

Cultural Concepts of Negative Emotion: A Mixed-Methods Study Among Nepali Adolescents

by

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Thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Science in the Duke Global Health Institute
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ABSTRACT

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Abstract

Background: Emotions are shaped through the internalization of culturally relevant values. Contextualized systems of meaning influence an individual's experience of emotion, the consequences of a given response, and their connection to long-term functional outcomes. The present study aims to explore the socioemotional world of Nepali adolescents, in order to understand emotional needs and identify opportunities for psychosocial intervention. Methods: A tablet-based battery of quantitative assessments was administered to 102 students in grades 7-9 (age 12-18) in an earthquake affected region of the Kathmandu Valley. Assessments included measures of anxiety, PTSD, functional impairment, and a local idiom of distress (problems in the heart-mind). Semi-structured interviews were conducted with 21 students and explored the emotional experience of a recent stressor. Results: Three domains of emotion experience emerged: cognitive, physical, and social. While key differences in emotional distress across gender and cultural groups emerged, similarities in the overarching model suggest a shared understanding of negative emotion among Nepali adolescents. Of particular note is the social domain, involving both interpersonal and communal elements, which included the local idiom of distress, which has previously been linked to depression risk. Conclusion: This tripartite conceptualization of emotion is a critical step toward understanding cultural meanings of emotional wellbeing, and the connection between socially experienced emotion and psychopathology underlines the importance of psychosocial integration in future interventions.

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1. Introduction

Emotion is a subjective experience, shaped by one's unique interpretations of the social world. The meaning of an emotion experience is perceived through the integration of core affect with contextual information, including situational and relational context (Barrett, Mesquita, Ochsner, & Gross, 2007). Situational meaning is culturally derived, as it is dependent on the social norms imposed upon individuals of a given gender or cultural group (Mesquita & Walker, 2003; Scollon, Diener, Oishi, & Biswas-Diener, 2004). Relational information is also based in cultural systems of meaning, as it derives from conceptualizations of the self in relation to others, which diverges cross-culturally. In Western cultures, such as in the United States and Western Europe, the self is seen as an independent, autonomous entity with a mandate to use internal traits to influence others, whereas in Eastern cultures, such as in much of East and South Asia, the self is understood as interdependent and aims to adjust internal traits to achieve harmony with others (Markus & Kitayama, 1991). The social norms and priorities of a given cultural group underlie the major components of emotion interpretation, which influence how emotion is conceptualized and experienced on an individual level.

Cultural concepts of emotion are learned through early-life socialization and drive children's emotional development, including their attitudes toward emotion-evoking stimuli, their selection of regulatory strategies, and their growing capacity for managing affective states (Friedlmeier, Corapci, & Cole, 2011). Differences in emotion socialization have been demonstrated among cultural groups in Nepal (Cole, Tamang, & Shrestha, 2006) and, in Western settings, between male and female children (Kiel & Kalomiris, 2015). During adolescence, these differences are of particular note, as individuals begin to display heightened negative emotion and greater emotional reactivity. These emotional changes among Western adolescents have

been attributed to the difficult transition from dependence on a caretaker to adult independence (McLaughlin, Garrad, & Somerville, 2015). However, the emotional experience of adolescence may be distinct within an interdependent culture, in which independence is not a primary goal of adulthood.

Although the relationship between self and other has not been studied in Nepal, previous research has examined Nepal's unique ethnopsychology, which refers to local, culturally grounded concepts of the psychological self (Kohrt & Harper, 2008). In Nepal, the self is conceptualized in terms of several interrelated parts, including *man* (heart-mind), *dimaag* (brain-mind), *jiu* (physical body), and *ijjat* (social honor). According to Turner's (1931) *A Comparative and Etymological Dictionary of the Nepali Language*, *man* is "mind; opinion, intention; feelings" (491), and it is referenced when referring to emotions like happiness (*manko khusi*). *Dimaag*, deriving from *dimaak* or "pride, conceit" (312), is invoked when expressing confusion (*dimaag gayo*) or a more extreme loss of sanity (*dimaag fuskyo*). *Jiu*, or physical body, refers to "life; body; person" (216) and *jiu ko* is used to describe something as "physical." Finally, *ijjat* is "honor; reputation" (40), related to someone who is respectable (*ijjatdaar*).

The ethnopsychological model is an important insight into the self-related processes of Nepali individuals. However, previous studies in South Asia have noted significant within-culture variation in emotional processes (e.g., Cole et al., 2006; Raval, Raval, Salvina, Wilson, & Writer, 2013; Watkins & Regmi, 1996). Thus, a full model of how the self and emotion are conceptualized must address the potential variation across gender and the divergent cultural groups of Nepal. These cultural concepts of self and emotion are crucial for understanding local etiologies and presentations of psychopathology, as internalizing disorders such as anxiety and depression may be associated with culturally-specific patterns of emotion processing and

regulation (Arens, Balkir, & Barnow, 2013; Kring & Bachorowski, 1999). For example, in one Japanese sample, depression was linked to an inability to control both positive and negative emotions (Ito & Hofmann, 2014). Furthermore, within another Eastern sample, one study demonstrated distinct patterns of emotion between depressed men and women (Li, Lu, Wang, & Zhong, 2015). While depressed women reported more about their overall emotion experiences than depressed men, this difference was particularly significant for negative emotion experiences. In order to understand and address these disorders, therefore, one must have a contextualized understanding of cultural meanings and their implications for emotion.

Anxiety and depression are particular public health concerns in Nepal (Risal, Manandhar, Linde, Steiner, & Holen, 2016), a South Asian country struck by two destructive earthquakes in 2015. While there has been an increase in psychopathology across all age groups since the earthquakes, including a 41% increase in suicides (Cousins, 2016), adolescents have reported a broad range of stressors that may also contribute to the high levels of emotional distress. In a study of 525 undergraduate medical students in Nepal, the stressors most frequently reported were high parental expectations, tests and exams, and other academic responsibilities (Sreeramareddy et al., 2007). Additionally, these stressors were associated with a general measure of psychological morbidity, on which over 20% of the sample screened positive. Another study reported that 15% of a sample of adolescents were experiencing psychosocial problems, which included anxiety and depression (Karki, Laukkanen, Länsimies-Antikainen, Voutilainen, & Pietilä, 2015). Adolescence primarily encompasses the onset of internalizing disorders, as the intensity and rapid fluctuations of emotion during adolescence place individuals at a higher risk of internalizing psychopathology (Kessler et al., 2005; McLaughlin et al., 2015; Pine, Cohen, & Brook, 2001). Thus, adolescence is a key sociodevelopmental window for

psychological intervention. A greater understanding of how negative emotion is experienced during this critical period would allow for the creation of culturally salient interventions to address internalizing disorders at their onset.

The present study aimed to inform community and clinical interventions for psychosocial wellbeing through a mixed-methods exploration of experiences of negative emotions among Nepali adolescents. As a key framework underlying the experience of emotion, the ethnopsychological model of the self formed the foundation of the study. By integrating adolescent experiences of negative emotions with local understandings of ethnopsychology, this study aimed to examine within-culture and between-gender variation in the holistic experience of emotion, in order to inform future psychological interventions in Nepal.

2. Methods

2.1 Setting and Participants

Nepal is a South Asian country bordered to the north by China and to the south by India. It is classified as a low-income country, with a gross national income per capita of US\$730 in 2015 (World Bank, 2017). The human development index (HDI) is 0.458, among the lowest in South Asia (Government of Nepal, 2014). It is home to approximately 28.6 million people, 52% of whom are under age 24 (IHME, 2016). Government-run schools offer a British-style education, and approximately 59.2% of boys and 57.8% of girls attend secondary school (MOHP, 2012).

Nepali society has historically been stratified by a caste system. The restrictions and mandated societal roles of the caste system are no longer legally enforced, but traditional hierarchies remain a salient marker of identity in modern Nepal (Cameron, 1998). At the highest

level of the caste system are Brahmans, who were traditionally priests and teachers of Hinduism. Also of highly respected status are Chhetri, the rulers and members of Nepal's military, while ethnic minorities, called Janajati, fall on a lower rung of the caste system (Höfer, 1979). Whereas Nepali, the language of Brahman and Chhetri, is the official language of Nepal, it is not the primary language for the Janajati groups. Each ethnic group possesses its own unique language, and children often do not learn Nepali until entering school. Janajati groups include Tamang, a heterogeneous and externally-imposed categorization of many ethnic groups whose primary religious practice is Buddhism (Holmberg, 1989), and Newar, an ethnic group associated with a parallel hierarchical caste system with religious beliefs and practices that include both Hindu and Buddhist elements. Upper-caste Newaris, including priests as well as artisans, are reserved a place in society comparable to high-caste Nepalis (Brahman and Chhetri). Lower-caste Newaris are traditionally labeled 'untouchable,' much like Dalit groups, which are the lowest castes in the Nepali system (Parish, 1994).

The current study took place at a government secondary school in Sankhu, a town of approximately 2,400 residents in the rural northeast region of the Kathmandu Valley (Government of Nepal, 2015). In 2015, this area was struck by two earthquakes, the first (magnitude 7.8) on April 25 and the second (magnitude 7.3) on May 12. Nearly 9,000 people were killed, and 189,000 were displaced (UNOCHA, 2017). In Sankhu, located in close proximity to the second earthquake's epicenter, 45 people were killed and 1,200 homes destroyed (Barry, 2016). Schools were closed for approximately two months after the earthquake, and rebuilding remains an ongoing project nearly two years later.

Sankhu was originally settled by Newars, who were the first inhabitants of the Kathmandu Valley. Newari culture is richly integrated into the structure of the town, underlying

and informing all communal functions from everyday tasks to highly organized religious rituals (Shrestha, 2012). In modern Sankhu, due to the rise in local population of other cultural groups such as Tamang, Newars are no longer the majority residents. However, Tamang live on the surrounding hillside, while Newars reside within the town itself, a distinction that reinforces the social inequalities and exclusion faced by Tamang residents of Sankhu (Parish, 1994).

Government-run schools, including that of the present study, are now attended mostly by non-Newars, whereas Newari families opt to send their children to private schools in the area. High-caste non-Newars, including Brahman and Chhetri, have also migrated to Sankhu and attend both government-run and private schools.

In the present study, analysis include comparisons among three categories of the caste system: Brahman/Chhetri (Hindu high castes), Newari, and Tamang. Newari and Tamang groups, while both labeled Janajati, were separated due to their divergent cultural practices and historical presence in Sankhu. In particular, Newari students were compared to non-Newari (Brahman/Chhetri and Tamang), to explore the influence of historically-grounded social inclusion on the understandings and experiences of negative emotion.

Participants included all regularly attending students in grades 7-9 at a government higher secondary school. Students were recruited from lists of class attendees provided by teachers, as official student registration records were not available due to high rates of migration and displacement.

2.2 Procedures

After providing written consent, all participants completed a 30- to 45-minute tablet-based battery of psychosocial measures, which included demographic information as well as the self-report measures of anxiety, depression, PTSD, and functional impairment. All items were

previously transculturally translated and adapted (van Ommeren et al., 1999). The tablet form was programmed using Open Data Kit software, version 2 (Brunette et al., 2013). Participants in the quantitative portion of the study were compensated with a small snack (< \$5).

The qualitative sample was recruited through purposive sampling, with stratification by gender. Recruitment was based on availability, as determined by teachers, and interest in the study. Students who consented to the interview participated in an additional 45- to 60-minute semi-structured interview and were compensated with a small classroom item (< \$5). All procedures were approved by the Duke University Health System Institutional Review Board (Pro00071881) and the Nepal Health Research Council.

2.3 Qualitative Measures

2.2.1 Student interviews

Semi-structured interviews explored key domains of emotion experience. Participants were prompted to verbally map the path from a recent stressor to the resulting negative emotions, and to reflect on how these emotions were experienced within each ethnopsychological domain of the self. To elicit responses regarding negative emotions, interviews included the English word ‘*tension*,’ which has been identified as a non-stigmatizing and culturally salient term used to refer to stress in South Asian contexts (Weaver, 2017), including Nepal (Chase & Bhattarai, 2013).

2.4 Quantitative Measures

2.3.1 Anxiety symptoms

Symptoms indicative of anxiety were assessed using six items from the 21-item Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988), which has been validated for use in Nepal (Kohrt, Kunz, Koirala, Sharma, & Nepal, 2003). The six selected items were the most

frequently endorsed symptoms among previous samples of 18-25 year olds in Nepal (Kohrt et al., 2005): ‘fear of the worst,’ ‘dizzy,’ ‘nervous,’ ‘scared,’ ‘face flushed,’ and ‘fear of death.’ Participants rated how often they had experienced each symptom over the past two weeks (0 = *not at all*; 1 = *mildly*; 2 = *moderately*; 3 = *severely*), and the ratings were summed for a composite score from 0 to 18. In the present study, the six-item scale demonstrated moderate internal reliability ($\alpha = .73$).

2.3.2 Local idiom of distress

A single item assessed the local idiom of distress, or culturally meaningful term, “problems with the *man* (heart-mind)” (Kohrt & Harper, 2008). This item has shown high sensitivity for assessing depression among Nepali adults, and has been used as a pre-screening tool for evaluating depression risk (Kohrt, Luitel, Acharya, & Jordans, 2016). Participants were asked whether they experienced problems with the *man* in the past two weeks and prompted to provide a yes or no response.

2.3.3 Post-traumatic stress symptoms

Five items of the 17-item Child PTSD Symptom Scale (CPSS; Foa, Johnson, Feeny, & Treadwell, 2001) were used to assess post-traumatic stress symptoms. The five selected items—nightmares, flashbacks, traumatic amnesia, feelings of a foreshortened future, and irritation at small matters—were selected due to their high discriminant validity among Nepali samples (Kohrt et al., 2011). Participants rated, in general, how often they experienced each of the symptoms (0 = *never*; 1 = *once in a while*; 2 = *half of the time*; 3 = *almost always*), and the ratings were summed for a composite score from 0 to 15. The five-item scale demonstrated moderate internal reliability ($\alpha = .70$).

2.3.4 Functional impairment

The 10-item Child Functional Impairment scale (CFI), which was developed and validated in Nepal (Kohrt et al., 2008) assessed functioning across multiple domains of daily life, including household chores, schoolwork, working in the community, playing games, and interacting with friends. Participants rated how often they had difficulties with each item in the past two weeks (1 = *never*; 2 = *a little*; 3 = *sometimes*; 4 = *always*), and the ratings were summed for a composite score from 10 to 40. The 10-item scale demonstrated moderate internal reliability ($\alpha = .73$).

2.5 Data Analysis

All qualitative interviews were audio-recorded, transcribed directly into English, and analyzed in MaxQDA, version 12 (VERBI, 2016). Codes were derived from *a priori* themes as well as iterative transcript reading and memoing by the first and second authors. This preliminary codebook was further developed through feedback from the full research team, and it was refined through cycles of coding comparison between two independent coders until 90% inter-coder agreement was reached and problematic code definitions were resolved. Examples of modifications included increasing precision of code definitions, clarifying exclusion criteria to differentiate among conceptually distinct codes, and collapsing codes with the same analytic purpose. After all transcripts were coded, queries were used to identify text segments where ‘negative emotion’ overlapped with domain-specific codes (‘cognitive experience’ and ‘physical experience’) and/or with Nepali ethnopsychological terms (e.g., ‘*man*,’ ‘*dimaag*,’ ‘*ijjat*’). Descriptions were developed for each theme, including emotion domains and ethnopsychological terms, and structured comparisons were conducted across gender and cultural group. Coded text

segments were analyzed and synthesized to explore the connections between terms and the integration of emotion and ethnopsychology.

Quantitative analyses were conducted using Stata 14 software (StataCorp, 2015). Descriptive statistics were conducted to describe the sample, and t-tests and chi-square analyses examined measures of emotional distress across demographic groups, including gender and cultural group. Bivariate correlations explored the associations among the four quantitative measures. Principal components analysis (PCA) was used to explore how item groupings/correlations related to conceptual domains of emotion experience. The four components above the inflection point of the resulting scree plot were retained, and the subsequent four-component solution was rotated obliquely to account for the *a priori* assumption of correlation among emotional distress items. Factor loadings were considered adequate if they exceeded 0.32, and strongly loading items were those exceeding 0.50.

3. Results

The sample included 102 students, 50% of whom were male. A majority of the total sample (59%) were Tamang, while 17% were high caste (Brahman or Chhetri) and 13% were Newari. The average age was 14.3 and ranged from 12 to 18, and students were spread approximately equally across grades 7, 8, and 9. Eleven males and 11 females were selected for qualitative interviewing. One female participant declined audio-recording of the interview and was excluded from analysis. Among the resulting sample of 21 students, the cultural group distribution did not vary significantly from that of the rest of the sample. Age was significantly lower in the qualitative group ($M = 13.7$, $SD = 0.96$) than in the rest of the sample ($M = 14.4$, $SD = 1.32$; $t = 2.41$, $p = .018$), but as quantitative measures did not vary by age, it is unlikely that this age difference had a meaningful effect on qualitative responses.

The mean anxiety score was 5.3 out of 18 ($SD = 2.91$), and females reported more frequent anxiety symptoms than males ($t = 3.24$, $p = .002$; see Table 1). Newari students reported a lower anxiety symptom burden compared to all other cultural groups ($t = 2.48$, $p = .015$). Heart-mind (*man*) problems were endorsed by 69 students (68%), with a marginally higher proportion among females ($X^2 = 3.63$, $p = .057$) and no difference by cultural group. Students who reported problems with the *man* also received higher anxiety symptom scores ($M = 5.8$, $SD = 2.77$) than those who reported no *man* problems ($M = 4.3$, $SD = 2.99$; $t = 2.41$, $p = .018$).

The mean PTSD symptom score was 5.3 out of 15 ($SD = 2.98$). Females scored higher than males ($t = 2.53$, $p = .013$, $d = 0.50$ [0.10, 0.89]), but scores did not vary by cultural group. PTSD symptom scores were positively associated with anxiety symptom scores ($r(100) = .62$, $p < .001$). On average, students reported moderate functional impairment ($M = 19.9$, $SD = 5.06$), and females reported marginally more impairment than males ($t = 1.78$, $p = .078$). Newari

students reported significantly less functional impairment ($M = 17.2$, $SD = 5.42$) than other cultural groups ($M = 20.3$, $SD = 4.91$; $t = 2.07$, $p = .041$). Functional impairment scores were positively associated with both anxiety symptom scores ($r(100) = .66$, $p < .001$) and PTSD symptom scores ($r(100) = .59$, $p < .001$).

Table 1: Participant characteristics across gender

Variable	Male ($n = 51$)		Female ($n = 51$)		t	X^2
	$M (SD)$	$n (%)$	$M (SD)$	$n (%)$		
Age (years)	14.37 (1.3)		14.24 (1.2)		0.54	
Grade						0.83
7		17 (33.3)		19 (37.2)		
8		15 (29.4)		11 (21.6)		
9		19 (37.2)		21 (41.2)		
Cultural group						1.15
High-caste Nepali		8 (15.7)		9 (17.6)		
Newari		5 (9.8)		8 (15.7)		
Tamang		31 (60.8)		29 (56.9)		
Other		7 (13.7)		5 (9.8)		
Anxiety score	4.39 (2.5)		6.18 (3.0)		3.24**	
Heart-mind problems		30 (58.8)		39 (76.5)		3.63
PTSD score	4.57 (2.8)		6.02 (3.0)		2.53*	
Functional impairment	19.02 (4.2)		20.78 (5.7)		1.78	

* $p < .05$ ** $p < .01$

3.1 Domains of Emotion Experience

The psychosocial items, which included all anxiety, idiom of distress, PTSD, and functional impairment items, loaded onto four distinct components (see Table 2). The first included physical experiences and associated activities, including functional impairment in completing household chores and cooking, as well as flushed face and feeling nervous. The second factor included cognitive experiences of emotion, such as anxiety-related fear of the worst and fear of death, as well as trauma-related nightmares and flashbacks. The third factor included aspects of community life, such as experienced difficulty in playing games or in helping neighbors. The fourth included interpersonally relevant variables, such as feeling easily angered,

having difficulty spending time with friends, and experiencing problems in the heart-mind. These four factors guided the subsequent qualitative and quantitative analyses. Due to the similarities between the last two factors (communal and interpersonal), the four factors were condensed into and qualitatively confirmed as three factors of emotion experience: physical, cognitive, and social.

Table 2: Factor loadings of psychosocial items in principal components analysis

Item	Scale	Factor (cumulative variance explained)			
		1 (.67)	2 (.78)	3 (.87)	4 (.96)
Difficulty doing household chores	CFI	.66			
Difficulty cooking food	CFI	.53			
Face feeling flushed	BAI	.53			
Feeling nervous	BAI	.46			
Difficulty taking baths	CFI	.38			
Difficulty studying in school	CFI	.36			
Difficulty doing homework	CFI	.33			
Fearing the worst	BAI		.67		
Having nightmares	CPSS		.47		
Flashbacks to traumatic event	CPSS		.38		
Fearing death	BAI		.33		
Difficulty playing games	CFI			.70	
Difficulty helping neighbors	CFI			.54	
Difficulty eating meals	CFI			.40	
Difficulty working in the field	CFI			.39	
Feeling easily irritated	CPSS				.58
Difficulty being with friends	CFI				.47
Feeling problems in heart-mind	^a				.38

Note. CFI = Child Functional Impairment scale; BAI = Beck Anxiety Inventory; CPSS = Child PTSD Symptom Scale

^aAssessed through one-item idiom of distress measure

3.1.1 Physical experience

In interviews, participants described distinct physical experiences associated with negative emotion. Among the most reported were headaches ($n = 9$), overheating and sweating ($n = 5$), feeling lethargic or weak ($n = 7$), and feeling the face or eyes become red ($n = 3$). Some responded to questions about physical experiences by citing behavioral urges, such as wanting to hit others, to punch walls, or to sleep. Some participants, including one Tamang boy, described

overlapping bodily and behavioral experiences: “My body shivers and I like to move hands randomly when I get angry and I have red eyes, my heart beat gets faster.” These two types of physical experiences were understood to be categorically similar and identified by many participants ($n = 10$) as primarily located in the physical body (*jiu*). However, 6 of the 9 students who reported headaches reported that they were due to excessive negative emotion in the brain-mind (*dimaag*).

The qualitative themes of physical experience were substantiated by the quantitative items loaded onto the physical factor of the measures. One of the most highly endorsed items of the physical domain, referring to the face becoming flushed, echoed a frequent description of how emotion manifests. Females endorsed more frequent experience of this symptom than males ($t = 2.99, p = .004$), and Newari students reported less frequent experience than other cultural groups ($t = 2.31, p = .023$). The domain of physical experience also included functional impairment in completing household chores and in helping with cooking, which may relate to the physical feelings of weakness and lethargy reported by many of the students. Impairment in doing chores was reported less frequently among Newari students than among other cultural groups ($t = 2.31, p = .023$), but this item did not significantly vary by gender.

3.1.2 Cognitive experience

A second domain of emotion experience was cognitive, which primarily involved rumination. These ruminations—concerning the past, present, and future—were conceptually located in the *man*; almost all participants began the description of cognitive emotional experience by mentioning racing thoughts in the *man*. This was often followed by a discussion of cognitive impairments, reported as difficulty controlling behavior, difficulty concentrating, and feeling as if tasks have become harder to complete. As one Tamang girl described, “If there’s

any ‘*tension*,’ then that stays in your *man*. You can’t think of anything except for it.” Many participants ($n = 8$) described negative emotion as repetitive thoughts about alternative versions of the past, such as wondering how life would be if a parent had not gone abroad, or if a family member had not died during the earthquakes. A Chhetri boy explained, “Thoughts wandered in my *man* like if [my father] had not died [in the earthquake], he’d have given happiness.” Negative emotion also encompassed ruminative assessments of present actions ($n = 7$), such as the appropriateness of the emotional response itself. These students repetitively worried whether it was right to feel the way they did, and whether others felt the same way. Finally, a majority of the students ($n = 15$) described cyclical worries or dreams about the future, such as being beaten or scolded, falling ill, or losing a family member. When asked how she feels when she feels bad, one Tamang girl said, “I feel scared of something. I feel unhappy... I feel scared of being beaten by adults.” The cognitive experience of emotion consisted of ruminations located in the *man*, leading to globalized cognitive and functional impairments.

The themes that emerged from qualitative interviews were echoed by the quantitative items of the second, cognitive factor. The item with the highest cognitive factor loading was fearing the worst, a correlate of the future-focused ruminations reported by many of the interviewed students. Fearing the worst was reported at a high average frequency ($M = 0.94$, $SD = 0.74$). Females reported this fear at greater frequencies than males ($t = 2.46$, $p = .016$), but it did not significantly vary by cultural group. In fact, none of the four items loading on the cognitive factor of emotion experience significantly differed by cultural group. Two of the other three items were also higher among girls, however—fearing death ($t = 0.97$, $p = .043$) and having nightmares ($t = 2.09$, $p = 0.039$).

3.1.3 Socioemotional experience

The third domain of emotion experience was social and included issues of both a communal and an interpersonal nature. Many participants ($n = 12$) discussed negative emotion as a construct embedded within the community. A number of students ($n = 9$) described the importance of *ijjat*, or the social self, to social wellbeing. One Chhetri girl explained: “*Ijjat* is something that a person needs in order to live in the society. If a person lives with *ijjat*, the community also praises you and likes you.” Among Brahman/Chhetri students, *ijjat* was conceptualized as an index of social status and honor, a prized construct that affected how one was treated by others. Another Chhetri girl framed it as something to actively protect: “We have to protect our *ijjat* from various different thing.... We shouldn’t do bad thing in society, we should do good thing, and if we do bad thing in society, our *ijjat* goes down.” *Ijjat* was not a static construct but one that responded to social work, and behavior that defied social norms could cause a decline in prestige. A Brahman boy illustrated this connection between negative emotion and loss of *ijjat*, saying that when feeling negative emotions, one might do something bad in society that threatens *ijjat*. For example, when someone gets angry, “they go drink alcohol and bad-mouth someone and argues with others. Due to this, their *ijjat* goes away.” The threat of losing honor within the community was framed as an integral part of how emotion-evoking stimuli were evaluated and of how subsequent negative emotion was experienced. Newari and Tamang students described *ijjat* in a wider variety of ways, but with a greater focus on something to be gained. Some echoed Brahman/Chhetri descriptions of prestige, while others associated *ijjat* with fame, with the capacity to love others, or with no definition at all.

Participants ($n = 5$) also described negative emotion as an interpersonal experience. One Tamang girl described a recent experience in which she felt angry: “I don’t want to talk to

anyone, but if I don't talk to anyone then I feel like my friends are also going to get 'tension' and I don't want that to happen to them." Negative emotion was often reported in terms of difficulties with relationships, and ultimately many reported a preference for feeling negative emotion in isolation. When in the presence of others, emotion was reported to cause interpersonal conflict. One Chhetri boy described a recent experience of worry, saying, "I got easily irritated. I felt angry at others' talking." Difficulties related to these interpersonal aspects of emotion, as well as the communal aspects, were reported reluctantly. Whereas participants were comfortable describing emotion in terms of cognitive and physical sensations, the social domain seemed to cause both boys and girls to withdraw, becoming more self-conscious and succinct with their answers. Students physically drew back from the interviewer during this portion of the interview, and several ($n = 3$) became visibly upset when asked to elaborate upon their responses. This reaction was common across both boys and girls, and no qualitative gender differences were found in the social domain.

In parallel with the two qualitative ways of describing social emotion experiences, quantitative socioemotional distress items mapped onto either factor 3 (communal experience) or factor 4 (interpersonal experience). One highly endorsed item was feeling irritated by small matters ($M = 1.29$, $SD = 0.95$), echoing the frequent qualitative reports of irritability. This item did not significantly vary by either gender or cultural group. In fact, five of the seven items in the socioemotional domain exhibited no significant gender or within-culture effects. Difficulty in being with friends, however, was significantly less frequently reported among Newari students, as compared to other cultural groups ($t = 2.50$, $p = .014$).

4. Discussion

The objective of this study was to create a culturally grounded model of negative emotion, integrating traditional ethnopsychological concepts with local descriptions of the experience of emotion. Within this sample of Nepali adolescents, both qualitative and quantitative data substantiated a model comprising three domains: physical, cognitive, and social. These three domains were invoked irrespective of specific emotional triggers; while earthquake-related stressors were discussed by some participants, the resulting emotions did not follow a unique conceptual pathway, relative to those of other stressors.

The social domain of experience is of particular note, given that endorsement of heart-mind (Nepali: *man*)-related problems, which has been associated with risk of depression (Kohrt et al., 2016), loads onto this factor. Given that the majority of the social-loading items did not vary significantly by gender or cultural group, this suggests that the social experience of emotion may represent a shared understanding of emotional and psychological wellbeing among this youth population in peri-urban central Nepal. This finding aligns with prior conclusions about the conceptualization of emotions within Asian samples: A previous factor analysis revealed that Asians, but not Americans, value emotions that are high in interpersonal engagement, such as friendly feelings and respect for others (Kitayama, Markus, & Kurokawa, 2000). An interpersonal dimension, and perhaps a communal dimension, is integral in the conceptualization and the experience of emotion.

The ethnopsychological locations of emotion experience also align with prior literature (see Figure 1). Cognitive worries and related impairments were contained within the *man* and associated with an overactivity in the *man* that creates emotional distress. Cognitive problems were not attributed to the *dimaag*, however, which would imply the permanent, uncontrollable,

and stigmatized impairments of someone labeled *pagaal*, or crazy (Kohrt & Harper, 2008). It is possible that students did not relate the cognitive domain of emotion to the *dimaag*, as traditional Nepali ethnopsychology would predict, because emotions did not reach a certain threshold in this non-clinical sample, or perhaps it was due to the social unacceptability of such an admission.

However, students did speak of the *dimaag* within the physical domain. The *dimaag* was the conceptual location of headaches, perhaps because a physical loss of control was more socially acceptable to imply, relative to an admission of cognitive distress in the *dimaag*. While the *man* was often invoked when discussing the cognitive domain, the quantitative item referring to problems in the *man* loaded fully onto the social, interpersonal factor. Students also described the social domain by discussing *ijjat*, an inherently communal and interpersonal construct. According to previous literature, socially inappropriate behavior, which threatens *ijjat*, occurs when the *dimaag* becomes unable to regulate the emotional content of the *man* (Kohrt & Harper, 2008). This nuance is reflected in the present study as well; it was reported that when negative emotions become out of control, one risks behaving inappropriately and losing *ijjat*. This was understood to occur when internal worries in the *man* are allowed to become outwardly exhibited problems, visible to the community and thus a threat to *ijjat*.

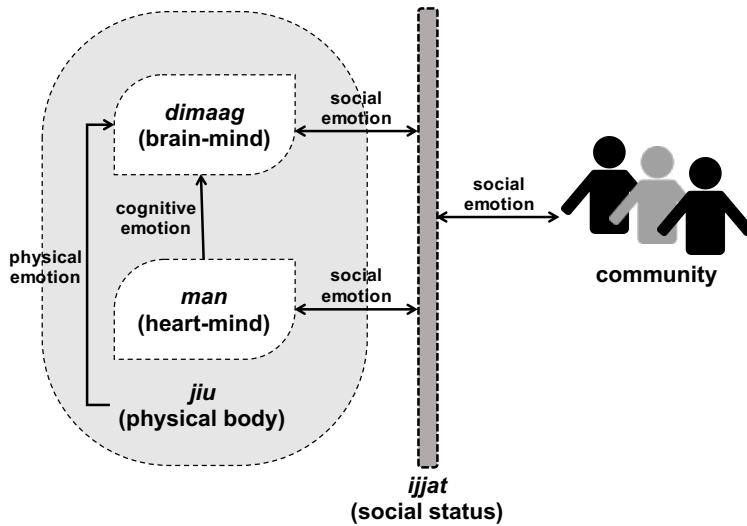


Figure 1: Conceptual model of emotion domains and their association with relevant ethnopsychological constructs.

4.1 Variation by Gender

Within the three-part conceptual model of emotion, females scored higher on measures of anxiety and PTSD and marginally higher on depression and functional impairment. Most notably, girls were more likely to report cognitive experiences of emotion. The main cognitive experience discussed across the sample was rumination, which is more frequently endorsed among females of all ages in the literature, both in high- and low-income settings (for reviews, see Johnson & Whisman, 2013; Kaiser et al., 2015). Within American samples, this gender difference among adults has been linked to fundamental differences in the cognitive response to emotion, including tendencies to perceive negative emotions as uncontrollable, to underestimate one's ability to change negative situations, and to take on a hypervigilant role in the emotional exchange of interpersonal relationships (Nolen-Hoeksema & Jackson, 2001).

Additionally, the cognitive distress and impairment reported by females may be a result of structural components of Nepali society. In one study of Nepali adults, high scores on the Costello-Comrey Depression Scale (Costello & Comrey, 1967), a predominantly cognitive

measure of depression, were linked with negative attitudes toward gender equality (Furr, 2005), which may, in this setting, be highly endorsed by females. Females may report negative attitudes toward gender equality due to the greater salience of inequality in their everyday lives, which consequently makes cognitions about gender inequality more easily accessible (Higgins, 1996). Indeed, endorsement of traditional patriarchal beliefs about gender has been associated with more positive self-evaluation, but also heightened shame, among women in India (Mahalingam & Jackson, 2007). This suggests that while endorsing gender role inequalities is contextually cued and socially rewarded, it may also be detrimental to a woman's emotional wellbeing. In the current sample, many of the female interviewees reported hearing repeated verbal confirmations of female inferiority and expectations of failure from peers, community members, and parents. For example, one 8th-grade girl reported that her parents wanted to support her brother's career aspirations but that they assumed she would fail in her studies and bring shame to the family. Thus, she concluded: "I have many beautiful dreams but I don't think they'll come true." This suggests that the continual reminder of the failings expected of females may trigger cognitions that reflect this mindset of gender inequality, which has previously been linked to greater cognitive emotional distress.

4.2 Variation by Cultural Group

While the overall model of emotion experience was similar across cultural groups, Newari students reported significantly less anxiety and functional impairment than all other groups. As noted previously, Newars are no longer the majority group in Sankhu, but they may benefit from structural aspects that allow for superior community participation and social inclusion (Tanaka, 2010). Thus, they may be experiencing less stress and mental health issues than other groups who are socially excluded, as predicted by the Minority Stress Theory (Meyer,

2003). This theory, originally developed for use among the lesbian, gay, and bisexual community, posits that factors such as experiences of prejudice, expectations of rejection, and internalized other-phobias intersect with other identities to produce higher levels of stress among minority groups. These minority effects echo the cued cognitive styles that female participants demonstrated, in which external expectations of failure are internalized and endorsed.

Newari students also diverged from other cultural groups in terms of the social experience of emotion. Qualitatively, Newari students were less likely to describe negative emotion as feeling unable to be with others or easily angered by others, and quantitatively, they reported fewer difficulties in being with friends and fewer problems related to the *man*. This may be related to divergent social goals across cultural groups. In Tamang culture, that of the majority of the sample, individuals are expected to be highly socially skillful and to prioritize feelings of compassion and tolerance for others (Cole et al., 2006). Thus, interpersonal anger may be learned as more socially unacceptable among Tamang children, and therefore it may be more likely to be reported as a problem. On the other hand, Newari children are thrust at an early age into violent rituals and recreations of Hindu mythology, perhaps instilling a message that anger and animosity are at times acceptable to society (Parish, 1994). Whereas Tamang children view irritability as indicative of a socioemotional problem, Newari conceptualizations may allow for more flexibility when evaluating conflict among friends.

There was also a notable distinction in qualitative descriptions of *ijjat*, a key aspect of the social domain, between Brahman/Chhetri students and all other students. Whereas Brahman/Chhetri students offered consistent and detailed understandings of *ijjat*, Newari and Tamang students were more varied and sparse in their explanations. In terms of the rules and priorities of *ijjat*, this suggests that Brahman/Chhetri operate under a higher level of “cultural

tightness,” a term referring to the strength and level of sanctioning of social norms (Gelfand, Nishii, & Raver, 2006). This concept has alternatively been described as entitativity, a measure of the extent to which groups are perceived as a singular entity (Campbell, 1958). While entitativity has seen little cross-cultural application, the heterogeneous, externally-imposed classification of Tamang may represent a group low in entitativity, with little consensus as to group norms and identity. The value of social norms to a given group relates to this concept, as those who feel authentic belonging to the social entity are most emotionally rewarded by adhering to norms (Christensen, Rothgerber, Wood, & Matz, 2004; Zhang & Noels, 2013). In the present sample, those who most identify with the social entity upholding *ijjat* may be the high-caste Hindus, as they are the traditional priests, scholars, and defenders of the *ijjat*-based Hindu society. A high level of self-identification with this societal construct may increase the value of *ijjat* as a social norm and the importance of upholding it, sanctioning it, and teaching it in detail to the next generation of Brahman/Chhetri.

Furthermore, the conceptual understanding of *ijjat* varied between these groups. Whereas Brahman/Chhetri students described *ijjat* as something that may be lost, Newari and Tamang students described it as something to be earned, as in the noted example of fame. The Brahman/Chhetri understanding, however, is more closely aligned with the connotation of related Nepali idioms. For example, idioms to describe changes in the social self include *ijjat gayo* (one’s *ijjat* has gone) and *naak khatne* (one’s nose has been cut off), both of which imply a sense of loss (Kohrt & Harper, 2008). This loss is echoed only by Brahman/Chhetri students, the only students for whom Nepali is the primary language. Their fluency in the idioms of the language, along with their heightened sense of identification with the construct of social honor,

contributes to the noted within-culture variation in the understanding of the *ijjat*-mediated social experience of emotion.

4.3 Implications for Research and Practice

The unique model of emotion experience revealed in this study suggests a need for emotional distress interventions to address the cognitive, physical, and social aspects of emotional health among Nepali adolescents. Congruent with the salience of the social domain, many non-governmental organizations in Nepal have implemented *manosamajik karyakram*, or psychosocial programs (Kohrt & Harper, 2008). One such psychosocial program with demonstrated efficacy enhances coping behaviors among Nepali students, leading to reduced psychological difficulties in boys and increased pro-social behavior among girls (Jordans et al., 2010), and another has used child participatory methods to develop a culturally grounded program to promote psychosocial wellbeing (Karki, Kohrt, & Jordans, 2009). These psychosocial programs for Nepali youth, while not specifically addressing psychiatric symptoms, strive for mental health through conceptually linking the individual *man* with the societal whole.

The present findings suggest that this social focus would be an integral component in future interventions to address emotional distress in Nepal. Interpersonal approaches have been effective in a number of settings; in a recent meta-analysis of all controlled trials of psychological treatments for common mental disorders in low- and middle-income countries, use of interpersonal therapy elements was the strongest predictor of intervention effect size, when compared with cognitive, behavioral, and emotional psychological therapy techniques (Singla et al., 2017). As noted in terms of the present Nepali sample, however, the interpersonal as well as the communal experiences of emotion are key drivers of psychological wellbeing. Programs for youth in other Asian settings have considered this communal aspect of emotion, implementing

group-based therapeutic models to reduce anxiety and depression symptoms as well as anger and aggression (Avci & Kelleci, 2016; Lau, Chan, Li, & Au, 2010). These adapted interventions, like many Western-based therapies, involve direct disclosure of a patient's internal distress.

However, some literature has suggested that in Asian samples, requiring an participant to explicitly disclose emotional content may be counterproductive, creating an additional source of stress and negative emotion for the individual (Taylor, Welch, Kim, & Sherman, 2007). As noted previously, participants in the present sample seemed particularly uneasy when discussing the social aspects of their emotional wellbeing, relative to cognitive and physical aspects. This phenomenon has been noted previously in the literature; one study has demonstrated that Indians are less likely to share experiences of shame, a social emotion, than their British counterparts (Singh-Manoux & Finkenauer, 2001). Thus, it may be difficult to elicit an explicit disclosure of socially-experienced emotions, which are a key component of emotional health, and interventions that require this disclosure might elicit counterproductive negative emotion among Nepali populations.

Prior interventions have responded to the barrier to emotion expression within Asian samples in a variety of ways. Pan and colleagues (2011) advise psychoeducation before beginning an emotion-focused intervention. In one successful program that reduced phobic symptoms among Hong Kong Chinese, the authors began by reframing the intervention as teaching a change-based self-control method, rather than as an opportunity to accept and disclose negative emotions. The reporting of anxiety symptoms, in the case of this study, was also reframed as a purely cognitive task, rather than as an affective, potentially distressing task (Pan, Huey, & Hernandez, 2011). This reframing is also reflected in skills-based programs for emotional health, which have previously been recommended as an effective form of

psychosocial intervention in Nepal (Tol, Jordans, Regmi, & Sharma, 2005). As one recent example, dialectical behavior therapy has been adapted for use in Nepal, in part through a reframed focus on teaching skills for healthy emotion regulation (Ramaiya, Fiorillo, Regmi, Robins, & Kohrt, 2017). This skills-based approach may mitigate the negative consequences of emotional disclosure, as it draws focus toward cognitive group learning rather than traditional group therapeutic dynamics. Other interventions implemented in Asian settings have taken a behavioral approach to addressing emotional health. For example, an adventure-based training program in Hong Kong, which focused on building emotional competence through a series of active physical challenges, was effective in reducing depression and anxiety and increasing self-esteem among 5th and 6th graders (Brunette et al., 2013). Another intervention in Goa, India reduced depression among students indirectly through community education about overall youth health (Balaji, Andrews, Andrew, & Patel, 2011). Addressing barriers to sharing the social experience of emotion, whether through explicit psychoeducation or the implementation of skills-based or other non-talk therapies, may allow future interventions to fully address all three domains of emotional wellbeing in Nepal.

Within-culture variations in the experience of emotion suggest that socially excluded groups, such as Tamang, and historically subjugated groups, such as women, are in particular need of intervention to address emotional distress. In both cases, the observed levels of emotional distress may reflect ingrained cognitive patterns of assumed failure, cued by the historical and structural context of this setting. One effective Western intervention that targets these destructive internalized dialogues is Pathways to Success, which improves both academic and emotional outcomes through a realigning of personal and social goals (Oyserman, 2015). Based on the concept of identity-based motivation, this group intervention encourages minority

students to recognize personal goals for their futures, to see their peers identifying similar goals, and to gain a greater appreciation for the social acceptability of success. A culturally relevant intervention based on this model might help to address the internalized expectations of failure that contribute to emotional distress among Tamang and female populations in Nepal.

4.4 Limitations

This study had a number of limitations. First, our inferences are limited by the small number of Newari and Brahman/Chhetri students in this sample, relative to Tamang students. A more even distribution of cultural groups, including an adequately-sized population of students of the lowest Nepali caste, would have allowed for a greater exploration of within-culture differences. Additionally, the sample was recruited from a public, government-run school, which limits inference regarding the effects of socioeconomic status. Within the town of Sankhu, wealthy families are likely to send their children to one of several private schools, while public school students are primarily of low-income families. The distributions of both cultural groups and socioeconomic status limit the generalizability of this sample. However, these patterns are reflective of the demographics of government-run schools in this area, and thus the findings are informative for future school-based interventions in the area.

Second, as the study explored Nepali terms of the ethnopsychological self, all interviews were conducted in Nepali. This may have detracted from the richness of Janajati students' answers, however, given that Nepali is not the primary language of these groups. To minimize this limitation, several interviews with Tamang students were adapted to include Tamang terminology for ethnopsychological constructs. However, this did not yield greater richness in student responses and detracted from the precision of the questions. A more effective strategy

may be a precise translation of the entire interview into all primary languages represented in the sample, which was not feasible in the present study.

Third, students in the qualitative sample were younger, on average, than those of the rest of the sample, which may have detracted from the heterogeneity of the interviews. As noted previously, qualitative sampling was conducted based upon student availability as determined by teachers, and higher grade-level teachers may have been less likely to allow time away from class. However, none of the quantitative measures of emotional distress varied significantly by either age or grade level, which suggests that inference regarding the experience of emotion may not have been affected by this overrepresentation of younger students.

Finally, the present quantitative analysis drew from a limited number of psychosocial items. Due to the age of the participants and the school-based setting, all measures were abbreviated. While diagnostic categories were not the focus of the present study, the unabbreviated measures and their validated cut-off scores could have provided insight into the psychopathologies present in this sample. The combined set of psychosocial items, totaling 22 items, remains a relatively brief assessment, and the tentative inferences drawn from it require further exploration.

5. Conclusion

The three-part conceptual model of negative emotion is an important framework on which to build future emotion-focused interventions. Across cultural groups, and among both males and females, Nepali adolescents conceptualize emotions as physical, cognitive, and social. Distinct aspects of the self interact with each of the three domains, creating a holistic model of the experience of negative emotions. Within-culture variations in the distress associated with each emotional domain are grounded in historical and structural practices of this community, and these nuanced understandings should inform sensitive implementation of future interventions. The structural context of this Nepali community carries implications for how individuals conceptualize and experience emotions, and thus these factors are crucial to addressing the emotional needs of this population.

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