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Role of Social Support on Mental Health Among Resettled Bhutanese Refugees in Ohio

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Abstract

More than 80% of Bhutanese refugees have resettled in the United States. Social support can lead to better resilience against poor mental health outcomes among this population. This study assessed the role of social support on mental health among the resettled Bhutanese adults in Central Ohio. This study used data collected by the Ohio Department of Mental Health and Addiction Services on 200 Bhutanese adults in Columbus. Social support was measured using a 12-item perceived social support scale. The 25-item Hopkins Symptoms Checklist was used to quantify depression and anxiety experienced in the past month. One-in-three participants reported mental health problems. Compared to participants with high social support, those with medium (OR 5.28, 95% CI 2.09–13.37) and low social support (OR 10.94, 95% CI 2.53–47.33) had more than 5- and 10-fold increased odds of mental health problems respectively. Future studies could further explore the role of social support on mental health during relocation, resettlement, and acculturation processes.

Keywords Bhutanese refugees · Mental health · Ohio · Social support

Introduction

Social support is a protective factor that minimizes psychological distress when a person encounters stress [1, 2]. Bhutanese refugees, in particular, have experienced atrocities like psychological torture, murder of relatives, loss of property, loss of employment, destruction of their homes, and lack of food and shelter, all of which make them vulnerable to poor mental health outcomes [3–6]. In 1985, Bhutan, a South-Asian Himalayan country between India and China, enacted the citizenship act called "One Nation, One People." The policy was criticized as a systematic ethnic cleansing initiative to promote the dominant Bhutanese culture. Consequently, the ethnic Nepali lingual Bhutanese population, about one-sixth of the population in Bhutan, was driven out of the country [7], seeking refuge in neighboring countries, including India and Nepal. By the 1990s, more than 100,000 people took shelter in refugee camps in Nepal, living in exile for almost 20 years [8]. Bhutanese refugees started new lives in other countries; more than 80% have resettled in the United States of America (US) since 2007 [9]. In the US, Bhutanese people are one of the largest groups of South Asian refugees in recent times [9]. In 2018, refugees from Bhutan comprised the fourth largest refugee population in the US

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after groups of refugees from the Democratic Republic of Congo, Burma, and Ukraine [10]. Although initially admitted with refugee status, many of the Bhutanese refugees are now permanent residents or naturalized American citizens. Hence, we use the term resettled Bhutanese adults instead of Bhutanese refugees to describe this study population. Of the resettled Bhutanese population in the US, about 30,000 resettled in central Ohio [8], with sizable populations present in other Ohio cities (i.e., Cincinnati, Cleveland, and Akron). Ohio is home to the largest Bhutanese communities outside Bhutan [8].

In the trajectory of resettlement, all phases (i.e., displacement, refuge, resettlement, and integration into the host country) induce stress for refugees. Specifically, the challenges that arise when adjusting to new environments can lead to acculturation stress [11]. Refugees and asylum seekers have a higher prevalence of mental health disorders, such as depression, anxiety, and post-traumatic stress disorder (PTSD), compared to host populations [12]. Similarly, prior studies have documented a higher prevalence of various mental health issues, including depression, anxiety, and suicidal ideation, among resettled Bhutanese adults in the US [13, 14]. Between 2009 and 2012, the annual age-adjusted suicide rate for Bhutanese refugees in the US was 24.4 per 100,000, approximately twice the rate of the overall US population [15, 16]. Moreover, within this population, one in three people exhibited symptoms of depression, and two in ten had anxiety disorders [13]. These findings underscore the significant mental health challenges within this population.

Studies have identified various stressors to poor mental health status among refugee populations in pre-and post-settlement phases. In the pre-settlement phase, symptoms of PTSD and depression are significantly associated with a lack of refugee status and the accumulation of traumatic events [17]. Importantly, a life-course approach to health recognizes that the trauma and stress experienced during this phase add to aggravated health outcomes at a later stage [18]. In the post-settlement phase, stressors typically include separation from family, uncertainty about the future, language barriers, and limited access to transportation and healthcare [19]. However, these populations often exhibit high levels of resiliency and coping mechanisms that enable them to persist and even thrive in stressful situations [20]. Thus, the role of protective factors, such as social support, for mental well-being warrants further investigation and understanding.

Social support is essential for maintaining good physical and psychological health [21]. Studies have shown that strong social support can lead to resilience against the poor mental health outcomes associated with stress and trauma [21]. More specifically, studies have shown that social support can accomplish this by reducing risky behaviors and providing a source of robust coping mechanisms during stressful situations [21].

While previous studies have quantified the prevalence of mental health issues among the resettled Bhutanese population, our understanding of the role of social support in this context is explicitly limited to its association with suicidal ideation [15, 22–24]. A study investigating factors associated with suicide among resettled Bhutanese adults in the US found a lack of social support contributing to suicidal behavior [15]. Additionally, among older Bhutanese with refugee life experience, social support was found to moderate the relationship between trauma, stress, and mental health outcomes [22]. Social support and mental health conceptualization through the unique refugee lens are underexplored, specifically among the resettled Bhutanese community in Ohio. This study aims to address this gap by assessing the role of social support in the mental well-being of resettled Bhutanese adults in Central Ohio.

Materials and Methods

Data Source and Participants

This study is a secondary data analysis of an epidemiological survey conducted by the Ohio Department of Mental Health and Addiction Services (OhioMHAS) [25]. The survey was conducted between July and August 2014 among 200 resettled Bhutanese adults aged 18 years or older. Participants were recruited from two neighborhoods of Franklin County in Central Ohio, the most populous refugee area in the state, using hybrid convenience and snowball sampling techniques [8]. Those individuals who could not respond due to physical or mental impairment were excluded.

Measures

Data were collected through face-to-face interviews conducted by twenty interviewers fluent in both Nepali and English, who were recruited in collaboration with the Bhutanese Nepali Community of Columbus. They received training in survey methodology, including orientation to the survey design, from OhioMHAS and Community Refugee & Immigration Services (CRIS). Pre-testing of the study tool was performed with community members, and responses from the pre-test phase were not included in the analysis. Surveys were available in both Nepali and English, and interviewers conducted in-person interviews at each participant's home, ensuring the absence of other family members.

The dependent variable in this study was mental health condition, quantified using the 25-item Hopkins

Symptoms Checklist (HSCL-25) [26, 27]. This tool comprises 25 items measuring symptoms of depression and anxiety experienced over the past month, with ten items for anxiety symptoms in the first part and 15 items for depression symptoms in the second part [26, 27]. Each question utilized a four-point scale ('not at all,' 'a little,' 'quite a bit,' and 'extremely,' rated 1 to 4, respectively). In this study, the scores for depression and anxiety were calculated separately, with a cut-off value of ≥ 1.75 indicating 'a case.' This cut-off point, widely used in other studies, demonstrates sensitivity and specificity of 0.87 and 0.60, respectively, with an area under the curve of 0.79 [28–30]. The final dependent variable in this study, termed mental health problems, was defined as the presence of either depression or anxiety. The scale's internal consistency, measured by Cronbach's alpha, was 0.96, indicating high reliability.

The primary independent variable of interest was social support, assessed using the 12-item Perceived Social Support Scale (PSS-12) [31]. This scale evaluates support from family, friends, and significant others, with 12 questions related to emotional closeness with another person, having someone to turn to for guidance in times of stress, feeling respect for their skills and abilities, the presence of people to depend on when help was needed, and close relationships with a sense of emotional security and well-being. Each item was rated on a 5-point Likert scale ($0 =$ strongly disagree, $5 =$ strongly agree). The cumulative score of the 12 items was calculated and recoded into three levels of social support: low (0–39), moderate (40–49), and high (50–60) [32]. This tool has been widely used and validated in various settings [33–35], including Nepal [36].

Demographic variables included participants' age, sex, marital status, and educational background. Marital status was categorized as 'married' or 'without a partner,' which included those who were single/unmarried, widowed, divorced, or separated. Education was categorized as 'none' (including those with no formal education) and 'at least one year of formal schooling.' For economic measures, participants were asked about their employment status (employed/unemployed), income stability, and the ability to pay living expenses (yes/no). Income stability was determined by their responses to the question, 'Do you earn a regular income?' The inability to pay living expenses was assessed using a Likert scale ranging from 'not at all' to 'extremely' and was dichotomized into 'no' (not at all) and 'yes' (including responses 'a little,' 'quite a bit,' and 'extremely'). Health-related variables included health insurance (yes/no), general health status (excellent/medium/poor), and access to healthcare and counseling services (both dichotomized as 'no' ['not at all'] and 'yes' [including 'a little,' 'quite a bit,' and 'extremely']).

Data Analyses

All the variables processed for data analysis were categorical. We assessed differences in the prevalence of mental health by levels of independent variables using the Chi-square test. Binary logistic regression was performed using both adjusted and unadjusted models to determine the association between social support and mental health while controlling for background variables. Variables for the adjusted model were selected based on the Akaike Information Criterion (AIC). We used the Variance Inflation Factor (VIF) to test for multicollinearity, and the VIF for each variable was found to be < 2, well within the recommended threshold of ≤ 10, indicating the absence of multicollinearity. Statistical significance was set at a level of p-values < 0.05. Data analysis was conducted using SAS 9.4 version.

Ethical Considerations

The original survey was reviewed and approved by the OhioMHAS Institutional Review Board (IRB). The IRB at Miami University reviewed and exempted the current study.

Results

Participants Characteristics

Table 1 presents the demographic, socioeconomic characteristics, and health profiles of the participants. A higher percentage of participants fell into the 40–64 age group (55.2%), were male (59.6%), were married (78.7%), had no formal education (55.6%), and were employed (59.3%). Approximately one-third of the participants reported being unable to pay their living expenses (37.9%) and having no health insurance (31.3%). Around 40% of the participants rated their health as poor. Approximately 13% and 19% of the participants reported poor access to healthcare and counseling services, respectively. Social support was generally high among participants, with over 60% reporting high social support, while 27% reported medium social support (Table 1).

Relationship Between Participants' Characteristics and Mental Health

Table 1 illustrates the prevalence of mental health issues among participants based on their demographic, socioeconomic characteristics, and health profiles. One in three participants experienced mental health problems. In terms of social support, a higher proportion of study participants with low (78.3%) and medium (52.8%) social support reported experiencing mental health problems

Table 1 Characteristics of study participants by mental health status

	Overall (N=200)	Mental Health problem n (%)		p-value
		Present	Absent	
	n (%)	(n=68; 34%)	(n=132; 66%)	
Social support				
Low	23 (11.9)	18 (78.3)	5 (21.7)	**< 0.001**
Medium	53 (27.3)	28 (52.8)	25 (47.2)	
High	118 (60.8)	20 (16.9)	98 (83.1)	
Age in years				
18–39	67 (34.5)	17 (25.4)	50 (74.6)	0.180
40–64	107 (55.2)	41 (38.3)	66 (61.7)	
65+	20 (10.3)	8 (40.0)	12 (60.0)	
Sex				
Male	118 (59.6)	34 (28.8)	84 (71.2)	0.069
Female	80 (40.4)	33 (41.2)	47 (58.8)	
Marital status				
Married	155 (78.7)	45 (29.0)	110 (71.0)	**0.005**
Without partner	42 (21.3)	22 (52.4)	20 (47.6)	
Education				
No education	110 (55.6)	43 (39.1)	67 (60.9)	0.081
At least one year	88 (44.4)	24 (27.3)	64 (72.7)	
Employment status				
Employed	81 (40.7)	21 (25.9)	60 (74.1)	**0.042**
Unemployed	118 (59.3)	47 (39.8)	71 (60.2)	
Stable source of income				
Yes	102 (51.0)	28 (27.5)	74 (72.5)	**0.046**
No	98 (49.0)	40 (40.8)	58 (59.2)	
Inability to pay living expenses				
No	123 (62.1)	26 (21.1)	97 (78.9)	**< 0.001**
Yes	75 (37.9)	41 (54.7)	34 (45.3)	
Health insurance				
Yes	136 (68.7)	40 (29.4)	96 (70.6)	0.051
No	62 (31.3)	27 (43.5)	35 (56.5)	
General health status				
Excellent	37 (18.5)	6 (16.2)	31 (83.8)	**< 0.001**
Medium	82 (41.0)	18 (22.0)	64 (78.0)	
Poor	81 (40.5)	44 (54.3)	37 (45.7)	
Poor access to healthcare				
No	174 (87.0)	50 (28.7)	124 (71.3)	**< 0.001**
Yes	26 (13.0)	18 (69.2)	8 (30.8)	
Poor access to counseling services				
No	163 (81.5)	45 (27.6)	118 (72.4)	**< 0.001**
Yes	37 (18.5)	23 (62.2)	14 (37.8)	

Significant p-values are given in bold

compared to those with high social support (16.9%; p < 0.001) (Table 1). Similarly, the Chi-square test for control variables showed a significantly higher proportion of mental health conditions among participants without a partner (52.4%; p = 0.005), those unable to pay living expenses (54.7%; p < 0.001), participants reporting poor health (54.3%; p < 0.001), and those with poor access to healthcare (69.2%; p < 0.001), as well as those who had participated in counseling services (62.2%; p < 0.001). Conversely, those who were currently employed (25.9%; p = 0.042) and those with a stable source of income (27.5%; p = 0.046) reported a significantly lower proportion of mental health problems.

Regression Analysis Between Social Support and Mental Health

The unadjusted odds ratio (OR) and the corresponding 95% Confidence Interval (CI) for all variables included in the analysis are provided in Table 3 in Appendix; Table 2 lists only the variables included in the final adjusted model. Binary logistic regression, which adjusted for variables based on AIC criteria, revealed a significant inverse association between social support and mental health problems (Table 2). In comparison to individuals with high social support, participants with medium (OR 5.28, 95% CI 2.09–13.37, $p < 0.01$) and low social support (OR 10.94, 95% CI 2.53–47.33, $p < 0.05$) had 5.28 times and 10.94 times higher odds of experiencing mental health problems, respectively.

Among the control variables, participants' age and inability to pay living expenses were significantly associated with mental health (Table 2). Those unable to pay living expenses had more than doubled odds of experiencing mental health problems compared to those who could pay (OR 2.42, 95% CI 1.02–5.73, $p < 0.05$).

Discussion

This study examined the relationship between social support and mental health and found that lower social support is significantly associated with higher odds of mental health problems. Previous literature supports the beneficial role of social support in psychological well-being [37–39]. However, limited research exists on social support among the resettled Bhutanese population in the United States. Some studies have identified mental health conditions such as anxiety and depression, as well as low social support, as predictors of suicidality in this population [14, 23]. Additionally, another study emphasized the importance of strong social support in promoting the quality of life among the resettled Bhutanese population [40]. Refugees benefit from social support as it can reduce isolation and loneliness, increase their sense of belonging, enhance fulfillment, and mediate the effects of discrimination-induced stress [41].

The study's findings align with the existing body of literature, which indicates an increased risk of developing mental health problems among individuals with lower social support [42–44]. Therefore, social support plays a critical role in enhancing mental well-being. An increase in overall

Table 2 Binary logistic regression analysis for the association between social support and mental health

	Odds ratio (95% CI)	
	Unadjusted	Adjusted
Social support		
Low	**22.12 (6.59–74.27)**	**10.94 (2.53–47.33)**
Medium	**6.01 (2.79–12.93)**	**5.28 (2.09–13.37)**
High	Reference	Reference
Age in years		
18–39	Reference	Reference
40–64	1.84 (0.90–3.75)	**3.05 (1.11–8.35)**
65+	2.13 (0.73–6.19)	1.54 (0.39–6.06)
Marital status		
Partner	Reference	Reference
No partner	**2.62 (1.25–5.46)**	2.60 (0.95–7.11)
General health status		
Very good/excellent	Reference	Reference
Good	1.67 (0.56–4.98)	1.24 (0.35–4.32)
Fair/poor	**6.33 (2.19–18.26)**	3.06 (0.86–10.81)
Inability to pay living expenses		
No	Reference	Reference
Yes	**4.75 (2.43–9.28)**	**2.42 (1.02–5.73)**
Poor access to healthcare		
No	Reference	Reference
Yes	**5.68 (2.17–14.89)**	3.20 (0.84–12.18)
Poor access to counseling services		
No	Reference	Reference
Yes	**4.50 (1.96–10.35)**	2.37 (0.70–8.01)

Significant odds ratios are given in bold

social support can lead to more people caring for each other [37]. The available literature also highlights a strong relationship between social and mental health [45], suggesting that improvements in social health can influence the social determinants of health, thereby contributing to an overall better mental health status [46]. Reference to social health is particularly important within the context of social support. The augmentation of social support can enhance social health, ultimately leading to various positive mental health outcomes. Strong social support also serves as a protective factor for mental health by buffering the effects of stress [47] through the enhancement of self-esteem, self-efficacy, and personal coping abilities [48]. Increasing social support can also provide companionship [37] and reduce loneliness [43], potentially leading to a decreased experience of stress as individuals share their stressors. An increase in care and companionship often leads to greater healthcare-seeking behaviors and an overall enhancement in health and well-being [49].

The socioeconomic characteristics of the refugees also deserve some discussion. The findings revealed a significant relationship between age and the inability to pay living expenses with mental health status. Conducting further studies to explore how these characteristics moderate the relationship between social support and mental health may provide a more comprehensive understanding of how these demographic variables interact with mental health. One study, guided by a socioecological model, elucidates the complex linkages between individual, interpersonal relationships, community, and societal factors [50]. As the socioecological model suggests the necessity of intervening across multiple levels simultaneously to prevent adverse outcomes, future studies should delve deeper into the factors influencing the mental health of refugee communities and the role of social support in the resettlement process. Additionally, social support can stem from sociocultural, ethnic, linguistic, workplace, and situational similarities between a helper and a distressed person, warranting further investigation.

Study Implications

Refugees face numerous challenges during the relocation and resettlement process, including separation from family, disconnection from the community, and difficulties in accessing and securing services [51]. The accumulation of past trauma, ongoing daily struggles, and post-resettlement challenges make the refugee community disproportionately vulnerable to mental health issues. Despite the availability of advanced modern healthcare systems, the resettled Bhutanese population continues to encounter difficulties in accessing and utilizing healthcare due to various barriers, including a lack of culturally and linguistically appropriate services, health insurance, transportation, and navigational

skills. Social networks, encompassing peers and family members, could play a critical role in bridging this gap. The findings of this study could significantly contribute to future policies and programs designed for refugee resettlement and relocation by emphasizing the importance of social networks. Strengthening these existing social networks and support systems could enable effective coping strategies and promote resilience for improved mental well-being among refugees.

Strengths and Limitations of the Study

This study provides valuable insights into the importance of social support in mitigating the mental health challenges experienced by refugees during the resettlement and post-resettlement phases. The original study's utilization of trained bilingual surveyors from the community, use of standard validated tools, and collaboration with local community partners during study implementation contribute to its strengths. However, there are a few limitations in this study. First, the analysis was conducted using a pre-existing dataset, which limited the variables to those measured in the original study. For instance, mental health conditions were narrowly defined as the presence of either anxiety, depression, or both. Second, the sample represents a homogenous population, as all participants were from the same geographic location (Greater Columbus, Ohio). Third, the data collected for this study originated from a relatively small sample obtained through convenience sampling, potentially limiting the generalizability of the findings to the entire resettled Bhutanese population.

Conclusion

Lower social support and difficulties in meeting living expenses were significantly associated with mental health problems among the resettled Bhutanese community. Future studies could explore ways to increase social support for this group and address affordable living arrangements. Social support studies could be conducted with different age groups, aiming to differentiate the influence of social support on mental health within these groups. For younger individuals, social support might play a more vital role in adapting to workplace challenges, while for older adults, it could be crucial in adapting to cultural differences, ultimately leading to improved mental health. Considering the impact of living expenses on refugees' mental health, it is essential to ensure that affordable living arrangements are widely available for this population. Future studies could

provide a deeper understanding of social support during relocation, resettlement, and acculturation.

Appendix

See Table 3.

Table 3 Unadjusted odds ratio and associated 95% confidence interval for all independent variables included in the analyses

	Unadjusted odds ratio (95% CI)
Age in years	
18–39	Reference
40–64	1.84 (0.90–3.75)
65+	2.13 (0.73–6.19)
Sex	
Male	Reference
Female	1.63 (0.87–3.08)
Marital status	
Partner	Reference
No partner	**2.62 (1.25–5.46)**
Education	
No education	1.69 (0.88–3.24)
At least one year	Reference
Currently employed	
Yes	Reference
No	**2.08 (1.06–4.06)**
Stable source of income	
Yes	Reference
No	**1.89 (1.00–3.57)**
Inability to pay living expenses	
No	Reference
Yes	**4.75 (2.43–9.28)**
Insurance	
Yes	Reference
No	**2.02 (1.05–3.89)**
General health status	
Very good/excellent	Reference
Good	1.67 (0.56–4.98)
Fair/poor	**6.33 (2.19–18.26)**
Social support	
Low	**22.12 (6.59–74.27)**
Medium	**6.01 (2.79–12.93)**
High	Reference
Poor access to healthcare	
No	Reference
Yes	**5.68 (2.17–14.89)**
Poor access to counseling services	
No	Reference
Yes	**4.50 (1.96–10.35)**

Significant odds ratios are given in bold

Declarations

Conflict of interest The authors declare no conflict of interest.

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