility would be participation in a group like SOTI’s Healing Club. Because of the lack of resources, it is recommended that SOTI and other non-profits partner with schools of public health to implement a more advanced research study. Regardless of the study design, a larger sample is needed to better assess for statistical significance. If possible to pool NCTTP data from centers around the country, that would be ideal.

It is worth noting, again, that local stakeholders must be actively involved in all phases of the research. Graduate students, while helpful with analytic skills, will likely have very limited knowledge about the trauma this population has endured.

**CONCLUSION**

Survivors of torture overcome impossible odds and demonstrate incredible resilience. The traumas experienced at the hands of torturers are horrifying, and sadly the trauma often continues long after the torture has ended. From the literature, it is clear that torture rehabilitation programs need to adopt a bio-psychosocial framework. From this study, it appears unstable housing and arrival time before starting services are most strongly
associated with recovery. A greater follow up period may offer more insight to spending time with friends and family, as six months was likely not enough time to build trust and build or rebuild relationships with friends and family. Finally, torture treatment centers must collect as much data as possible to better evaluate treatment programs.

Conducting sound epidemiological studies with this population is incredibly challenging, but not impossible. Research staff and/or graduate students would be helpful in conducting more sophisticated studies, due to the often limited staff at torture treatment centers, and lack of funds allocated to research. Epidemiologists need not wait for the gold standard experimental design; with practice-based research, challenges will always persist. One of the many things to be learned from this population, of course, is how many challenges can be overcome.
REFERENCES


APPENDIX

COPY OF CLIENT PROGRESS MONITORING TOOL
CLIENT PROGRESS MONITORING TOOL

Administered By: __________________________

Client Name: ______________________________ Date: ______________________

Intake:

1. Does client require:
   - Employment services __ yes __ no
   - Education services (including ESL) __ yes __ no
   - Medical services __ yes __ no
   - Housing services __ yes __ no

2. Primary Mental Illness Diagnosis of Client:
   __ 1 - Major Depressive Disorder (MDD)
   __ 2 - PTSD
   __ 3 - Major Depressive Disorder (MDD) & PTSD
   __ 4 - MDD & Other
   __ 5 - PTSD & Other
   __ 6 - MDD & PTSD & Other
   __ 7 – Other: ______________________________
          ______________________________
   __ 999 - Missing or Unknown

3. Global Assessment Function (GAF) Score at Intake (Write score or circle other options):
   0 – 100: ____________
   777 - Not Asked
   888 – Unknown
   999 – Missing

4. Origin of Primary MI Diagnosis of client:
   __ 1 - Clinician Interview within your program
   __ 2 - Diagnostic Scale
   __ 3 - Another Program’s Diagnosis

5. Number of Years of Education in country of origin:
   # ________ of years of school experienced
   __ 777 - Not Asked
   __ 888 – Unknown
6. Type of Education in Country of Origin (Circle number of highest level):
   0 - No Schooling
   1 - Some Primary School
   2 - Completed Primary School
   3 - Some Secondary School
   4 - Completed Secondary School
   5 - General Education Degree (GED) or equivalent
   6 - Some College
   7 - Completed two-years of College (Associate degree)
   8 - Completed four to five-years of College (Degree)
   9 - Some Graduate Work
   10 - Graduate Degree (MA level)
   11 - Graduate Degree (JD, PhD, MD level)
   777 - Not Asked
   888 - Unknown
   999 – Missing

7. Other Types of Training in Country of Origin:
   Any other type of training?    Yes      No
   Koranic or Monastery Schooling     Yes      No
   Vocational Training or Apprenticeship     Yes      No
   Professional Training toward or with Certification     Yes      No
   Other, specify: ________________________________________

8. Access to Basic Resources at Intake:
   __ Yes / __ No - Housing
   __ Yes / __ No - Food
   __ Yes / __ No - Healthcare
   __ Yes / __ No - Clothing
   __ Yes / __ No - Shoes
   __ Yes / __ No - Dental Care
   __ Yes / __ No - Transportation
   __ Yes / __ No - School for Children / __ No school-age children
   __ Yes / __ No - Work
   __ Yes / __ No - Work Training
   __ Yes / __ No - Financial Resources
   __ Yes / __ No – Other, Specify Other _______________________

Intake and/or Follow-up
1. Was client referred to:
   • Workforce Agency __ yes __ no
   • Education facility __ yes __ no
(includes ESL and training programs)

- Primary Care (medical)  __ yes  __ no
- Shelters / Housing advocacy  __ yes  __ no
  (Section 8, low-income housing)

2. Number of Years of Education since coming to the U.S. (answer or circle other options):

#___________ of years of school experienced
777 - Not Asked
888 - Unknown
999 – Missing

3. Type of Education since coming to the U.S. (Choose highest level):
   0 - No Schooling
   1 - Some Primary School
   2 - Completed Primary School
   3 - Some Secondary School
   4 - Completed Secondary School
   5 - General Education Degree (GED) or equivalent
   6 - Some College
   7 - Completed two-years of College (Associate degree)
   8 - Completed four-years of College (Degree)
   9 - Some Graduate Work
   10 - Graduate Degree (MA level)
   11 - Graduate Degree (JD, PhD, MD level)
   777 - Not Asked
   888 - Unknown
   999 – Missing

4. Other Types of Training since coming to the U.S.:
   Any other type of training?    Yes      No
   Koranic or Monastery Schooling     Yes      No
   Vocational Training or Apprenticeship     Yes     No
   Professional Training toward or with Certification     Yes     No

5. Are You Currently involved in Community or Social activities (mark all that apply):
   __ Any Community or Social activities
   __ Spend time with Family here in the US
   __ Spend time with Friends here in the US
   __ Activities led or organized by Health Professionals / Doctor / Social Service
   __ Activities led or organized by Teacher / Training staff / Employer / Colleagues
   __ Religious Affiliation / Organization activities
   __ Cultural / Ethnic Group activities

Agency Staff
   __ Activities led or organized by Teacher / Training staff / Employer / Colleagues
   __ Religious Affiliation / Organization activities
   __ Cultural / Ethnic Group activities
Follow-up:

1. Current Employment Status (Circle all that apply):
   1 - No work authorization
   2 - Unemployed, work authorized, and not seeking employment
   3 - Unemployed, work authorized, and seeking employment
   4 - Employed (FT/PT) with work authorization
   5 - Unable to work due to current physical or mental disability or Condition
   6 - Student
   7 - Primary caregiver not employed outside the house
   8 - Other
   999 - Missing or unknown

2. Current Housing Status:
   1 - Stable housing: living in own room, apartment, house, etc. for six months or more
   2 - Unstable housing: moves frequently (more than twice per year), living in a common area (e.g., living room), living in an area not generally considered housing (e.g., work storeroom), or living in a motel
   3 - Homeless: no housing of any kind, living in a shelter or on the street, etc.
   4 - In ICE detention
   5 - Other
   999 - Missing or unknown

Follow-up: Client Answers:

1. My symptoms are bothering me less since starting services here.
   Strongly Agree      Agree      Neutral      Disagree     Strongly Disagree

2. I deal more effectively with daily problems since starting services here.
   Strongly Agree      Agree      Neutral      Disagree     Strongly Disagree

3. I am determined / motivated.
   Strongly Agree      Agree      Neutral      Disagree     Strongly Disagree
4. I am feeling better about being in the U.S.
   Strongly Agree   Agree   Neutral   Disagree   Strongly Disagree

5. I am feeling better about my English skills.
   Strongly Agree   Agree   Neutral   Disagree   Strongly Disagree