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Epidemiology of Mental Health, Suicide and Post-Traumatic Stress Disorders among Bhutanese Refugees in Ohio, 2014

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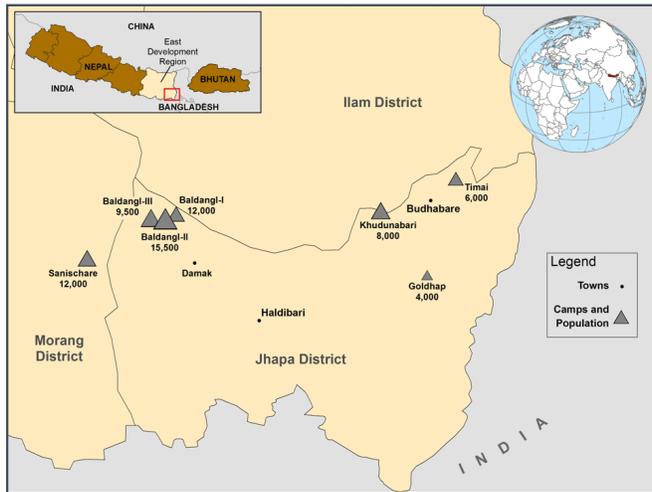
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INTRODUCTION

Who are the Bhutanese Refugees?

The Bhutanese refugees are people of Nepali ethnicity and had been living in Bhutan since the 19th century. Originally, they were known as the Lhotsampas or the “People of the South”. In the mid-1980s, the Bhutanese government implemented a “One Country, One People” campaign which sought to unify the country under the Druk culture, religion, and language.¹ This “Bhutanization” not only stripped away the Bhutanese Nepali’s age-long distinct cultural and religious traditions; it also effectively eliminated the national citizenship rights of one-sixth of the Bhutanese population at the time. Thus, many were forced

Figure 1
 Refugee Camps in Nepal



Source: Centers for Disease Control and Prevention

to live in Bhutan with no rights or liberties or to take refuge in surrounding countries, primarily India and Nepal. Many families fled violence in Bhutan, only to then experience violence from within seven refugee resettlement camps that had been established throughout Nepal. They also endured a long stay (16-20 years) within the refugee camp setting, which provided a delayed sense of normal life. Most were not able to work, pursue higher education, or attain any sense of independence during their time spent in refugee camps, which were increasingly strained by the extended stay of large number of refugees. Reports from Human Rights Watch found cases of sexual and domestic violence, as well as increasing instances of depression among the refugees in these camps.²

According to the United Nations High Commissioner for Refugees (UNHCR), approximately one-sixth of the population in Bhutan resettled in Nepal in the early 1990s. This time saw heightened levels of harassment, vandalism and arson of homes and properties of ethnic-Nepalese, forced removals, and unlawful arrest, many of whom had been living in the camps.³ UNHCR’s 2013 reports estimated approximately 108,000 Bhutanese taking

refugee in Nepali refugee camps. Under a large-scale group resettlement program which began in 2007, more than 83,000 refugees from Bhutan have started new lives in eight countries, i.e., Australia, Canada, Denmark, the Netherlands, New Zealand, Norway, the United Kingdom and the United States. The refugee camp population in Nepal has been reduced to a third of its original size, with two refugee camps in eastern Nepal currently host to some 34,000 refugees.⁴ In 2006, the United States agreed to resettle up to 60,000 Bhutanese refugees and they began to arrive in 2008.⁵ During federal fiscal years 2008-12, a total of 2,335 Bhutanese refugees were resettled in Ohio.⁶ According to the federal agency, Administration for Children and Families, secondary migration of all refugees for Ohio between October 2012 and May 2013 was estimated at 737 (into) and 204 (out), adding a net 533 to Ohio's current refugees population (it is unclear how many of these were Bhutanese refugees).⁷ In Ohio, the current number of Bhutanese refugees is anecdotally estimated at more than 10,000, this estimate is attributable to secondary and tertiary migrations from other states as families come to join other family members and/or explore economic opportunities that they had heard about Ohio.⁸

Statement of the Problem and Study Objectives

Community Refugee and Immigration Services (CRIS) is an organization that provides services to newly arrived immigrants in Ohio. As part of its mental health screening and referral program in October 2013, the agency used the Refugee Health Screener 15 (RHS-15) tool to assess for anxiety, depression and PTSD during client intakes on newly arriving Bhutanese refugees in Ohio. CRIS's analysis of the RHS-15 found that 38% of their Bhutanese refugees had screened positive for behavioral health issues. The rate in contrast was above the average score for all arriving refugees over 14 years-of-age by about 30%.⁹

As a result, CRIS contacted the Ohio Department of Mental Health and Addiction Services (OhioMHAS) to request assistance with the emergent mental health problems besetting the Bhutanese refugees who resettled in Ohio. OhioMHAS subsequently held consultations with CRIS and key members of the Bhutanese Nepali Community of Columbus (BNCC) for conducting a study to investigate the prevalence of mental health conditions, suicidal ideation and PTSD among these refugees. Consequently, CRIS with support of the BNCC and OhioMHAS, undertook a field survey between July and August 2014 in Central Ohio. This epidemiological research was guided by three main objectives:

- (1) to examine the effects of trauma exposure on refugees' behavioral health, with particular focus on anxiety, depression, PTSD, substance use, and other post-migration issues among adult Bhutanese refugees in Ohio;
- (2) to develop culturally appropriate outreach strategies and informational sessions for Bhutanese refugees based on specific barriers to health and wellness; and
- (3) to pursue meaningful outreach strategies to specific groups within the Bhutanese refugee population depending on where the greatest needs are demonstrated.

METHODS

The research sample was Bhutanese refugees over the age of 18 resettled in Ohio. The sample size was 200 individuals who were recruited within two neighborhoods of Franklin County in Central Ohio where the majority of Bhutanese refugees are settled. The survey utilized a hybrid convenience and snowball sample methodology to administer a face-to-face survey where each survey respondent recommend another

individual for survey participation. The survey excluded any respondent who either did not consent to be interviewed or who was not able to respond due to physical or mental impairment. Interviews were conducted in the participant's home. To control for potential response bias, surveys were administered to the consenting individual with no family members present.

OhioMHAS and CRIS staffs provided three hours of survey administration training to 20 surveyors recruited in collaboration with the Bhutanese Nepali Community of Columbus. The training was conducted in a culturally competent manner using both English and Nepali languages and covered the following areas: how to handle a sensitive situation such as a distressed respondent, research ethics, marking accurate responses, and consistent recording. The survey was pre-tested with male and female members of the community and feedback was discussed prior to the administration of the survey. The younger or less experienced survey administrators worked under the close supervision of more experienced surveyors. A number of precautionary measures were implemented due to the sensitive nature of the questions. First, male surveyors interviewed male respondents and female surveyors interviewed female respondents. Second, any respondent who felt distressed was provided appropriate counseling by case workers from the community and referred to appropriate clinical providers as needed. The survey had questions both in Nepali and English and was administered in the respondent's home by surveyors who were conversant in both languages. Incentives were provided to both the participant and the interviewer. Written informed consent was obtained from those who could read and write Nepali or English, and verbal consent secured from those participants who were not able to read and write. Surveyors ensured that a consent form was read, understood, and signed prior to administration of the survey. This study was reviewed and approved by the OhioMHAS Institutional Review Board (approved protocol #2014-7, April 4, 2014).

Instruments

The instrument was patterned after a survey the Centers for Disease Control and Prevention (CDC) used in a 2012 study of Bhutanese refugees.¹⁰ We did not modify the original questions for our study. This allowed us to compare our findings with the CDC's 2012 national study results. The survey had a total of 181 questions, including seven new questions added to the CDC survey. The instrument's domains included demographics, general health, mental health and substance abuse history, experience with suicide, post-migration difficulties,¹¹ coping mechanisms,¹² past history of trauma (i.e., violence exposure, persecution, and oppression), current beliefs and experiences, and domestic violence.

The validated and standardized tools used in the CDC study to assess mental health conditions and other risk factors for suicide were kept unchanged to allow for a robust and valid comparison with the CDC findings. The adapted psychometric instruments included in the survey were (a) Perceived Social Support (PSS)¹³ to assess perceptions of support from family, friends and others; (b) The Coping Strategy Indicator (CSI)¹⁴ to assess approaches to coping with stress; (c) Hopkins Symptom Checklist (HSCL-25)¹⁵ to assess symptoms of anxiety, depression, and distress (a combination of anxiety and depression scores); (d) Harvard Trauma Questionnaire (HTQ)¹⁶ to assess traumatic events experienced in Bhutan/Nepal and symptoms of post-traumatic stress disorder (PTSD); and, (e) Interpersonal Needs Questionnaire (INQ-15)¹⁷ to measure participants' beliefs about how they feel connected to others (belongingness) and/or if they feel like a burden on the people in their lives (perceived burdensomeness).

Table 1. Demographic characteristics of Bhutanese refugees, Ohio, 2014 (N = 200)

Variable	Male, n (col %)*	Female, n (col %)*	Total N (%)*
Age	(n = 115)	(n = 78)	(n = 193)
Median	45	49	46
Range	19-80	18-83	18-83
Marital Status	(n = 118)	(n = 80)	(n = 198)
Married	100 (85)	55 (69)	155 (78)
Single	13 (11)	3 (4)	17 (8)
Other	5 (4)	22 (27)	27 (14)
Education	(n = 118)	(n = 79)	(n = 197)
None	57 (48)	53 (67)	110 (55)
Primary	25 (21)	7 (9)	33 (17)
Secondary	25 (21)	15 (19)	40 (20)
University or graduate work	11 (10)	4 (5)	15 (8)
English	(n = 118)	(n = 79)	(n = 197)
Read and write	50 (42)	22 (28)	73 (37)
No	68 (58)	57 (72)	125 (63)
Nepali	(n = 118)	(n = 79)	(n = 197)
Read and write	76 (64)	28 (35)	105 (53)
No	42 (36)	51 (65)	93 (47)
Religion	(n = 117)	(n = 80)	(n = 197)
Hindu	95 (81)	65 (81)	162 (81)
Buddhist	12 (10)	9 (11)	21 (11)
Christian	10 (9)	6 (8)	16 (8)
Caste**	(n = 117)	(n = 80)	(n = 197)
Bahun	47 (40)	36 (45)	84 (42)
Chhetri	36 (31)	17 (21)	54 (27)
Dalit	12 (10)	12 (15)	24 (12)
Janjati	19 (16)	14 (18)	33 (17)
Other	3 (3)	1 (1)	4 (2)
Health insurance	(n = 118)	(n = 78)	(n = 196)
Yes	90 (76)	45 (58)	135 (68)
No	28 (24)	33 (42)	63 (32)
Regular Income	(n = 118)	(n = 80)	(n = 198)
Yes	73 (62)	28 (35)	102 (51)
No	45 (38)	52 (65)	98 (49)
Employed	(n = 117)	(n = 80)	(n = 197)
Yes	63 (54)	17 (21)	81 (41)
No	54 (46)	63 (79)	117 (59)
Provider of family	(n = 116)	(n = 80)	(n = 196)
Yes	76 (66)	19 (24)	98 (49)
No	40 (34)	61 (76)	102 (51)
General health	(n = 118)	(n = 80)	(n = 198)
Good to excellent	76 (65)	41 (51)	119 (60)
Fair	31 (26)	20 (25)	51 (25)
Poor	11 (9)	19 (24)	30 (15)
Time in US (years)	(n = 112)	(n = 76)	(n = 188)
Median	1.7	1.8	1.75
Range	0.8-6.1	0.25-6.1	0.8-6.1

Note: *Totals for some variables may differ due to missing cases. **Janjati castes include ethnic groups from the Mountain, Hill and Terai regions. Though the Civil Code of 1963 in Nepal legally prohibits discrimination based on social hierarchy, historical practice of discrimination against the Dalits (called "Untouchables") is still prevalent in remote/rural areas. In terms of caste hierarchy, Bahun (Brahmin) and Chhetris as the so-called upper caste still hold power over the low-caste groups (Dalits) or other ethnic minorities (Janjatis). Refer to Endnotes 18, 19, 20

RESULTS

Demographics

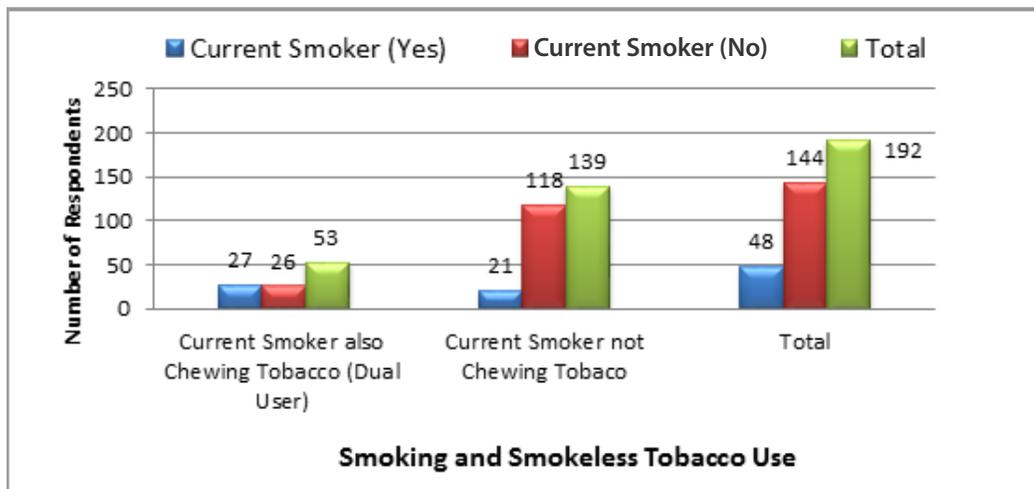
In the total sample of 200, about 60 percent of respondents were male (see Table 1 for select demographic statistics). The majority fell between the ages of 35 to 44 (23%) and 45 to 54 (24%). Ten percent were older than 65. Median age was 46, with a range of 18 to 83. The majority (78%) were married. In terms of educational achievement, 55 percent had no education, 17 percent had grade-school level, 20 percent secondary school level, and eight percent university or graduate level. More than two-thirds (64%) were not able to read or write Nepali, and 43 percent were not able to read or write English. Some four-fifths (81%) were Hindu, 11 percent Buddhist, and 8 percent Christian. The ethnicity/caste break down was 42 percent Bahun, 42 percent Chhetri, 27 percent Dalit, and 17 percent Janjati.^{18,19,20} About half (51%) had a regular income, and 41 percent were employed.

Drug/Alcohol Use Epidemiology

Twenty percent ($n = 39$) of the 200 respondents reported current and daily alcohol use. Among these, 37 percent had two-to-three and 12 percent had four-to-five standard drinks of alcohol daily.²¹ As for the prevalence of cigarette smoking,²² 25 percent ($n = 50$) of 200 respondents were current smokers, 28 percent ($n = 55$) of 197 smoked at least 100 cigarettes in their entire life, 52 percent ($n = 39$) of 75 smoked every day, and 19 percent ($n = 14$) of 75 smoked some days.

Twenty-three percent ($n = 44$) of the 192 respondents used smokeless tobacco daily. Close to 28 percent ($n = 53$) of 192 respondents were dual tobacco users (i.e., used both cigarettes and chewing tobacco). Further analysis of current smoking and smokeless tobacco use showed that among 48 current smokers, a little more than 56 percent ($n = 27$) also chewed tobacco (Figure 2).

Figure 2
Dual Tobacco Use Behavior, Bhutanese Refugees, 2014



Mental Health Conditions

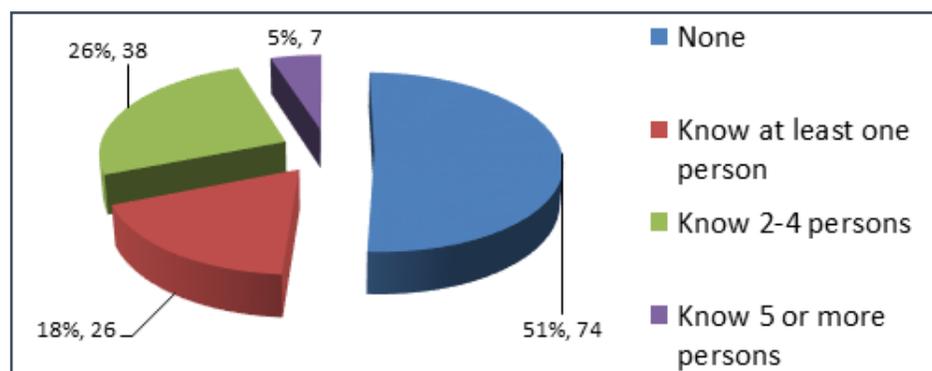
Of 199 respondents, 13 percent ($n = 26$) reported being told by a doctor or mental health professional that they had a mental health condition. When this group was asked about the mental health condition, 70 percent ($n = 16$) reported depression, 17 percent ($n < 15$) schizophrenia, and 13 percent ($n = 26$) anxiety. When asked if someone in the family had a mental health condition, 21.4 percent ($n = 42$) of the 196 respondents answered yes.

The survey included questions that screened for the prevalence of mental health conditions, including anxiety, depression and psychological distress. The HSCL-25, a five-point Likert-style instrument, used ten statements to measure anxiety symptoms and fifteen statements for depression symptoms. The HSCL-25 found 30 percent ($n = 58$) of 195 respondents with anxiety symptoms and 26 percent ($n = 49$) of 192 respondents with depression. There are a few important findings from some of the responses to the anxiety statements. Close to 15 ($n = 29$) of 200 respondents reported they were “quite a bit and extremely suddenly scared for no reason. Fourteen percent ($n = 27$) of 199 respondents reported feeling quite a bit and extremely fearful, and 16 percent ($n = 32$) of 199 felt quite a bit and extremely tensed or keyed up. Using the same intensity measure for depression statements, 33 percent ($n = 66$) of 200 respondents reported quite a bit and extreme difficulty (with) falling asleep or staying asleep, 23 percent ($n = 46$) or 199 respondents reported quite a bit and extreme (feelings of) hopelessness about the future, 16 percent ($n = 31$) of 200 had quite a bit and extreme feelings of worthlessness, and four percent ($n = 7$) of 196 thought quite a bit and extremely (often) about ending their lives.

Suicidal ideation

The survey found that 6.2 percent ($n = 12$) of 194 respondents had seriously thought about suicide. Among the ten participants who responded to a question about how often they had suicidal thoughts in the past month, four (40%) reported thinking about it “a couple of times” or “about once a month” and six (60%) indicated no such thoughts in the past month. Among eleven respondents to a question about the intensity of suicidal thoughts, four (45%) reported “very intense” and six (55%) “somewhat intense.” Of nine responses to a question about age of first suicidal thoughts, 67 percent ($n = 6$) said they were 50 years or older and 33 percent ($n = 3$) were 49 years or younger. Close to 53 percent ($n = 5$) of eight respondents reported serious thoughts about attempting suicide in the past 12 months. Of the 11 who answered a question about suicide attempts, 27 percent ($n = 3$) indicated yes.

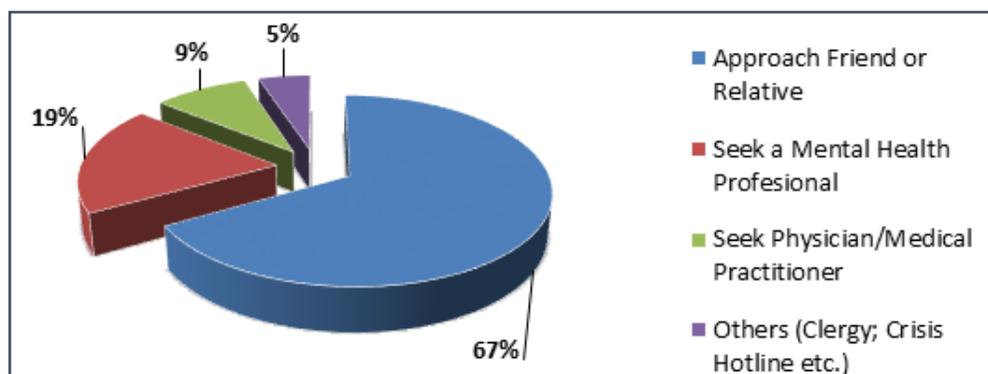
Figure 3
Knew People Who Took Own Life in Past 12 Months [N=145]



When asked if a family member had ever completed suicide, 21 percent ($n = 25$) of respondents ($n = 121$) said yes. Thirty-eight percent ($n = 43$) of respondents ($n = 114$) said they knew of a close friend or neighbor who had completed suicide. Among 145 respondents who answered a question about how many people they knew personally who have taken their own lives, 18 percent ($n = 26$) said they knew at least one such person, 26 percent ($n = 38$) knew two to four persons, and five percent ($n = 7$) knew five or more (Figure 2).

Among 164 responses to the question "If you were feeling like life was not worth living, which would you be most likely to do?" a substantial 67 percent ($n = 109$) said they would seek out a friend or relative, 19 percent ($n = 31$) would go to a mental health professional, and nine percent ($n = 14$) would seek help from a physician or medical practitioner. Only five percent ($n = 9$) said they would seek out other resources such as clergy, crisis hotline, self-help group, self-coping technique or try to ignore the feeling (Figure 3)

Figure 4
Type of Help sought if Felt Life not Worth Living



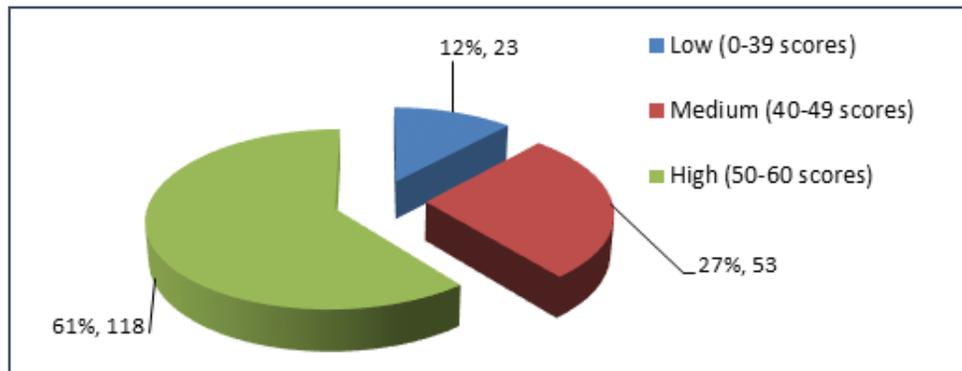
Social Network and Relationships

The survey used a five-point Likert scale to ask respondents to rank whether they strongly disagreed, disagreed, were unsure, agreed, or strongly agreed with 12 statements about social support.²³ About 20 percent ($n = 39$) of 196 respondents agree or strongly agree that they lacked emotional closeness with another person. Close to 13 percent ($n = 25$) of 200 respondents agreed or strongly agreed that to whom they had no one to whom they could turn for guidance in times of stress. Almost 14 percent ($n = 27$) of 200 respondents agreed or strongly agreed they perceived a lack of respect for their skills and abilities. An overwhelming majority, 91 percent ($n = 181$) of 199 respondents agreed or strongly agreed that there were people they could depend on to help them if help was really needed. Almost 90 percent ($n = 176$) agreed or strongly agreed that they had close relationships that provided them with a sense of emotional security and well-being, i.e., happiness, health and welfare.

The survey followed a recently published method of computing the PSS (Perceived Social Support) with a Bhutanese population.²⁴ The PSS was summed across all 12 items to produce low, medium and high composite scores, with zero to 39 being low social support, 40 to 49 being medium, and 50 to 60 being



Figure 5
Perceived Social Support, Bhutanese Refugees, Ohio, 2014



high. Over half (61%, $n = 118$) fell in the high support range, 27 percent ($n = 53$) in the medium, and 12 percent ($n = 23$) in the low (Figure 5).

Traumatic Events Experienced in Bhutan

The survey used 22 questions from the Harvard Trauma Questionnaire (HTQ) to ask respondents about traumatic events experienced in Bhutan. Among 200 respondents, the most commonly experienced traumatic events prior to settling into Nepalese refugee camps were lack of nationality or citizenship (80%; $n = 160$), having to flee suddenly (72%; $n = 144$), and resulting in lost property or belongings—including Bhutanese government seizures (68%; $n = 136$). Just under half (49%; $n = 98$) experienced religious or cultural persecution such as being forced to speak the Bhutanese national language or wear the national dress. Other notable trauma experience included forced separation from family members (12%; $n = 24$), physical violence by government authorities (12%; $n = 24$), torture (95%; $n = 19$), imprisonment (7%; $n = 14$), and family member or friend murdered or killed (6%; $n = 12$).

Nineteen (19) items from the HTQ were used to calculate composite scores of Traumatic Stress Personal Experience (TESUM) along four categories, experienced, witnessed, heard about, and did not encounter. The raw TESUM scores were then collapsed into a three-category exposure to trauma variable computed as No exposure (zero, encountered or experienced no trauma), Low (experienced one to five trauma), and High (experienced six to nine trauma). Of the 200 respondents, 14.5 percent ($n = 29$) reported No exposure, 44 percent ($n = 88$) reported Low exposure, and 41.5 percent ($n = 83$) had High exposure.

Current Post-Traumatic Stress Disorder Symptoms

The survey used 16 items also from the HTQ to assess symptoms of post-traumatic stress disorder (PTSD) that people have after experiencing hurtful or terrifying events in their lives. It asked respondents about how much the PTSD symptoms bothered them in the past four weeks. The prevalence of current PTSD symptoms was computed with an algorithm created through the Harvard Program on Refugee Trauma²⁵ based on criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. The HTQ measurement of PTSD symptoms required at least one positive response among three items related to re-experiencing symptoms, at least three such responses among seven items on avoidance or numbing, and at least two positives among five arousal items. Calculated thus, the prevalence of a positive screen for current PTSD symptoms in the study population of 200 was 8.5 percent ($n = 17$). Notable current symptoms reported in the extreme range were trouble sleeping (13.1%; $n = 26$), difficulty concentrating (9.5%; $n = 19$), and recurrent nightmares (8%; $n = 16$).



Intimate Partner Violence

Analysis of intimate partner violence and gender revealed that among 165 respondents five percent of men ($n = 8$) and four percent of women ($n = 7$) reported experiencing intimate partner violence prior to or since relocating to the United States in their lifetime. Another analysis of sexual violence and gender found that among 157 respondents, close to three percent of men ($n = 4$) and about two percent of women ($n = 3$) had experienced sexual assault over a lifetime.

Post-Resettlement Issues

Respondents were asked about 16 post-resettlement issues they had experienced after arriving in United States. The 200 respondents identified "little help from charities or other agencies" as the highest ranked issue (70%; $n = 141$). "Little help from government" was the second highest ranked issue (69.5%; $n = 139$). "Language barriers" was the third highest ranked issue (62%; $n = 69$) among 198 respondents. The least ranked difficulties were close to two percent ($n = 3$) of 199 respondents reporting discrimination (treated poorly because of one's race or religion), seven percent ($n = 14$) reporting lack of community structures for resolving family disputes, and 11 percent ($n = 21$) reporting crime committed against the respondent and family.

Coping Methods

The survey solicited responses to coping methods using the 18-item Coping Strategies Indicator (CSI), which measures five methods of coping: 1) withdrawal and avoidance, 2) friends and self-focused problem solving, 3) entertainment or leisure, 4) religion and/or culture, and community-based support (26). Of 196 respondents, 24 percent ($n = 47$) said they withdrew socially and avoided being with people, 45 percent ($n = 89$) went to a friend to help them feel better, 8 percent ($n = 16$) used entertainment or leisure activities such as watching television. Religious and/or cultural coping methods were the most typically sought among the 196 respondents, with 42 percent ($n = 82$) reporting a visit to temple or church and 38 percent ($n = 74$) participating in singing Hindu devotional songs. Of 195 responses to community-based support methods, 48 percent ($n = 93$) reported talking to community leaders and 43 percent ($n = 84$) had joined community support groups.



Interpersonal Needs

Survey participants responded to 12 statements from the 7-point Likert-style (between “not at all true for me” to “very true for me”) Interpersonal Needs Questionnaire (INQ-15) about current beliefs and experiences related to social belonging and burden. Based on where responses clustered, only the “not at all true” and “very true” categories were analyzed. Three statements had the highest number of “very true” responses. Of 198 respondents, 39 percent ($n = 78$) reported that “there are people I can turn to in times of need”. Close to 30 percent ($n = 57$) found it very true that “other people care about me.” Some 36 percent ($n = 72$) believed it very true that “I think I contribute to the well-being of the people in my life.” Three statements had the highest number of “not at all true” responses. Of 200 respondents, 91 percent ($n = 182$) reported that “the people in my life would be happier without me” was not at all true for them. A little more than 88 percent ($n = 175$) of 198 respondents found it not at all true that “I think the people in my life wish they could be rid of me.” Close to 86 percent ($n = 170$) of 198 respondents found it not at all true that “I think I make things worse for people in my life.”



DISCUSSION

The CDC in 2012 conducted a randomized, community-based cross-sectional survey of 423 resettled Bhutanese refugees in Arizona, Georgia, New York, and Texas to gain a better understanding of the mental health status of the overall Bhutanese refugee population in the United States. In contrast, the present study utilized a snowball sample methodology to survey 200 Bhutanese refugees in Ohio. Despite the differences in survey methodology, the study sample characteristics are comparable in that both CDC and the Ohio survey were community-based and designed to be representative of the Bhutanese refugees who resettled in states where the studies were conducted. In terms of the survey instrument, Ohio study adapted the CDC survey instrument, retaining all the psychometric properties. The only difference was that the CDC survey instrument had 174 questions, while the Ohio study asked 181 questions, including seven seeking responses on household income, general health, and tobacco use.

In the CDC 2012 study, of 423 participants, 52 percent were men. Most of the participants were married ($n = 301$; 72%), followed the Hindu religion ($n = 306$, 72%), and had a regular income ($n = 276$; 65%). One hundred and forty eight (35%) of the participants did not have any schooling, while 56 (13%) had a primary education, and 163 (38%) had attended secondary schools. The median time in the U.S. was 1.8 years (range: 0.2 to 5 years). In the Ohio 2014 study, 60 percent were men. Most of the participants were married ($n = 155$; 78%), followed the Hindu religion ($n = 306$, 72%), and had a regular income ($n = 162$; 81%). One hundred and ten (55%) participants did not have any schooling, while 33 (17%) had a primary education, and 40 (20%) had attended secondary schools. The median time in the U.S. was 1.7 years (range: 0.8 to 6 years).

Given the study findings, current and daily alcohol use among surveyed Bhutanese refugees in Ohio appears to be higher than 20 percent, in sharp contrast to the CDC 2012 finding of 11 percent current alcohol use. As for the prevalence of tobacco use, 25 percent of respondents are current cigarette smokers and 23 percent use smokeless tobacco (e.g. moist chewing tobacco [*Khaini*] and other forms). The fact that the present study found close to 28 percent to be dual tobacco users, nicotine addiction to smoking and smokeless tobacco presents a challenge from a tobacco cessation standpoint and calls for unique interventions.

Among the 13 percent of respondents who reported being told by a doctor or mental health professional that they had a mental health condition, 70 percent reported depression, 17 percent schizophrenia, and 13 percent anxiety. When asked if someone in the family had a mental health condition, approximately 21 percent answered yes. The survey, however, did not probe further as to whether these self-reported mental health conditions or family members with such conditions received adequate treatment. In view of the fact that the survey found 30 percent of survey participants suffering with anxiety symptoms and 26 percent with depression, there would appear to be unmet mental health needs about Central Ohio's Bhutanese refugees²⁷.

Compared to the CDC 2012 findings of three percent reporting serious thoughts about suicide, the present study found about double that current rate—six percent—among Ohio's Bhutanese population. Concerning experience with suicide, of 121 respondents who answered the question if anyone in the family has ever completed suicide, 21 percent ($n = 25$) said yes, which is much higher than the CDC 2012 study ($N = 423$) which found five percent ($n = 22$) reported having a suicide in the family. As for the CDC finding of 20 percent ($n = 83$) among 423 respondents who knew a neighbor or a friend who completed suicide, the Ohio study found a higher prevalence of 38 percent ($n = 43$) among 114 respondents. Our finding higher rates of attempted suicide and exposure to neighbor or friends who completed suicide point to the critical need in the behavioral health treatment community to step up culturally

and linguistically appropriate suicide counseling and awareness outreach. This is important against the backdrop of low mental health help-seeking behavior as the study found that less than a third (28%) of the Ohio study group were interested in seeking help from a mental health professional or medical practitioner.

The overall prevalence of PTSD symptoms currently experienced by the study population of 200 was 8.5 percent ($n = 17$) which is higher compared to the 5 percent overall PTSD prevalence the CDC 2012 study found. Among 199 Ohio respondents, the three top current symptoms reported in the extreme range were trouble sleeping (13.1 percent; $n = 26$), difficulty concentrating (9.5 percent; $n = 19$), and recurrent nightmares (8 percent; $n = 16$). Given the fact that the survey found high levels of exposure to trauma and a fairly low rate of self-identified mental health conditions, the real levels of unmet mental health treatment need may have been masked or under reported.²⁸

The three highest ranked post-resettlement difficulties in the CDC findings were 62 percent reporting language barriers, 46 percent reporting lack of choice over the future, and 39 percent with worries about family back home. The present study found a similar percentage (62%) reporting language difficulties. However, even a higher percentage (70%) identified difficulties with getting help from charities or the government. Although the relationship between post-migration difficulties and depression was not explored in the present study, other studies have looked at this relationship. One recent study conceptualized depression-related and post-migration difficulties among the Bhutanese across five components: 1) general problems with resettlement in the U.S., 2) family-related anxiety, 3) problems with religion and/or culture, 4) problems with access to health resources, and 5) problems with obtaining aid and/or support.²⁹

As regards the four types of coping mechanisms to deal with stress, among 195 responses, "community support" appeared to be the most used with 48 percent ($n = 93$) reaching out to community leaders and 43 percent ($n = 84$) joining community support groups. The next most popularly sought after coping method was "turning to friends or self-focused problem solving" with 45 percent ($n = 89$) of 196 respondents reaching a friend to help them feel better about the problem. This suggests a fairly cohesive and resourceful immigrant community. From a program development standpoint, members of the Bhutanese community thus appear to have an extensive social network with many turning to friends, visiting temple, or participating in Hindu devotional songs as a method of coping. "Religion and/or culture" was the third most popular coping mechanism with 42% ($n = 82$) of 196 respondents visiting a temple or church. The fourth most popular coping method was "entertainment and leisure activities" with 8 percent ($n = 16$) of 196 respondents watching television and about 3 percent ($n = 6$) of 194 respondents going to a concert. From a cultural standpoint, television and concerts are not popular as coping mechanisms, especially given lack of socialization to such entertainment methods and prevalent linguistic barriers.

About 20 percent ($n = 39$) of 196 respondents agreed or strongly agreed that they lack emotional closeness with another person. Close to 13 percent ($n = 25$) of 200 respondents agreed and strongly agreed having no one they can turn to for guidance in times of stress. Almost 14 percent ($n = 27$) of 200 respondents agreed and strongly perceived about not being respected for their skills and abilities. An overwhelming majority (90.9%; $n = 181$) of 199 respondents agreed and strongly agreed that there are people they can depend on to help them if really needed help. This is a very encouraging and important factor. Another strong social support measure is that almost 90% (88.9%; $n = 176$) agreed and strongly agreed that they have close relationships that provide them with a sense of emotional security and well-being (happiness, health, welfare). An analysis of the Perceived Social Support Scale revealed that 88% ($n = 171$) of 194 respondents self-reporting medium to high levels of social support. This is very encouraging, especially against the backdrop of high rates of anxiety, depression and PTSD symptoms.

CONCLUSION

This epidemiological study sought to examine mental health, suicidal ideation and the effects of trauma exposure on refugees' behavioral health, with particular focus on anxiety, depression, PTSD, substance use and other post-migration issues among adult Bhutanese refugees in Ohio. Findings from the study are expected to lead to the development of culturally appropriate outreach strategies and informational sessions for Bhutanese refugees in the areas of health, wellness, and mental health treatment.

We can discern a few critical policy implications. First, the findings of high prevalence rates of suicidal ideation, anxiety, depression, and PTSD are noteworthy. Bhutanese refugee communities across the United States are still at risk of suicide deaths.³⁰ This calls for stepping up mental health treatment and prevention outreach to Bhutanese refugee communities especially in a culturally and linguistically competent manner. This also presents viable opportunities for agencies, alcohol/drug and mental health boards, and refugee service providers to work in collaboration with community gatekeepers as well as federal agency stakeholders towards conducting culturally competent mental health trainings. Informal conversations with Bhutanese community members have suggested that the real levels of unmet mental health treatment needs may be underreported given the low levels of help-seeking behavior, stigma, and linguistic barriers. This could be an area for future research. Second, findings on post-migration issues highlight the need to create awareness among Bhutanese refugees about available resources. Service providers should implement community-based strategic outreach to raise awareness about available resources and enhance collaborations with the Bhutanese refugee community to establish trust. Third, the comparatively high prevalence of dual (smoking and smokeless) tobacco use among Bhutanese refugees will need unique tobacco cessation and prevention interventions.

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22. Current smoking was computed by combining responses on whether a person has smoked at least 100 cigarettes in their entire life and who currently smokes every day or on some days.
23. One earlier such literature looked at various factors influencing perceived social support: Cutrona et al. (1986). Additional earlier literatures approach social support from other dimensions, such as, Multidimensional Scale of Perceived Support. Those interested may read: Zimet G. D., Dahlem N. Zimet G. , & Farley G. K. (1988). The Multi Dimensional Scale of Perceived support. *Journal of Personality Assessment*: 52(1)30-41; Zimet, G., Powell, S., Farley, G., Wekman, S. & Berkoff, K. (1990). Psychometric Characteristics of the Multi Dimensional Scale of Perceived Social Support. *Journal of Personality Assessment* 55, 510-617
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APPENDIX A

Glossary of Selected Terms

Anxiety

Anxiety is a normal reaction to stress and can actually be beneficial in some situations. For some people, however, anxiety can become excessive. While the person suffering may realize their anxiety is too much, they may also have difficulty controlling it and it may negatively affect their day-to-day living. There are a wide variety of anxiety disorders, including post-traumatic stress disorder, obsessive-compulsive disorder, and panic disorder to name a few. Collectively, they are among the most common mental disorders experienced by Americans. Types of anxiety disorders include: generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), panic disorder, post-traumatic stress disorder (PTSD), and social phobia (or social anxiety disorder).

[Source: National Institute of Mental Health. What is Anxiety Disorder? Web-based information retrieved on April 29, 2015 at: <http://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml>]

Depression

Everyone occasionally feels blue or sad. But these feelings are usually short-lived and pass within a couple of days. When a person has depression, it interferes with daily life and causes pain for both the person and those who care about the person. Depression is a common but serious illness. Many people with a depressive illness never seek treatment. But the majority, even those with the most severe depression, can get better with treatment. Medications, psychotherapies, and other methods can effectively treat people with depression. There are several forms of depressive disorders such as major depression whereby severe symptoms interferes with the person's ability to work, sleep, study, eat, and enjoy life. An episode can occur only once in a person's lifetime, but more often, a person has several episodes. The other form is persistent depressive disorder with depressed mood lasting at least 2 years. A person diagnosed with persistent depressive disorder may have episodes of major depression along with periods of less severe symptoms, but symptoms must last for 2 years.

[Source: National Institute of Mental Health. What is Depression? Web-based information retrieved on April 29, 2015 at: <http://ftp.nimh.nih.gov/health/topics/depression/index.shtml>]

Post-traumatic Stress Disorder (PTSD)

When in danger, it's natural to feel afraid. This fear triggers many split-second changes in the body to prepare to defend against the danger or to avoid it. This "fight-or-flight" response is a healthy reaction meant to protect a person from harm. But in post-traumatic stress disorder (PTSD), this reaction is changed or damaged. People who have PTSD may feel stressed or frightened even when they're no longer in danger. PTSD develops after a terrifying ordeal that involved physical harm or the threat of physical harm. The person who develops PTSD may have been the one who was harmed, the harm may have happened to a loved one, or the person may have witnessed a harmful event that happened to loved ones or strangers. PTSD was first brought to public attention in relation to war veterans, but it can result from a variety of traumatic incidents, such as mugging, rape, torture, being kidnapped or held captive, child abuse, car accidents, train wrecks, plane crashes, bombings, or natural disasters such as floods or earthquakes.

[Source: National Institute of Mental Health. What is Post-traumatic Stress Disorder? Web-based

information retrieved on April 29, 2015 at: <http://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd/index.shtml>]

Suicidal Ideation

Suicidal ideation which is much more common than suicidal behavior, lies on a continuum of severity from fleeting and vague thoughts of death to those are persistent and highly specific; and serious suicidal ideation is frequent, intense and perceived as uncontrollable.”

[Source: Center for Substance Abuse Treatment. (2009). Addressing suicidal thoughts and behaviors in substance abuse treatment. Treatment Improvement Protocol (TIP) Series 50. HHS Publication No. (SMA) 09-4381. Rockville, MD: Substance Abuse and Mental Health Services Administration. Web-based information retrieved on April 29, 2015 at: <http://store.samhsa.gov/shin/content//SMA09-4381/TIP50.pdf>]

Trauma

Trauma is an emotional response to a terrible event like an accident, rape or natural disaster. Immediately after the event, shock and denial are typical. Longer term reactions include unpredictable emotions, flashbacks, strained relationships and even physical symptoms like headaches or nausea. While these feelings are normal, some people have difficulty moving on with their lives. Psychologists can help these individuals find constructive ways of managing their emotions.

[Source: American Psychological Association. (2015).Trauma. Web-based information retrieved on April 29, 2015 at: <http://www.apa.org/topics/trauma/index.aspx>]



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