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Completing the journey : an exploratory study of factors predicting emotional distress in recently resettled adult refugees.

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COMPLETING THE JOURNEY: AN EXPLORATORY STUDY OF FACTORS
PREDICTING EMOTIONAL DISTRESS IN RECENTLY RESETTLED ADULT
REFUGEES

By

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DEDICATION

This work is dedicated

to the hundreds of refugees who have honored me by sharing their journey,

and

to my family who have accompanied me to fulfilling my dream,

my husband, Dan,

my daughters, Sydel, Kendall and Alexandra,

my son Sadiq,

my grandchildren, Natalie and Zakariya,

and Ann.

ABSTRACT

COMPLETING THE JOURNEY: AN EXPLORATORY STUDY OF FACTORS
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REFUGEES

Susan Heffner Rhema

April 14, 2014

In the fiscal year 2010 a total of 73, 311 refugees arrived to the United States

from over 70 countries. Along with their rich cultural practices, refugees bring loss,

significant trauma and challenges related to migration. Their hope for the future is often

overshadowed by the stresses inherent in adapting to new social expectations. Yet, after

enduring a period of transition, most refugees become productive members of their

community.

This study analyzes prearrival characteristics, (demographic traits, self-efficacy,

prearrival trauma, and living location), and post arrival perceptions, (conservation of

resources and number of postarrival problems), in predicting emotional distress, (anxiety,

depression), in refugees at the early stage of resettlement. With limited research on the

relationship between refugee stress, self-efficacy, and conservation of resources this

research adds to the empirical data. Increased knowledge about these factors improves

insight into the refugee experience in the early days of migration and can enhance social

work models for intervention at this stage of resettlement.

An exploratory preexperimental, one-group design was used to identify the most

significant factors predictive of anxiety and depression in refugees shortly after arrival to

the US. The sample included 170 refugees from Burma, Iraq, and Nepal in the second and third month after arrival to Seattle, Washington in 2010. Measures used in this study include the Hopkins Symptom Checklist, (HSCL-25), Generalized Self-efficacy (GSE), Conservation of Resources (COR), Comprehensive Trauma Inventory (CTI), and the Post Migration Living Problems (PMLP). Three pairs of simultaneous binary logistic regressions identified the most predictive factors of anxiety and depression.

Of these factors the most predictive of both anxiety and depression were self-efficacy and perceived resource loss. The factors that most strongly predicted anxiety alone were gender and number of postarrival problems. The factor that most strongly predicted depression alone was number of prearrival traumas.

While most studies of refugees focus on the refugee history of trauma, this study explores a broad range of factors that support or impede migration adaptation. With this knowledge agencies working with refugees can focus resources where they can have the greatest impact. Some program enhancements could include: Psycho-social education for the losses associated with acculturation, group activities that enhance self-efficacy, recognition of the unique needs of men during this period and measures that reduce the impact of problems in the early months after resettlement.

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CHAPTER 1

PROBLEM STATEMENT

"I have crossed so many rivers, I no longer get wet" *(Kurdish adage)*

Introduction

First defined by the Convention and Protocol Relating to the Status of Refugees in

1951, a refugee is 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" (United Nations High

Commission on Refugees, 2011, p. 14). More than 100,000 refugees, asylees and special

visa holders were resettled in the United States in 2012 (United States Department of

Health and Human Services, 2012). After completing an arduous process to qualify, most

refugees arrive to the United States with great hope for the future. Many, however, find

their new life overshadowed by the challenges of adaptation, making the long awaited

end to their journey appear out of reach.

The process of qualifying as a refugee

The United Nations High Commission on Refugees, (UNHCR) is tasked with the

oversight of refugees worldwide. In 2011, more than 800,000 people were newly

displaced due to conflict or persecution as refugees across international borders, the

highest number in more than a decade (UNHCR, 2011). The process of qualifying as a

refugee begins with documentation of the individual's situation, and includes repeated interviews requiring persistence and consistency (UNHCR, 2011). The protocol requires each applicant to provide a detailed history of events leading up to their application that includes the reason for displacement. The refugee application guidelines clearly state that the burden of proof lies with the person making the claim.

The United States process for resettlement

Each year after consulting with Congress and the appropriate agencies, the President of the United States designates the processing priorities for refugee resettlement for the upcoming year. Between 1975 and 2005, the United States resettled over 3 million refugees (Corvo & Peterson, 2005). Despite the September 11, 2001 backlash against foreigners entering the US, resettlement efforts continued with the US admitting more than twice the number of refugees than all other nine countries in the program combined (Vissicaro, 2009).

As a federal agency of the United States Department of Health and Human Services (USDHHS), the Office of Refugee Resettlement (ORR) manages the process of resettlement through nine domestic voluntary agencies. In 2012, the ORR provided services to more than 115,000 new arrivals from more than 85 countries. These figures include over 62,000 refugees and Special Immigrant Visa holders, more than 40,000 asylees and Cuban/Haitian Entrants and Parolees, and a significant number of Unaccompanied Alien Children. The highest number of arrivals originated from Nepal (15,000) and Burma (14,000) comprising more than half of all arrivals, followed by refugees from Cuba, Iraq, Somalia, the Democratic Republic of Congo, Iran, Eritrea, Sudan, and Ethiopia (USDHHS, 2012). Refugees arrive in the United States as legally

documented immigrants, but citizenship is not guaranteed, and must be obtained through a variety of steps taken over the next 5 to 7 years.

The US program focus. Under the direction of the United States State Department, and under the provisions of Title IV of the Immigration and Nationality Act, ORR is to provide for the effective resettlement of refugees and to assist them to achieve economic self-sufficiency as quickly as possible. Title IV directs each state to ensure that language training and employment services are made available to refugees. In addition, states are to provide cash assistance and a medical assistance program that includes a medical screening within the first 90 days after arrival. The local resettlement agency is required to provide the basic support for housing set-up, English classes, and job placement assistance.

The local resettlement agency receives financial incentives from ORR for employment outcomes. Beyond these initial services, the only program assistance guaranteed to refugees is support with employment for up to five years after arrival. Previously deemed a humanitarian program, recent economic changes in the US have led to shifts in national priorities placing more emphasis on employment leaving fewer resources for mental health (Luta Garbat-Welch, personal communication, March 27, 2013). Even after fulfilling the expectations of the employment focused resettlement process many refugees are left in low paying jobs without health insurance and no safety net (Lacroix & Sabbah, 2011; Weine, et al., 2008).

ORR protocol lacks guidance for local programs on the handling of refugees with greater medical and mental health needs and agencies are simply encouraged to seek services without clear definitions, protocol or funding (Vissicaro, 2009). This approach

may be adequate for refugees who are struggling only with adjustment stress within normal limits (Miller & Rasmussen, 2009); however, more services are clearly indicated for those with serious mental illness (Weine, 2011).

The Problem

Current US resettlement policy standards and program designs do not take into consideration the impact of specific factors that challenge a refugee's capacity to adapt during the first few months of resettlement. One reason is that there are varying perspectives on what contributes to healthy resettlement for refugees (Yakushko, 2010) and more needs to be understood about what specific factors have an impact on refugees during resettlement (Hooberman, Rosenfeld, Rasmussen, & Keller, 2010; Overland, 2011). A variety of studies have explored factors that may improve refugee functioning concluding that there are many possible combinations that impact migration adaptation (Beckerman & Corbett 2008; Colic-Peisker & Walker, 2003; Corvo & Peterson, 2005; Miller et al., 2006; Mui & Kang, 2006; Oh, Koeske, & Sales, 2002) often with conflicting results. With limited resources, clearer identification of the factors that support migration adaptation and contribute to achieving overall well-being are critical to the focused development of resettlement policy and programs.

US resettlement protocol places significant demands on the refugee in the early stage of migration. Refugee ability to adapt is an interaction between past experiences, personal characteristics, and the daily obstacles they encounter in resettlement. Below is an overview of the elements each refugee brings to the early stage of migration and the challenges that occur during the first few months in the period of resettlement.

Refugee capacity

Refugee capacity has been defined as the refugee's ability to integrate, or adapt at least on some level, into life in the country of resettlement (Ager & Strang, 2008; Ryan, Dooley, & Benson, 2008). After enduring years of living with uncertainty, the difficulty of integration into the new culture can be a shock to those refugees expecting relief (Weine et al., 2002). The refugee is challenged to make the changes necessary to integrate thereby creating a particular form of stress that can manifest in emotional instability, diminished self-worth, shifting role and relationship dynamics, lack of safety and limited control (George, 2012; Jamil et al., 2007; Momartin, Silove, Manicavasagar, & Steel, 2004). Refugees often experience high levels of physical and emotional distress upon arrival to the country of resettlement (Hollifield et al., 2006; Mollica, 2006). In spite of these challenges, most refugees manage the stresses of adjustment, find employment, care for their families and recover from past trauma.

The psycho-social impact of the refugee experience. By definition, a refugee is someone who has fled his or her homeland and undergone a series of challenging events (UNHCR, 2012). Models that have attempted to define the effects that accompany this experience vary in emphasis but agree that transition, loss, and self-perception are at the core of the stress on refugees (Berry, Kim, Minde, & Mok, 1987; Colic-Peisker & Walker, 2003; Dow, 2013; Drachman, 1992)**.** While each refugee experience varies there are some common themes that can be identified.

Premigration. The refugee experience begins with an inciting traumatic event (Berry et al., 1987) that represents a threat to life, safety, family, or community (Mollica et al., 1992). The challenges of the premigration stage include the economic, social, and political impacts that led to the refugee's departure from a homeland as well as the

context within which the refugee lived prior to the inciting traumatic event (Drachman, 1992). Bhugra (2004) agreed that these preexisting elements are highly significant to the ultimate adjustment in resettlement.

According to Lacroix and Sabbah (2011), refugees have been exposed to increasingly violent situations often involving neighbor-on-neighbor attacks that leave whole communities displaced and desperate. For many, it also includes brutal treatment or systematic torture at the hands of individuals representing oppressive political or social regimes (Potcky-Tripdi, 2003). Individuals flee from life-threatening circumstances without considering that they may never return (Drachman, 1992). Family members are often separated and must make decisions about who travels with whom, what direction to travel and who is left behind (Weine et al., 2002).

After fleeing danger, many refugees are forced to live in substandard conditions in refugee camps or other inadequate living situations where medical care and food supplies are limited and survival often depends upon competition for resources (Colic-Peisker & Walker, 2003). In this time of uncertainty, refugees endure separation from family members, their home country, culture and language of origin (Keller et al., 2006). Refugees endure limited choices, little power, and unresolved trauma, creating a diminished sense of safety, disruption of normal relationships and a complex destruction of the social fabric (Casado, Hong, & Harrington, 2010).

Postmigration. A significant barrier to healthy resettlement is the discrepancy between the refugee's expectations and the reality of life in the new location (Drachman, 1992). This factor of individual perception plays a vital role in the refugee's capacity to adjust to the changes in lifestyle, priorities, expectations, social roles, and language use

(Weine et al., 2008). Along with the social and psychological challenges of this period, the refugee may experience increased anxiety about achieving the expectations placed by the U.S program agency (Casado et al., 2010).

The dynamic process of adaptation requires the individual to learn new behaviors and take risks (Berry, 2001) often creating interpersonal conflict within families and groups (Nicholl & Thompson, 2004). The transition creates a reduced sense of capacity, challenges emotional resources, and can further isolate the refugee psychologically (Berry, 2001). For some refugees this process creates self-doubt, particularly in the early months of resettlement, leading to limiting fears (Beckerman & Corbett, 2008).

Postmigration adaptation of refugees

The psycho-social phenomenon of post migration adaptation of refugees is a multi-faceted process that occurs over time (Bhugra, 2004). The adaptation of an individual refugee is impacted by a variety of factors and can include: characteristics of the person, events that occurred in the past, the length of time in the period of limbo before resettlement, the refugee's cultural framework, and the receptivity of the resettlement country (Ager & Strang, 2008; Colic-Peisker & Walker, 2003; Ryan et al., 2008). Ultimately, for many refugees the stress of migration reactivates the autonomic nervous system response that was embedded by historical trauma, causing emotional distress (Yakushko, 2010).

Trauma and the link to emotional distress. The study of migration effects on refugees has been primarily focused on the psychological impact of historical trauma (Ager & Strang, 2008), leaving other critical elements out of the equation. At the same time, the majority of refugees suffer significant symptoms of distress, and a large

minority has diagnosable psychiatric disorders (Hollifield et al., 2013). Recognizing that refugees with psychiatric symptoms are at high risk if they do not receive services (Weine et al., 2008), it is important to have an expanded understanding of the factors contributing to or reducing emotional distress.

Framing this study

The unique aspects of the refugee experience requires that a comprehensive theoretical foundation be built on knowledge that accounts for the factors that contribute to adaptation for some and loss of capacity in others. This study looks at three distinct groups of refugees in an effort to identify the relationship between prearrival characteristics, postarrival perceptions, and emotional distress of refugees at the period just following migration in an effort to understand which of them may best support healthy adaptation.

This study builds on existing literature and measures the predictability of emotional distress based on a broad group of factors that include refugee demographics, living location prior to resettlement, prearrival traumatic experiences, self-efficacy, perceived resource gain and loss, and postarrival problems. Understanding the relationship between these factors is crucial to responding to the needs of newly arrived refugees and to developing programs that support improved functioning.

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Importance for social work

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According to the Council on Social Work Education, it is the role of the social work practitioner to promote wellbeing by identifying client capacity as well as dynamics of risk (Greene, Galambos & Lee, 2003). However, the rapidly growing numbers of refugees in the US has exceeded the preparation of social workers (Corvo & Peterson,

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2005). Arriving daily to resettlement agencies across the country are highly traumatized individuals with a need for more focused care (L. Kaznak, personal communication, January 24, 2013). The policy argument of whether the US resettlement program should focus on swift employment becomes irrelevant as refugees suffer without the services they need to address the symptoms causing increased disabling conditions (Weine et al., 2008). Agencies faced with diminishing funds for the basic resettlement of refugees are struggling to accurately identify the best way to focus resources (D. Mikhalovic, personal communication, January 26, 2013).

A comprehensive understanding of the refugee experience and its impact is necessary for social work and social work education to move into the future (Cassado et al., 2010). Efforts must be made to develop practice models that strengthen engagement with refugee communities and enhance refugee functioning (Lu, Lum, and Chen, 2001). Understanding the common experiences, losses and challenges of transition through the refugee journey will enable social workers to assess areas of need more effectively.

In addition to understanding the bio-psycho-social issues faced by refugees, it is critical that the development of cultural competency skills are embedded into social work curriculum. Social worker knowledge must go beyond the general elements of client culture (Tseng, 2004) and include building capacity and skill in engaging cultural frameworks beyond our own.

A greater understanding of the challenges and strengths that impact refugees in the critical period of migratory adaptation is essential to the ongoing development of social work practice. Improving the evidence-based knowledge of this period will

enhance our capacity to respond and develop programs for the ever-growing numbers of

refugees arriving to the US seeking to fulfill their potential.

CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter begins with an introduction of a model of refugee migratory adaptation as the theoretical foundation for the study. It continues with a discussion of the research variables identified in the literature. This review informed the selection of variables that appeared to have potential to predict emotional distress in refugees. The variables have been categorized into two sets, refugee characteristics prior to migration and perceptions of refugees postmigration. Prearrival Characteristics includes Country of Origin, Gender, Age, Prearrival Living Location, Number of Prearrival Traumas, and Self-efficacy. Postarrival Perceptions includes Conservation of Resources, (Gains and Losses), and Number of Postarrival Problems. These sets of variables will be analyzed in relation to Anxiety and Depression. The literature presented below relies on published materials in English primarily located using the search sources in EBSCO, Social Work Abstracts Plus, PsychINFO, (EBSCOhost) and PsychINFO (Ovid). Search terms included: refugee(s), immigrant(s), refugee stress, self-efficacy, conservation of resources, adaptation, resilience, coping, functioning, acculturation, acculturative stress, mental health, migration, emotional distress and regression.

Theoretical foundation for a model of refugee migratory adaptation

Refugee migration adaptation is best defined as the process through which a person reorganizes their internal perspectives and external capacity in order to manage in a new sociocultural context (Ryan et al., 2008). Existing perspectives on the adaptation of refugees include sociocultural models, identity models, and economic models. A significant amount of related literature focuses on trauma as a key aspect, and while this is an important element, trauma alone does not account for refugee adaptation (Weine, 2001). Therefore, this study integrates multiple theories to explain the assumptions used in this research study.

This study draws on the theoretical contributions of a variety of scholars with emphasis on Maslow (1954), Lazarus and Folkman (1987), Hobfoll (1989), and Bandura (1998) in understanding human responses to stressful life events. Using these theories as a lens, this literature review will discuss the process of refugee adaptation following migration. The literature review continues with an overview of research on selected study variables and the questions posed in this study.

Stress and adaptation

The stress response is activated by situational changes that threaten human needs causing the individual to divert energy to restoring those resources (Maslow, 1963). Kaplan (1983) defined stress as the individual's reflection on their inability to diminish the perception or anticipation of a devaluing circumstance. Lazarus and Folkman (1984) asserted that stress is a measure of the individual's perceived capacity to access resources to respond to challenges. These definitions acknowledge that the readjustment necessary to return to the prechallenge state requires energy and focus that also increases stress for the individual (Pearlin et al., 1981). When this response system is over stimulated, it is

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described as emotional distress (van de Kolk, McFarlane, & Weisaeth, 1996). In contrast to emotional distress, psycho-social functioning is defined as the ability to manage affect, especially anxiety and depression (Bandura et al., 2003).

Coping

The human stress response activates the individual's psychological and social resources creating an adaptive process (Hobfoll, 1989). This process, known as coping, has been described in numerous ways depending upon the researcher's perspective (Greene et al., 2003). This self-righting capacity occurs in the adaptation process and is related to the individuals' self-esteem (Pearlin et al., 1981). Hobfoll (1989) stated that this process leads to a conservation of resources as the means for the individual to evaluate and respond to the stressful situation.

Appraisal

The social cognitive model of stress suggests that in addition to coping, another construct of the stress response is appraisal (Lazarus & Folkman, 1987). Referred to as resilience coping (Greene et al., 2003) appraisal explains the process of learned changes that accompany repeated stresses incorporating self-appraisal and a person's natural capacity to heal (Bandura, 1988). While stress resiliency does not have one clear or precise definition, the most common element of the construct includes the ability to overcome and is often defined as an adaptation response to high risk (Greene et al., 2003).

Adaptive resilience

The individual manages resources (Hobfoll, 1989) motivated by the desire for survival (Strumpfer, 2002) and develops behaviors that are self-protective leading to

adaptive resilience (Greene, 2002). Resilience is more than survival and is defined as "the unpredicted or markedly successful adaptation to negative life events, trauma, stress, and other forms of risk" (Fraser, 1999, p. 136). Resiliency can also be defined as the recovery of the individual to the patterns of capacity they possessed before the episode of stress (Fong & Greene, 2009). Stress, like that described above in the refugee experience, is a response to the loss of resources as individuals attempt to maintain or restore them (Hobfoll, 2002). Repeated loss, including threat to basic needs, leads the person through a process of self-appraisal, questioning one's capacity to survive (Bandura, 1988). It is suggested that in some cases the repeated process of self-appraisal can lead to perceptions of improved capacity (Lazarus & Folkman, 1987).

Refugee resilience

The process of gaining refugee status prior to migration varies greatly among refugee populations. Depending on the level of stability and the social circumstances, the individual seeks to reestablish equilibrium using personal resources that may, in turn, lead them to becoming more vulnerable (Kaplan, 1970). In contrast, the individual may draw on mediating factors that enhance capacity (Pearlin et al., 1981).

The significant stress experienced by refugees at the time of resettlement can be explained by the assertion that when the two major sources of stress, the eventful experience and the role strain converge, they create the most significant stress (Pearlin et al., 1981). Coping therefore regulates emotional distress and activates the self-appraisal process, leading to new learning that may result in increased perceptions of capacity (Folkman & Lazarus, 1986). Adaptive resilience is the outcome of developed coping and capacity in light of chronic threat (Greene et al., 2003).

Ultimately, during the challenges of postmigration the refugee may draw on the previously developed coping resilience to achieve long-held goals. Or, some refugees may find that the previous loss of resources impedes them from accessing new resources made available during this period (Hobfoll, 1989). Linking these theories to the refugee experience, the individuals' appraisal of stress at resettlement is an example of the stress cycle feedback that leaves some refugees with a sense of capacity and others without (Yakushko, 2010).

Predictor Variables

Prearrival characteristics

Country of Origin. Self-perception, and therefore sense of identity, is impacted by individual, social and cultural standards that are often difficult to separate from the psychological response to trauma (van de Kolk et al., 2005). The manner in which the individual describes the physiological reaction varies by the person's worldview, cultural framework, or social situation (Kohrt & Hruschka, 2010). Therefore, within language or culture groups, there are discernable patterns that arise, especially in response to shared events like large-scale war or war-like situations (Lacroix & Sabbah, 2011).

Events that occur over time in a person's life initiate new patterns of behaving, creating changed perspectives (Potcky-Tripdi, 2003). The impact of the repeated traumatic events and periods of transition create shifting social attitudes through which group behaviors are normed (Walter, Horsey, Palmieri, & Hobfoll, 2010). In refugee resettlement these changes in norms combine with the receptivity and expectations of the host country creating social group behavioral patterns (Colic-Peisker & Walker, 2003).

Gender. The impact of shifting expectations of women creates greater vulnerability for female refugees (Yohani & Hagen, 2010). Porter and Haslam (2005) identified that female refugees have worse resettlement outcomes than males, a notion supported by Schweitzer, Melville, Steel and Lacherez (2006) in a study of Sudanese in Australia; and by Lavik, Hauff, and Solberg (1999) in a study of refugees from five continents. Research with Bosnian refugees had varying outcomes, one finding that gender was not significant (Knipsheer & Kleber, 2006) and another suggesting females had only mildly greater vulnerability than males (Momartin et al., 2004).

Age. Several studies suggest that older refugees have worse outcomes than younger refugees (Brown, Schale & Nilsson, 2010; Porter & Haslam, 2005). A study of Holocaust survivors suggests that older survivors of trauma have increased emotional distress than younger survivors (Dekel & Hobfoll, 2007). In contrast, a study of Bosnian refugees (Knipsheer & Kleber, 2006) and a study of male refugee survivors of torture (Carlsson, Mortensen & Kastrup, 2006) found that age had no correlation to emotional distress.

Number of prearrival traumas. Research indicates that refugees have higher rates of trauma-related disorders and somatization than the general population or other immigrant groups (Hollifield et al., 2002; Kilpatrick et al., 2011; Littleton et al., 2011) with some reporting that the rates of symptoms of emotional distress among refugees are significant (Palik & Elklit, 2011). Symptoms of anxiety, depression, and somatic complaints are a result of severe or repeated traumatic experiences in the refugee's past (Mollica et al., 1992; Momartin et al., 2004; Schweitzer, Brough, Vromans & Asic-Kobe, 2006). The refugee experience has long-term effects and is often defined as a chronic

illness based on a series of significant, often catastrophic events (Keller et al., 2006; Kiezler, 2008; Mollica, 2006; Nickerson et al., 1998), and can create major shifts in psychological wellness and negative health factors in entire groups of people (Hollifield et al., 2002).

Prearrival Living Location. A unique aspect of the refugee experience is the forced migration to a secondary location while awaiting refugee status. Although no literature was found for this review that discusses the impact of the living locations for refugees during that period of time, this study will look at the impact of living in a camp, staying in the home country, or living in another setting.

Self-efficacy. Self-efficacy is based in social cognitive theory (Bandura, 1988) and is understood as a mechanism of human agency (Bandura, 1989). A core of human functioning, self-efficacy is defined as an individual's perception of function and capacity to impact their environment (Bandura, 1989; Schwarzer, Jerusalem, & Hahn, 1994). Self-efficacy is grounded in a person's belief in the possession of power to create desired effects (Bandura, 1997). Personal efficacy is centered in the knowledge that one has power to reach identified outcomes and the capacity to execute a course of action that leads to attainment of a desired goal (Bandura, 1997).

Self-efficacy regulates the cognitive, motivation, affect, and decision-making processes (Benight & Bandura, 2004). Understood as an individual's cognitive perception of competence (Hughes, Galbraith, & White 2011), self-efficacy includes optimism, response to adversity, persistence, goal setting, and investment of effort and is a key component of the individual's perceived assessment of capacity in the face of challenge (Bandura, 1989).

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Self-efficacy asserts that a continual social cognitive process of self-assessment leads to transformation of thoughts into action ultimately producing personal appraisal judgments (Benight & Bandura, 2004). Accurate self-knowledge and appraisal is the key to social identity and functioning (Bandura, Caprara, Barbaraelli, Gerbino & Pastorelli, 2003). Self-efficacy is affected by experiences both negative and positive (Hughes et al., 2011) leading to an individual's possession of confidence to complete tasks (Benight & Bandura, 2004).

Self-efficacy and stress. Self-efficacy is a central component in the quality of coping in stressful situations (Bandura, 1997). Operationalized, self-efficacy is linked to stress-related behaviors and is based in self-beliefs that are in opposition to those that are generated in the human response to trauma (Schwarzer & Jerusalem, 1995). It is asserted that self-efficacy is grounded in the logical learning centers of the brain, the same areas that are diminished in the stimulation of the stress response (van de Kolk, 1996). The parasympathetic system creates chemical and physical changes overriding cognitive brain activity (Bremner, 2005). Research into this process occurring in the brain suggests that traumatic events generally diminish the reported sense of competence (Bandura et al., 2003). Self-efficacy is viewed as a critical aspect of perceived coping after a traumatic event (Benight & Bandura, 2004). It has been suggested that reoccurring symptoms of traumatic stress reflect directly on the individual's perceived sense of functioning (van de Kolk et al., 1996). Bandura (2003) states that psychosocial functioning is directed by perceived self-efficacy including the capacity for affective self-regulation linked to the socialization process and supported by social forces.

The study of self-efficacy among refugees. The relationship between refugee trauma, functioning and self-efficacy has received increased attention from researchers over the last decade. There is limited documented research on self-efficacy with refugee populations with contradictory findings being reported. Below are the results of some of those studies.

Ferren (1999) studied the relationship between symptoms of PTSD and self-efficacy in Bosnian and Croatian adolescents concluding that the adolescents with symptoms of stress had higher levels of self-efficacy than those who did not have symptoms. And, although there were no significant differences among females, the self-efficacy of the males who had not been traumatized was significantly lower than the traumatized males (Ferren, 1999). In a study of Afghani refugees, Sulaiman-Hill and Thompson (2013) explored the relationship between self-efficacy and symptoms of stress. Consistent with the Ferren study, Sulaiman-Hill and Thompson concluded that there was a significant relationship between self-efficacy and lower levels of distress. However, a third study of refugees and self-efficacy comparing Vietnamese refugee youth who resided outside of Vietnam to those who never left Vietnam concluded that the self-efficacy of the two groups did not differ significantly (Loughry & Flouri, 2001).

Postarrival perceptions

Conservation of resources. Conservation of resources (COR) theory is based in social psychology and was developed as an alternative model for explaining the human response to stress and focuses on an individual's perception of resources gained and lost (Hobfoll, 1989). Hobfoll (1989) stated that the basic tenant of COR theory is that individuals are motivated to retain, protect, and build on their resources, and threat is

defined as the potential for loss of the things that are valued. Hobfoll (1989) identifies

five domains in the model including object resources, valued conditions, personal

characteristics, energies, and social support. Hobfoll (2002) asserts that COR theory

recognizes the central sociocultural aspects affecting an individual's evaluation of a

stressful situation and purports that resource gain and positive emotions are of primary

importance in response to trauma (Hobfoll, 2001).

   COR and stress. Hobfoll (1989), in defining COR theory, tied resource loss

directly to stress suggesting that the greater the resource loss the greater the challenge to

return to the pretrauma state. Trauma leads to a reduction of resources limiting the

person's ability to regain those that were lost (Hobfoll, 2001; Hobfoll & Lilly, 1993).

This process has the potential to increase symptoms of depression (Hobfoll et al. 1991).

Resource loss is a critical aspect of traumatic stress and the capacity for resource

development can increase one's ability to manage life's stressful situations (Hobfoll,

2003).

   The study of COR in refugees. Loss of resources is a central construct to refugee

trauma, although no research measuring COR with refugees could be located for this

review. However, Dekel and Hobfoll (2007) measured COR in Holocaust survivors

living in Israel during a period of war-like conflict. The study concluded that the

Holocaust survivors had higher levels of emotional distress than those Israelis without a

history of significant trauma drawing a positive correlation between traumatic experience

and increased loss of resources (Dekel & Hobfoll, 2007).

   Postarrival living problems. Multiple studies confirm the supposition that fewer

postmigration problems are a key element to improved refugee functioning (Aragona et

al., 2011; Hodes, Jagdev, Chandra, & Cunniff, 2008; Hooberman et al., 2010; Lie, 2000; Schwarzer et al., 1994). Multiple studies indicate that the presence of postmigration problems is a factor in reported symptoms of emotional distress (Schweitzer et al., 2006; Teodorescu et al., 2012; Wessels & Kostelny, 2012). Additional studies have indicated that reducing postmigration challenges for refugees is an important factor in improving wellbeing and reducing symptoms of emotional distress (Dalgard et al., 2006; Hooberman et al., 2010; Knipsheer & Kleber, 2006; Momartin et al., 2003; Sossou, Craig, Ogren, & Schnak, 2011; Vonage et al., 2010).

Outcome variables

Stress and emotional distress

Pearlin et al. (1981) defined stress as the impact on the individual of the attempt to return to homeostasis as a consequence of discrete events or continuous challenges. Inner perceptions of self provide support for healing and determine functioning during periods of stress (Briere & Scott, 2006). Multiple authors have asserted the connection between stress, traumatic events, self-perception, and functioning (Benight & Bandura 2004; Bandura et al., 2003; Connor, 2006).

Refugee emotional distress. Many studies link refugee functioning and symptoms of emotional distress (Beckerman & Corbett, 2008). Wessells and Kostelny (2012) identify anxiety and depression as key symptoms of emotional distress for individuals who have experienced forced migration. Whether looking at family adaptation (Renzaho, Green, Mellor, & Swinburn, 2011) or adjustment of adolescent refugees (Hasanović & Danas, 2012) functioning is measured by the capacity to manage and self-regulate emotions in social circumstances.

A meta-analysis comparing factors of pre and postdisplacement impact on refugees reviewed data from 56 studies published between 1959 and 2002 and concluded that refugees had moderately poorer outcomes than non-refugees (Porter & Haslam 2005). Another study that analyzed anxiety and depression in a convenience sample of refugees stated that 81% had clinically significant anxiety, 84% had clinically significant depressive symptoms and 45% had significant posttraumatic stress symptoms (Keller et al., 2006). In a systematic review of studies evaluating posttraumatic stress disorder in refugees the rates of the diagnosis in refugees range from 12 to 91% (Palic & Elklit, 2011). The variation in the rates of emotional distress in refugees is, at least in part, due to a complex set of factors (Hooberman et al., 2010).

Summary and call for further research

Published studies exploring refugee adaptation is growing but limited as evidenced in the above review of the research literature. Although the variables that impact refugee capacity during this period have not been clearly identified in the empirical literature, important links between self-efficacy, conservation of resources, individual characteristics, past trauma, and refugee functioning are purported. Therefore, more research is needed in this area, particularly research that considers specific factors (Hodes et al., 2008). Increased understanding of the relationship between these constructs will enhance both assessment practices as well as treatment methods (Gillespie, Peltzer, & Maclachlan, 2000), resulting in improved social work policy and models for practice.

CHAPTER 3

METHODOLOGY

The purpose of this study is to identify the extent to which a set of prearrival characteristics and postarrival perceptions can predict refugee emotional distress during the early period of resettlement. The results of this exploratory study will provide an expanded foundation for this area of limited research.

Research questions

Question 1: To what extent do prearrival characteristics, (country of origin, gender, age, number of prearrival traumas, prearrival living location and self-efficacy), predict reported levels of emotional distress, (anxiety and depression), in recently arrived refugees?

Question 2: To what extent do postarrival perceptions, (conservation of resources, gained and lost, number of postmigration problems), predict reported levels of emotional distress, (anxiety and depression), in recently arrived refugees?

Research Design

An exploratory preexperimental, one-group design will be used to identify the relationship between demographic, prearrival characteristics, postarrival perceptions and emotional distress in refugees shortly after arrival to the US. The study analyzes secondary data from 170 refugees in the second and third month after arrival.

Sample selection

The sample was drawn from recently arrived refugees to Seattle, Washington. Recruitment of participants for the study occurred between April 2010 and November 2010 of refugees aged 14 and over who had been in the United States between 30 and 90 days.

Of the 493 refugees eligible to participate, 251 completed an initial set of inventories. No data was collected from the remaining 241 during the randomly sequenced data collection days either because there was no interpreter, no transportation or no screener available. One refugee declined to participate in the research. Refugees that arrived with a health status classification of psychosis were excluded prior to the sampling, eliminating two refugees (S. Verbillis-Kolp, personal communication, June 17, 2013).

The data used in this study are from a second set of inventories that was collected from 190 participants within one month of the initial set. This data were collected from refugees who remained in the area and were able to be located for the follow-up session. There was not a systematic recording of the reasons the remaining refugees were not scheduled however, 61 participants could not be included because the refugee moved away from the area, the refugee was not able to be reached at any address or telephone number on record, or the refugee declined due to scheduling conflicts (S. Verbillis-Kolp, personal communication, June 17, 2013). Due to the length of time necessary to complete the full battery of instruments, some refugees did not complete all inventories. For the purposes of this study the final data set of 170 cases includes those cases that had no more than one incomplete inventory.

The data were collected by researchers at the Pathways to Wellness program. The research was funded by The Robert Wood Johnson Foundation, The Bill and Melinda Gates Foundation, United Way of King County, The Medina Foundation, The Seattle Foundation, and the Boeing Employees Community Fund. The table below outlines the sampling process that led to the final 170 refugee respondents in this study.

Diagram 1

Sampling Process
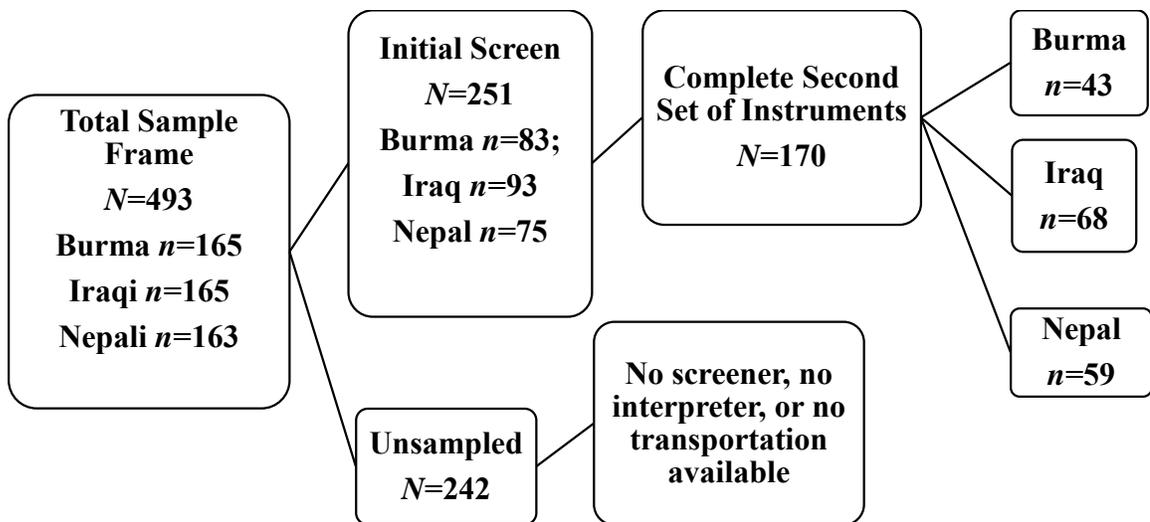
Refugees from Burma

Burma is the source of one of the most protracted refugee crises ever (UNHCR, 2012). Officially called the Union of Burma when it achieved independence from the United Kingdom in January of 1948, Burma has been under the Burmese military authority since 1962 when the group seized control. As the largest ethnic group in Burma, the Burman have attempted to keep the union together with military force while Karen and Karenni resistance groups have waged an ongoing war. The non-Burmese groups occupy 57% of the land mass and are 40% of the population. Projecting ethnic superiority, the Burman army maintains that they must protect national sovereignty by

any means including the use of severe human rights violations. In 1989, the military government announced they wanted foreigners to stop using Burma as the name of the country and adopt the formal name of Myanmar. Many groups within the country objected to this change questioning the military's right to rule. In 1990 elections were held and the winners have never been allowed to take power (UNHCR, 2013).

Burma is one of the most ethnically diverse countries in the world. Within the eight main ethnic groups inhabiting the country, anthropologists have counted more than 130 distinctive subgroups. Their diversity is reflected in the rich range of color and design of dress, head wraps, and traditions. The vast majority of refugees from Burma are accustomed to an agriculture-based economy with the main staple of rice. Forced off their land refugees from Burma have lived in refugee camps for nearly a generation. The Burmese groups in the US represent a variety of religions including Buddhist, Islam, and Christian faiths (UNHCR, 2013).

Burmese Resettlement. Of the 16,693 Burmese refugees resettled in the US in 2010, the three main groups include the Burmans, the Karen and their various subgroups, and the Chin (USDHS, 2011). Most of the Karen and Burmans have been resettled from refugee camps in Thailand. Most of the Chin have been resettled from Malaysia where they resided illegally. Resettlement in the US has introduced Burmese groups to modern amenities that they lacked living in Burma and the Thailand camps. The Thai camp conditions are harsh by all accounts and stories told by refugees reflect a difficult life. Thai military patrol the camp borders in an effort to keep the refugees confined. Stories shared by Burmese refugees in the US after arrival indicates various forms of maltreatment common in the camps. Refugees from Burma report crossing landmine

fields bordering the camp in an effort to earn money to provide for their families often resulting in severe injuries. Childhood education within the camps is optional and medical care and food supplies have been known to be limited.

The Burmese refugees in the US have struggled with adapting to modern technology, with many adults never having lived with running water or electricity, and never ridden a bus, or attended school. A minority of arrivals from Burma have ever driven a car. Education of children is a primary focus of parents who easily extend complete trust to educators regarding their children's needs (USDHS, 2011)

Burmese are considered mildly tempered, accepting of others, and highly compliant by resettlement staff. A significant number of refugees from Burma are known to use substances including areca or betel nut, alcohol, and other drugs that were available in Burma and Thailand, but illegal in the US (UNHCR, 2013).

Refugees from Iraq

The US military entered Iraq in early 2003, partly in response to the September 11, 2001 attacks. After Baghdad fell on April 12, a wave of looting and vandalism led to the plunder of many historical properties. The ruler at the time, Saddam Hussein, a Sunni, ruled a majority Shi'is country. Working with the Shi'is leaders, the US sought to ensure majority rule in Iraq and end the era of Sunni domination. The Iraqi army was dissolved, the Ba'th Party banned from participating in Iraq's government, and measures were made to privatize the economy (Ranard, 2008).

Since the invasion in 2003, Iraq has been plagued by the absence of law and order. The presence of Al-Qa'ida in Iraq has lead to suicide bombings and attacks on civilians. Shi'i militias infiltrated the newly created police and security forces and formed

death squads that assassinated leaders of the Sunni insurgency as well as many innocent civilians.

The UNHCR estimates that more than four million Iraqis have been displaced by the war in Iraq and its aftermath. Meanwhile, general lawlessness and disruption of the economy continue to cause Iraqis to flee their homes. Today, an estimated two million Iraqis have taken refuge in neighboring countries, primarily in Syria and Jordan. Most Iraqi Arabs, Kurds, and Turkomen are Muslims, making Islam the religion of about 95% of the country's population with Christians at 4-5% of population (Ranard, 2008).

Iraqi Resettlement. During fiscal year 2010 a total of 18,016 Iraqi refugees arrived to the US and were resettled in every region of the United States (USSD, 2010). According to UNESCO, Iraq had one of the best educational systems in the Middle East before the 1991 Gulf War, with high levels of literacy for both men and women. Institutions of higher education were of an international standard, particularly in science and technology (Ranard, 2008).

Iraqi refugees bring considerable strengths and resources to the US. Iraqi refugees are considered generally knowledgeable about Western life, open-minded in their attitudes toward cultural differences, and resourceful. As a group, they often have more formal education, professional work experience, and English language skills than other refugee groups. Those who have joined the workforce have generally proven to be diligent and well-regarded employees (Ranard, 2008). And while Iraqis may find some American beliefs and behaviors confusing and even offensive, they generally respond positively to other aspects of American life (Ranard, 2008). For the most part, Iraqis

admire American values of achievement, scientific progress, and freedom and equality (UNHCR, 2013).

One challenge facing the Iraqi refugees is the lack of employment opportunities equivalent to their prearrival professional status, especially if they have limited English skills. This also impacts their financial ability to maintain the lifestyle they had prior to arrival. This has often led to disappointment and frustration. Many who had high expectations for support during resettlement express distress when encountering US benefits and public assistance program support (UNHCR 2013).

Refugees from Nepal

The neighboring countries of Bhutan and Nepal have an intertwined history that began for the Bhutanese--or Nepali refugees-- around 1958 when a small group of Nepali families were invited into Bhutan to cultivate an underdeveloped region. Then in the mid 1980's after tightening it's citizenship laws, Bhutan held a special census and proceeded to force out almost 100,000 people. As Nepali community leaders attempted to accommodate the law by issuing certifications of residency and document past paid taxes, the Bhutanese government responded by imprisoning them. At this time, Bhutan's *One nation, One people* policy dictated the use of only one language, Dzongkha and one style of national dress. The Nepali language became outlawed in schools and many Nepali individuals lost jobs. During this period of military rule, Bhutanese Nepali's report stories of arrest, rape and torture. While some protested, others were forced to sign agreements to leave Bhutan. Many fled back to Nepal in 1990 and 1991. Those that passed through India were offered transport by the Indian government to ensure they did not remain in India (UNHCR, 2013).

Nepali Resettlement. The acceptance rate of UNHCR's referrals in Nepal by resettlement countries is the highest in the world at 99.4 per cent of total submissions. The US, in close coordination with the International Organization for Migration (IOM), began resettling Bhutanese refugees residing in eastern Nepal in 2007. Of the original population of 108,000 refugees originating from Bhutan and living in Nepal, 12,363 arrived to the US in fiscal year 2010 (USSD, 2010). The Nepali refugees are a diverse group and represent several religions including Christianity, Hinduism, and Buddhism. All Bhutanese refugees speak Nepali and most speak at least some English (UNHCR, 2013).

One postresettlement concern related to Nepali refugees is the growing rate of suicide within the community. The CDC issued a report that estimated the annual suicide rate among Bhutanese refugees resettled in the US at 21.5 per 100,000. This based on 16 reported suicides (four in 2009, six in 2010, five in 2011, and one as of February 2012). The age-adjusted suicide rate using the U.S. 2000 population as the standard was 24.4 per 100,000 (CDC, 2013).

Ethical considerations and consent procedures

Refugees are considered a vulnerable population due to the distinct challenges of acculturation, and the lack of access to services, English language skills, and social capital. Prior to arrival to the United States, most refugees have experienced abuses of power, coercion, or persecution often leading to a fear of authority. Therefore, in many cases, it is difficult for recently resettled refugees to decline consent without fear of retaliation (Jacobsen & Landau, 2003). Recognizing this vulnerability, considerations were made to ensure adherence to ethical standards.

Consent was sought during the initial data collection with the use of two forms, one which was required by the King County public health system and the second which was required by the Institutional Review Board of the Pacific Institute for Research and Education (PIRE). Recognizing the ethical challenges inherent in work with refugees, the evaluation coordinator and trained interpreters made a significant effort to communicate the voluntary nature of participation both at the initial consent form signing and again at the scheduling of the second phase inventories (S. Verbillis-Kolp, personal communication, June 17, 2013). Illiteracy is a factor for some refugees therefore individuals who could not read in their first language were assisted by a trained interpreter in completing the study inventories.

Measures

The criterion variable, or dependent variable is the level of reported emotional distress, expressed as anxiety and depression. The predictor variables or independent variables include *country of origin, age, gender, living location prearrival, number of prearrival traumas, number of postmigratory problems, reported levels of resource gains and losses*, and *self-efficacy*. The table below outlines each variable according to the instrument that measures it.

Table 1

Variables by Instrument

Predictor variables	
Basic Health Information Form	*Country of origin*
	Gender
	Age
	Living location prearrival

Comprehensive Trauma Inventory-Short Form 12	*Number of prearrival traumas*
Generalized Self-efficacy Scale	*Self-efficacy*
Conservation of Resources	*Resource gains*
	Resource losses
Postmigration Living Problems Inventory	*Number of postarrival problems*

Outcome variable	
Hopkins Symptom Checklist-25	*Anxiety*
	Depression

Predictor Variables.

Demographic characteristics. The Basic Health Information form was used to collect demographic data necessary for the study and includes: country of origin, age, gender, and prearrival living location. The following demographic characteristics are recorded by fill in the blank: Age: Date of Birth and Age; Country of Origin: Burma, Iraq, Nepal; Gender: Male or Female; Living location prior to resettlement: Camp, Home country or Other.

Prearrival traumas. The Comprehensive Trauma Inventory-short form 12 was used to gather data on number and types of preflight traumas. The Comprehensive Trauma Inventory, consisting of 12 items was used to measure the number of significant prearrival traumas. Respondents choose from five columns designating the number of events for each item. The five choices range from: "No", 1-2 times, 3-12 times, 13-50 times and 51+ times. The inventory response range is 12-60.

The instrument was developed as a tool to evaluate war-related trauma in refugees and initially was a 164-item list of potential events. The authors used a collaborative expert and participant process to identify a range of war-related experiences of refugees. Using qualitative focus groups in initial design, the tool was administered to 256 Kurds and Vietnamese refugees along with an in-depth interview. These refugees reported an average of 150 events and the Comprehensive Trauma Inventory was modestly correlated with symptoms and impairment ultimately becoming the CTI-104 (Hollifield et al., 2005). The 104-item tool has been used to evaluate severity of traumatic exposure in refugees (Mutabaruka, Sejourne, Bui, Birmes & Chabrol, 2012).

Additional testing of the tool occurred in a cross-sectional retrospective study of 36 Kurds and 31 Vietnamese for establishing validity (Hollifield et al., 2006). The CTI-104 was measured against the New Mexico Refugee Symptom Checklist, the Shehan Disability Inventory-36 and the Postmigratory Social Support Inventory in addition to focus groups, and an in-depth interview.

The 12-item instrument was developed by the research team specifically for this study. Based on the above noted research the team chose the 12 items that most strongly correlated to pathology. This 12-item instrument has not been validated (M. Hollifield, personal communication, March 7, 2014).

Postarrival living problems. The Post Migration Living Problems inventory was used to measure refugee specific postarrival challenges. The Post Migration Living Problems Inventory asked refugees to rate (on a five point scale ranging from *no problem at all* to *a very serious problem*) 23 typical problems faced by them in the months after resettlement. This instrument was developed by Silove, Steel, and McGary (1998) to

assess current life stressors for asylums seekers. Its construct, development and design are not fully described by the authors however the instrument has been used by researchers to measure the number of problems in relation to symptoms of PTSD (Aragona, Pucci, Mazzetti & Geraci, 2012). In two reported studies postmigratory problems were highly correlated with and made unique contributions to explaining depression, anxiety and somatization (Schweitzer et al., 2006; Schweitzer et al., 2011).

Resource gain and loss. The Conservation of Resources (COR) scale developed by Hobfoll in 1989 was used to gather data on perceptions of resource gain and loss. This instrument measures 72 resource gain and loss items from five domains, personal, interpersonal, material, work and health. Each item is scored on a Likert scale using a line image with the left end beginning at 0 and the right end at 4. Respondents can read the words *a little* above the left end of the line spectrum at the 1, and *a great deal* above the 4. The respondents repeat the same items, scoring each of them as Losses and Gains. The response range of each inventory is 0-124. Hobfoll, Lilly and Jackson (1992) reported a moderate test re-test reliability with a range of .55 to .64 for this instrument. The 31-item version was developed for specifically for this research by the Pathways research team and in consultation with the author (M. Hollifield, personal communication, March 7, 2014).

Self-efficacy. Self-efficacy was measured using the General Self-efficacy Scale developed by Ralf Schwarzer and Matthias Jerusalem in 1979. Ten items are rated on a 4-point Likert scale (1-*Not true at all,* 2-*Hardly true*, 3-*Moderately true* and 4-*Exactly true*). The ratings are summed for a total score (ranging from 10 to 40) with higher scores indicative greater self-efficacy. This scale has been adapted to 26 other languages.

Examination of psychometric data from 23 different national groups on this uni-dimensional scale indicates that it has very good reliability, with Cronbach alphas ranging from .76 to .90, with most in the range above .85.

Outcome/Criterion variable.

Emotional distress (anxiety and depression). Emotional distress was measured with the Hopkins Symptom Checklist-25 (HSCL-25). The HSCL-25 measures anxiety and depression based on a set of commonly identified symptoms on a 4-point Likert scale (1-*Not at all*, 2-*A little*, 3-*Quite a bit*, and 4-*Extremely*). The scores can range from 25-100. Within each subscale, the sum of all the items is divided by the number of items, to determine whether the results are clinically significant. Clinical significance is determined with a score of equal to or greater than 1.75.

The HSCL-25 instrument was developed by expert consensus methods for use in the clinical setting and is a valid indicator of anxiety and depression for the general US population. The tool is considered transculturally valid. Initially, the Hopkins Symptom Checklist-90 was developed as an instrument to measure anxiety and depression (Derogatis, Lipman, Rickels, Uhlenhuth & Covi, 1974; Derogatis & Cleary, 1977). Subsequent research refined the instrument down to a 25-item checklist that was later validated for use with Vietnamese and Kurdish populations (Kinzie et al.,1982). In research with 65 refugees from Vietnam, Laos, and Cambodia, the HSCL-25 demonstrated sensitivity and specificity against the Diagnostic and Statistical Manual of Mental Disorders (Mollica, Wyshak, de Marneffe, & Khuon, 1987). Testing the psychometric properties of the HSCL-25 in the Arabic, English, Farsi, Russian, and

Serbo-Croatian versions found that all Cronbach Alphas were above .80 suggesting internal validity in all five languages (Kleijn, Hovens, & Rodenburg, 2001).

In an examination of psychometric properties of the HSCL-25, the Arabic, Farsi, Serbo-Croatian, and Russian versions were validated as reasonably good (Kleijn et al., 2001). In a meta-analysis in 2001 that reviewed 183 studies of instruments suggested to assess common symptoms of anxiety and depression, of the nine instruments adapted for use with refugees, only the HSCL-25 and the Beck Depression Scale were deemed both reliable and valid (Hollifield et al., 2002). Additional research testing cross-cultural reliability and validity using Ki-Swahili terms concluded that the instrument has criterion validity (Bolton, 2001). This assessment performed with refugees concluded that the instrument construct and internal reliability were good with a Cronbach alpha of .87, but the test-retest reliability was less adequate at .67. The HSCL-25's total score has consistently been shown to be highly correlated with severe traumatic stress of unspecified diagnosis, and the depression subscale score correlated with major depression Southeast Asian refugees (Hollifield et al., 2013).

Emotional distress, defined as anxiety and depression by the HSCL-25 is measured in clinical settings using the cut-off score of 1.75, with scores above the cut-off considered clinically significant. The use of the HSCL-25 as an indicator of clinical significance is a practice standard used in therapeutic settings as a valid identification of individuals with symptoms that necessitate attention. It is worth noting that the use of this cut-off point for the predictor dichotomous variable differentiates between persons whose scores vary by .01. However, as some level of measure must be used to identify therapeutic need, using the 1.75 cut-off is consistent with the use in a therapy setting.

This study uses the dichotomous results of the HSCL-25 of clinical significance or no clinical significance to align the research results with clinical use of the instrument.

Instrument preparation

All study instruments were translated using a community participatory research model. For each language group a community review committee was convened to discuss and establish consensus for the forward and backward translated instrument. The research team explained the intended communication of each question on every instrument. Using this method, the instruments were not only translated but each has been reviewed and linguistically adapted to ensure the use of language that best communicates the physical symptomology. The consent forms were included in this process (Hollifield et al., 2013).

All instruments in this study are considered reliable and valid measures for use with refugee populations and regarded as cultural adapted instruments for assessing symptoms of refugee trauma at this time (Derogatis & Cleary, 1977; Mirzamani, Mohamadi, Mahmoudi & Mirzamani, 2007; Oruc et al., 2008; Paunovic & Ost, 2005; Silove et al., 2007). See Appendix Section for the instruments in their English version.

Data collection and management

The data were managed by the grant evaluation coordinator who administered the screenings, entered and checked all the data. The original instruments and all the electronic files were kept in locked cabinets throughout the process (S. Verbillis-Kolp, personal communication, June 17, 2013).

There were no incentives given to participants. Participants did however receive a thank you note and a package of tea following their participation in the second set of inventories (S. Verbilliskolp, personal communication, June 17, 2013).

Analysis

Initial analysis was conducted to describe the sample. Binary logistic regression was applied to answer the research questions. Logistic regression predicts the impact of a series of independent variables on a dichotomous dependent variable and provides a discrete outcome of group membership (Tabaschnick & Fidell, 2007). The independent variables may be continuous, dichotomous, or both and are useful when relationships may not be linear (Tabashnick & Fidell, 2007). Assumptions of logistic regression include an absence of perfect multicollinearity, and a lack of specification errors (Meyers, Gamst & Guarino, 2006). The best evaluation of goodness of fit is the overall model evaluation that measures whether the logistic model demonstrates an improvement over the intercept only model (Peng, Lee & Ingersoll, 2002). Goodness of fit is also established with the Hosmer-Lemeshow test and the evaluation of the *R2* with the Nagelkerke (Tabashnick & Fidell, 2007).

The outcome analysis of a logistic regression includes the Wald chi-squared statistic to determine whether the regression is a more effective predictor than the null model (Tabashnik & Fidell, 2007). A benefit of the results from the logistic regression is that the odds ratio for each variable improves interpretation of the implications and interpretation of results of the research (Kerlinger & Lee, 2000).

Two preliminary sets of simultaneous, or direct, logistic regression were performed. The first set analyzed the Prearrival Characteristics and then the Postarrival Perceptions, each separately, with the outcome variable of Anxiety. The second set analyzed the Prearrival Characteristics and then the Postarrival Perceptions, each separately, with the outcome variable of Depression.

The two sets of variables identified as Prearrival Characteristics and Postarrival Perceptions were analyzed separately to maintain the distinction of preexisting qualities that a refugee possesses as they enter into resettlement, and the aspects that occur in the months just following arrival. In each set the variables are entered simultaneously by these distinct categories. Then, after determining the variables that were significant in each set, a logistic regression was repeated using the significant predictors to determine the overall predictors of anxiety and depression.

CHAPTER 4

RESULTS

This study evaluated the predictability of emotional distress in refugees from

factors identified as prearrival characteristics and postarrival perceptions. The results

reported here are from five inventories completed by 170 refugees from Burma, Iraq, and

Nepal.

The data

The study utilizes data collected in Seattle, Washington in 2010 over a seven

month period. All data was collected under the supervision of the grant evaluation

coordinator. Some participants completed the translated research instruments on their

own while others used the assistance of specially trained interpreters. Initially, the

instruments were administered in small groups but the evaluation coordinator concluded

that this process was not effective and changed the process to home visits with

individuals and families (S. Verbillis-Kolp, personal communication, June 17, 2013).

Cleaning and preparation of data

The grant coordinator performed a check of accuracy of the data entry. The data

were reviewed in randomly chosen cases and instruments. Very few mistakes were

identified and corrected (M. Hollifield, personal communication, June 17, 2013). Of the

170 cases used in this research the missing data varies from 0% for the HSCL-25 to 5.3%

for the Post Migratory Living Problems. The table below outlines the percentage of missing items in each instrument.

Table 2

Percentage of Missing Items by Instrument

Instrument	Percentage
Hopkins Symptom Checklist-25	0.0%
Generalized Self Efficacy	.06%
Conservation of Resources-Loss	1.8%
Comprehensive Trauma Inventory	2.4%
Conservation of Resources-Gains	2.9%
Post Migratory Living Problems	5.3%

Collineararity

With more than one predictor collinearity and multicollinearity must be evaluated. If any two variables are too closely correlated the coefficients will be imprecise causing large standard errors (Meyers, Gamst, & Guarino, 2006). The results of a Pearson's r determined a significant correlation between total scores on depression and anxiety of .863. This suggests that results of the HSCL-25 for anxiety and depression be analyzed separately.

Power

Power was accessed using a standard formula based on sample size and number of predictors. In general reference to sample size and use of regression analysis, Tabachnick and Fidell (2007) suggest that N should be bigger than $50 + 8(k)$, where $k =$ the number of predictors. Therefore, the greater number of predictors the more you need

to increase on your sample size. Another evaluation method is to sample at least 10-15 participants per predictor to ensure enough power and replicability. Establishing power is also important for replication of findings. Using the equation N is larger than $50 + 8(k)$, the following applies: $170 \geq 50 + 8(9)$ or $170 \geq 131$ Using the second method with nine predictors the sample should be at least 90 or more conservatively 135.

However, some literature suggests a more conservative model for calculating sample size. One equation is $N=10 \ k/p$, when k is the number of variables and p is the smallest of proportions of negative or positive cases (Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996). For this study this calculation would suggest the following: $N= 10 \ X \ 6/.20$ for anxiety and prearrival characteristics and $N = 10 \ X \ 6/.24$ for depression and prearrival characteristics. The sample size suggested by this equation for the analysis of anxiety is 300 and for depression is 250. The same calculation applied to the post arrival perceptions leads to the suggested sample size for anxiety at 150 and for depression at 125.

Model of analysis

The method used in this study— two initial sets of logistic regression and then a third set of the significant variables—were determined after considering several issues. While the data could have been analyzed by entering all predictor variables into the equation at one time (Meyers, Gamst & Guarino, 2006) a more conservative estimate of sample size to the number of predictors supports the separation of the analysis (Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996).

Creating two sets of predictor variables strengthens the model's ability to differentiate the predictors based on the theoretical design (Tabashnick & Fidell, 2007).

The separated analysis model controls for temporality and reflects the experience of the refugee. At the moment of arrival, the refugee possesses the prearrival characteristics and is then impacted by the postarrival realities. The separated analysis aligns with the theoretical model. The subsequent analysis of the significant predictors then serves to build a stronger model with fewer predictors (Tabashnik & Fidell, 2006; Worster, Fan, & Ismaila, 2007).

Description of the sample

A total of 170 refugees took part in the study including 43 from Burma, 68 from Iraq, and 59 from Nepal. Of the sample, the Burmese group represents 25.3%, the Iraqi group represents 40%, and the Nepali group represents 34.7%.

Demographic characteristics overview

The following demographics of the sample: country of origin, ethnic group, gender, age, and living location prior to resettlement are displayed in the table below.

Table 3

Frequencies of Prearrival Characteristics (*N*=170)

Characteristics	*N*	*%*
Country of origin		
Burma	43	25.3
Iraq	68	40
Nepal	59	34.7
Gender		
Female	84	49.4
Male	86	50.6

14-19	27	15.9
20-29	51	30.0
30-39	42	24.7
40-49	37	21.8
50 and over	13	7.6

Living location

Camp	82	48.2
Home country	23	13.5
Other	65	38.2

Demographics by country of origin

Country of origin and ethnic groups. The sample includes refugees from three originating country locations. Refugees from Nepal in this data set all identify as Bhutanese and speak Nepali. Refugees from Iraq in this data set all identify as Iraqi and speak Arabic. However, the refugees from Burma in this data set identify themselves as Burman, Chin, Karen, and Karenni, each speaking the ethnic or tribal language of the same name. The data set includes the ethnicities of the cases from Burma to distinguish first language. Although ethnically diverse, the sample from Burma will be considered one group. The table below outlines each ethnic group by country of origin.

Table 4

Ethnicity by Country of Origin

Country	Ethnicity	*n*	Percentage
Burma			

Burmese	5	2.9%
Chin	20	11.8%
Karen	15	8.8%
Karenni	3	1.8%
Total	43	25.3%
<u>Iraq</u>		
Iraqi	68	40%
<u>Nepal</u>		
Bhutanese	59	34.7%

Gender. Gender was fairly equally represented with the sample including 84 females and 86 males. The table below outlines the frequencies of each gender by country of origin.

Table: 5

Frequencies of Gender by Country of Origin

N=170	Total	*%*	Male	*%*	Female	*%*
			86	50.6%	84	49.4%
Burma	43	25.3%	27	15.9%	16	9.4%
Iraq	68	40.0%	32	18.8%	36	21.2%
Nepal	59	34.7%	27	15.9%	32	18.8%

Age. The age of participants spanned six decades with very small numbers over 60 years of age, with the mean age of 32.2 and a standard deviation of 11.9. The median ages differ significantly with the Nepali median age nine years younger than the Burmese. The table below outlines the frequencies of age by country of origin.

Table 6

Age by country of origin

Country of Origin	Mean age	Standard Deviation	Median age
Burma	32.51	13.6	35.0
Iraq	33.6	10.2	34.5
Nepal	29.5	12.1	26.0
Total	32.20	11.9	30.5

Prearrival living location. Previous living situation is defined as the location in which the refugee resided just before resettlement and includes camp, home country and other. The chart below identifies the living location by Country of Origin. The Burmese all lived in camps except for the Chin who fled to other countries, living on the run. Many Iraqis also responded to the category Other if they lived in another county while waiting as there were no camps for this population. The table below outlines the frequencies of prearrival living location by Country of Origin.

Table 7

Living Location Prior to Resettlement by Country of Origin

Location	n	camp	% of total	home country	% of total	Other	% of total
Burma	43	23	13.5%	0	0%	20	11.7%
Iraq	68	4	2.4%	19	11.2%	45	26.5%
Nepal	59	55	32.3%	4	2.4%	0	0%

Predictor/Outcome variable results

Results for all inventory and scales in the dataset are displayed in table below.

Table 8

Description of Predictor and Outcome Variables

Predictor Variable results

	N	Mean	Standard Deviation	Scale range	Respondent range
Prearrival					
CTI	166	19.03	6.43	12-60	12-44
GSE	169	28.5	7.20	0-40	8-40
Post Arrival					
COR-Losses	167	36.6	24.75	0-124	0-96
COR-Gains	165	46.28	23.68	0-124	2-111
PMLP	161	32.22	16.77	0-92	0-74
Outcome variable results					
HSCL-25					
Anxiety	170	1.45	.497	1-4	1-3.30
Depression	170	1.54	.571	1-4	1-3.67

Predictor variable results by Country of Origin

The results of each inventory or scale by country of origin are outlined below.

Number of prearrival traumas. The mean score of the Nepali group is much lower than both the Iraqi and Burmese group. The table below outlines the mean and standard deviation of prearrival traumas by country of origin.

Table 9

Prearrival Traumas by Country of Origin

	N	Mean	Standard deviation	Range	Median
Burma	35	20.49	5.04	12-33	20.0
Iraq	68	21.01	7.83	11-44	19.0
Nepal	58	15.61	3.46	12-32	15.0
Total	166	19.03	6.43	0-44	17.0

Self-efficacy. The mean scores by country of origin demonstrate the gap between Burmese reported self-efficacy and Iraqi reported self-efficacy. The range of the scores for self-efficacy sorted by country of origin indicate a significant difference at the lower end when comparing Burmese to Nepali's. The table below outlines the mean and standard deviation of self-efficacy by country of origin.

Table 10

Self-efficacy by Country of Origin

	N	Mean	Standard Deviation	Range
Burma	43	24.39	6.17	8-38
Iraq	67	28.47	7.17	11-40
Nepal	59	31.54	6.17	17-40
Total	169	28.50	7.20	8-40

COR-gains and losses. Across the three countries, gains were relatively consistent while the perceived losses vary widely with the Burmese mean at 17.45 and the Nepali at more than twice that at 45.68. Mean resource gains reported by Burmese were 42.74 more than twice the mean of losses. The highest mean scores were from the

Nepalis at 45.68 for losses and 53.46 for gains. The table below outlines the means and standard deviation of resource gains and losses by country of origin.

Table 11

Resource Gains and Losses by Country of Origin

	N	Gains	Standard Deviation	*N*	Losses	Standard Deviation
Burma	39	42.74	23.48	40	17.45	16.78
Iraq	67	42.01	26.26	68	40.0	26.27
Nepal	59	53.46	18.92	59	45.68	20.42
Total	165	46.28	23.68	167	36.60	24.75

Number of postarrival problems. The number of reported postresettlement problems varies between country of origin with the Burmese at the lowest and the Iraqi's at the highest. The table below outlines the means and standard deviation of postarrival problems by country of origin.

Table 12

Postarrival Problems by Country of Origin

	N	Mean	Standard deviation	Range
Burma	35	25.46	14.85	0-59
Iraq	68	36.51	19.14	0-74
Nepal	58	31.28	13.28	2-66
Total	161	32.22	16.77	0-74

Emotional Distress. The table below outlines the means and standard deviation of emotional distress, anxiety and distress by country of origin.

Table 13

Anxiety and Depression by Country of Origin

	N	Anxiety		Depression	
		Mean	Standard Deviation	Mean	Standard Deviation
Burma	43	1.28	.268	1.32	.308
Iraq	68	1.67	.608	1.83	.682
Nepal	59	1.31	.383	1.36	.421
Total	170	1.45	.497	1.54	.571

Country of origin profiles

Burma. The Burmese represent the smallest group in the sample with twice as many males as females. The age distribution is relatively equal. The entire Chin ethnic group fled to other countries where there were no refugee camps. The Burmese sample scored the lowest self-efficacy, postresettlement problems, and emotional distress scores. The prearrival traumas and COR gains scores were very close to the Iraqi's while the COR losses were one-half of the mean score for all three countries.

Iraq. The Iraqis represent the largest group in the sample consisting of equal distribution of males to female with a large older-aged population. Due to the particular circumstances of the Iraq situation, most of the Iraqi sample fled to neighboring countries while less than one-third remained in their home country until resettlement. The Iraqi sample had the highest mean score of emotional distress, number of prearrival traumas, and postarrival problems. The COR gains were very close to equal to the Burmese and

the COR losses were mid-range between the Burmese and Nepali groups. The Iraqi sample had a self-efficacy mean between the Nepali and Burmese sample.

Nepal. The Nepali sample is smaller than the Iraqi group but one-third larger than the Burmese with a relatively equal gender distribution. This group is younger than the other two groups with a high concentration in the 20 to 29 year age range. The vast majority of the Nepalis lived in refugee camps before resettlement with the exception of four cases. The Nepali respondents had the highest mean score for self-efficacy and both COR gains and losses with the lowest mean score for number of prearrival traumas and emotional distress. The Nepali sample had a postarrival problem score between the Iraqi and Burmese sample.

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Analysis

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Research question 1

To what extent do prearrival characteristics, *country of origin, gender, age, prearrival traumas, prearrival living location and self-efficacy*, predict reported levels of emotional distress, (*anxiety and depression*), in recently arrived refugees?

Anxiety. A logistic regression was performed to investigate how well country of origin, gender, age, living location prior to migration, number of prearrival traumas, and generalized self-efficacy can predict anxiety in newly arrived refugee adults. Results of the logistic analysis indicate that the six predictor model provides a statistically significant improvement over the constant only model, $X2$ (6, N=170) = 51.87, p<0.001. The Nagelkerke pseudo $R2$ indicates that the model accounted for 42% of the variance. This suggests that the set of indicators discriminates between those with clinically significant anxiety and those without significant anxiety. Prediction success for the cases

used in the development of the model was relatively high with an overall predictive success rate of 85.5%, and correct prediction rates of 95.4% for those not clinically significant and 47.1% for those with clinically significant anxiety. The Wald test reports that four of the predictors are statistically significant predictors of anxiety with the following results while controlling for the other variables:

- Females are three times less likely to be clinically anxious than males,

- Burmese are 32 times more likely to be clinically anxious than Nepali's,

- As self-efficacy increases a refugee is somewhat less likely to be clinically anxious, and

- As the number of prearrival traumas increase a refugee is significantly more likely to be clinically anxious.

Without considering any other information the likelihood of probability of a correct prediction is 79.4% with the overall accuracy increased to 85.5%.

Depression. A logistic regression was performed to investigate how well country of origin, gender, age, living location prior to migration, number of prearrival traumas, and generalized self-efficacy, predict depression in newly arrived refugee adults. Results of the logistic analysis indicate that the six predictor model provides a statistically significant improvement over the constant only model, $X2$ (6, N=170) = 52.24, p<0.001. The Nagelkerke pseudo $R2$ indicates that the model accounted for 40% of the variance. This suggests that the set of indicators discriminates between those with clinically significant depression and those without clinically significant depression. Prediction success for the cases used in the development of the model was relatively high with an overall predictive success rate of 81.8%, and correct prediction rates of 94.4% for those

not clinically significant and 43.9% for those clinically significant. The Wald test reports that three of the predictors are statistically significant predictors of depression with the following results while controlling for the other variables:

- Burmese are 14 times more likely to be depressed than Nepali's,

- As self-efficacy increases a refugee is somewhat less likely to be clinically depressed, and

- As number of prearrival traumas increase a refugee is significantly more likely to be clinically depressed.

Without considering any other information the likelihood of probability of a correct prediction is 75.2% and the overall accuracy increased to 81.8%. The table below outlines the results of the logistic regression of the prearrival characteristics.

Table 14

Logistic Regression Results Prearrival Characteristics

		ß	Wald	Significance	Exp (ß)	95% Lower	95% Upper
ANX	Burmese	3.469	8.93	**.003**	32.093	3.299	312.217
	Iraq	.179	.038	.846	1.196	.195	7.326
	Female	-1.086	4.349	**.037**	.337	.122	.937
	Camp	.387	.179	.672	1.473	.245	8.842
	Other living	-.155	.057	.812	.856	.238	3.078
	Age	.032	2.097	.148	1.033	.989	1.079
	Self-efficacy	-.139	14.211	**.000**	.870	.810	.936
	Prearrival traumas	.124	8.669	**.003**	1.132	1.042	1.230

		ß	Wald	Significance	Exp (ß)	95% lower	95% upper
DEP	Burmese	2.691	7.457	**.006**	14.747	2.137	101.745
	Iraq	-.085	.010	.920	.918	.173	4.867
	Female	-.382	.669	.413	.682	.273	1.705
	Camp	-.041	.002	.962	.960	.176	5.225
	Other living	-.820	1.717	.190	.440	.129	1.502
	Age	.018	.754	.385	1.018	.978	1.059
	Self-efficacy	-.105	9.890	**.002**	.900	.843	.961
	Prearrival traumas	.148	11.339	**.001**	1.160	1.064	1.265

Research question 2

To what extent do postarrival perceptions, *conservation of resources, gained and lost, number of postarrival problems*, predict reported levels of emotional distress, *anxiety and depression*, in recently arrived refugees?

Anxiety. A logistic regression was performed to investigate how well conservation of gains and losses, and number of postarrival problems can predict anxiety in newly arrived refugee adults. Results of the logistic analysis indicate that the three predictor model provides a statistically significant improvement over the constant only model, *X2* (3, *N*=170) = 43.52, p<0.001. The Nagelkerke pseudo *R2* indicates that the model accounted for 37% of the variance. This suggests that the set of indicators discriminates between those with clinically significant anxiety and those without significant anxiety. Prediction success for the cases used in the development of the model was relatively high with an overall predictive success rate of 82%, and correct prediction

rates of 94% for those not clinically significant and 38% for those clinically significant. The Wald test reports that three of the predictors are statistically significant predictors of anxiety with the following results while controlling for the other variables:

- As the perception of resource loss increases a refugee is significantly more likely to be anxious,

- As perception of resource gain increases a refugee is significantly less likely to be anxious, and

- As the number of postarrival problems increase a refugee is significantly more likely to be anxious.

Without considering any other information the likelihood of probability of a correct prediction is 78.2% and the overall accuracy increased to 82.1%.

Depression. A logistic regression was performed to investigate how well conservation of gains and losses, and number of postarrival problems can predict depression in newly arrived refugee adults. Results of the logistic analysis indicate that the three predictor model provides a statistically significant improvement over the constant only model, $X2$ (3, N=170) = 72.93, p<0.001. The Nagelkerke pseudo $R2$ indicates that the model accounted for 54% of the variance. This suggests that the set of indicators discriminates between those with clinically significant depression and those without significant depression. Prediction success for the cases used in the development of the model was relatively high with an overall predictive success rate of 83.3%, and correct prediction rates of 93.0% for those not clinically significant and 56.1% for those with clinically significant depression. The Wald test reports that two of the predictors are

statistically significant predictors of depression with the following results while

controlling for the other variables:

- As the perception of resource loss increases a refugee is significantly more

  likely to be clinically depressed, and

- As the number of postarrival problems increase a refugee is significantly more

  likely to be clinically depressed.

Without considering any other information the likelihood of probability of a correct

prediction is 73.7% and the overall accuracy increased to 83.3%. The table below

outlines the results of the logistic regression of the postarrival perceptions.

Table: 15

Logistic Regression Results Postarrival Perceptions

		ß	Wald	Signifi-Cance	Exp (ß)	95% lower	95% upper
ANX	Resource loss	.027	6.486	**.011**	1.027	1.006	1.049
	Resource gain	-.023	4.018	**.045**	.977	.955	.999
	Postarrival problems	.057	11.308	**.001**	1.059	1.024	1.095
DEP	Resource loss	.059	20.518	**.000**	1.061	1.034	1.089
	Resource gain	-.019	2.387	.122	.981	.958	1.005
	Postarrival problem	.062	11.393	**.001**	1.064	1.026	1.104

Analysis of overall factors

For the purposes of confirming a final set of predictor variables and in an effort to

identify a focal area for program and policy discussion, a logistic regression was repeated

using the predictor variables that were significant in the two sets. Below are the results.

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Anxiety. A logistic regression was performed to investigate how well gender, country of origin, generalized self-efficacy, number of prearrival traumas, conservation of resources-losses, and number of postarrival problems can predict anxiety in newly arrived refugee adults. Results of the logistic analysis indicate that the six predictor model provides a statistically significant improvement over the constant only model, $X2$ (6, N=170) = 64.30, p<0.001. The Nagelkerke pseudo $R2$ indicates that the model accounted for 52% of the variance. This suggests that the set of indicators discriminates between those with clinically significant anxiety and those without significant anxiety. Prediction success for the cases used in the development of the model was relatively high with an overall predictive success rate of 84.8%, and correct prediction rates of 94.0% for those not clinically significant and 52.9% for those with clinically significant anxiety. The Wald test reports that four of the predictors are statistically significant predictors of anxiety with the following results while controlling for the other variables:

- Females are three times less likely to be clinically anxious than men,

- As self-efficacy increases refugees are somewhat less likely to be clinically anxious,

- As perceived resource losses increase refugees are significantly more likely to be clinically anxious, and

- As perceived number of postarrival problems increase refugees are significantly more likely to be clinically anxious.

Without considering any other information the likelihood of probability of a correct prediction is 77.5% and the overall accuracy increased to 84.8%.

Depression. A logistic regression was performed to investigate how well country of origin, generalized self-efficacy, number of prearrival traumas, conservation of resources-losses, and number of postarrival problems can predict depression in newly arrived refugee adults. Results of the logistic analysis indicate that the five predictor model provides a statistically significant improvement over the constant only model, $X2$ (5, N=170) = 101.57, p<0.001. The Nagelkerke pseudo $R2$ indicates that the model accounted for 70% of the variance. This suggests that the set of indicators discriminates between those with clinically significant depression and those without significant depression. Prediction success for the cases used in the development of the model was relatively high with an overall predictive success rate of 91.5%, and correct prediction rates of 96.4% for those not clinically significant and 78.0% for those with clinically significant depression. The Wald test reports that three of the predictors are statistically significant predictors of depression with the following results while controlling for the other variables:

- As self-efficacy increases refugees are somewhat less likely to be clinically depressed,

- As the number of prearrival traumas increases refugees are significantly more likely to be clinically depressed, and

- As the number of resources losses increase refugees are significantly more likely to be clinically depressed.

Without considering any other information the likelihood of probability of a correct prediction is 73.2% and the overall accuracy increased to 88.9%. The table below outlines the results of the logistic regression of the overall factors of significance.

Table: 16

Logistic Regression of Overall Factors

		ß	Wald	Significance	Exp (ß)	95% lower	95% upper
ANX	Female	-1.132	4.079	**.043**	.322	.107	.967
	Burmese	.719	.408	.523	2.052	.226	18.625
	Iraqi	-.656	1.008	.315	.519	.144	1.868
	Self-efficacy	-.133	9.799	**.002**	.875	.805	.951
	Prearrival traumas	.068	2.096	**.148**	1.070	.976	1.173
	Resource loss	.033	5.822	**.016**	1.034	1.006	1.062
	Resource gain	-.013	.946	.331	.987	.961	1.014
	Postmigration problems	.043	4.244	**.039**	1.044	1.002	1.087

		ß	Wald	Significance	Exp. (ß)	95% lower	95% upper
DEP	Burmese	-.641	.510	.475	.527	.091	3.059
	Self-efficacy	-.173	12.730	**.000**	.841	.765	.925
	Prearrival traumas	.177	9.067	**.003**	1.194	1.064	1.339
	Resource loss	.099	23.257	**.000**	1.104	1.061	1.150
	Post migration problems	.037	2.378	.123	1.037	.990	1.087

Synthesis of results

Of the factors analyzed in this study, those that most strongly predicted both

anxiety and depression were self-efficacy and the number of perceived resource losses.

The factors that most strongly predicted anxiety alone were gender and number of

postarrival problems and the factor that most strongly predicted depression alone was number of prearrival traumas.

CHAPTER 5

DISCUSSION

The purpose of this exploratory study is to increase evidence-based knowledge regarding refugee functioning at the time of resettlement. The study serves to identify specific factors that impact emotional distress in refugees in the early months following migration. Recognizing the US policy emphasis on rapid employment for refugees, this study was designed to provide more insight into the challenges facing refugees at this critical period.

Method

The study explored the role of prearrival characteristics and postarrival perceptions in predicting emotional distress in 170 refugees from Burma, Iraq and Nepal during the first three months following arrival to Seattle, Washington. A series of binary logistic regressions were performed to identify specific factors that predicted anxiety and depression.

Summary of findings

The set of primary attributes that were predictive of emotional distress in newly arrived refugees included self-efficacy, gender, prearrival traumas, perceived resource loss, and postarrival problems. The specific predictors of anxiety and depression were as follows:

- The greater a newly arrived refugee's reported self-efficacy the lower the probability of being clinically anxious or depressed.

- The greater a newly arrived refugee's perceived sense of resource loss the greater the probability of being clinically anxious or depressed.

- A newly arrived male refugee when compared to a female refugee is more likely to be clinically anxious.

- A newly arrived refugee reporting a higher number of postarrival problems is more likely to be clinically anxious.

- A newly arrived refugee reporting a higher number of prearrival traumas is more likely to be clinically depressed.

Overall, the logistic regression model tested better predictive success rate of those that met the criteria for clinical depression than those that met the criteria for clinical anxiety.

Primary findings of the study

This study expands our understanding in the areas of self-efficacy and resource loss in relation to refugee populations. This knowledge adds valuable support to the limited but growing empirical research with refugees.

Self-efficacy. It is generally accepted that self-efficacy contributes to a person's overall wellbeing and emotional health. Previous studies of refugees have concluded that positive self-efficacy is related to positive outcomes (Ferren, 1999; Loughry & Flouri, 2001; Sulaiman-Hill & Thompson, 2013). The results of this study suggest a link between self-efficacy and the predictability of reduced levels of emotional distress. Although not the strongest predictor in the study, this conclusion suggests that self-

efficacy is a factor in a refugee exhibiting less emotional distress during the period of adaptation.

These results encourage us to explore how self-efficacy is understood and expressed in cultures that value collectivism and collective perspectives on decision-making. Self-efficacy is often considered a Western concept that is grounded in cultural frameworks that are individualistic. Therefore understanding how self-efficacy is expressed in refugee cultures could add to our capacity to support improved functioning within refugee population. Further research in this area is needed.

Resource loss. The concept of loss is a central theme of the refugee experience but no research has been recorded that assesses the link between resource loss and emotional distress in refugee populations. This study gives a new perspective on how the perception of loss may impact the period of adaptation. Our ability to more effectively understand how individual refugees perceive the gains and losses they have experienced could lead to improved methods of integration of refugees into US communities.

It is widely understood that refugees have suffered significant losses that are acknowledged in the refugee policy response. From the start of the UN intervention and throughout the refugee process, the program responses are designed to fill the resource gaps left from the refugee's experience (UNHCR, 2012). However, it is also true that during the middle period of transition many refugees are burdened with limited physical resources. Prior to resettlement refugee individuals and families often make difficult decisions about accessing basic items like food and clothing in an effort to survive. Refugees report having to choose to leave the safety of the camps, cross into dangerous territories in search of work, or make personal choices regarding survival that were

personally degrading. It is reasonable then to believe that resettlement situations that mimic these former experiences may reactivate the stress response. Further research is needed to evaluate resource loss and emotional distress with other refugee groups.

Gender. Previous studies have reported mixed results regarding gender as an indicator, some reporting either that females are at greater risk or that gender has no influence on predicting emotional distress. In contrast, this study suggests that males are at a greater risk for experiencing anxiety. These results open up a new perspective on the pressure felt on the traditional head of households during this particular period of adaptation.

While the concerns for women in resettlement may be valid, based on issues of vulnerability, the findings of this study suggest that it is important to recognize the unique challenges faced by men. The expectations of the resettlement process in the US places a time-limited pressure on the refugee to secure employment. The results of the study suggest that at this stage when individuals are considering the challenge of transition into employment men may be feeling increased pressure and responsibility.

Prearrival traumas. This study supports a large number of previous research studies stating that a history of trauma is predictive of emotional distress in refugees (Hollifield et al., 2002; Momartin et al., 2004; Nickerson, Bryant, Silove & Steele, 2011). It has been well established that experiences of trauma contribute to increased mental health issues (Hollifield et al., 2006; Keller et al., 2006; Mollica, 2006).

Most literature regarding refugee migration refers to the history of trauma as a primary influence on adaptation (Kleijn et al., 2001; Knipsheer & Kleber, 2006; Mollica, 2006). In this study however, prearrival traumas are one of seven contributing factors

identified as significant during the early months of resettlement. With the division of anxiety and depression as outcome variables for this study the significant finding is that prearrival traumas uniquely contributes to depression.

Postarrival problems. It is logical to conclude that refugees with problems during resettlement will have increased anxiety, however, there is little-to-no research of postmigratory problems with refugees. Postmigration challenges, especially those that reinforce the lack of choice or control can bring increased fear for some refugees especially when employment is uncertain (Vissacaro, 2009). The results of this study make an important empirical link between problems faced by refugees during resettlement and anxiety.

Contribution of the study

With a dearth of research related to the early period following migration, these findings make a unique contribution to the empirical knowledge regarding refugee migration adaptation. The results of this study provide a window into the needs of refugees at a critical time in the adaptation process. The discussion that follows will focus on interpreting these findings in a manner that may help resettlement programs to integrate this information into policy and practice.

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Implications for social work

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Before exploring the study implications for social work practice it is vital to review the underlying reasons for this study. The small body of knowledge regarding refugee health continues to limit us in responding in creative and useful ways (Weine, 1990). It is essential to the future of social work that, as a profession, we are able to expand skill development in cultural competency (Tseng, 2004). Social work skills and

expanded understanding come with practice and exposure. This study enhances our capacity to respond by providing new perspectives for the engagement of refugee clients and refugee groups.

It is particularly important at this time in history that we as social workers develop a broader set of skills for assessing, understanding and treating the impact of the refugee experience. With the complexity of issues raised when working with refugees populations—the cultural influences added to the behavioral impact on the individual that occurs following migration and trauma—social work curriculums need to improve preparation of students beyond exposure to concepts of diversity. Educational and training materials that effectively develop cultural competency skills in social workers are needed. Additionally, increased capacity with critical thinking models is necessary for social workers to address these complex issues.

Considerations for practice

These results add support to the concept that arrival to the country of resettlement, in and of itself, does not provide the resolution of emotions that either refugees expect or some policy makers would like to purport (Drachman, 1992; Weine, 2011). Although individuals working in resettlement programs recognize that refugees with significant histories of trauma or loss may need additional support, there are no program-based mechanisms to assess refugee needs. Recent moves to provide mental health screening during the refugee health evaluation have returned mixed reviews by resettlement program staff. Local agencies must depend on community mental health providers that may or may not have the capacity to respond to the unique needs of the population.

While there are no published studies that assess the problems that are faced after migration, anecdotally, resettlement workers would agree that refugees who have added health, family or employment challenges are more likely to struggle in this early phase of adaptation. And, most staff working with refugees would argue that there are some refugees who, despite having experienced the most traumatic of circumstances, continue to forge ahead and meet goals set for them. While these assumptions are already considered within resettlement programs the specific empirical evidence of this study can serve to promote a more intentional application of these findings into the design of interventions.

An important result of this study is the division of emotional distress into separate analysis of anxiety and depression resulting in the distinction of factors predicting each. These results indicate that challenging events in the past are more likely to lead to symptoms of depression and challenging events in the present are more likely to lead to anxiety. Future research may consider how these individual factors impact both mental health screening and assessment of refugees.

Loss. Refugee loss is significant and yet there are no formal mechanisms within the resettlement system that acknowledge them. The unstated presumption is that refugees are better off in the US, and therefore there is no need to recognize these losses or the grief that accompanies them. The lack of an opportunity to grieve promotes the denial of feelings like sadness and pain and, inadvertently, supports the notion that these normal emotions should not be expressed. Whether lack of awareness on the part of resettlement staff or misguided intentions, the *pull yourself up by the bootstraps* mentality often leads to a lack of recognition of the challenges that are being felt.

Grief is pain and pain that is left unacknowledged can lead to expressions of distress. The significant losses associated with migration when recognized allow the refugee to move past the initial shock of arrival. Language, cultural framework, family, and community are all losses that when acknowledged support a refugee to move toward healthy adaptation. The refugee's entire world has shifted leaving refugees caught in the confusion of transitional grief. The past identity of the refugee is no longer valued and the refugee faces a complex period of adjustment. The work of grief is a critical expression that enables the refugee to accept the change necessary to enter into integration.

Program elements that engage this topic, normalize the emotions, educate the refugee, and allow expression of loss can be easily integrated into the migration process. Psycho-education that provides normalizing awareness of grief and encourages the expression of various emotions can serve to reduce anxiety and depression. As a community activity, or, as part of a cultural orientation it is critical that refugees and resettlement staff alike honor this process, allowing the majority of refugees to find a smoother path toward adaptation. Group-based activities can serve to identify the individuals who are exhibiting symptoms beyond the normal limits of grief.

Those who are exhibiting more severe symptoms will also benefit by receiving a foundation of grief work before addressing the more complex symptoms. Those who may need intensive therapeutic interventions benefit from the group activities that will help them to differentiate the challenges of normal acculturation with the symptoms of severe traumatic loss. Building on the groundwork of the group these individuals may have a greater capacity to benefit from individual work (Nichol & Thompson, 2004; Weine et al., 2008).

Building self-efficacy. The impact of self-efficacy on migratory adaptation has not been formally recognized in the US resettlement process. This study suggests that resettlement procedures and policy should consider creative responses based on the constructs of self-efficacy. Using the indicators within the instrument as a guide, strength-based interventions could be designed to enable refugee reflection on the areas of capacity they have brought with them. Mechanisms for increasing self-efficacious beliefs could be integrated into programs prior to the migration period. Identification of qualities of self-efficacy in the early months after migration can be a mechanism to encourage recognition and ongoing development of those beliefs.

These results are linked to constructs of resource development and posttraumatic growth. Refugees bring much strength and skills with them to resettlement that, too often, may be seen by the refugee to be dismissed. Therapeutic models with groups or with individuals reinforcing the refugees existing skills and richness of previous experiences should be a part of every resettlement program. More intentional engagement of refugee skill, in the early period of adjustment may help to link past capacity with adjustment to everything that is new.

Problems after migration. This research confirms that new problems encountered during early resettlement have significant impact on refugees. These results support literature suggesting that reducing the strain on refugees in the early stage of migration could mitigate distress as well as help to address specific emotional needs of refugees that will support adaptation (Weine, 2011). Specific program elements that address challenges and create mechanisms to ease refugees into new expectations or to gain new skills could be useful in reducing distress. Ultimately, the recognition of the

impact of problems faced by refugees by program developers, rather than ignoring them, could be financially advantageous.

The challenge of migration includes fear of failure that can be reduced by guided access to new resources. The promotion of self-sufficiency is not incongruent with creating safety nets and strengths-based models that provide steppingstones to full time employment. The all in or all out full time work requirement in some agencies does not meet the needs of a significant minority of refugees and simply forces people into a survival mode as their state benefits come to an end.

Resettlement programs. Resettlement employment goals and refugee capacity building are not mutually exclusive. A model integrating these concepts with greater intention could pave the way toward a smoother adaptation. Recognizing that the need for connection (Weine, 2011), acknowledgement of migration expectations (Drachman, 1992), and support of efficacy (Beckerman & Corbett, 2008) can help program developers to consider more creative approaches.

Group-based intervention models could be designed to support the expression of loss that acknowledges grief and then identifies areas of capacity. Program elements that include opportunities for individuals to identify the areas of gain that have become available to them in the new environment will encourage individual access to additional resources. Using strength-based approaches and intervention could build self-efficacy by establishing opportunities for interactive learning. The challenge to resettlement programs is the varying levels of capacity within the refugee population at any one time. However, a measure of capacity could be designed to link refugees with resources or systems that address a particular level of need.

The commonly used empowerment approach within resettlement agencies of teaching new skills by demonstration is considered a useful tool for learning to ride the bus, household management, and other daily activities. A similar model could be developed to expand refugee comfort in new situations as well as expose them to work-related activities and expectations. Program designs that use a social model could provide cross-training for refugees by refugees in specific areas of skill. Programs that empower new refugees with skill building interventions would also serve to more clearly identify refugees needing more specific support or intervention.

The literature suggests that there is a complex link between trauma, emotional distress, sense of capacity, and personal perceptions of loss all of which influence one another. As social workers we must sufficiently understand this interconnectedness in order to comfortable engage with the client's we serve. There is need for trauma-informed models that provide guidance for interventions and engagement with refugee clients that do not depend on diagnostic symptomology. Rather than defining a refugee by their symptom we must enter into relationship with the whole person seeking together to find meaning that, for them, can facilitate healing.

Considerations for Policy

Historically, the US refugee program was considered a humanitarian one but in recent years the emphasis has shifted into an employment focus defined as self-sufficiency. When compared with lengthy benefit periods of socialized programs in Europe, refugees argue that US support is unfair. Some view the US program as creating a survival of the fittest approach that increases threat for some refugees (Vissicaro, 2009) while others believe the pressure of economic realities promote greater self-sufficiency.

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As agencies usher large numbers of refugees into rapid employment there is little identification of the factors that may impact success or failure with the only measure of self-sufficiency being employment. Policy makers could consider an expanded definition of refugee success that recognizes adaptation beyond staying in a job. Policy that recognizes elements of empowerment and other skill development could allow for more creative program responses that support refugees to reach adaptation.

Considerations for Research

The two aspects of this study that impact further research are the separation of the impact of anxiety and depression and the focus on the early months of migration. These are two areas that have not been sufficiently explored and additional research could significantly expand our knowledge.

Further research is necessary to establish firmer distinctions about the predictors of emotional distress in refugees. These findings, while significant, should be retested with other populations. It is important that this preliminary model for understanding migration adaptation at the early stage of resettlement be evaluated in further research.

Strengths of the study

A primary strength of this study is the focus on a critical time period for refugees, just following migration, during engagement with resettlement programs, and prior to employment. One strength of this study is the separate assessment of anxiety and depression providing results that differentiate the two aspects of emotional distress. Recognizing that while both sets of symptoms limit a refugee's ability to function, understanding the links between specific factors and each expression of distress can help improve clinical responses.

In addition, this study identified several factors impacting emotional distress that have not been previously discussed in the literature. At the current stage of research related to refugee functioning, this study's increase of the impact of some factors and the reduction of impact of other factors provides a pathway to the continued exploration of this area of research.

Limitations of the study

One limitation of this study is sample size and the number of country of origin groups. More research needs to be conducted with a larger sample size and additional groups to assess the universality of these conclusions.

Another limitation is the use of the HSCL-25 cut-off value to determine a dichotomous label for the outcome variable. While the use of the cut-off value is a clinically sound choice and the analysis standard is met, the limitation is in the potentially very small difference between respondents. A respondent who scores 1.74 is not significant and one who scores 1.75 is significant, leaving two individuals with very similar results in two different categories. Future research to identify factors related to refugee mental health could try to find more distinctive measurable options for an outcome variable.

An area of limitation in this study is respondent recall when comparing results of instruments measuring past events with those measuring current events. The measures, all taken at the same time, asked respondents to rate events that occurred in the past, as well as, events in the present. It is natural for events of the past to be recalled with less intensity than those that are current. Creating the two sets of predictor variables and separating the analysis of prearrival characteristics from the current perceptions helped to

minimize the temporal impact. A longitudinal study of one group over time, using a series of instruments that all measure current events and perceptions would make a significant contribution to the literature.

Conclusion

As stated previously, refugee capacity is defined as the refugee's ability to integrate, or adapt at least on some level, into life in the country of resettlement (Ager & Strang, 2008; Ryan et al., 2008). While some of the study results may be common assumptions amongst people working in the area of resettlement, this empirical data is invaluable in supporting new perspectives on policy and programs with refugees. Creative interventions and activities that recognize existing qualities and empower refugees in the development of new skills will help to overcome the challenges during this critical period of migration. Combining elements of a strengths approach to the development of efficacy with improved resource access could create a program system that both empowers refugees and reduces symptoms of emotional distress.

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Appendix 1

Basic Health Information

1. Date of Birth (mo/day/yr): ____/____/____   Current Age: _____

2. Gender: ___Male   ___Female

3. Country of Birth:_____

4. Years of <u>education</u>: (Circle number)

    0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 more than 16

5. Marital Status: (Check only one)

    ___Married   ___Not Married

6. Total number of <u>people</u> residing in household including yourself: (circle number)

    1   2   3   4   5   6   7   more than 7

7. What is the combined annual income of your family? (Circle one)

    A. 0-$15,000
    B. $15,000-20,000
    C. $20,000-$25,000
    D. $25,000-$30,000
    E. $30,000-$40,000
    F. Greater than $40,000

8. How many <u>hours per week do you work</u> at your job <u>on average</u>? _____Hours

9. How many months have you had a medical coupon? (Circle one)
    1   2   3   4   5   6   7   8   more than 8

10. Before migrating to the United States were you living in:
    a. a refugee camp
    b. your home country of origin
    c. in a temporary home

Appendix 2

Comprehensive Trauma Inventory – Short Form 12
Instructions: Circle the best response for each item

	No	1-2 times	3-12 times	13-50 times	51+ times
1.Did you have to flee or hide from soldiers or enemies, or were you threatened with harm or serious danger?	1	2	3	4	5
2. Were you injured by chemicals, bullets, or explosives?	1	2	3	4	5
3. Were you interrogated or physically searched?	1	2	3	4	5
4. Were you detained or imprisoned?	1	2	3	4	5
5. Were you humiliated in front of others (stripped naked, insulted, or beaten)?	1	2	3	4	5
6. Did you see others being severely hurt or killed?	1	2	3	4	5
7. Did you help severely wounded people or handle dead bodies?	1	2	3	4	5
8. Did you have your home, business or important personal property confiscated?	1	2	3	4	5
9. Did you experience severe family conflict because of the war?	1	2	3	4	5
10. Did you have to flee or move to a new area because of war or discrimination?	1	2	3	4	5
11. Were you separated from a family member because of the war problems?	1	2	3	4	5
12. Were you afraid that you would be sent back to your country from a refugee camp?	1	2	3	4	5

Appendix 3

Generalized Self-efficacy Scale

Appendix	English version by Ralf Schwarzer & Matthias Jerusalem, 1995	
	1	I can always manage to solve difficult problems if I try hard enough.
	2	If someone opposes me, I can find the means and ways to get what I want.
	3	It is easy for me to stick to my aims and accomplish my goals.
	4	I am confident that I could deal efficiently with unexpected events.
	5	Thanks to my resourcefulness, I know how to handle unforeseen situations.
	6	I can solve most problems if I invest the necessary effort.
	7	I can remain calm when facing difficulties because I can rely on my coping abilities.
	8	When I am confronted with a problem, I can usually find several solutions.
	9	If I am in trouble, I can usually think of a solution.
	10	I can usually handle whatever comes my way.
Response Format	1 = Not at all true 2 = Hardly true 3 = Moderately true 4 = Exactly true	

Appendix 4

HOPKINS SYMPTOM CHECKLIST - 25

Name _____   Date _____ Clinician _____

Date of Birth _____   Sex _____ Marital Status _____

Arrival date _____   Psychiatric diagnosis _____

Instructions:

Listed bellow are some symptoms or problems that people sometimes have. Please read each one carefully and decide how much the symptoms bothered of distressed you in the last week, including today. Place a check in the appropriate column.

PART I ANXIETY SYMPTOMS	1 Not at all	2 A little	3 Quite a bit	4 Extremely
1. Suddenly scared for no reason				
2. Feeling fearful				
3. Faintness, dizziness, or weakness				
4. Nervousness or shakiness inside				
5. Heart pounding or racing				
6. Trembling				
7. Feeling tense or keyed up				
8. Headaches				
9. Spells of terror or panic				
10 Feeling restless, can't sit still				

PART II	1	2	3	4
DEPRESSION SYMPTOMS	Not at all	A little	Quite a bit	Extremely
11. Felling low in energy, slowed down				
12. Blaming yourself for things				
13. Crying easily				
14. Loss of sexual interest and pleasure				
15. Poor appetite				
16. Difficulty falling asleep, staying asleep				
17. Feeling hopeless about the future				
18. Feeling blue				
19. Feeling lonely				
20. Thoughts of ending your life				
21. Feeling of being trapped or caught				
22. Worrying too much about things				
23. Feeling on interest in things				
24. Feeling everything is an effort				
25. Feelings of worthlessness				

Hopkins Symptom Checklist-25 Scoring

Items 1-10   Anxiety
Items 11-25 Depression

Item Average
Anxiety: Sum 1-10 ÷ 10
Depression: Sum 11-25 ÷15

Discrete

Anxiety: ≥ 1.75 = "case" or
                    < 1.75 = "non-case" or

Depression: ≥ 1.75 = "case" or
                    < 1.75 = "non-case" or

Appendix 5

Post-migratory Living Problems

| No problem at all | A mild problem | A moderate problem | A serious problem | A very serious problem |

1. Interviews by immigration
2. Conflict with immigration officials
3. No permission to work
4. Fears of being sent home
5. Worries about not getting health treatment
6. Poor access to emergency medical care
7. Poor access to long-term medical care
8. Poor access to dentistry care
9. Poor access to counseling services
10. Little government help with welfare
11. Little help with welfare from charities
12. Delays in processing your application
13. Separation from family
14. Worries about family back at home
15. Unable to return home in emergency
16. Communication difficulties
17. Discrimination
18. Not being able to find work
19. Bad job conditions
20. Poverty
21. Loneliness and boredom
22. Isolation
23. Poor access to the foods you like

Appendix 6

COR: Psychosocial and Economic Resources

LOSSES

We are interested the extent to which you have experienced a **loss** in any of the list of resources below {during the last year}

A **loss** of resources occurs when the resource has decreased in availability to you (e.g. loss of personal health). If you have experienced **"loss"** in any of the resources in the last six months, you would rate that **"loss"** from 1 to 4 (1 =a little, to 4 = a great deal of) and write your response in the **"loss"** column. If the availability of the resource has not changed, or the resource is not applicable, you would rate your **" loss"** as a 0 (zero = not at all / not applicable).

PLEASE NOTE: **DO NOT RATE** the availability of the resource to you. We are only interested in the **LOSS** of the resource.

FOR EXAMPLE: **RESOURCE item 14 – "Status / Seniority at work:"** If the status / seniority of your during the last year is still the same as today then you write a "0". If you had experienced "no loss" in the status / seniority of your job during that time then you would also write a "0" (zero=not at all/not applicable).

LOSSES

"A little"   "A great deal of"

0   **1**   **2**   **3**   **4**
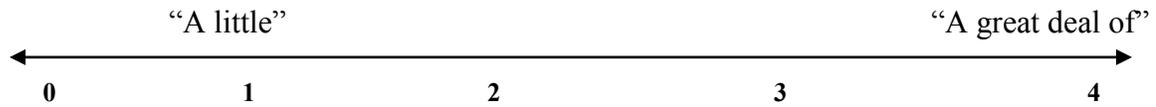
Rate your responses from 1 (a little loss) to 4 (a great deal of loss) for the following items. If you experienced no loss of that item put a 0 (zero = not at all / not applicable).

1. family stability 1

2. feeling that I am successful 2

3. adequate clothing 3

4. stable employment 4

5. personal health 5

6. good relationship with my children 1

7. feeling valuable to others 2

8. adequate food 3

9. necessary tools for work 4

10. spouse/partner health 5

11. intimacy with spouse or partner 1

12. hope 2

13. providing children's essentials 3

14. status/seniority at work 4

15. health of family/close friends 5

16. involvement in formal place of worship, (temple, mosque, church, etc.) 1

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17. feeling that I have control over my life 2

18. money for extras 3

19. role as a leader 4

20. children's health 5

21. companionship 1

22. feeling that my life is peaceful 2

23. adequate income 3

24. help with child care 1

25. feeling that my life has meaning/purpose 2

26. money for transportation 3

27. acknowledgement of my accomplishments 1

28. positive feelings about myself 2

29. medical insurance 3

30. ability to communicate well 2

31. housing that suits my needs 3

**COR: Psychosocial and Economic Resources**

GAINS

We are also interested the extent to which you have experienced a **<u>gain</u>** in any of the list of resources below {during the last year}

Gain of resources occurs when the availability of a particular resource has increased for you (e.g., you have gained status/seniority at work). If you have experienced **"gain"** in any of the resources in the last 6 months, you would rate that **"gain"** from 1 to 4 (1 =a little, to 4 = a great deal of)) and write your response in the "gain" column. If the availability of the resource is unchanged to you, or the resource is not applicable, you would write a 0 (zero = not at all / not applicable).

PLEASE NOTE: **DO NOT RATE** the availability of the resource. We are only interested in the **GAIN** you have experienced in the resource.

FOR EXAMPLE: **RESOURCE item 18- "Money for extras"-**: If you had an increase in money for extras during the last year and you still do now, then you would rate the extent of the gain as "0".

GAINS

"A little"   "A great deal of"

$\longleftrightarrow$

0   **1**   **2**   **3**   **4**

Rate your responses from 1 (a little gain) to 4 (a great deal of gain) for the following items. If you
experienced no gain of that item put a 0 (zero = not at all / not applicable).

1. family stability 1   _____
2. feeling that I am successful 2   _____
3. adequate clothing 3   _____
4. stable employment 4   _____
5. personal health 5   _____
6. good relationship with my children 1   _____
7. feeling valuable to others 2   _____
8. adequate food 3   _____
9. necessary tools for work 4   _____
10. spouse/partner health 5   _____
11. intimacy with spouse or partner 1   _____
12. hope 2   _____
13. providing children's essentials 3   _____
14. status/seniority at work 4   _____
15. health of family/close friends 5   _____
16. involvement in formal place of worship, (temple, mosque, church, etc.) 1   _____
17. feeling that I have control over my life 2   _____
18. money for extras 3   _____
19. role as a leader 4   _____
20. children's health 5   _____
21. companionship 1   _____
22. feeling that my life is peaceful 2   _____
23. adequate income 3   _____
24. help with child care 1   _____
25. feeling that my life has meaning/purpose 2   _____
26. money for transportation 3   _____
27. acknowledgement of my accomplishments 1   _____
28. positive feelings about myself 2   _____
29. medical insurance 3   _____
30. ability to communicate well 2   _____
31. housing that suits my needs 3

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PUBLICATIONS:
Rhema, S., Gray, A., Verbillis-Kolp, S., Farmer, B., & Hollifield, M. (2014). Mental Health Screening. In Annamalai, A., (Ed.), Refugee Health Care-An Essential Medical Guide (pp. 163-171). NewYork, NY, Springer Publications.

Faul, A.C., Gordon, B., D'Ambrosio, J.G., Ferrell, G., Tucker, M., Schapmire, T.J., Morgan, F., Thompson, J., **Rhema, S.,** Miller, J.D., Boamah, D.A., Brown, L., Boes, R.C., Zheng, Y., Lawson, T.R. (2013). Academia and the Aging Network. 38th Annual N4A Conference and Tradeshow, Louisville, KY, July 27-31.

Miller, J., **Rhema**, S., Faul, A., D'Ambrosio, J., Yankeelov, P., Amer R., & Clark, R., (2012) Strength in Process: Using Concept Mapping to Inform Community Coalition Development, *Journal of Community Practice, 20*:4, 432-456, DOI: 10.1080/10705422.2012.736074

Rhema, S., (2012). Universal assessment: Reframing critical thinking to enhance culturally competent practice skills, Council on Social Work Education, (CSWE).

Miller, J., **Rhema, S.,** Faul, A., & D'Ambrosio, J. (2012). The Promise of Social Work in Community Organizing: A Pragmatic Approach, Council on Social Work Education, (CSWE).

Miller, J., **Rhema, S.,** Faul, A., D'Ambrosio, J., & Yankeelov, P. (2012). The Use of Concept Mapping to Create a Coalition Logic Model and Evaluation Tool, Society for Social Work and Research, (SSWR).

Rhema, S., & Segretto, R. (2011). Effective Techniques for Working with Immigrant, Refugee and Limited English Proficient Clients, Council on Social Work Education, (CSWE).

INVITED PRESENTATIONS:
Best Practices for working with Refugees, Community Action of Southern Kentucky, Bowling Green, Kentucky, November 2013.

Best Practices for working with Refugees, Boys and Girls Haven, Louisville, Kentucky, April 2013.

Challenges in Refugee Mental Health, Cuban Haitian Entrant Program Conference, August 2012, Miami, Florida

Improving Response to reported Domestic Violence in Immigrant and Refugee Communities- A Cross Cultural perspective, Kentucky Domestic Violence Association Conference, presented November 2011, Lexington, Kentucky.

New Eyes for a New Land, Plenary presentation for the Coalition on Intimate Violence in International Communities conference entitled, The Intersection of Culture and Trauma: A Summit to improve access for Immigrant and Refugee Survivors of Sexual and Domestic Violence, May 27, 2011, Louisville, Kentucky.

Working with Refugee Clients: Best Clinical Practices and Treatment of Refugee Mental Health Issues", Kentucky Office For Refugees- sponsor, presented May 17 and 18, 2011, Louisville, Kentucky

These Kids are Ours, Kentucky Teaching English as a Second Language Association Conference, September 2009, Louisville, Kentucky.

Finding the Human Connection in the Journey of Acculturation, Society for Intercultural Education Training and Research, Raleigh, North Carolina, April 2009.

Supporting Refugee Students, National Refugee Conference, Chicago, Illinois, September 2008.

Facing the Challenges of Acculturation, National Somali Bantu Conference, Louisville, Kentucky, August 2008.

Treating Refugee Trauma, Church World Service, Albuquerque New Mexico, August, 2008