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Shattered Shangri-la: differences in depressive and anxiety symptoms in students born in Tibet compared to Tibetan students born in exile

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Abstract *Objective* As a result of ongoing political tensions within Tibetan regions of the People's Republic of China, several thousand Tibetans escape across the Himalayas every year to seek refuge in India and Nepal. Prior studies have found a high prevalence of depressive and anxiety symptoms in these refugees, many of whom are young and have been exposed to significant trauma. However, it is not known whether depressive and anxiety symptoms are more prevalent in these refugees than in ethnic Tibetans born and raised in the relative political and social stability of exile communities in North India and Nepal. *Methods* We conducted a cross-sectional survey of a convenience sample of 319 students attending school at the Tibetan Children's Villages in Northern India to test the a priori

hypothesis that adolescents and young adults who escaped from Tibet to India would demonstrate increased depressive and anxiety symptoms when compared to ethnic Tibetans born and raised in exile. The Hopkins Symptom Checklist-25 (HSCL-25) was used to measure depressive and anxiety symptoms. In addition, demographic information on age, sex, country of birth and frequency of family contact was collected. *Results* Students born in Tibet had higher mean HSCL-25 depressive and anxiety symptom scores than did ethnic Tibetans born in exile. Female students demonstrated higher depressive and anxiety scores, as did those with limited contact with immediate family. After adjusting for sex, age and frequency of family contact, being born in Tibet was associated with increased HSCL-25 depressive and anxiety symptom scores (depression: $F[2, 316] = 29.96, P < 0.0001$; anxiety: $F[4, 316] = 43.57, P < 0.0001$). *Conclusions* The experience of being raised in Tibet and escaping to India appears to be a risk factor for increased depressive and anxiety symptoms when compared to being born and raised within an exile community in India or Nepal.

Key words refugees – exile – Tibet – trauma – depression – anxiety

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Introduction

The People's Republic of China invaded Tibet in 1949 beginning an era that has seen an estimated 1.2 million Tibetans perish as a result of the Chinese occupation [5]. In 1959, Tenzin Gyatso, the 14th Dalai Lama fled Tibet and went into exile in Northern India. Over the next several years, significant numbers of Tibetans followed and established refugee communities in India and Nepal [1]. These communities have been in existence for over 40 years and have been frequently cited as models of successfully coping with the challenges of refugee life and of preserving cultural identity in exile [19].

In contrast to relatively stable living conditions in these exile communities, repeated political upheavals and consequent Chinese reprisals in Tibet have produced a steady stream of refugees escaping Tibet. It is estimated that approximately 2,500 refugees per year cross the Himalayas into Nepal, seeking asylum there or in India [8]. In 1998, 33% of these refugees were children, 90% of whom were unaccompanied by their parents [7]. These recent arrivals have typically been raised in an environment in which human rights were curtailed and have come to India for religious freedom and for educational opportunities [7]. Many of these refugees report that either they or their family members have suffered detention and various degrees of torture in Tibet [20]. In addition to these adversities, the journey across the Himalayas is long and perilous, with frequent reports of refugees perishing en route and a significantly larger number suffering affliction such as frostbite [8, 27]. Moreover, reports of mistreatment along the way are common [8]. Thus the escape to India is itself a significant risk for traumatic exposure.

Several studies have examined rates of trauma exposure and PTSD, as well as depressive and anxiety symptoms, in these refugees. Three studies found high rates of anxiety and depression in young adults who had recently escaped from Tibet to India [6, 14, 31], with one study reporting that anxiety, but not depression, was increased in subjects who had been imprisoned or tortured by the Chinese government [14]. A fourth study found a high prevalence of PTSD in children and adolescents who had been born in Tibet and escaped to India for education [27]. Adolescents (subjects greater than age 13) also had high rates of definite or suspected major depression (MDD) (18.9% definite MDD, 10.8% suspected MDD) [27]. Taken together, these studies suggest that rates of psychiatric disturbance are high in refugees who flee Tibet and are highest in those with the greatest trauma exposure. It is not known, however, whether the prevalence of psychiatric symptoms such as depression and anxiety are increased in these refugees when compared to ethnic Tibetans born and raised in the relative stability of the long-established exile communities in India and Nepal.

To address this question, we conducted a study to compare rates of depressive and anxiety symptoms in ethnic Tibetan adolescents and young adults born in Tibet with ethnic Tibetans of a similar age born in India or Nepal. We sought to test the a priori hypothesis that depressive and anxiety symptoms would be significantly increased in refugees from Tibet when compared to ethnic Tibetans born in exile.

Methods

■ Study setting

The study was conducted in the Indian State of Himachal Pradesh at the Upper Dharamsala and Bir campuses of the Tibetan Children's Villages (TCV). Originally founded as an orphanage for

Tibetan refugee children in 1960, TCV has grown into an educational system with 18 branch schools and approximately 14,500 students. TCV serves as the primary school system for ethnic Tibetans in exile in India and Nepal. Our choice to study students at the Upper Dharamsala and Bir campuses of TCV was based on an invitation from school officials to conduct our study at these sites. The study was conducted in August 2002. Because a number of students who completed the Hopkins Symptom Checklist (HSCL)-25 did not provide their age, one of the investigators (C.L.R.) returned to Dharamsala in August 2006 and obtained this information anonymously (based on ID number only) from school records.

At the time of this study, 2,374 students attended the Upper Dharamsala campus. Sixty-nine percent of the students at this campus were born in Tibet and escaped (or were brought by their parents) to India. The remaining students were ethnic Tibetans born and raised in India or Nepal. The majority of students lived on campus, with those between the ages of 5 and 16 living in group homes and older students living in a dormitory. Sixty-seven percent of ethnic Tibetan students born in India or Nepal lived off campus. The Bir campus is located in a rural area of northern India. All students live on campus. Younger students typically live in group homes similar to those at Upper Dharamsala, and adolescents and young adults live in dormitories. At the time of this study, 1,594 students attended Bir. Unlike Upper Dharamsala, which has a mixture of Tibetan and Indian/Nepalese born students; 98% of the student body at Bir at the time of the study was born in Tibet.

■ Study population

The study population was derived from a convenience sample of 517 Tibetan adolescent and young adult students given self-report questionnaires by study personnel. Questionnaires were distributed to all students in grades 9–12 attending class on the days that the study team visited the Upper Dharamsala and Bir campuses. Tibetan-born students at Bir tended to be recent arrivals from Tibet who had experienced various degrees of educational deprivation in Tibet. Hence, these students were, on average, older for any given grade level compared to students at the Upper Dharamsala campus. Thus, to maintain age equivalence between subjects at the two campuses, older 7th and 8th grade students at Bir were also given questionnaires during class time. Students were explicitly told prior to filling out the questionnaires that they were free to answer or not answer any of the questions. Students who completed at least 80% of the Hopkins Symptom Checklist (HSCL)-25 and who provided relevant demographic data were included in the data analysis.

The study was approved by the Emory University Social, Humanist and Behavioral Institutional Review Board. Because many subjects were minors under the legal care of TCV, written informed consent was obtained from the principals at campuses participating in the study. Oral informed assent was obtained from students prior to distribution of study questionnaires. Participants were informed of their right not to participate in the study and/or not answer any particular question. Each participant was given a copy of the informed consent form.

■ Study design

This study utilized a cross-sectional design in which subjects were asked to complete the Hopkins Symptom Checklist-25 (HSCL-25) and to provide information on place of birth (Tibet or India/Nepal), age, and availability of family support in India. The HSCL-25 and demographic assessments were translated into Tibetan.

■ Assessment instruments

Depressive and anxiety symptoms were assessed using the Hopkins Symptom Checklist-25 (HSCL-25) [13]. Translations of the HSCL-25 have been validated against clinically assessed diagnoses, such

as major depression and PTSD, for use in several south Asian refugee groups [23]. Similarly, more recent translations of the HSCL-25 into a variety of languages have demonstrated good psychometric properties [2, 18] and have been widely used in adolescents and adults to assess psychiatric morbidity in traumatized populations and refugee groups worldwide [10–12, 16, 21, 22, 24, 28, 30]. Although no standardized version of the HSCL-25 had been validated for use in the Tibetan exile community living in India, the instrument has nonetheless been the most frequently employed assessment tool in studies of psychiatric morbidity in Tibetan refugees [6, 14, 31]. The questionnaire includes 10 anxiety-related and 15 depression-related items taken from the 58-item version of the HSCL. Each item has 4 categories of response (1 = “not at all”, 2 = “a little”, 3 = “quite a bit”, and 4 = “extremely”) and results are reported as the average score on the anxiety and depression sections individually and as a combined anxiety/depression score. Although not entirely consistent [15], data from both western and non-western populations suggest that a cut-off score of 1.75 on the individual and combined sections of the HSCL-25 is consistent with significant emotional distress and correlates with the presence of diagnosable psychiatric morbidity [23, 26]. Although not independently validated in Tibetan populations, a cut-off of 1.75 has also been used as a metric for significant anxiety and/or depression in a past study of Tibetan refugees [14].

Demographic data were collected on a form created for this study and subsequently translated into Tibetan as described as follows. This form queried age, sex, country of birth, and frequency of family contact in India. To evaluate frequency of family contact, students were asked to list all relatives (parents, siblings, grandparents and aunts and uncles) living in India and how often they saw them.

■ Translation of assessment instruments

Translation of the HSCL-25 was based on standard practices for the preparation of cross-cultural versions of this instrument [3, 9]. Specifically, a native Tibetan speaker fluent in English translated the questionnaires from English to Tibetan. Additional input on the translation was supplied by English speaking staff at TCV. This consensus translation was then back-translated into English by an independent native Tibetan speaker with no prior knowledge of the subject matter. This back translation was compared with the original English version of the instruments by study personnel and the original translator. Discrepancies between the back-translation and the English versions prompted re-evaluation and correction of the Tibetan translation. This type of procedure has been shown to produce valid, culturally relevant versions of this instrument in a number of languages from divergent areas of the world [18].

■ Statistical analysis

Statistical analysis was conducted using SAS 9.1.3 (SAS Institute, Cary, NC, USA). Differences between groups were assessed using *t* tests or analysis of variance (ANOVA) for continuous measures and Chi-square or Fisher tests (as appropriate) for categorical variables. To evaluate relationships between continuous measures, Pearson correlations were employed. Age was evaluated as a continuous variable and dichotomized by median split. Availability of contact with family of origin was operationalized as ability to see any family member once or more than once in a month versus less than once in a month. Regression models (PROC GLM in SAS) were employed to identify factors independently associated with depressive and anxiety scores. Factors entered into the model included country of birth, sex, age, frequency of family contact and first-order interactions between these factors. A backward elimination method with a significance level set at $P = 0.05$ was used to derive final models for depressive and anxiety scores. All tests of significance were two-sided with an alpha level set at 0.05.

Results

Five hundred and seventeen students were given questionnaires during class time over several days in August 2002. Three hundred and nineteen students completed the HSCL-25 and provided relevant demographic information (including students for whom age was obtained from school records in August 2006). The 198 subjects who did not provide information sufficient for study inclusion were not different from those who did in terms of sex, age, or country of origin. Demographic information for the 319 students who supplied complete information—who comprise the population for this study—is provided in Table 1.

Within the study population of 319 subjects, 90 students attended the Upper Dharamsala campus and 229 attended the Bir campus. Two hundred and fifty-eight students were born in Tibet, and 61 students were born in exile in India or Nepal. Of the Tibetan-born students, 31 attended the Upper Dharamsala campus and 227 attended the Bir Campus. Only two exile-born students attended the Bir campus, with the remainder ($n = 59$) attending the Upper Dharamsala campus. There were no differences in age or sex distribution between the two campuses. All students were ethnically Tibetan, and spoke and read Tibetan as a first language. Ninety eight percent of the study population was Buddhist, with the remaining 2% endorsing Bon, the native, pre-Buddhist, religion of the Tibetan plateau. Tibetan-born students did not differ from those born in exile in terms of age but were marginally more likely to be male (59 vs. 46%, $\chi^2 3.61, P = 0.06$). Thirty-nine percent of students born in exile reported seeing a relative once a month or more, whereas only 12% of the students born in Tibet had this frequency of family contact ($\chi^2 = 27.0, df = 1, P < 0.0001$). In the 57% of Tibetan-born subjects for whom the data were available (146 out of 258), students attending the Bir campus had left Tibet at an older age and had been in India for a shorter period of time when compared to students attending the upper Dharamsala campus (age left Tibet: 13.7 [3.8] vs. 9.2 [2.2], $t = 8.03, df = 53.8, P < 0.0001$; time in India: 4.6 [2.8] vs. 9.1 [2.1], $t = 7.5, df = 144, P < 0.0001$).

Mean HSCL-25 scores for the study population as a whole were 2.23 (SD 0.56) for depressive symptoms

Table 1 Demographics of the study population

Characteristic	Total ($N = 319$)	Tibet-born ($N = 258$)	Exile-born ($N = 61$)
Age (year)			
Mean (\pm SD)	18.4 (2.8)	18.5 (3.0)	18.1 (2.1)
Range	10–40	10–40	4–29
Males—No. (%)	181 (57)	153 (59)	28 (46)
Family contact—No. (%)	54 (17)	30 (12)	24 (39)*

Family contact defined as seeing a relative at least once a month

* Exile-born versus Tibet-born, $\chi^2 = 27.0, df = 1, P < 0.0001$

and 2.31 (SD 0.67) for anxiety symptoms. Seventy eight percent of the students scored above the 1.75 cut-off score on depression and 79% scored above 1.75 on anxiety. Depressive and anxiety symptoms were highly correlated with each other ($r = 0.73$, $P < 0.0001$) (Fig. 1). Age was not associated with HSCL-25 scores, however female students demonstrated significantly higher mean depression and anxiety scores (depression: 2.33 (SD 0.62) vs. 2.15 (SD 0.50), $t = 2.86$, $df = 259$, $P < 0.01$; anxiety: 2.41 (SD 0.71) vs. 2.23 (SD 0.63), $t = 2.43$, $df = 317$, $P < 0.05$). Students who saw a family member at least once a month had lower depressive symptom scores (2.07 [SD 0.52] vs. 2.26, $t = 2.37$, $df = 317$, $P < 0.05$) and marginally lower anxiety scores (2.15 [SD 0.69] vs. 2.34 [SD 0.67], $t = 1.90$, $df = 317$, $P = 0.06$) when compared to students without this level of family contact. When compared to ethnic Tibetans born in exile in either India or Nepal, students born in Tibet demonstrated significantly higher mean HSCL-25 depression and anxiety scores (depression: 2.30 [SD 0.51] vs. 1.92 [SD 0.46], $t = 5.02$, $df = 317$, $P < 0.0001$; anxiety: 2.42 [SD 0.67] vs. 1.86 [SD 0.50,

$t = 7.43$, $df = 116$, $P < 0.0001$) (Fig. 2). Tibetan-born students were also significantly more likely than students born in exile to have depression and anxiety scores above the 1.75 cut-off (depression: 82 vs. 61%, $\chi^2 = 12.73$, $df = 1$, $P < 0.001$; anxiety: 85 vs. 54%, $\chi^2 = 27.18$, $df = 1$, $P < 0.0001$). After adjusting for potential confounding effects of age, sex, and frequency of familial contact, being born in Tibet was associated with increased depressive symptoms ($F[2, 316] = 29.96$, $P < 0.0001$) and anxiety symptoms ($F[4, 316] = 43.57$, $P < 0.0001$). Neither age, nor frequency of family contact was associated with depressive or anxiety symptoms in the final model; however, being female remained independently associated with both depressive symptoms ($F[2, 316] = 13.26$, $P < 0.001$) and anxiety symptoms ($F[4, 314] = 6.76$, $P < 0.01$). In addition, an interaction between age and sex was observed for anxiety symptoms ($F[4, 314] = 4.96$, $P < 0.05$), indicating that increasing age was associated with increased anxiety in females, but not in males. Interestingly, in Tibetan-born subjects with available data, age of escape from Tibet was positively correlated with both depressive and anxiety symptom

Fig. 1 Correlation between 25-item Hopkins Symptom Checklist (HSCL)-25 depressive and anxiety symptom scores in Tibetan adolescents and young adults attending school at two campuses of the Tibetan Children's Villages in northern India. Scores for Tibetan-born students are represented in the figure by grey triangles. Ethnic Tibetans born in exile (in either India or Nepal) are represented by black circles. In the study population depressive and anxiety symptoms are highly correlated ($r = 0.73$, $P < 0.0001$)

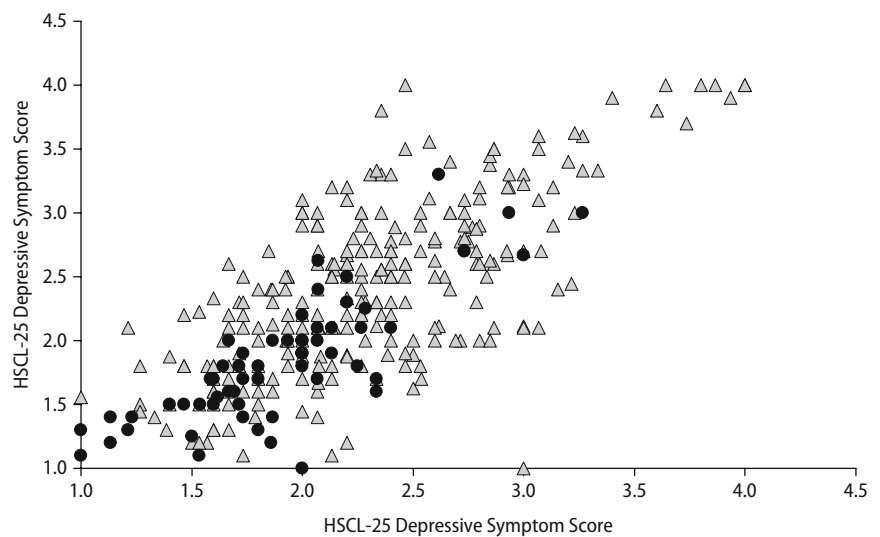
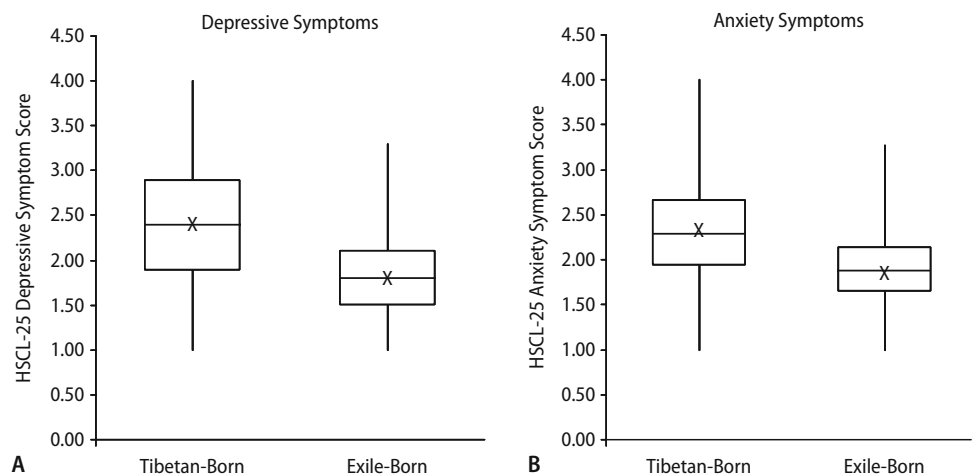


Fig. 2 Mean depressive and anxiety symptom scores in students born in Tibet versus students born in exile in India or Nepal. Tibetan-born students demonstrated significantly higher Hopkins Symptom Checklist (HSCL)-25 depressive symptom scores (a) and anxiety symptom scores (b) when compared to ethnic Tibetan students born in exile. Boxes in the figure represent the interquartile range for each variable (i.e. depressive and anxiety symptom scores). The line bisecting each box represents the median value for each variable. Each "X" provides a comparison of the mean for each variable. Lines extending from the boxes represent minimal and maximal values for each variable



scores (depression: $r = 0.27$, $P < 0.001$; anxiety: $r = 0.18$, $P < 0.03$), and length of time living in India was negatively correlated with these symptoms (depression: $r = -0.31$, $P < 0.001$; anxiety: $r = -0.26$, $P < 0.01$).

Because only 2 exile-born students attended Bir campus, we were unable to utilize regression approaches to adjust for the effect of school site on differences in depression and anxiety between Tibetan-born and exile-born students. However, ANOVA revealed differences in depressive and anxiety symptoms between Tibetan-born students at Bir and Tibetan-born and exile-born students at Upper Dharamsala (depression: ANOVA: $F[2,314] = 16.96$, $P < 0.0001$; anxiety: ANOVA: $F[2,314] = 33.02$, $P < 0.0001$). Specifically, Tibetan-born students attending Bir had significantly higher depressive and anxiety scores than either Tibetan-born or exile-born students attending upper Dharamsala (depression: 2.34 [0.55] vs. 2.03 [0.50] vs. 1.92 [0.47]; anxiety: 2.49 [0.65] vs. 1.89 [0.56] vs. 1.85 [0.51]). These differences persisted after adjusting for sex, age and frequency of family contact.

Discussion

The primary finding of the current study is that adolescents and young adults born in Tibet who escaped to India had significantly more depressive and anxiety symptoms than did ethnic Tibetans born in exile. Previous studies have reported high rates of depression and anxiety in people who fled Tibet [6, 14, 20, 27, 31], but to our knowledge this is the first study to demonstrate that these individuals are more emotionally disturbed than their ethnic counterparts raised in the relative social stability afforded by the long-established Tibetan exile communities in India and Nepal. This increased depression and anxiety was independent of sex, age or frequency of family contact and was apparent whether HSCL-25 scores were assessed as a continuous measure or whether scores were dichotomized based on a standard cut-off score of 1.75.

Although we did not directly examine the potential role of psychological trauma in causing the elevated depressive and anxiety symptoms observed in Tibetan-born students, prior studies and surveys have reported high rates of trauma exposure in Tibetans who flee their homeland [6, 14, 20, 27, 31]. Trauma exposure has, in turn, been consistently associated with a range of psychiatric symptoms in this population [6, 14, 20, 27, 31], making it a likely contributor to the between-group differences observed in the current study. Clearly, a crucial next step will be to evaluate the degree to which differences in trauma exposure explain the increased emotional disturbance observed in Tibetan-born subjects and to evaluate the contribution of protective factors available to those born and raised in exile that may be less accessible to

arriving refugees from Tibet. Given findings in other populations that parental trauma exposure increases the risk for depressive disorders in their offspring [33], it will also be important to evaluate the contribution of parental trauma exposure, both within Tibet and during the escape journey, to the high depressive and anxiety scores we observed in our study population, as well as to differences in depressive and anxiety symptoms between students born in Tibet and those born in exile.

We were surprised by the prevalence and intensity of depressive and anxiety symptoms reported by ethnic Tibetans born and raised in the exile community, many of whom had scores above the 1.75 cut-off frequently used to identify clinically relevant emotional distress. While this may reflect underappreciated levels of distress associated with an exile existence, it should be noted that depression and anxiety scores were generally elevated in our study when compared to prior studies of Tibetan refugees in India that used the HSCL-25 [6, 14, 31]. The HSCL-25 has not been validated within the Tibetan exile community living in India or Nepal, so every study to date in this population—including ours—has prepared its own translation [6, 14, 31]. Thus it is possible that our translation may have inflated HSCL-25 scores compared to the versions prepared for the other studies and that this may account for the very high percentages of students in both groups with scores above the 1.75 cut-off.

On the other hand, it is possible that earlier studies may have underestimated emotional distress in the Tibetan refugee community. Indeed, the validity of our findings are supported by results from two large recent studies of Asian refugees [17, 32]. In a study conducted in New York City on a refugee population that included 72 Tibetans (22% of total), the mean HSCL-25 depression score was 2.44 (SD 0.65), and the mean anxiety score was 2.36 (SD 0.66) [17]. Eighty-five percent scored above the 1.75 cut-off on depression, and 81% scored above 1.75 on anxiety. Similar scores were observed in a recent large study of internally displaced refugees in Nepal, in which the mean HSCL-25 depression score was 2.5 (SD 0.7), the mean anxiety score was 2.3 (SD 0.6), and 80% of subjects had scores above 1.75 for both depression and anxiety [32]. Results from both these studies are highly congruent with our findings.

A second possible explanation for the higher rate of depressive and anxiety symptoms in our study is that earlier studies in Tibetan refugee populations attempted to overcome literacy issues by reading the assessment instrument aloud to subjects [6, 14, 31], a practice that has been reported to reduce self-reported anxiety and depression scores [15]. In the current study, students read and completed the HSCL-25 in the anonymity of a classroom setting, which may have increased disclosure of emotional distress, especially given the observation in a previous

study conducted at TCV that students frequently appeared shy and uncomfortable discussing depressive and anxiety symptoms during an interview process [27].

Limitations of the current study should be noted. Because only two exile-born students attended Bir Campus at the time of data collection, the current study was not able to separate the effects of pre-exile trauma (i.e. in Tibet or the during the escape journey) from potentially depressogenic/anxiogenic factors related to different experiences in India. The relevance of this limitation is highlighted by our finding that Tibetan-born students at Bir had significantly higher depressive and anxiety symptom scores than did either Tibetan-born or exile-born students attending the Upper Dharamsala campus. Although the reason for this is unclear, it should be noted that students at Bir were older when they escaped from Tibet and had been in India a shorter period of time than Tibetan-born students attending Upper Dharamsala. Each of these factors was, in turn, associated with HSCL-25 anxiety and depression scores in Tibetan-born students for whom this information was available. This may suggest that the emotional distress engendered by the trauma of living in, or escaping from, Tibet diminished with the passage of time. Such time-related decrements in trauma-related emotional symptoms have been observed in other groups of Asian refugee children removed from the traumatizing political situation [25].

It is also likely that factors not assessed in this study contributed to differences in anxiety/depression scores in Tibetan-born students at the two campuses. For example, our data are consistent with the notion that settlement within the Tibetan exile community in India may provide environmental conditions that aid in trauma recovery. In this regard, it should be noted that the Upper Dharamsala campus is the oldest TCV facility with the most extensive resources available to students arriving from Tibet. Because of these increased resources, adolescents arriving from Tibet who attend the Upper Dharamsala campus are typically placed in a group home under the supervision of “foster parents”, whereas adolescents at the Bir campus typically live in a dormitory setting. Based on findings from other populations [4], such differences in potential social support may contribute to the relatively increased well-being of Tibetan-born students attending the Upper Dharamsala campus. Clearly, our findings highlight the need to more extensively evaluate interactions between trauma in country of origin and physical/social conditions in exile in relation to mental health within the Tibetan exile community.

A second limitation of the study is that complete data were only available for 62% of subjects given questionnaires during class time. Nonetheless, students who did and did not complete HSCL-25 questionnaires were similar in terms of demographic

characteristics, increasing the likelihood that our findings are an accurate reflection of scores in the larger school population at the time of our study. A related issue is that as a result of using a convenience sample (i.e. all students attending class at two TCV campuses), the study includes many more Tibetan-born than exile-born subjects, which may limit the generalizability of our findings—especially in relationship to depressive/anxiety status of the larger community of young Tibetans born in exile. Furthermore, the current study only measured a fraction of the entire range of emotional problems that have been associated with being a refugee. The lack of a broader spectrum of problems measured; together with the lack of inclusion of clinical diagnostic interviews are therefore important shortcomings of this study. It will be of great interest in future studies to examine relationships between other psychiatric symptom constructs—especially post-traumatic stress disorder—and the presence and severity of depressive and anxiety symptoms.

Finally, as already noted, this study did not examine potential causes for the striking disparity in depressive and anxiety symptoms between Tibetan-born students and those born in exile. Thus, because trauma exposure was not assessed, the potential role of trauma in explaining our findings must remain speculative. Similar caution should be exercised in interpreting our finding that frequency of family contact appeared to be protective against the development of depressive and anxiety symptoms. Our measure of family contact should be considered a crude proxy for availability of family support at best, given that it says nothing about multiple factors known to be important in mediating links between social support and emotional state, including the quality of this familial support, the nature and function of these contacts (i.e. degree to which they provide emotional support, material support, sociability, etc.) and the degree to which these contacts were desired by the students themselves.

In conclusion, results from this study strongly suggest that the experience of being born in Tibet and escaping to India is a risk factor for the development of depressive and anxiety symptoms when compared to the experience of being born and raised in an exile community in northern India or Nepal. This finding highlights the cost in human emotional suffering of the ongoing human rights crisis occurring within Tibetan cultural regions of the People’s Republic of China. Moreover, an implication of the finding that depressive/anxiety symptoms in Tibetan-born students differed by school site in India is that Tibetan-born students may be especially sensitive to “on the ground” conditions in exile and that, conversely, the provision of material and social support to these young people may have a disproportionately large effect in improving their emotional functioning. Although being born and raised in India or Nepal

appeared to be protective in comparison to being born in—and escaping from—Tibet, it is nonetheless of concern that ethnic Tibetan students born in exile also endorsed significant depressive and anxiety symptoms. If replicated, this finding may provide an indication of the high emotional cost of prolonged exile, even in a group so widely admired for its perseverance, poise and resiliency. This, in turn, highlights the importance of continuing to provide support for refugee communities even after prolonged periods of apparently successful adaptation in an exile environment [29]. Taken together, study findings strongly suggest a need for increased international resources to be made available to the Tibetan exile community in India.

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