

# MENTAL HEALTH RISKS AND RESILIENCE AMONG SOMALI AND BHUTANESE REFUGEE PARENTS



*B. HEIDI ELLIS, ERIN N. HULLAND,  
ALISA B. MILLER, COLLEEN BARRETT BIXBY,  
BARBARA LOPES CARDOZO,  
AND THERESA S. BETANCOURT*



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By B. Heidi Ellis, Erin N. Hulland, Alisa B. Miller, Colleen Barrett Bixby,  
Barbara Lopes Cardozo, and Theresa S. Betancourt

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## Executive Summary

This report examines factors that might promote or undermine the mental health and overall well-being of children of Bhutanese and Somali refugees, two of the largest groups being resettled in the United States and Canada. At the level of the individual, these factors include family structure and parental mental health, past exposure to trauma (if any), educational attainment, gender, age, employment and student status. At the level of the community, the factors include a sense of belonging, social support, and discrimination.

The analysis is based on an exhaustive review of relevant literature and on quantitative data from two separate studies of Bhutanese and Somali refugee parents in Canada and the United States, two large, recent refugee populations that are understudied. Bhutanese parents in one study sample had been resettled for an average of two years, and Somali parents in the other for an average of 12. Bhutanese parents—especially fathers—were more likely to be employed and more likely to be in a relationship or partnership (thus creating two-parent families). Somali parents, on the other hand, were better educated. Most of these and other differences between the two groups—with the exception of employment—can largely be explained by varying length of time since resettlement.

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*Although these refugee parents may have been exposed to significant trauma ... their mental health has been buffered by strong intimate relationships.*

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Studies have found that symptoms of post-traumatic stress disorder (PTSD) may be transferred from parent to child, even if the trauma did not occur in the lifetime of the child. Many refugee parents experienced trauma prior to their resettlement. According to the data used for this report, more Somali parents reported trauma than did Bhutanese parents. Nevertheless, the two groups did not differ significantly in their reports of overall mental health, emotional distress, depression, anxiety, or PTSD symptoms.

Most Bhutanese and Somali parents did not report significant discrimination in their communities of resettlement. Instead, many parents, especially the Bhutanese, perceived their resettlement communities to be supportive. The majority of both groups also reported being in close and emotionally fulfilling relationships. However, a higher share of Bhutanese parents reported feeling separated from their families or that they were a burden to others.

It is significant that the levels of anxiety and depression reported by parents in the two samples are similar to those of the U.S. adult population overall. This indicates that although these refugee parents may have been exposed to significant trauma prior to resettlement, their mental health has been buffered by strong intimate relationships and significant community support. As a result, their children are at less risk for negative emotional and developmental outcomes than might be suggested by parental past experience. These findings contrast with other studies of Somali, Bhutanese, and other refugees in the United States that indicate a significant incidence of mental health problems.<sup>1</sup>

While both the Somali and Bhutanese groups benefited from strong relationships and community support, the Somali parents were also exposed to trauma after their resettlement. Such encounters with trauma suggest that the U.S. refugee resettlement program should consider resettling refugees in safe

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1 Research on the prevalence of mental health problems among refugee groups notes that the limited available empirical data are often contradictory and the interpretation of results is challenging due to the myriad methodological differences across studies, such as sampling, data collection, data analysis, and reporting. See Michael Hollifield et al., “Measuring Trauma and Health Status in Refugees: A Critical Review,” *Journal of the American Medical Association* 288, no. 5 (2002): 611–21; Mina Fazel, Jeremy Wheeler, and John Danesh, “Prevalence of Serious Mental Disorder in 7000 Refugees Resettled in Western Countries: A Systematic Review,” *The Lancet* 365, no. 9467 (2005): 1309–14.



neighborhoods and addressing violence in the communities where they are already resettled. The findings of this report also suggest that risks to children are not static and may actually grow over time as they age and as their families integrate into communities of resettlement. Thus, the refugee resettlement program should focus not only on new arrivals but also on the healthy integration and well-being of refugee families as their needs evolve after resettlement.

## I. Introduction

Overall, there are about 3 million refugees in the United States, and almost 1 million young children of refugees ages 10 and under.<sup>2</sup> According to the United Nations definition, refugees flee their homelands with both a “well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion” and an inability or unwillingness to return to their homelands due to this persecution.<sup>3</sup> The refugee experience can be seen to involve three distinct phases: pre-migration, migration, and resettlement.<sup>4</sup> Before they migrate, refugees often witness violence, including the extreme violence of war, and fear for their safety and that of their loved ones, among other traumatic experiences.<sup>5</sup> During migration, refugees may face physical danger, uncertainty that their basic needs will be met (e.g., as they suffer poor sanitation and limited access to food and water), and often prolonged stays in refugee camps.<sup>6</sup> During the resettlement phase, the process of adjusting to a new country becomes prominent as concerns about safety and the provision of basic needs recede.<sup>7</sup> Children in refugee families may share the pre-migration and migration experiences of their parents, or if born after the parents are resettled, they may be indirectly affected by the parents’ experiences. The adjustment process after resettlement affects children and parents alike.

The goal of this report is to contribute to research on factors that may promote or undermine the mental health and well-being of young children with refugee parents—including factors related to pre-migration, migration, and resettlement experiences. These factors are examined for two of the largest groups being resettled in the United States: Bhutanese and Somali refugees. The United States resettled 79,000 Bhutanese and 64,000 Somali refugees from fiscal year (FY) 2005 through FY 2014, and these groups together accounted for 24 percent of the 605,000 refugees resettled during those years.<sup>8</sup> The report begins with an extensive review of the relevant literature, with a focus on what may be referred to as risk and protective

2 In 2013 there were an estimated 941,000 children ages 10 and under living with refugee parents in the United States. See Kate Hooper, Jie Zong, Randy Capps, and Michael Fix, *Young Children of Refugees in the United States: Integration Successes and Challenges* (Washington, DC: Migration Policy Institute, 2015), [www.migrationpolicy.org/research/young-children-refugees-united-states-integration-successes-and-challenges](http://www.migrationpolicy.org/research/young-children-refugees-united-states-integration-successes-and-challenges).

3 United Nations High Commissioner for Refugees (UNHCR), “Refugee Status and Resettlement,” in *UNHCR Resettlement Handbook* (Geneva: UNHCR, Resettlement Service, Division of International Protection, 2011), [www.unhcr.org/46f7c0ee2.pdf](http://www.unhcr.org/46f7c0ee2.pdf).

4 Stuart L. Lustig et al., “Review of Child and Adolescent Refugee Mental Health,” *Journal of the American Academy of Child and Adolescent Psychiatry* 43, no. 1 (2004): 24–36.

5 Neil Boothby, “Trauma and Violence among Refugee Children,” in *Amidst Peril and Pain: The Mental Health and Well-Being of the World’s Refugees*, eds. Anthony J. Marsella, Thomas Bornemann, Solvig Ekblad, and John Orley (Washington, DC: American Psychological Association, 1994).

6 Richard F. Mollica et al., “Effects of War Trauma on Cambodian Refugee Adolescents’ Functional Health and Mental Health Status,” *Journal of the American Academy of Child and Adolescent Psychiatry* 36, no. 8 (1997): 1098–106; Hans Veeken, “Sudan: Eating Dust and Returning to Dust,” *BMJ* 315, no. 7120 (1997): 1458–60; Joseph Westermeyer and Karen Wahmanholm, “Refugee Children,” in *Minefields in Their Hearts: The Mental Health of Children in War and Communal Violence*, eds. Roberta J. Apfel and Bennett Simon (New Haven, CT: Yale University Press, 1996).

7 Dina Birman, “Biculturalism and Perceived Competence of Latino Immigrant Adolescents,” *American Journal of Community Psychology* 26, no. 3 (1998): 335–54; Cynthia T. García Coll and Katherine A. Magnuson, “The Psychological Experience of Immigration: A Developmental Perspective,” in *Immigration and the Family: Research and Policy on U.S. Immigrants*, eds. Alan Booth, Ann C. Crouter, and Nancy Landale (Hillsdale, NJ: Lawrence Erlbaum, 1997); Renos K. Papadopoulos, “Refugee Families: Issues of Systemic Supervision,” *Journal of Family Therapy* 23, no. 4 (2001): 405–22.

8 U.S. Department of Homeland Security (DHS), “Table 14: Refugee Arrivals by Region and Country of Nationality: FYs 2005 to 2014,” in *2014 DHS Yearbook of Immigration Statistics* (Washington, DC: DHS, 2016), [www.dhs.gov/yearbook-immigration-statistics-2014-refugees-and-asylees](http://www.dhs.gov/yearbook-immigration-statistics-2014-refugees-and-asylees).



factors among refugee families with young children. It then describes the experiences of Somali and Bhutanese refugee families, building on two small-scale, cross-sectional surveys of their mental health and well-being. Finally, the report considers future avenues for research, and policy implications for refugee resettlement.

## II. Child Well-Being: The Effects of the Family Context

Resettled refugee parents of young children face unique challenges. Along with the stressors associated with resettlement, it is widely acknowledged that parenting young children can be a stressful, albeit rewarding, experience.<sup>9</sup> Further, resettled parents must navigate new cultural expectations and norms for parenting and parental behavior—even as they may also be able to draw from their own cultural resources and strengths.<sup>10</sup> Many factors may influence the well-being of their children, including past parental experience of trauma, mental health concerns, a lack of or limited access to resources (e.g., income, education, and employment), as well as other daily stressors. Such factors compose a context critical to child well-being and adjustment.

### A. Parental Mental Health and Intergenerational Trauma

The mental health of parents, good<sup>11</sup> or poor,<sup>12</sup> has been shown to have a significant influence on the mental health and overall well-being of their children, especially in populations that have experienced war and other high-intensity conflicts.<sup>13</sup> Research suggests that poor parental mental health is associated with a range of social, cognitive, and behavioral problems in children,<sup>14</sup> and that children with parents who have mental health problems are at greater risk for such problems themselves.<sup>15</sup> As a corollary, the treatment of parents' mental health has been shown to diminish mental health problems for their children.<sup>16</sup>

9 Kirby Deater-Deckard, "Parenting Stress and Child Adjustment: Some Old Hypotheses and New Questions," *Clinical Psychology: Science and Practice* 5, no. 3 (1998): 314–32.

10 Theresa S. Betancourt, Saida Abdi, Brandon S. Ito, Grace M. Lilienthal, Naima Agalab, and B. Heidi Ellis, "We Left One War and Came to Another: Resource Loss, Acculturative Stress, and Caregiver-Child Relationships in Somali Refugee Families," *Cultural Diversity and Ethnic Minority Psychology* 21, no. 1 (2014): 114–25.

11 Alan Stein et al., "The Influence of Maternal Depression, Caregiving and Socioeconomic Status in the Postnatal Year on Children's Language Development," *Child: Care, Health and Development* 34, no. 5 (2008): 603–12.

12 Jessica E. Lambert, Jessica Holzer, and Amber Hasbun, "Association between Parents' PTSD Severity and Children's Psychological Distress: A Meta-Analysis," *Journal of Traumatic Stress* 27, no. 1 (2014): 9–17.

13 Theresa S. Betancourt, Monica Yudron, Wendy Wheaton, and Mary C. Smith-Fawzi, "Caregiver and Adolescent Mental Health in Ethiopian Kunama Refugees Participating in an Emergency Education Program," *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine* 51, no. 4 (2012): 357–65.

14 Sarah Richards Kim et al., "Supporting the Mental Health of Children by Treating Mental Illness in Parents," *Psychiatric Annals* 43, no. 12 (2013): 534–37.

15 Janina R. Galler et al., "Maternal Depressive Symptoms Affect Infant Cognitive Development in Barbados," *Journal of Child Psychology and Psychiatry* 41, no. 6 (2000): 747–57; Atif Rahman, Z. Iqbal, and Richard Harrington, "Life Events, Social Support and Depression in Childbirth: Perspectives from a Rural Community in the Developing World," *Psychological Medicine* 33, no. 7 (2003): 1161–67; Peter Cooper et al., "Postpartum Depression and the Mother-Infant Relationship in a South-African Peri-Urban Settlement," *British Journal of Psychiatry* 175 (1999): 554–58; William R. Beardslee et al., "Prediction of Adolescent Affective Disorder: Effects of Prior Parental Affective Disorders and Child Psychopathology," *Journal of the American Academy of Child and Adolescent Psychiatry* 35, no. 3 (1996): 279–88; Sherryl H. Goodman et al., "Maternal Depression and Child Psychopathology: A Meta-Analytic Review," *Clinical Child and Family Psychology Review* 14, no. 1 (2011): 1–27; Kimberlie Dean et al., "Full Spectrum of Psychiatric Outcomes among Offspring with Parental History of Mental Disorder," *Archives of General Psychiatry* 67, no. 8 (2010): 822–29; Carol T. Mowbray et al., "Diversity of Outcomes among Adolescent Children of Mothers with Mental Illness," *Journal of Emotional and Behavioral Disorders* 12, no. 4 (2004): 206–21.

16 Galler et al., "Maternal Depressive Symptoms;" Rahman, Iqbal, and Harrington, "Life Events, Social Support and Depression;" Cooper et al., "Postpartum Depression and the Mother-Infant Relationship;" Kirsten J. Hancock et al., "A Three Generation Study of the Mental Health Relationships between Grandparents, Parents and Children," *BMC Psychiatry* 13 (2013): 299; Linda M. A. Loon et al., "The Relation between Parental Mental Illness and Adolescent Mental Health: The Role of Family Factors," *Journal of Child and Family Studies* 23, no. 7 (2013): 1201–14; Kim et al., "Supporting the Mental Health of Children."



Consider the relationship between mental health of children and that of parents with post-traumatic stress disorder (PTSD). The transmission of PTSD symptoms from parent to child has been well documented in studies of male veterans and their children,<sup>17</sup> mothers and infants,<sup>18</sup> Holocaust survivors and their adult children,<sup>19</sup> and refugee parents and their children.<sup>20</sup> Andrea L. Roberts and colleagues find that this intergenerational transmission occurs regardless of whether a parent was exposed to trauma during the lifetime of the child or not.<sup>21</sup> Taken together, the results of these studies highlight the importance of considering parental experiences and mental health when seeking to understand what factors support (or detract from) the well-being of young children of refugees.

## B. Family Structure and Resources

Parents hope to leverage available resources for the well-being of their children. Some of these resources are tangible (e.g., parents' salaries) and some are not (the strength of family and community connections). Growing up in a two-parent home, for example, is thought to benefit a child's socialization and development. But researchers find that family cohesion and time spent together—and the existence of fulfilling relationships—matter more to child well-being than does family structure.<sup>22</sup> In fact, there is little evidence that living with two biological parents is the optimal family structure for child well-being and adjustment.<sup>23</sup> Single parenthood and poverty often coexist, in large part because families with one income are poorer than those with two incomes. The negative outcomes attributed to growing up in single-parent households may be more closely linked to lower incomes and economic disadvantage than to any deficits in family structure.<sup>24</sup>

Children of refugees are more likely than other groups of children in the United States to have two parents in the home. During the 2009–13 period, 81 percent of children with refugee parents lived with two

- 17 Lisa Teague Caselli and Robert W. Motta, "The Effect of PTSD and Combat Level on Vietnam Veterans' Perceptions of Child Behavior and Marital Adjustment," *Journal of Clinical Psychology* 51, no. 1 (1995): 4–12; B. Kathleen Jordan et al., "Problems in Families of Male Vietnam Veterans with Posttraumatic Stress Disorder," *Journal of Consulting and Clinical Psychology* 60, no. 6 (1992): 916–26; Amra Zalihić, Dino Zalihić, and Gordana Pivić, "Influence of Posttraumatic Stress Disorder of the Fathers on Other Family Members," *Bosnian Journal of Basic Medical Sciences* 8, no. 1 (2008): 20–26; Fawziyah A. Al-Turkait and Jude U. Ohaeri, "Psychopathological Status, Behavior Problems, and Family Adjustment of Kuwaiti Children Whose Fathers Were Involved in the First Gulf War," *Child and Adolescent Psychiatry and Mental Health* 2 (2008): 12; Virginia S. Dansby and Robert P. Marinelli, "Adolescent Children of Vietnam Combat Veteran Fathers: A Population at Risk," *Journal of Adolescence* 22, no. 3 (1999): 329–40.
- 18 Michael S. Scheeringa and Charles H. Zeanah, "A Relational Perspective on PTSD in Early Childhood," *Journal of Traumatic Stress* 14, no. 4 (2001): 799–815.
- 19 Rachel Yehuda, Sarah L. Halligan, and Robert Grossman, "Childhood Trauma and Risk of PTSD: Relationship to Intergenerational Effects of Trauma, Parental PTSD, and Cortisol Excretion," *Development and Psychopathology* 13, no. 3 (2001): 733–53; Rachel Yehuda, James Schmeidler, Earl L. Giller, Larry J. Siever, and Karen Binder-Brynes, "Relationship between Posttraumatic Stress Disorder Characteristics of Holocaust Survivors and Their Adult Offspring," *American Journal of Psychiatry* 155, no. 6 (1998): 841–43; Rachel Yehuda, James Schmeidler, Milton Wainberg, Karen Binder-Brynes, and Tamar Duvdevani, "Vulnerability to Posttraumatic Stress Disorder in Adult Offspring of Holocaust Survivors," *American Journal of Psychiatry* 155, no. 9 (1998): 1163–71.
- 20 Atia Daud, Erling Skoglund, and Per-Anders Rydelius, "Children in Families of Torture Victims: Transgenerational Transmission of Parents' Traumatic Experiences to Their Children," *International Journal of Social Welfare* 14, no. 1 (2005): 23–32; William H. Sack, Gregory N. Clarke, and John Seeley, "Posttraumatic Stress Disorder across Two Generations of Cambodian Refugees," *Journal of the American Academy of Child and Adolescent Psychiatry* 34, no. 9 (1995): 1160–66; Per-Anders Rydelius and Atia Daud, "Transgenerational Parent/Child Transmission of Mental Health Problems, Parental Stress, and Posttraumatic Stress Disorder," in *Culture and Conflict in Child and Adolescent Mental Health*, eds. M. Elena Garralda and Jean-Philippe Raynaud (Lanham, MD: Jason Aronson, 2008).
- 21 Andrea L. Roberts et al., "Posttraumatic Stress Disorder across Two Generations: Concordance and Mechanisms in a Population-Based Sample," *Biological Psychiatry* 72, no. 6 (2012): 505–11.
- 22 Jennifer E. Lansford, Rosario Ceballo, Antonia Abbey, and Abigail J. Stewart, "Does Family Structure Matter? A Comparison of Adoptive, Two-Parent Biological, Single-Mother, Stepfather, and Stepmother Households," *Journal of Marriage and Family* 63, no. 3 (2001): 840–51.
- 23 Ibid.
- 24 David H. Demo and Alan C. Acock, "Family Structure, Family Process, and Adolescent Well-Being," *Journal of Research on Adolescence* 6 (1996): 457–88; Michael E. Lamb, Kathleen J. Sternberg, and Ross A. Thompson, "The Effects of Divorce and Custody Arrangements on Children's Behavior, Development, and Adjustment," *Family and Conciliation Courts Review* 35, no. 4 (1997): 393–404.





parents, compared with 75 percent of children with nonrefugee immigrant parents and 62 percent of children with U.S.-born parents.<sup>25</sup> This is despite refugee families' losses during war and separation during migration,<sup>26</sup> and may not hold true in contexts other than U.S. resettlement.

Family structures, meanwhile, vary significantly across refugee groups. National-level estimates suggest that 62 percent of children with Somali refugee parents live with both parents, a share similar to that of children with U.S.-born parents. By contrast, children of Southeast Asian refugees (the largest refugee population in the United States) are much more likely to live with both parents: 77 percent among Cambodian and Laotian refugees and 87 percent among Vietnamese.<sup>27</sup> (Data on the structure of Bhutanese refugee families are not available at the national level.) The lower share of children of Somali refugees living with two parents may put them at a disadvantage, as those living with one parent may have less financial resources due to fewer potential wage earners in the family.

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### *Unemployment negatively affects families across many dimensions.*

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Parental unemployment is naturally linked to lower income and subsequent financial strain; it has also been linked to a decline in mental health and well-being,<sup>28</sup> with negative impacts on children.<sup>29</sup> A review of the relevant research finds that unemployment negatively affects families across many dimensions, including marital stability, the well-being of spouses, and the health and educational attainment of children.<sup>30</sup> In the 2009–13 period, employment rates were similar among all fathers of young children, whether U.S. born (89 percent), nonrefugee immigrants (90 percent), or refugees (86 percent). Employment rates among mothers were lower overall, though slightly higher among U.S.-born mothers (63 percent) than nonrefugee immigrant mothers (50 percent) or refugee mothers (58 percent). Seventy-three percent of Somali fathers and 45 percent of Somali mothers were employed during this period, putting them lower than the average for U.S.-born, nonrefugee immigrant, and refugee parents.<sup>31</sup> Data on employment rates of Bhutanese refugee parents are also not available, though data on adults more broadly reflect that the percentage of all Bhutanese refugee women who are employed is lower than the percentage of Somali refugee women who are employed.<sup>32</sup>

Though the employment rates of resettled refugees are generally comparable to the greater U.S. population, they may encounter a number of challenges in finding employment. Refugees often leave behind livelihoods in their countries of origin, only to face discrimination and other barriers (e.g., related to language and culture) that inhibit employment in their new country.<sup>33</sup> The training or credentials of highly skilled refugees may not be recognized in the resettlement country, making it difficult to find work commensurate with their skill levels.<sup>34</sup> Meanwhile, refugees with limited literacy skills often struggle to find employ-

25 Hooper, Zong, Capps, and Fix, *Young Children of Refugees in the United States*.

26 Nancy S. Landale, Kevin J. A. Thomas, and Jennifer Van Hook, "The Living Arrangements of Children of Immigrants," *The Future of Children* 21, no. 1 (2011): 43–70.

27 Hooper, Zong, Capps, and Fix, *Young Children of Refugees in the United States*.

28 Mattias Strandh, Anthony Winefield, Karina Nilsson, and Anne Hammarström, "Unemployment and Mental Health Scarring during the Life Course," *European Journal of Public Health* 24, no. 3 (2014): 440–45; Paula Rayman, "Unemployment and Family Life: The Meaning for Children," in *Families and Economic Distress: Coping Strategies and Social Policy*, eds. Patricia Voydanoff and Linda C. Majka (Thousand Oaks, CA: Sage Publications, 1988), 119–34.

29 Sara Ström, "Unemployment and Families: A Review of Research," *Social Service Review* 77, no. 3 (2003): 399–430.

30 Ibid.

31 Hooper, Zong, Capps, and Fix, *Young Children of Refugees in the United States*.

32 During the 2009–11 period, 41 percent of all Somali refugee women ages 16 and older were employed, versus 36 percent of Bhutanese refugee women. See Ibid.

33 B. Heidi Ellis, Emily W. Lankau, Trong Ao, Molly A. Benson, Alisa B. Miller, Sharmila Shetty, Barbara Lopes Cardozo, Paul L. Geltman, and Jennifer Cochran, "Understanding Bhutanese Refugee Suicide through the Interpersonal-Psychological Theory of Suicidal Behavior," *American Journal of Orthopsychiatry* 85, no. 1: 43–55.

34 Kenneth E. Miller et al., "Bosnian Refugees and the Stressors of Exile: A Narrative Study," *American Journal of Orthopsychiatry* 72, no. 3 (2002): 341–54.



ment or advance from entry-level positions, which can limit their family incomes.<sup>35</sup> In prior studies Somali refugees, who tend to have relatively low literacy and skill levels, have identified unemployment and financial difficulties among the stressors associated with resettlement.<sup>36</sup>

Parental educational attainment is another significant factor, found to affect child school readiness and future academic success. A refugee parent with limited formal education may have difficulties understanding the demands of the classroom, navigating the school system, and helping children with homework.<sup>37</sup> A study of Afghan refugees found that mothers' literacy moderated the mental health of their children, and that quality of home life was identified by both children and parents as a protective factor for child mental health and well-being.<sup>38</sup>

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*A refugee parent with limited formal education may have difficulties understanding the demands of the classroom.*

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Recent data on children ages 10 and under suggest that the educational attainment of refugee parents falls somewhere between that of U.S.-born parents and nonrefugee immigrant parents. Seven percent of children with U.S.-born parents had mothers who did not graduate from high school; this share is 19 percent among refugee mothers and 29 percent among nonrefugee immigrant mothers. The share of fathers without a high school education followed a similar pattern. Among Somali refugees, 51 percent of mothers and 30 percent of fathers lacked a high school education.<sup>39</sup> One study indicates that, in many cases, refugee parents whose educational attainment levels are low upon resettlement do not further their education in their new homelands.<sup>40</sup>

The number of parents in a household, and their employment and educational attainment, all affect family socioeconomic status, which in turn influences the well-being of children. Nationwide, 50 percent of children with refugee parents were low-income (i.e., their family incomes were below twice the federal poverty threshold). This puts them between the children of U.S.-born parents (43 percent) and those of nonrefugee immigrant parents (56 percent).<sup>41</sup> Children of Somali parents, like several other refugee groups, face multiple risk factors: they are relatively likely to live in single-parent families and have a parent with low educational attainment, a low income, and unskilled or no work.<sup>42</sup>

### **C. The Community Context: Social Support, Community Belonging, and Discrimination**

Refugees' psychosocial adjustment and cultural adaptation are ongoing following their resettlement. Adjustment and adaptation are affected not only by individual risk and protective factors but also by community- and society-level factors such as social support, community belonging, and discrimination. Researchers have found that Latino immigrants in the United States experience less acculturative stress

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35 Randy Capps et al., *The Integration Outcomes of U.S. Refugees: Successes and Challenges* (Washington, DC: Migration Policy Institute, 2015), [www.migrationpolicy.org/research/integration-outcomes-us-refugees-successes-and-challenges](http://www.migrationpolicy.org/research/integration-outcomes-us-refugees-successes-and-challenges).

36 Betancourt, Abdi, Ito, Lilienthal, Agalab, and Ellis, "We Left One War and Came to Another;" Ransford Danso, "From 'There' to 'Here': An Investigation of the Initial Settlement Experiences of Ethiopian and Somali Refugees in Toronto," *Geojournal* 56, no. 1 (2002): 3–14.

37 Donald J. Hernandez, "Demographic Change and the Life Circumstances of Immigrant Families," *The Future of Children* 14, no. 2 (2004): 17–47.

38 Catherine Panter-Brick, Marie-Pascale Grimon, and Mark Eggerman, "Caregiver-Child Mental Health: A Prospective Study in Conflict and Refugee Settings," *Journal of Child Psychology and Psychiatry* 55, no. 4 (2014): 313–27.

39 Hooper, Zong, Capps, and Fix, *Young Children of Refugees in the United States*.

40 Capps et al., *The Integration Outcomes of U.S. Refugees*.

41 Hooper, Zong, Capps, and Fix, *Young Children of Refugees in the United States*.

42 Franziska Reiss, "Socioeconomic Inequalities and Mental Health Problems in Children and Adolescents: A Systematic Review," *Social Science and Medicine* 90 (2013): 24–31.



when they have access to social networks such as extended family.<sup>43</sup> Overall, voluntary migrants experience less acculturative stress than forced migrants such as refugees.<sup>44</sup> Other studies have indicated that separation from family and loss of social support are significant stressors for many immigrants.<sup>45</sup> Many resettled Somali refugees have lost the home-country social networks that once supported them in the raising of their children.<sup>46</sup> Strong social networks and perceived social support may go far toward softening the stresses of past trauma, resettlement, acculturation, and social isolation experienced by Somali and other refugee families.

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### *Separation from family and loss of social support are significant stressors for many immigrants.*

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Perceptions of being accepted by society and belonging to a community also influence psychological well-being. The experience of discrimination, whether overt or subtle, is known to affect physical and mental health and overall well-being.<sup>47</sup> A public health survey of whites and racial/ethnic minorities in a Midwestern metropolitan area found that parental experiences of discrimination are associated with child mental health problems, with parental mental health “mediating”—or providing a link—between discrimination and child mental health.<sup>48</sup> Research on Somali refugees in North America has found discrimination, along with social isolation, to be part of their resettlement experience.<sup>49</sup> The loss of the social status they once enjoyed, coupled with discrimination after resettlement, may compromise family functioning and make it difficult for parents to maintain influence over their children.<sup>50</sup> For instance, Somali refugees participating in focus groups in Boston described leaving a “war in Somalia” only to face another “war” in America.<sup>51</sup> They described their expectations of coming to the United States as defined by opportunity and safety, while the reality reflects something far different. For instance, participants described feeling like they are unable to protect their children from potential dangers and negative social influences in their new neighborhoods. Parents also reported feeling more alienated from their children after resettlement.<sup>52</sup>

43 Kerstin Lueck and Mabelle Wilson, “Acculturative Stress in Latino Immigrants: The Impact of Social, Socio-Psychological and Migration-Related Factors,” *International Journal of Intercultural Relations* 35, no. 2 (2011): 186–95.

44 Ibid.

45 Joseph D. Hovey, “Psychosocial Predictors of Acculturative Stress in Mexican Immigrants,” *The Journal of Psychology: Interdisciplinary and Applied* 134, no. 5 (2000): 490–502; Susan Caplan, “Latinos, Acculturation, and Acculturative Stress: A Dimensional Concept Analysis,” *Policy, Politics, and Nursing Practice* 8, no. 2 (2007): 93–106.

46 Betancourt, Abdi, Ito, Lilienthal, Agalab, and Ellis, “We Left One War and Came to Another.”

47 Theresa S. Betancourt, Jessica Agnew-Blais, Stephen E. Gilman, David R. Williams, and B. Heidi Ellis, “Past Horrors, Present Struggles: The Role of Stigma in the Association between War Experiences and Psychosocial Adjustment among Former Child Soldiers in Sierra Leone,” *Social Science and Medicine* 70, no. 1 (2000): 17–26; Michael T. Schmitt, Nyla R. Branscombe, Tom Postmes, and Amber Garcia, “The Consequences of Perceived Discrimination for Psychological Well-Being: A Meta-Analytic Review,” *Psychological Bulletin* 140, no. 4 (2014): 921–48; Peggy A. Thoits, “Stress and Health: Major Findings and Policy Implications,” *Journal of Health and Social Behavior* 51, no. 1 (2010): S41–S53.

48 Alisia G. T. T. Tran, “Family Contexts: Parental Experiences of Discrimination and Child Mental Health,” *American Journal of Community Psychology* 53, no. 1–2 (2014): 37–46.

49 B. Heidi Ellis, Helen Z. MacDonald, Julie Klunk-Gillis, Alisa K. Lincoln, Lee Strunin, and Howard J. Cabral, “Discrimination and Mental Health among Somali Refugee Adolescents: The Role of Acculturation and Gender,” *American Journal of Orthopsychiatry* 80, no. 4 (2010): 564–75; B. Heidi Ellis, Helen Z. MacDonald, Alisa K. Lincoln, and Howard J. Cabral, “Mental Health of Somali Adolescent Refugees: The Role of Trauma, Stress, and Perceived Discrimination,” *Journal of Consulting and Clinical Psychology* 76, no. 2 (2008): 184–93; Danso, “From ‘There’ to ‘Here’”

50 Ellis, MacDonald, Klunk-Gillis, Lincoln, Strunin, and Cabral, “Discrimination and Mental Health among Somali Refugee Adolescents.”

51 Betancourt, Abdi, Ito, Lilienthal, Agalab, and Ellis, “We Left One War and Came to Another,” Theresa Betancourt, Rochelle Frounfelker, Tej Mishra, Aweis Hussein, and Rita Falzarano, “Addressing Health Disparities in the Mental Health of Refugee Children and Adolescents Through Community-Based Participatory Research: A Study in 2 Communities,” *American Journal of Public Health* 105, no. S3 (2015): S475–82.

52 Ibid.



### III. Somali and Bhutanese Refugees

Bhutanese and Somali refugees were respectively the third and fourth largest nationalities resettled in the United States during FY 2005 through FY 2014—behind Iraqi and Burmese refugees.<sup>53</sup> Somali and Bhutanese refugees have experienced political and ethnic persecution in their home countries, and many resided for extended periods in refugee camps prior to migration and now face postresettlement challenges including psychological stressors. A refugee camp was the last place of residence for almost 100 percent of Bhutanese refugees and for 60 percent of Somali refugees arriving in the United States between 2002 and 2013.<sup>54</sup>

The majority of Bhutanese refugees in the United States are descendants of Nepalese migrants who settled in Bhutan in the 19th century and whose rights were severely restricted by Bhutanese government efforts to homogenize the country. Following large-scale protests in the 1990s, their mass expulsion from Bhutan left many living in refugee camps in eastern Nepal for more than 20 years. The government of Nepal did not offer them formal refugee status, and many suffered discrimination—and worse—in camps. The U.S. Bhutanese refugee resettlement program began in 2007. The long-term displacement of Bhutanese refugees contributed to the high rates of depression, anxiety, and PTSD observed in this population.<sup>55</sup> A recent study raised alarm about their high rates of suicide upon resettlement.<sup>56</sup>

Somali refugees in the United States also faced the effects of long-term political unrest; many suffered more than two decades of civil war and conflict in Somalia. They lost homes and loved ones, and more than half were resettled directly from refugee camps.<sup>57</sup> Research suggests that refugees from Somalia experienced more traumatic events than those from Afghanistan or Iraq.<sup>58</sup> It is not surprising that studies of the Somali diaspora have consistently found high levels of mental distress.<sup>59</sup> One study found that Somali males seen in a mental health clinic in Minneapolis had a higher prevalence of PTSD, depression, and psychotic disturbances than other patients.<sup>60</sup>

Compared to the overall population of refugees in the United States, as well as nonrefugee immigrants and the U.S.-born populations, Bhutanese and Somali refugees have lower levels of English proficiency, educational attainment, and income. In general, refugees are more likely to be low-income than the U.S.-born population; this difference is particularly true for both Somali and Bhutanese refugees. In the 2009–11 period, 79 percent of Somali refugee families were low-income (the highest percentage among major refugee groups), as were 65 percent of Bhutanese (the fourth-highest percentage).<sup>61</sup>

53 During this period, 132,000 refugees from Burma, 113,000 from Iraq, 79,000 from Bhutan, and 64,000 from Somalia were resettled in the United States. See DHS, “Table 14: Refugee Arrivals.”

54 Capps et al., *The Integration Outcomes of U.S. Refugees*.

55 Edward Mills, Sonal Singh, Brenda Roach, and Stephanie Chong, “Prevalence of Mental Disorders and Torture among Bhutanese Refugees in Nepal: A Systemic Review and Its Policy Implications,” *Medicine, Conflict and Survival* 24, no. 1 (2008): 5–15.

56 Trong Ao et al., *Suicide among Bhutanese Refugees in the US 2009-2012: Stakeholders Report* (Atlanta: Center for Disease Control and Prevention, 2012), <http://refugeehealthta.org/wp-content/uploads/2012/10/Bhutanese-Suicide-Stakeholder-Report-October-22-2012-Cleared-For-Dissemination2-1.pdf>.

57 Capps et al., *The Integration Outcomes of U.S. Refugees*.

58 Jacob A. Bentley, John W. Thoburn, David G. Stewart, and Lorin D. Boynton, “Post-Migration Stress as a Moderator between Traumatic Exposure and Self-Reported Mental Health Symptoms in a Sample of Somali Refugees,” *Journal of Loss and Trauma* 17, no. 5 (2012): 452–69; Annette A. M. Gerritsen et al., “Physical and Mental Health of Afghan, Iranian and Somali Asylum Seekers and Refugees Living in the Netherlands,” *Social Psychiatry and Psychiatric Epidemiology* 41, no. 1 (2006): 18–26.

59 Ellis, MacDonald, Lincoln, and Cabral, “Mental Health of Somali Adolescent Refugees;” Ellis, MacDonald, Klunk-Gillis, Lincoln, Strunin, and Cabral, “Discrimination and Mental Health among Somali Refugee Adolescents;” Jerome Kroll, Ahmed Ismail Yusuf, and Koji Fujiwara, “Psychoses, PTSD, and Depression in Somali Refugees in Minnesota,” *Social Psychiatry and Psychiatric Epidemiology* 46, no. 6 (2011): 481–93; Kamaldeep Bhui et al., “Mental Disorders among Somali Refugees: Developing Culturally Appropriate Measures and Assessing Socio-Cultural Risk Factors,” *Social Psychiatry and Psychiatric Epidemiology* 41, no. 5 (2006): 400–08; Paul McCrone et al., “Mental Health Needs, Service Use and Costs among Somali Refugees in the UK,” *Acta Psychiatrica Scandinavica* 111, no. 5 (2005): 351–57.

60 Kroll, Yusuf, and Fujiwara, “Psychoses, PTSD, and Depression.”

61 Capps et al., *The Integration Outcomes of U.S. Refugees*.





## IV. Methods

This report builds on literature about the mental health and well-being of refugees and their children using data from separate field investigations of Bhutanese refugees resettled in the United States and of Somalis resettled in the United States and Canada. The Bhutanese study was conducted in 2012 and the Somali study in 2013.

### A. Bhutanese Study

The Bhutanese dataset was collected as part of a larger investigation examining the apparently high rates of suicide among Bhutanese refugees.<sup>62</sup> The investigation focused on identifying factors associated with suicidal ideation. The study protocol was reviewed, and approval was obtained in 2012 and extended annually through the U.S. Centers for Disease Control and Prevention (CDC) Institutional Review Board.<sup>62</sup>

#### 1. Sample

For the original study, 579 Bhutanese refugees were randomly selected for participation from four states with large Bhutanese communities (Arizona, Georgia, New York, and Texas). The total sample for each state was proportionate to the Bhutanese refugee community living there (i.e., a stratified random design). Bhutanese refugees ages 18 years or older who were originally resettled between January 1, 2008 and November 17, 2011 were eligible for the study. Several of the geographic areas were selected based on known clusters of Bhutanese suicides.

Of the 579 refugees selected to participate, 423 (71 percent) were included. The rest could not complete the interview due to physical or mental impairment, or an inability to write or speak in either English or Nepali.<sup>63</sup>

The original study is considered a representative sample of Bhutanese refugees living in the United States. Only parents between the ages of 18 and 30 were included in the analyses for this report, bringing the sample size to 53.

#### 2. Procedure

Structured survey interviews were conducted in participants' homes by a trained interviewer who was a native Nepali speaker.<sup>64</sup> U.S. Centers for Disease Control and Prevention (CDC) staff accompanied the interviewer to supervise and manage enrollment and data collection. Interviewers made up to three attempts to visit the selected participants. All of the measures used in the study were translated, back-translated, and then piloted for consensus and revisions by Bhutanese community members who were trained as study interviewers. During the interview, participants were asked about a range of topics including basic identifying information (e.g., their age, gender, marital status, and religion/caste), trauma exposure, mental health, postmigration stressors, sense of belonging or being a burden, social support, intimate partner violence, considerations of suicide, drug and alcohol use, and coping strategies. (See the appendices of this report for further details on these categories.)

### B. Somali Study

The Somali dataset was collected as part of a larger study of Somali refugees resettled in Canada and the United States.<sup>65</sup>

62 Ao et al., *Suicide among Bhutanese Refugees in the US 2009-2012*.

63 Nepali is the primary language spoken among Bhutanese refugees; a small minority can speak the Bhutanese language of Dzongkha.

64 Ao et al., *Suicide among Bhutanese Refugees in the US 2009-2012*.

65 The original study aimed to establish a theoretical, evidence-based framework to inform the prevention of violence in diaspora communities within North America. The investigation was reviewed and approved by the Boston Children's Hospital Institutional Review Board.



## I. Sample

The original sample consisted of 465 Somali young adults. Participants were drawn from five North American cities with large Somali communities: Toronto, Canada; Minneapolis, MN; Portland and Lewiston, ME; and Boston, MA. Somali refugees ages 18 to 30 who had lived in the United States or Canada for at least one year were eligible for the study. Those who could not complete the interview due to severe cognitive impairment were excluded. Using purposive sampling, efforts were made to invite participants who represented various backgrounds (including tribe, level of acculturation, degree of religiosity, and educational attainment). Only participants with children were included in the analyses for this report (for a sample size of 43).<sup>66</sup>

## 2. Procedure

Semistructured interviews were conducted in English by a non-Somali research assistant at a local community center. A Somali cultural broker was available to provide clarification or translation as needed. Participants were asked about their gender, age, education level, employment/in-school status, mental health, and community-level factors such as their sense of belong, social support, and experiences of discrimination and family separation.

## C. Central Study Measures

The central topics of this study—trauma exposure, mental health, social support, and discrimination—are interrelated. Trauma exposure directly and indirectly contributes to mental health problems. In addition, trauma and discrimination undermine social bonds. Isolation is often associated with a decrease in mental health.

Several of the same topics were included in the Bhutanese and Somali investigations,<sup>67</sup> thereby making direct comparison of the two communities on these variables possible. In addition to demographic information, data on the following topics were collected and analyzed in both datasets:

- Trauma exposure (i.e., experiences prior to migration, during migration, and after resettlement that may be potentially traumatic)
- Mental illness symptoms (anxiety, depression, and PTSD)
- Social bonds in the United States (feelings of belonging or being a burden)
- Community support (social support and community membership)
- Separation from family (during migration or resettlement)
- Perceived discrimination after resettlement
- Close relationships after resettlement.<sup>68</sup>

## D. Data Analysis

The Somali and Bhutanese interviews were combined into one database, with a final sample of 96 refugee parents under 30 years of age, of whom 43 were Somali and 53 were Bhutanese. Statistical tests were conducted to determine whether the two groups of refugee parents were similar or different on a range of

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<sup>66</sup> One participant in the Somali study disclosed an actual age of 33 to a study staff member. This was reported to the institutional review board, and the parent's data was approved for inclusion in the original study. But this parent was not included in the analysis conducted for this report.

<sup>67</sup> The measures used in both investigations were selected based on relevance to the research questions and history of use with refugee communities.

<sup>68</sup> See Appendix B for more details on how each construct was measured in each study.



demographic, individual-level, and community-level variables.<sup>69</sup> Data were also disaggregated by gender and time since arrival in the United States or Canada.<sup>70</sup>

### E. Study Limitations

Among the strengths of this study are its inclusion and comparison of data from in-depth surveys of Somali and Bhutanese refugee groups. Differences between these two datasets, however, limit the analysis. The two inquiries had different sampling strategies, and the Somali sample was not representative. In addition, study sample sizes are limited by the relatively small proportion of parents in each of the original, larger datasets. Their cross-sectional nature also precludes firm conclusions about how family risk factors may change over time after resettlement. Further longitudinal research is necessary to explore whether differences in the risk factors Bhutanese and Somali families face are better explained by cultural and historical differences, or by differences in resettlement experiences over time. Parental mental health symptoms and other risk factors may also be underreported. Finally, the researchers did not directly collect information on children, including their age; instead, parents' age (30 or under) was used as a proxy for the presence of young children. While this study provides a glimpse into the family context of young children of Somali and Bhutanese refugees, further research that directly assesses their experiences and well-being is needed.

## V. Findings

This report provides a descriptive snapshot of Bhutanese refugee parents resettled in the United States, and of Somali refugee parents living in the United States and Canada. After the presentation of this snapshot, the two study populations are compared on mental health and related measures. The influence of time since resettlement on these measures, as well as differences between refugee mothers and fathers, are also explored.<sup>71</sup>

### A. Demographic Profile of Bhutanese and Somali Refugee Parents

Each sample included a roughly equal number of mothers and fathers, and the age profiles were similar. Although Bhutanese and Somali refugee parents differed in their educational attainment, marriages or other partnerships, and employment levels, these differences were not significant after adjusting for time since resettlement.

- **Time since resettlement.** The Bhutanese refugee parents in the sample were resettled in North America for significantly less time than the Somali refugee parents (approximately two years versus 12 years on average), giving the Somali parents substantially more time to rebuild their lives and establish themselves in a new country. Notably, several of the differences between the two groups were no longer significant once the analysis was adjusted for differences in time since resettlement.
- **Partnerships.** Bhutanese parents were much more likely than Somali parents to be in a partnership (i.e., married, engaged, or in a relationship): 98 percent versus 67 percent. This difference, however, became insignificant after adjusting for time since resettlement.
- **Education levels.** Bhutanese parents reported significantly lower levels of formal education than Somali parents. The majority of Bhutanese parents, 58 percent, reported having a high

69 These statistical tests included chi-square tests, Fisher's exact tests, and regression models.

70 All data cleaning and analysis were conducted using SAS version 9.3. See SAS Institute, *SAS/GRAPH Software: Reference, Version 9.3* (Cary, NC: SAS Institute, 2012).

71 See Appendix A for tables detailing the analysis.



school diploma or less education, compared to 14 percent of Somali parents. Differences in educational attainment were no longer significant after adjusting for resettlement time.

- **Employment status.** Bhutanese fathers were far more likely to be employed than Somali fathers (91 percent versus 33 percent), but there was no significant difference in employment between Bhutanese and Somali mothers. The difference in the employment rate of Bhutanese and Somali fathers remained significant after adjusting for resettlement time.

## B. Trauma Exposure

The two studies asked Bhutanese and Somali parents about their overall exposure to trauma (i.e., events that may have been potentially traumatic), including events before migration, during migration, and after resettlement. Parents were asked about exposure to potentially traumatic events, and some events were then subcategorized into two types of trauma: 1) personal trauma (e.g., experiencing rape or other forms of violence, separation from a loved one, or suffering from a lack of water or food) and 2) witnessing violence (e.g., seeing a family member or friend being killed, or observing massive destruction of property such as the burning of homes.) Bhutanese and Somali parents differed in their reports of overall trauma and of witnessing violence, but not in their reports of personal trauma. Bhutanese parents reported experiencing less trauma overall and witnessing less violence than Somali parents. Reports of overall trauma, however, were not significantly different after adjusting for resettlement time. Somali parents—including both mothers and fathers—still witnessed more violence than Bhutanese parents, meaning that some of the violence they witnessed happened after they were resettled. Indeed, when asked about the period during which trauma exposure occurred (e.g., during the war in Somalia, in a refugee camp, or after resettlement in the United States or Canada), Somali parents reported experiencing ongoing trauma after resettlement. No information on postresettlement trauma was collected from Bhutanese parents, however. Reports of personal trauma and overall trauma were not significantly different between the two groups of parents after adjusting for resettlement time.

## C. Mental Health

Despite differences in their experiences of trauma, Bhutanese and Somali parents did not differ in their reports of overall mental health, emotional distress, depression, anxiety, or PTSD symptoms—a finding that did not change when adjusting for time since resettlement. The only exception was a difference in depressive symptoms among men: 25 percent of Bhutanese fathers reported depressive symptoms, versus none of the Somali fathers.

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*Neither study population appeared to have substantially worse mental health than the general U.S. population.*

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The anxiety and depression levels reported by both groups are similar to those of the U.S. adult population. Among all U.S. adults ages 18 to 54, 13.3 percent had an anxiety disorder in 1999. By comparison, 13 percent of Somali refugee parents in the sample reported anxiety, as did just 8 percent of Bhutanese parents—a difference that was not significant because of the small sample size. Among the U.S. adult population, 5.7 percent had a mood disorder (5.2 percent had a major depressive episode and 4.5 percent had unipolar major depression—instances which are not mutually exclusive).<sup>72</sup> Among the study sample, 16 percent of Somali parents and 9 percent of Bhutanese parents reported depression—again, an insignificant gap considering the limited sample size. Thus, neither study population appeared to have substan-

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<sup>72</sup> These estimates were taken from the National Institute of Mental Health Epidemiologic Catchment Area Program (ECA) and the National Comorbidity Survey (NCS). See William E. Narrow, Donald S. Rae, Lee N. Robins, and Darrel A. Regier, “Revised Prevalence Based Estimates of Mental Disorders in the United States: Using a Clinical Significance Criterion to Reconcile 2 Surveys’ Estimates,” *Archives of General Psychiatry* 59, no. 2 (2002): 115–23.





tially worse mental health than the general U.S. population, though the incidence of anxiety or depression was slightly higher among Somali respondents.

Other studies have documented wide-ranging rates of poor mental health symptoms in refugees—from 2 percent to 18 percent, with an average of 5 percent—for major depressive disorders.<sup>73</sup> Additionally, some studies cite a rate of more than 30 percent for both PTSD and depression among adults who have experienced conflict and displacement.<sup>74</sup> Thus, the frequency of anxiety and depression among Somali and Bhutanese refugee adults in this study was similar to that observed in some prior studies but significantly lower than in others.

#### D. Social Bonds, Family, and Community

This analysis also assessed the separation of Bhutanese and Somali refugee parents from family members and perceptions of social support—whether from close relationships or the broader community—as well as their feelings of being a burden to others and experiences of discrimination:

- **Family separation.** Far more Bhutanese than Somali parents reported being separated from family members: 81 percent versus 5 percent. This difference remained significant after adjusting for time since resettlement and was consistent among both fathers and mothers.
- **Close relationships.** Despite the high incidence of family separation among Bhutanese parents, they were just as likely as Somali parents to report having close relationships. A large majority (exceeding 80 percent) of both groups indicated that they have emotionally fulfilling and close relationships in the United States or Canada. Differences between the two groups in the frequency of close relationships remained insignificant after adjusting for time since resettlement and when disaggregated for mothers versus fathers.<sup>75</sup>
- **Community support.** Bhutanese parents reported having significantly more social support (94 percent versus 68 percent) than Somali parents. For the purposes of this study, support was defined as a trustworthy person they could turn to when in need. These results did not differ when adjusted for time since resettlement or for fathers versus mothers.
- **Feelings of being a burden and of belonging.** More Bhutanese parents, and particularly Bhutanese mothers, reported stronger feelings of being a burden to others than Somali parents. The two groups reported similar levels of belonging. Bhutanese and Somali fathers did not differ significantly on either measure. These findings remained the same when adjusting for time since resettlement.
- **Discrimination.** A large minority of Bhutanese and Somali parents (40 percent) reported discrimination after resettlement in the United States or Canada, and there were no significant differences between the two groups on this measure.

## VI. Discussion

The relatively low level of formal education among Bhutanese parents and high level of trauma observed among Somali parents in the study could affect the family environment of their children. But these risk factors are offset by protective factors such as strong intimate relationships, a strong sense of belonging

73 Zachary Steel et al., “Association of Torture and Other Potentially Traumatic Events with Mental Health Outcomes among Populations Exposed to Mass Conflict and Displacement: A Systematic Review and Meta-Analysis,” *The Journal of the American Medical Association* 302, no. 5 (2009): 537–49.

74 Ibid.

75 Appendix Tables A-2, A-3, and A-4 present these data in detail.



in communities of resettlement, and relatively low levels of mental health problems. Indeed, both the Somali and Bhutanese refugee parents in the study appeared to be resilient in terms of mental health and social support regardless of their formal educations or trauma experiences. These findings contrast with other research suggesting significant incidence of mental health problems among refugees,<sup>76</sup> including both Somalis<sup>77</sup> and Bhutanese.<sup>78</sup> Further exploration of why mental health problems and social isolation appeared to be relatively low within these samples is needed.

There were also significant differences between the two study populations. The Bhutanese families in the sample appeared to be stable: most were married and employed. Almost all reported having close, intimate relationships and someone they could turn to in the United States for support. Social support is a key protective factor for families with young children, suggesting that the children of Bhutanese refugees benefit from their parents' high level of social support. Whether this social support comes from within the Bhutanese-American community or from outside is a question for further research. The study also did not inquire about family incomes; as noted, a large majority of Bhutanese refugees across the United States have low incomes.<sup>79</sup>

The perceptions by Bhutanese parents of being accepted by their receiving communities also were relatively strong, as approximately three-quarters reported that they did not experience discrimination.

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*Bhutanese parents were more likely to  
report feeling they were a burden.*

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The overall picture of Bhutanese parents is one of relative stability and mental health, suggesting that young children of these refugees may benefit from strong family environments after resettlement in the United States, despite some disadvantages such as relatively low parental educational attainment. The strong relationships and mental health in the sampled Bhutanese refugee families are notable, given the high incidence of prior separation among the families in the study sample.

In contrast, Somali parents reported much less family stability: just two-thirds were in a marriage or a stable relationship, and the majority of both fathers and mothers were unemployed. Somali parents were also less likely to report strong support from their resettlement communities or strong emotional ties and intimacy. And Somali parents reported higher levels of trauma than the Bhutanese parents in the sample.

Despite these risk factors, Somali parents also reported protective resources that may positively shape family environments. Relatively few parents reported depression and anxiety. Though higher than in the Bhutanese sample, these rates were similar to averages for all U.S. adults. In addition, very few Somali parents reported being separated from family members.

It is important to note that the Bhutanese and Somali parents in this study reported risk factors in different domains and at differing levels. Bhutanese parents were more likely to report feeling they were a burden and more likely to experience problems with family separation. Both of these differences remained significant even after adjusting for time in the United States. Problems with family separation and lower levels of trauma exposure (relative to Somali parents) likely reflect differences in the two groups' preresettlement contexts and resettlement processes. Bhutanese refugees commonly lived in refugee camps for more than 20 years prior to resettlement; for many, these camp experiences were marked by adversity and chronic stress. Somalis' preresettlement experiences included exposure to war and violence in addition to various lengths of time living in refugee camps. More frequent reports of family separation may reflect the relatively recent relocation of Bhutanese refugees. Meanwhile, many Somali refugees have

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76 Fazel, Wheeler, and Danesh, "Prevalence of Serious Mental Disorder;" Andres J. Pumariega, Eugenio Rothe, and JoAnne B. Pumariega, "Mental Health of Immigrants and Refugees," *Community Mental Health Journal* 41, no. 5 (2005): 581–98.

77 Bhui et al., "Mental Disorders among Somali Refugees."

78 Ao et al., *Suicide among Bhutanese Refugees in the US 2009-2012*.

79 Capps et al., *The Integration Outcomes of U.S. Refugees*.



engaged in secondary migration after initial resettlement to rejoin their families. Often, they have met the years of residence requirement for citizenship and, as citizens, are able to petition for and reunite with family members through the U.S. or Canadian immigration systems; the Somalis have also had more time to form new families in North America. It has been shown that Somali families prioritize safety and security during secondary migration. Opportunities to improve their quality of life (i.e., good schools, housing, and public assistance) and live among family and kin in accordance with their religious and cultural beliefs are other key factors motivating their secondary migration.<sup>80</sup>

The finding that more Bhutanese parents felt they were a burden on others might reflect differences between Somali and Bhutanese cultures. Although both the Bhutanese and Somali cultures have a more collectivist orientation than the dominant U.S. culture, they differ from each other in important ways that may account for some of this report's findings.<sup>81</sup> In the Bhutanese culture, it is important to maintain group harmony, and not to burden others emotionally or spiritually.<sup>82</sup> In the Somali culture, conflict, debate, and passionate argument are more readily accepted, while it is the norm to expect assistance from others in the community.<sup>83</sup>

## VII. Conclusion: Potential Impact of Refugee Family Context on Young Children

Trauma is a major factor in the lives of refugee parents, and experiencing trauma may influence parenting in a number of ways. For example ongoing distress after trauma has been associated with strategies to regulate emotions, including: the avoidance of confrontation or difficult information; difficulty acknowledging, expressing, and interpreting emotions; increased substance use; and difficulty tapping social networks—all of which may affect parenting.<sup>84</sup> The nearly ubiquitous experience of trauma among refugees and its impact on parents and children underscore the need to address trauma in the familial context, through additional research and clinical interventions.

This study suggests that time since resettlement may account for some of the relatively high exposure to trauma among Somali refugee parents relative to Bhutanese parents. This finding supports a paradigmatic shift in understanding how refugees experience violence: while by definition they flee violence in their home countries, at least some trauma is experienced after resettlement. Identifying postresettlement trauma is critically important to prevent it and to understand how ongoing traumatic experiences may inhibit successful adjustment and parenting.

Time since resettlement also influences the study findings regarding refugee parent education, but in the opposite direction: Bhutanese parents have lower levels of formal education than Somali parents, but this gap narrows when accounting for resettlement time. Thus, Somali parents' access to education in the United States may be increasingly important over time. The Bhutanese in the sample had been resettled less than two years on average—and therefore it is possible they had not lived in the United States long enough to take advantage of educational opportunities. Among refugee and immigrant populations in general, higher education levels among parents has been correlated with better psychosocial adjustment

80 Kimberly A. Huisman, "Why Maine? Secondary Migration Decisions of Somali Refugees," *Irinkerindo: A Journal of African Migration* 5 (2011): 55–94.

81 Ibrahim A. Kira et al., "Group Therapy for Refugees and Torture Survivors: Treatment Model Innovations," *International Journal of Group Psychotherapy* 62, no. 1 (2012): 69–88.

82 Hyojin Im and Rachel Rosenberg, "Building Social Capital through a Peer-Led Community Health Workshop: A Pilot with the Bhutanese Refugee Community," *Journal of Community Health* 41, no. 3 (2016): 509–17.

83 This statement is based on insight and knowledge gained through extensive field work by the authors.

84 Maryse Benoit et al., "Emotion Regulation Strategies as Mediators of the Association between Level of Attachment Security and PTSD Symptoms Following Trauma in Adulthood," *Anxiety, Stress, and Coping: An International Journal* 23, no. 1 (2010): 101–18.



among their children<sup>85</sup> and the greater likelihood of their children persisting through postsecondary schooling.<sup>86</sup> A lack of parental education predicts emotional problems among children.<sup>87</sup> These findings suggest that parental education has benefits that extend beyond employment opportunities to the family context. Investing in adult education may therefore be an important way to promote psychological well-being among refugee children and their families. In contrast with the findings of this study, however, research on refugees nationally suggests that few manage to improve their educational attainment significantly after resettlement.<sup>88</sup>

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*Parental education has benefits that extend beyond employment opportunities to the family context.*

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Finally, the presence of several important protective factors in both study populations should be noted. First, despite high levels of trauma, symptoms of mental illness appear to be relatively low in both study populations. Resilience is a critical strength among refugee parents; many appear to be psychologically healthy despite significant adverse experiences. As parental mental illness is a known risk factor for young children, this is a promising and important finding. Second, although Somali parents reported gaps in social support, both Bhutanese and Somali parents reported high levels of intimate relationships. Third, most Somalis had attained at least a high school degree, and the majority of Bhutanese refugees were employed; thus, refugees from each community appeared to have personal resources to draw on as they seek stability and success after resettlement.

### **Recommendations for Refugee Resettlement Policies and Programs**

The findings described in this report point to a number of key areas that resettlement policies and programs might address to foster healthy family contexts for young children in refugee families. The finding that Somali refugees appear to experience trauma after resettlement recommends recognizing the violence prevalent in many resettlement communities. While important questions remain as to the source of this violence, immediate attention to supporting resettlement in safe neighborhoods and addressing ongoing community violence should be considered.

While the study findings suggest that risks may linger or even accumulate over time, the majority of refugee resettlement programs focus resources (e.g., cash and medical assistance) and programming (e.g., reception and placement initiatives) on new arrivals. To best support the outcomes of children of refugees, resettlement policies and programs would do well to address the long-term needs of families, especially in relation to mental health. Collaboration between the Office of Refugee Resettlement (ORR) and the CDC's Epi-Aid initiative to better understand allegedly high rates of suicide among resettled Bhutanese refugees highlights a continued commitment to the healthy integration and well-being of refugee communities.<sup>89</sup>

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85 Stevan Merrill Weine et al., "Thriving, Managing, and Struggling: A Mixed Methods Study of Adolescent African Refugees' Psychosocial Adjustment," *Adolescent Psychiatry* 3, no. 1 (2013): 72–81.

86 Andrew J. Fuligni and Melissa Witkow, "The Postsecondary Educational Progress of Youth from Immigrant Families," *Journal of Research on Adolescence* 14, no. 2 (2004): 159–83.

87 Morton Beiser et al., "Predictors of Emotional Problems and Physical Aggression among Children of Hong Kong Chinese, Mainland Chinese and Filipino Immigrants to Canada," *Social Psychiatry and Psychiatric Epidemiology* 45, no. 10 (2010): 1011–21.

88 Capps et al., *The Integration Outcomes of U.S. Refugees*.

89 Ao et al., *Suicide among Bhutanese Refugees in the US 2009-2012*. This initiative aimed to estimate prevalence of mental health conditions and identify factors associated with suicidal ideation among Bhutanese refugees. A stratified random cross-sectional survey was conducted and information on demographics, mental health conditions, suicidal ideation, and post-migration difficulties was collected.





Another important opportunity lies in the area of violence prevention. Youth education, youth groups, and community policing in partnership with refugees (e.g., a Somali community policing program implemented in Minneapolis, MN) could help address youth violence in refugee communities.<sup>90</sup>

Finally, the study highlights some key strengths among Bhutanese and Somali refugee parents that could be leveraged to promote the healthy development of their children. Both groups of parents exhibited resilient mental health in the face of trauma exposure, as well as strong relationships and positive connections to resettlement communities. Strong family and community ties could provide a foundation for interventions to further support the mental health and well-being of these refugees' children.

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90 Somali-American Police Association (SAPA), "Welcome to SAPA," accessed July 25, 2016, <http://somaliamericanpa.org/>.



## Appendices

### Appendix A. Data Analysis, Survey Content, and Detailed Tables of Findings for Bhutanese and Somali Fathers and Mothers

**Table A-1. Comparison of Variables Measuring Risk and Protective Factors in the Bhutanese and Somali Refugee Surveys**

Concept	Variable	Somali Survey: Type of Variable, Response Set	Bhutanese Survey: Type of Variable, Response Set
<b>Individual-Level Risk and Protective Factors</b>			
<b>Demographics</b>	Location of interview	Categorical, 14 city choices	Categorical, 5 city choices
	Age	Continuous, 18-33 years old	Continuous, 18-83 years old
	Marital status	Categorical, 7 different categories	Categorical, 6 different categories
	Education level	Categorical, 9 different categories based on degree attained	Continuous, 0-14, each grade as a number
	Current employment	Dichotomous, yes/no	Dichotomous, yes/no
	Current living situation	Categorical, 3 choices of living arrangements	Continuous, number of people currently living in household excluding survey participant
	Number of children	Continuous, number given	Continuous, number given
<b>Trauma Exposure</b>	Overall trauma sum	Continuous, sum of responses of 9 questions about trauma exposure on WTSS	Continuous, sum of responses of 9 questions about trauma exposure on HTQ
	Personal trauma	Continuous, mean of responses about personal trauma on WTSS	Continuous, mean of responses about personal trauma on HTQ
	Witnessing violence	Continuous, mean of responses about witnessing destruction on WTSS	Continuous, mean of responses about witnessing destruction on HTQ
<b>Mental Health</b>	Overall emotional distress	Continuous, mean of 25 items on HSCL-25	Continuous, mean of 25 items on HSCL-25
	Anxiety	Continuous, mean of anxiety subscale items on HSCL-25	Continuous, mean of anxiety subscale items on HSCL-25
	Depression	Continuous, mean of depression subscale items on HSCL-25	Continuous, mean of depression subscale items on HSCL-25
	PTSD symptoms	Continuous, mean of 16 scale item questions about PTSD on HTQ	Continuous, mean of 16 scale item questions about PTSD on HTQ



**Table A-1. Comparison of Variables Measuring Risk and Protective Factors in the Bhutanese and Somali Refugee Surveys (continued)**

Community-Level Risk and Protective Factors			
<b>Social Bonds</b>	Burdensomeness	Continuous, mean of burdensome subscale items on INQ	Continuous, mean of burdensome subscale items on INQ
	Belongingness	Continuous, mean of belongingness subscale items on INQ	Continuous, mean of belongingness subscale items on INQ
<b>Social Support</b>	Trustworthy person in the United States/Canada	Continuous, 5-point scale (1 = completely disagree to 5 = completely agree)	Continuous, 5-point scale (1 = completely disagree to 5 = completely agree)
<b>Family Separation</b>	Separation from family in the United States/Canada	Continuous, 6-point scale (1 = never to 6 = more than 5 times)	Continuous, 4-point scale (1 = not at all to 4 = extremely)
<b>Discrimination</b>	Discrimination after resettlement in the United States/Canada	Continuous, 6-point scale (1 = never to 6 = everyday)	Continuous, 4-point scale (1 = not at all to 4 = extremely)
<b>Relationships</b>	Presence of close friendships/relationships in the United States/Canada	Continuous, 7-point scale (1 = completely untrue to 7 = completely true)	Continuous, 5-point scale (1 = strongly disagree to 5 = strongly agree)

WTSS = War Trauma Screening Scale; HTQ = Harvard Trauma Questionnaire; HSCL-25 = Hopkins Symptom Checklist 25; PTSD = post-traumatic stress disorder; INQ = Interpersonal Needs Questionnaire.

Sources: Variables and data from the CDC's Epi-Aid Initiative. See Trong Ao et al., *Suicide among Bhutanese Refugees in the US 2009-2012: Stakeholders Report* (Atlanta: Center for Disease Control and Prevention, 2012), [http://refugeehealthta.org/wp-content/uploads/2012/10/Bhutanese-Suicide-Stakeholder\\_Report\\_October\\_22\\_2012\\_Cleared\\_-\\_For\\_Dissemination2-1.pdf](http://refugeehealthta.org/wp-content/uploads/2012/10/Bhutanese-Suicide-Stakeholder_Report_October_22_2012_Cleared_-_For_Dissemination2-1.pdf). Data from the Minerva Research Initiative, Refugee Trauma and Resilience Center (RTRC) at Boston Children's Hospital (data collection ongoing).

**Table A-2. Comparison between Bhutanese and Somali Parents on Demographics and Individual- and Community-Level Risk and Protective Factors**

	Bhutanese Parents (N=53)	Somali Parents (N=43)		
Demographics and Individual-Level Factors	n (%) or Mean (SD)	n (%) or Mean (SD)	Unadjusted p-value	P-value adjusted for time in the United States/Canada
Time in the United States / Canada (in years)	1.9 (1.0)	11.6 (7.2)	<0.001*	N/A
Sex			0.633	0.162
Male	21 (39.6%)	15 (34.9%)		
Female	32 (60.4%)	28 (65.1%)		
Education Level			<0.001	n.s.**
Less than high school diploma	31 (58.5%)	6 (14.0 %)		
High school diploma	15 (28.3%)	27 (62.8%)		
College / university or postgraduate degree	7 (13.2%)	10 (23.3%)		
Age	26.1 (2.5)	25.1 (3.0)	0.058	0.249

**Table A-2. Comparison between Bhutanese and Somali Parents on Demographics and Individual- and Community-Level Risk and Protective Factors (continued)**

Employed			0.056	0.346
No	20 (38.5%)	25 (58.1%)		
Yes	32 (61.5%)	18 (41.9%)		
Marital Status			<b>&lt;0.001</b>	0.051
Married, engaged, or in a relationship	52 (98.1%)	29 (67.4%)		
Single or other (widowed, divorced, separated)	1 (1.9%)	14 (32.6%)		
Overall Trauma Sum (out of 9 items)	2.3 (1.6)	3.3 (2.2)	<b>0.012</b>	0.151
Personal Trauma (out of 6 items)	0.3 (0.2)	0.3 (0.3)	0.380	0.755
Witnessing Violence (out of 3 items)	0.2 (0.2)	0.4 (0.3)	<b>&lt;0.001</b>	<b>0.005</b>
Overall Emotional Distress (out of 25 items)	1.3 (0.3)	1.3 (0.5)	0.902	0.426
Anxiety			0.483	0.242
No	49 (92.5%)	33 (86.8%)		
Yes	4 (7.6%)	5 (13.1%)		
Depression			0.516	0.694
No	48 (90.6%)	32 (82.1%)		
Yes	5 (9.4%)	6 (15.8%)		
PTSD Symptoms (out of 16 items)	1.4 (0.3)	1.4 (0.5)	0.550	0.236
<b>Community-Level Factors</b>				
Social Bonds: Belonging (out of 9 items)	4.7 (0.9)	4.6 (1.0)	0.485	0.902
Social Bonds: Burden (out of 5 items)	1.9 (0.4)	1.2 (0.6)	<b>&lt;0.001</b>	<b>&lt;0.001</b>
Community Support			<b>0.006</b>	<b>0.004</b>
No or unsure	3 (5.7%)	12 (31.6%)		
Yes	50 (94.3%)	26 (68.4%)		
Family Separation			<b>&lt;0.001</b>	<b>0.001</b>
No	10 (18.9%)	37 (94.9%)		
Yes	43 (81.1%)	2 (5.1%)		
Discrimination			0.304	0.944
No	38 (71.7%)	24 (61.5%)		
Yes	15 (28.3%)	15 (38.5%)		
Close Relationships			0.087	0.201
No or unsure	3 (5.7%)	7 (18.4%)		
Yes	50 (94.3%)	31 (81.6%)		

n.s. = not statistically significant; PTSD = post-traumatic stress disorder; SD = standard deviation.

\* p-value after adjusting for time in the United States/Canada.

\*\* Education had three categories and was recoded creating dichotomous “dummy variables” for analysis, all of which were nonsignificant in analyses adjusting for time. N/A indicates sample size too small for significance testing. Bolded p-values indicate significance at the  $\alpha = 0.05$  level.

Sources: Author calculations using data from the CDC’s Epi-Aid Initiative and the Minerva Research Initiative, RTRC (data collection ongoing).



**Table A-3. Comparison between Bhutanese and Somali Fathers on Demographics and Individual- and Community-Level Risk and Protective Factors**

	Bhutanese Fathers (n=21)	Somali Fathers (n=15)		
Individual-Level Factors	n (%) or Mean (SD)	n (%) or Mean (SD)	Unadjusted p-value	P-value adjusted for time in the United States/ Canada
Time in the United States / Canada (in years)	1.8 (1.0)	14.1 (7.5)	<b>&lt;0.001*</b>	N/A
Education Level			<b>0.002</b>	n.s.**
Less than high school diploma	13 (61.9%)	1 (6.7%)		
High school diploma	6 (28.6%)	11 (73.3%)		
College/university or postgraduate degree	2 (9.5%)	3 (20.0%)		
Age	26.5 (2.5)	25.5 (3.0)	0.302	0.385
Employed			<b>&lt;0.001</b>	<b>0.028</b>
No	2 (9.5%)	10 (66.7%)		
Yes	19 (90.5%)	5 (33.3%)		
Marital Status			0.063	0.222
Married, engaged, or in a relationship	20 (95.2%)	10 (66.7%)		
Single or other (widowed, divorced, separated)	1 (4.8%)	5 (33.3%)		
Overall Trauma Sum (out of 9 items)	2.7 (1.7)	2.8 (1.5)	0.860	0.085
Personal Trauma (out of 6 items)	0.4 (0.2)	0.2 (0.2)	0.143	0.360
Witnessing Violence (out of 3 items)	0.2 (0.2)	0.4 (0.3)	<b>0.002</b>	<b>0.037</b>
Overall Emotional Distress (out of 25 items)	1.3 (0.2)	1.3 (0.4)	0.853	0.217
Anxiety			0.999	0.983
No	19 (90.5%)	11 (91.7%)		
Yes	2 (9.5%)	1 (8.3%)		
Depression			<b>0.040</b>	N/A**
No	21 (100.0%)	9 (75.0%)		
Yes	0 (0.0%)	3 (25.0%)		
PTSD Symptoms (out of 16 items)	1.4 (0.3)	1.5 (0.5)	0.431	0.833
<b>Community-Level Factors</b>				
Social Bonds: Belonging (out of 9 items)	4.6 (0.9)	4.1 (1.2)	0.188	0.926
Social Bonds: Burden (out of 5 items)	1.9 (0.4)	1.52(1.0)	0.246	0.159



**Table A-3. Comparison between Bhutanese and Somali Fathers on Demographics and Individual- and Community-Level Risk and Protective Factors (continued)**

Community Support			<b>0.016</b>	0.318
No or unsure	3 (14.3%)	7 (58.3%)		
Yes	18 (85.7%)	5 (41.7%)		
Family Separation			<b>&lt;0.001</b>	0.268
No	3 (14.3%)	11 (91.7%)		
Yes	18 (85.7%)	1 (8.3%)		
Discrimination			0.999	0.979
No	14 (66.7%)	8 (61.5%)		
Yes	7 (33.3%)	5 (38.5%)		
Close Relationships			0.159	0.102
No or unsure	2 (9.5%)	4 (33.3%)		
Yes	19 (90.5%)	8 (66.7%)		

n.s. = not statistically significant; PTSD = post-traumatic stress disorder; SD = standard deviation.

\* p-value after adjusting for time in the United States/Canada.

\*\* Education had three categories and was recoded creating dichotomous “dummy variables” for analysis, all of which were nonsignificant in analyses adjusting for time. N/A indicates sample size too small for significance testing. Bolded p-values indicate significance at the  $\alpha = 0.05$  level.

Sources: Author calculations using data from the CDC’s Epi-Aid Initiative and the Minerva Research Initiative, RTRC (data collection ongoing).

**Table A-4. Comparison between Bhutanese and Somali Mothers on Demographics and Individual- and Community-Level Risk and Protective Factors**

	<b>Bhutanese Mothers</b> (n=32)	<b>Somali Mothers</b> (n=28)		
<b>Individual-Level Factors</b>	n (%) or Mean (SD)	n (%) or Mean (SD)	Unadjusted p-value	P-value adjusted for time in the United States/Canada
Time in the United States / Canada (in years)	2.0 (1.1)	10.3 (6.8)	<b>&lt;0.001</b>	
Education Level			<b>0.009</b>	n.s.**
Less than high school diploma	18 (56.3%)	5 (17.9%)		
High school diploma	9 (28.1%)	16 (57.1%)		
College/university or postgraduate degree	5 (15.6%)	7 (25.0%)		
Age	25.9 (2.6)	24.8 (3.1)	0.129	0.088
Employed				
No	18 (58.1%)	15 (53.6%)	0.729	0.620
Yes	13 (41.9%)	13 (46.4%)		



**Table A-4. Comparison between Bhutanese and Somali Mothers on Demographics and Individual- and Community-Level Risk and Protective Factors (continued)**

Marital Status			<b>&lt;0.001</b>	N/A**
Married, engaged, or in a relationship	32 (100.0%)	19 (67.9%)		
Single or other (widowed, divorced, separated)	0 (0.0%)	9 (32.1%)		
Overall Trauma Sum (out of 9 items)	2.0 (1.6)	3.6 (2.5)	<b>0.005</b>	0.354
Personal Trauma (out of 6 items)	0.2 (0.2)	0.4 (0.3)	<b>0.034</b>	0.955
Witnessing Violence (out of 3 items)	0.2 (0.2)	0.4 (0.4)	<b>0.002</b>	<b>0.048</b>
Overall Emotional Distress (out of 25 items)	1.4 (0.4)	1.4 (0.6)	0.997	0.274
Anxiety			0.393	0.232
No	30 (93.8%)	22 (84.6%)		
Yes	2 (6.3%)	4 (15.4%)		
Depression			0.720	0.196
No	27 (84.4%)	23 (88.5%)		
Yes	5 (15.6%)	3 (11.5%)		
PTSD Symptoms (out of 16 items)	1.4 (0.3)	1.4 (0.5)	0.808	0.251
<b>Community-Level Factors</b>				
Social Bonds: Belonging (out of 9)	4.8 (0.9)	4.8 (0.8)	0.993	0.622
Social Bonds: Burden (out of 5)	2.0 (0.4)	1.1 (0.3)	<b>&lt;0.001</b>	<b>&lt;0.001</b>
Community Support			<b>0.006</b>	N/A
No or unsure	0 (0.0%)	5 (19.2%)		
Yes	32 (100.0%)	21 (80.8%)		
Family Separation			<b>&lt;0.001</b>	<b>0.007</b>
No	25 (78.1%)	26 (96.3%)		
Yes	7 (21.9%)	1 (3.7%)		
Discrimination			0.270	0.882
No	24 (75.0%)	16 (61.5%)		
Yes	8 (25.0%)	10 (38.5%)		
Close Relationships			0.316	0.207
No or unsure	1 (3.1%)	3 (11.5%)		
Yes	31 (96.9%)	23 (88.5%)		

n.s. = not statistically significant; PTSD = post-traumatic stress disorder; SD = standard deviation.

\* p-value after adjusting for time in the United States/Canada.

\*\* Education had three categories and was recoded, creating dichotomous “dummy variables” for analysis, all of which were nonsignificant in analyses adjusting for time. N/A indicates sample size too small for significance testing. Bolded p-values indicate significance at the  $\alpha = 0.05$  level.

Sources: Author calculations using data from the CDC’s Epi-Aid Initiative and the Minerva Research Initiative, RTRC (data collection ongoing).



## Appendix B. Description of How Each Construct Was Measured in the Refugee Interviews

### 1. Trauma Exposure

To inquire about potentially traumatic experiences, the Bhutanese study used nine questions from the Harvard Trauma Questionnaire (HTQ).<sup>91</sup> These questions inquired into interviewee experiences of a lack of adequate food, water, or clothing; forced separation from family members; rape; having a friend or family member killed; having an acquaintance killed; missing or losing a family member; having to flee suddenly; loss of property or belongings; and having a house or shelter burned down. These nine items were summed to obtain an overall trauma exposure score. Somali participants were asked about these and other experiences as well (an acquaintance being injured, being physically separated from a loved one, being forced to leave home, and witnessing the destruction of property like the burning down of a house). The War Trauma Screening Scale (WTSS)<sup>92</sup> was adapted to address these questions for Somalis.<sup>93</sup> An Overall Trauma Exposure score was calculated by summing the nine items on each scale. Participants in each study were asked whether they had experienced each of these events (“yes” or “no”). Somali participants were also asked to indicate how many times they had experienced each event. Subsets of these experiences were categorized to create a personal trauma score (e.g., rape, dire lack of water or food) and a witness-to-violence score (e.g., friend or family member killed, acquaintance killed or injured).

### 2. Mental Health

Refugee parents in both studies were assessed for symptoms of anxiety and depression using the subscales of the Hopkins Symptom Checklist-25<sup>94</sup> and PTSD using the HTQ. Participants were asked about symptoms of anxiety (e.g., feeling fearful, tense or keyed up, nervous or shaky) and depression (e.g., self-blame, crying easily, poor appetite) they had experienced over the past four weeks. Interviewees were asked to rank these symptoms on a 4-point scale from “not at all” to “extremely.” Participants were also asked about how much they had been bothered by symptoms of post-traumatic stress (not at all, a little, quite a bit, or extremely) in the past four weeks.

### 3. Social Bonds

Bhutanese and Somali refugee participants were asked about their social bonds (feelings of belonging or being a burden) in the United States and Canada using the Interpersonal Needs Questionnaire (INQ).<sup>95</sup> To assess their sense of belonging, participants were asked eight questions about the extent to which they feel connected to others (e.g., “These days I have at least one satisfying interaction every day”). They were also asked six questions about the extent they feel like a burden on other people in their lives (e.g., “These days the people in my life would be happier without me”). They were asked to respond on a scale from 1 (not at all true) to 7 (very true).

### 4. Community Support

Community support was measured using the perceived social support scale in the Bhutanese study.<sup>96</sup> Bhutanese participants were asked how true the following statement was for them, “There is a trustworthy person I could turn to for advice if I were having problems” on a scale of 1 (strongly disagree) to 5

91 Richard F. Mollica and Yael Caspi-Yavin, “The Assessment of Events and Their Related Symptoms in Torture and Refugee Trauma,” in *Theory and Assessment of Stressful Life Events*, ed. Thomas W. Miller (Madison, CT: International Universities Press, 1996).

92 Christopher M. Layne et al., *War Trauma Screening Scale* (unpublished manuscript, 1999).

93 Ellis, MacDonald, Lincoln, and Cabral, “Mental Health of Somali Adolescent Refugees.”

94 Morris B. Parloff, Herbert C. Kelman, and Jerome D. Frank, “Comfort, Effectiveness, and Self-Awareness as Criteria of Improvement in Psychotherapy,” *American Journal of Psychiatry* 111, no. 5 (1954): 343–52.

95 Kimberly A. Van Orden et al., “Suicidal Desire and the Capability for Suicide: Tests of the Interpersonal-Psychological Theory of Suicidal Behavior among Adults,” *Journal of Consulting and Clinical Psychology* 76, no. 1 (2008): 72–83.

96 Carolyn E. Cutrona, “Ratings of Social Support by Adolescents and Adult Informants: Degree of Correspondence and Prediction of Depressive Symptoms,” *Journal of Personality and Social Psychology* 57, no. 4 (1989): 723–30.



(strongly agree). The Psychological Sense of Community Membership<sup>97</sup> scale was used to assess community support in the Somali study. Somali participants were asked how true the following statement was for them twice, first in reference to the Somali community and then the American, “There’s at least one person in the (Somali/American) community I can talk to if I have a problem” on a scale of 1 (not at all true) to 5 (completely true).

## 5. Separation from Family

Separation from family members is common among refugees.<sup>98</sup> Bhutanese participants were asked how much they perceived “separation from family” to be a problem since their resettlement in the United States by indicating “not at all,” “a little,” “quite a bit,” or “extremely.” One item from the WTSS was used to ask Somali participants about separation from family members. They were asked “Were you ever physically separated from a loved one at a time when you greatly feared for your loved one’s safety (while in the United States)?” and asked how often, from “never” to “more than five times.”

## 6. Discrimination

Discrimination is another common problem encountered after resettlement.<sup>99</sup> Bhutanese participants were asked to think about how much discrimination (e.g., poor treatment because of race or religion.) they were experiencing in their receiving communities: “not at all,” “a little,” “quite a bit,” or “extremely.” Using the Every Day Discrimination Scale,<sup>100</sup> Somali participants were asked, “In your day-to-day life (now in the United States/Canada), how often are you threatened or harassed?” They were asked to indicate “never,” “once every few years,” “a few times a year,” “a few times a month,” “at least once a week,” or “every day.”

## 7. Close Relationships

In the Bhutanese study, one item from the Perceived Social Support<sup>101</sup> scale was used to assess perceived social support in the United States. Bhutanese participants were asked about their perception of support in their everyday life and to think about it in reference to any and all persons whom they know. They were asked how much they agreed, on a five-point scale (from “strongly disagree” to “strongly agree”), with the following statement at this moment, “I have close relationships that provide me with a sense of emotional security and well-being (in the United States).” One item from the INQ was used to measure social support in the United States in the Somali study. Somali participants were asked to rate how much they felt the following statement was true for them, “These days, I am fortunate to have many caring and supportive friends” on a scale of 1 (completely untrue) to 7 (completely true).

97 Carol Goodenow, “The Psychological Sense of School Membership among Adolescents: Scale Development and Educational Correlates,” *Psychology in the Schools* 30, no. 1 (1993): 79–90; Winston J. Hagborg, “An Investigation of a Brief Measure of School Membership,” *Adolescence* 33, no. 130 (1998): 461–68.

98 Cornelis J. Laban et al., “Postmigration Living Problems and Common Psychiatric Disorders in Iraqi Asylum Seekers in the Netherlands,” *Journal of Nervous and Mental Disease* 193, no. 12 (2005): 825–32.

99 Ibid.

100 David R. Williams, Yan Yu, and James S. Jackson, “Racial Differences in Physical and Mental Health: Socio-Economic Status, Stress and Discrimination,” *Journal of Health Psychology* 2, no. 3 (1997): 335–51.

101 Cutrona, “Ratings of Social Support.”



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## About the Authors



**B. Heidi Ellis** is Director of the Refugee Trauma and Resilience Center at Boston Children's Hospital and an Associate Professor of psychology in the Department of Psychiatry at Boston Children's Hospital/Harvard Medical School. She studies refugee youth mental health, with a particular emphasis on understanding trauma exposure, violence, and how the social context impacts developmental trajectories.

For more than a decade she has built a community-based participatory research program with Somali refugees. Through this research program she has investigated the role of discrimination in refugee youth mental health, and developed and evaluated a school-based mental health intervention for Somali refugee youth.

Dr. Ellis received her B.A. from Yale University, her Ph.D. in clinical psychology from the University of Oregon, and completed a postdoctoral fellowship at Boston University School of Medicine.



**Erin N. Hulland** is a Statistician in the Division of Global Health Protection at the U.S. Centers for Disease Control and Prevention (CDC). Since starting at the CDC in 2014, Ms. Hulland has worked on a wide range of projects concerning refugees and internally displaced persons internationally.

As a statistician in the Emergency Response and Recovery Branch, Ms. Hulland provides support in survey design and methodology, data collection, and statistical analysis.

She received her BS from Pennsylvania State University and her MPH from Emory University Rollins School of Public Health.



**Alisa B. Miller** is Research Associate at the Refugee Trauma and Resilience Center at Boston Children's Hospital, Assistant in Psychology in the Department of Psychiatry at Boston Children's Hospital, and an Instructor in psychology at Harvard Medical School.

Her research interests include exposure to trauma, identity development, cultural factors, and the impact these have on refugee and immigrant family and community functioning. Her overarching interest is reducing mental health disparities among refugee and immigrant groups and the well-being of youth in U.S. communities.

Dr. Miller received her PhD in clinical psychology from Boston University.



**Colleen Barrett Bixby** is Program Coordinator at the Refugee Trauma and Resilience Center. She has a background in cultural anthropology, and is interested in health disparities among refugee populations and how psychosocial research can be integrated with community-based work as part of the approach to reducing such disparities.

Ms. Bixby received her MPH with a concentration in international health from Boston University.



**Barbara Lopes Cardozo** is a medical epidemiologist at the CDC and holds an appointment as an Adjunct Assistant Professor at the Hubert Department of Global Health, Rollins School of Public Health, and the School of Medicine, Department of Psychiatry and Behavioral Sciences, at Emory University. For the last 17 years, she has worked as a psychiatric epidemiologist at the Emergency Response and Recovery Branch of the CDC in Atlanta, building CDC's mental health and psychosocial program in humanitarian emergencies from the ground up. She has conducted numerous mental health surveys and outcome evaluations of mental health programs in war-affected countries, including Afghanistan, Cambodia, Chechnya, Israel, Jordan, Kosovo, Myanmar, Sri Lanka, and Thailand. She has also conducted mental health studies among humanitarian aid workers operating under stressful conditions. She teaches courses on public health and mental health in emergencies at Emory University as well as the University of Washington and the Royal Tropical Institute in Amsterdam. Dr. Lopes Cardozo also provides psychiatric care to patients at the International Medical Center, Grady Hospital.

She is one of the founding members of Doctors without Borders (MSF) – Holland. Among the dozens of missions with which Dr. Lopes Cardozo had on-the-ground involvement during a decade with the organization were the Armenian earthquake, Armero (Colombia) volcano disaster, and Peru cholera epidemic. She also provided aid to victims of violent conflict in Haiti, Nicaragua, Somalia, and Uganda.

Dr. Lopes Cardozo holds a medical degree from the University of Amsterdam, a master's degree in public health from Tulane University, and a specialization in psychiatry from Louisiana State University.



**Theresa S. Betancourt** is Associate Professor of Child Health and Human Rights in the Department of Global Health and Population at the Harvard T.H. Chan School of Public Health and Director of the Research Program on Children and Global Adversity (RPCGA). Her central research interests include the developmental and psychosocial consequences of concentrated adversity on children, youth, and families; resilience and protective processes in child and adolescent mental health and child development; refugee families; and applied cross-cultural mental health research.

She is Principal Investigator of a prospective longitudinal study of war-affected youth in Sierra Leone which led to the development of group interventions for these youth that are now being scaled up in collaboration with the World Bank and Government of Sierra Leone. She has developed and evaluated the impact of a Family Strengthening Intervention for HIV-affected children and families and is also investigating the impact of a home-visiting early childhood development intervention to promote enriched parent-child relationships and prevent violence in Rwanda. Domestically, she is engaged in community-based participatory research on family-based prevention of emotional and behavioral problems in refugee children and adolescents resettled in the U.S.

She has written extensively on mental health and resilience in children facing adversity including recent articles in *Child Development*, *The Journal of the American Academy of Child and Adolescent Psychiatry*, *Social Science and Medicine*, *JAMA Psychiatry*, and *PLOS One*.



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1400 16<sup>th</sup> Street NW  
Suite 300  
Washington, DC 20036

Tel: 001 202-266-1940  
Fax: 001 202-266-1900

