Bicultural Stress, Academic Burnout and Psychological Wellbeing:

Challenges for International Students.

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Abstract

Bicultural stress plays an important role for individuals who must navigate multiple cultural frames of reference. For international students, bicultural stress may compound other academic stressors that affect psychological well-being and academic success. In this study, 117 international university students living in Canada completed measures of bicultural stress, psychological well-being, academic burnout, and achievement emotions. Correlations and multiple linear regressions were performed. As predicted, the results showed that discrimination stressors were a statistically significant predictor of life satisfaction, $B = -0.244$, $t(106) = -2.17$, $p = 0.03$, $R^2 = 0.06$. A significant relationship was found between bicultural stress and school burnout (r [108]= 0.27, $p < .01$), and monolingual stressors significantly predicted school burnout, $B = 0.43$, $t(105) = 3.75$, $p < 0.001$, $R^2 = 0.17$. A significant relationship was found between bicultural stress and achievement emotions (r [108] = -0.19, $p < .05$).

Bicultural Stress, Academic Burnout and Psychological Well-being:

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As globalization increases, there has been an increased pattern of migration in which people move from their home countries to other countries for a variety of motivations and circumstances. As of 2019, Canada recorded the entry of 313,580 immigrants (Statista, 2019), of which international students play an important role in the education sector of the national economy. Over the past five years, Canada as a country, has seen an 82% growth in international students at educational institutions and schools, reaching roughly 642,480 international students as of December 2019 (ICEF Monitor, 2020).

On arrival, international students likely experience a range of feelings from excitement and the adventure that novelty brings, to possible feelings of fear and uncertainty from navigating a new environment. The transition for international students is not without difficulties, and international students are met with social, cultural, financial, and academic challenges (Gartman, 2016).

While international students experience the general stress that domestic students experience, such as with tight deadlines and test-taking, they are also susceptible to stressors that are more specific to them. Despite their differences in culture, backgrounds, and beliefs, most international students experience physical geographic distance from family and friends, which often serves as an important support for them. Another is the experience of possible perceived discrimination because of race, ethnicity, country of origin, and language barriers (Thomas & Althen, 1989). They can also experience added and cumulative stressors, such as minority stress, which is the stress that comes from identifying with a group that is stigmatized (Wei et al.,

2010). Furthermore, international students must also learn to navigate their new environments as they are exposed to different cultural norms and experiences, which can also impact a student's sense of identity and belonging. Their engagement in this dynamic process – referred to as acculturation – is reflected by internal psychological changes and behavioural changes as they adjust and adapt to their host countries' culture.

Balancing a new culture while maintaining one's home culture can be stressful, especially if there is a perception of two cultures being at a constant push and pull. The perception of stress that arises from this push and pull – bicultural stress – can be a result of the pressure to adopt and maintain a majority culture and a minority culture. Bicultural stress may also affect the mental health and subjective well-being of immigrant students. The stress of trying to balance different cultures, compounded by academic pressures, may lead to lower coping abilities in young people, and lower levels of mental health and subjective well-being. Bicultural stressors have been linked to lower levels of life satisfaction and a higher report of depressive symptoms among young people (Hovey & King, 1996; Romero et al., 2007).

Substantial studies have been dedicated to understanding acculturation and biculturalism in immigrant adults and adolescents, but much less has sought to understand the phenomena in international students. The purpose of this study is to understand the role of bicultural stress as it relates to the well-being and academic performance of international students. As international students attempt to juggle academic work and integrate into a new society at the same time, they are likely to experience increases in stress levels. Through this study, we hope to better understand the impact of bicultural stress on international students and shed more light on the relationship of bicultural stress on satisfaction with life of students and its effect on their academic performance.

Acculturation

Traditional models of acculturation emphasized a unidimensional approach in the way that individuals adapt to a new culture. This approach emphasized total assimilation, where an individual abandoned their culture of heritage for the culture they were introduced to. Recent studies show strong support for a bidirectional model of acculturation where an individual can participate in different degrees to both home and host cultures (Nguyen & Benet-Martínez, 2007).

Berry's model of acculturation focuses on how individuals work to retain their identity as members of their culture of origin while being motivated to take part in the mainstream culture (Berry, 1990). Berry classifies acculturation strategies into four: assimilation, separation, marginalization, and integration. Assimilation involves engagement with the dominant culture only. Separation, on the other hand, entails an individual retaining their original culture and as when individuals place value on holding on to their original culture and avoid connecting with the dominant culture. Individuals with a marginalization acculturative strategy experience difficulty engaging with either culture. Integration has been found to be the most adaptive acculturation strategy in the literature and refers to the ability of an individual to maintain their cultural identity from their home country, yet seek out connections with and sustain an interest in the host country's culture (Berry, 2006). Individuals with an integrative acculturation strategy internalize more than one culture, referred to as biculturalism (Nguyen & Benet-Martínez, 2007).

Successful acculturation has been defined in terms of physical and mental health, psychological well-being, high self-esteem, efficient performance at work, and solid academic performance (Phinney et al., 2001). For example, students from more collectivist cultures may

find it difficult to adjust to the individualism of Western society, and individuals are more likely to experience acculturative stress depending on how dissimilar home and host cultures are – a phenomenon termed as cultural distance (Berry, 1997). A study with international students in Germany showed that international students from continents such as Africa and Asia reported more acculturative stress than international students from European countries (Akhtar, 2012). Similar results have found that international students from non-Western continents living in the United States experience more acculturative stress than their Western counterparts (Constantine et al., 2004; Poyrazil et al., 2004).

It has also been found that acculturative stress and difficulties with adjustment to the environment of the host country can be associated with depression (Romero et al., 2007) and burnout (Piña-Watson et al., 2015). The struggles with negotiating two cultural environments – leading to acculturative and bicultural stress, are intensified by academic stress, especially when related to second language anxiety (Smith & Khawaja, 2011). Acculturative stress has also been found to increase risk behaviours such as smoking, drinking, drug use, and violence (Romero et al., 2007). However, international students with an acculturation approach that is *integrative* (incorporating aspects of host and heritage cultures) and who experience higher levels of social support report lower levels of acculturative stress (Lee et al., 2004, Sullivan & Kashubeck-West, 2015).

It is important to note how immigrants and foreign nationals do not choose what sort of acculturation strategies that they resort to as different factors may contribute to the acculturation strategy used (Nguyen & Benet-Martinez, 2013). For instance, Berry (2006), found that discrimination plays a role in the acculturative strategy that young immigrants adopted. In the presence of perceived discrimination, immigrant youths are more inclined to show ambivalence,

confusion, and reject interacting with the dominant society and gravitate more towards their group. However, in the absence of discrimination, they are more likely to engage with the dominant society. This view is further supported by another study that showed that international students who primarily socialized with other international students reported more acculturative stress and less social support than did students who socialized with international students and domestic students (Poyrazil et al., 2004).

Adolescents who are navigating both home and host culture usually experience ethnic identity exploration, which is where they attempt to seek their identity through their home culture; and ethnic identity achievement where they internalize and identify with their cultural heritage. The transition from ethnic identity exploration to ethnic identity achievement can be stressful for bicultural people, especially in the light of the perceived discrimination that accompanies identifying with an ethnic culture (Na, 2012). For international students, their ethnic background could be a source of pride and hold some benefits for them, such as the ability to have a diverse perspective based on different lived experiences. However, the back and forth they may experience from navigating their culture and the dominant culture in their host country may be a source of stress and discomfort. A study further informs this view, showing that an individual's perception of the conflict between their ethnic culture and the dominant culture significantly contributes to their experience of being bicultural (Benet-Martinez & Haritatos, 2005).

Bicultural Identity

A common characteristic of biculturalism is the ability to move between the different cultures depending on the situational cues presented to them (Huynh et al., 2011). Another

characteristic related to interpreting situational cues effectively and navigating differing cultural contexts in biculturals is bicultural competence – which is the ability of a person to live productively and to be satisfied within two groups without giving up their cultural identity. Bicultural competence was found to be negatively correlated with depressive symptoms, even when minority stress and general stress were controlled for (Wei et al., 2010).

According to Benet-Martinez (2002), biculturals have varying perceptions of their cultural identities, and while some of them believe their identities to be "compatible and complementary, others tend to describe them as oppositional and contradictory" (p. 493). While higher acceptance of one's cultural group and ethnic heritage has shown to be associated with positive outcomes in some studies, a particular study suggests that higher acceptance of cultural heritage may serve to aggravate the negative effects of bicultural stress on mental health. In fact, bicultural youths who exhibit a higher acceptance of their ethnic heritage may be more susceptible to bicultural stress from within their ethnic group alongside the experience of acculturative stress from outgroups (Romero, et al., 2018)

Another study by Benet-Martinez (2005), suggests that gender and age do not significantly affect cultural conflict or perceived cultural distance that may come from being bicultural. However, the study did show that the older a person was before leaving for the host country, the more distance they perceived between their culture of origin and the dominant culture of the host country. Other studies on immigrants support this finding. One of these studies shows that individuals who migrate as young children have a higher tendency to adapt to the values and practices of mainstream culture more easily than those who migrate at older ages (Portes, 2001). Another study done with immigrants from Hong Kong living in Vancouver supports the notion that there is a sensitive period for acculturation, showing that the younger

individuals were at the time of immigration, the quicker they identified with mainstream Canadian culture. Moreover, identifying with mainstream culture was more often found in the younger participants and with the length of their stay. The reverse was the case in older adults (Cheung et al., 2011). This finding could be significant for international students since many of them arrive to study during their late adolescent years and emerging adulthood years and have spent a greater portion of their lives in their home country.

Bicultural and Acculturative Stress

Bicultural stress has specific stressors that are different from those that come with just acculturative stress. For example, while acculturative stressors include English language proficiency, and perceived discrimination (Berry, 2006), bicultural stressors can include pressure to learn the native language and disagreement with family values. These stressors distinguish bicultural stress from acculturative stress in that it accounts for ingroup and outgroup marginalization and the conflict that may arise as biculturals attempt to navigate distinct cultural contexts (Romero et al., 2018). A study on bicultural stress controlled for bicultural stressors such as discrimination from outgroups as well as ingroups, monolingual stressors, and intergenerational gaps and how these stressors are related to depressive symptoms in Mexican immigrant adolescents. At least 30% of the youth sampled reported experiencing bicultural stress (Romero & Roberts, 2003). In another study that focused on international students, higher acculturative stress scores predicted more depressive symptoms in international students even when factors such as English language fluency and gender were controlled for (Constantine et al., 2004). In terms of outgroup marginalization, bicultural individuals are more likely to experience stress that arises from discrimination about their race or ethnic group. The stress is especially pronounced in bicultural individuals who are visible minorities (Stafford et al., 2011).

One of the most significant sources of stress for bicultural students is language barrier. Tests of English language proficiency do not assess oral communication skills as well as they measure reading skills. As a result, international students who meet the required score may have difficulty adjusting to the language and its different nuances from individual speakers (Mori, 2000). Moreover, Language understanding also translates into understanding non-verbal cues and societal norms, so Western openness in language and tone is often misinterpreted by international students (Mori, 2000). Bicultural students experience stress that could come from the conflict between different cultures and even a cultural conflict within their ethnic group (Romero & Roberts, 2003). Many of the factors related to bicultural stress, such as family, discrimination and language stress, seem to be beyond the control of biculturals, which may lead to hopelessness and set the stage for other mental health issues (Piña-Watson et al., 2015).

While general studies on bicultural stress focus on external determinants, other studies on biculturalism and bicultural stress seek to find individual and personality factors that could be related to bicultural stress. One study on Latinx adolescents showed that adolescents who were high in depressive symptoms were high in bicultural stress and tended to report lower hopefulness as well. High bicultural stress also predicted low self-esteem. Findings from this study show bicultural stress as an experience resulting from the psychological strain imposed on immigrants from engaging with a different culture than their own (Romero, Andrea et al., 2020) 20). While acculturation stressors such as discrimination and stressful linguistic and intercultural relations predict cultural conflict in biculturals, individual differences may predict bicultural integration. This suggests that cultural conflict could arise from a neurotic (lacking positive psychological adjustment and emotional instability) personality (Judge et al., 1999), and from perceived contextual pressures e.g., perceived stress (Benet-Martinez & Haritatos, 2005).

Academic Burnout and Achievement Emotions

It is no surprise that the pursuit of higher education at university is a stressful one. Students in tertiary institutions are required to meet demands that are challenging and are intended to stretch them. These expectations and experiences, such as meeting several deadlines or studying for extended hours, should cause considerable stress. Alongside academic demands, university and college students grapple with societal and personal demands and expectations. It is not unusual for university students to report burnout in their academic pursuits (Jacobs & Dodd, 2003).

A study by Aguayo et al. (2019), equated university students with employed persons, on whom research on burnout was initially carried out with. The study pointed out the similarities students and employed persons share in that both students and employed persons obtain compensation for work or services with employed persons receiving monetary incentives, while students are indirectly compensated with grades, for example. When an individual is continually exposed to stressors, they lose interest in their work and doubt their ability to accomplish set goals. In the same vein, when a student is continually exposed to stressors, they lose interest in their academic work, doubt their ability to accomplish academic goals and feel inadequate in fulfilling their academic responsibilities (Aguayo et al., 2019). This is then defined as Academic Burnout Syndrome.

Burnout in academic settings can be described as school-related feelings of strain and continual fatigue that arise from rigorous schoolwork (Salmela-Aro et al., 2009). Like work-related burnout, a component of academic burnout is the cynicism that manifests in apathy towards schoolwork or withdrawal from schoolwork, nonchalance to one's academics, and not

seeing it as relevant. Another component of academic burnout is a lack of academic efficacy, which is characterized by reduced feelings of competence and a decline in achievement (Salmela-Aro et al., 2009). Academic burnout may pose far-reaching physical and psychological effects for students, which could be psychosomatic, emotional, or behavioural consequences such as lack of sleep, demotivation and drop out consecutively (Aguayo et al., 2019).

A study on academic burnout syndrome in university students found that age, marital status, number of children and employment were not associated with academic burnout in students. However, gender, course of study, faculty and academic year had some relation with academic burnout syndrome (Aguayo et al., 2019). This study did not include ethnicity as a possible socio-demographic factor that could be associated with academic burnout syndrome, which is an important factor to consider.

Academic burnout in international students may be related to bicultural stress. Language barriers as a common challenge for international students may facilitate academic burnout. In a study, bicultural youths born in the United States reported significantly less academic stress related to poor English (Romero & Roberts, 2003). It is a reasonable claim that international students who are not native English speakers may experience stress from language barriers. In another study done with a German population, participants who reported high levels of proficiency in the dominant language (German) experienced low levels of acculturative stress and academic stress (Akhtar, 2012).

Another challenge that international students face upon arrival is loneliness and homesickness. Homesickness was found to be one of the highest symptoms for acculturative stress reported in a study done with international students in Germany (Akhtar, 2012). In another

study, loneliness and academic burnout were significantly correlated and had an overall negative influence on students' academic experience. In addition to that, results from this study also showed that academic burnout placed students at a higher risk of experiencing academic stressors, alongside problems with physical and mental health and affecting academic performance (Stoliker & Lafreniere, 2015)**.**

Lastly, several studies show that the emotions that students experience while in school may impact their academic performance. For example, A study done by Artino (2009) showed that negative emotions such as boredom or frustration made students taking online courses less likely to use adaptive learning strategies such as creativity. In another study, achievement emotions – that is, emotions experienced based on achievement activities or achievement outcomes (Pekrun et al., 2011) – predicted academic performance in university students (Putwain et al., 2013). Based on these findings, achievement emotions should predict academic burnout, and together be influenced by bicultural stress.

Psychological Well-being

Health, as defined by the World health organization, is "a state of complete physical, mental and social well-being – not merely the absence of disease or infirmity" (WHO 2002, p. 1315). In the same vein, to fully understand mental health, it is important to consider positive psychological functioning alongside psychological distress (Baker et al., 2012). Subjective well-being encompasses a person's evaluation of their happiness, fulfilment, and life satisfaction (Diener et al., 2003). Mental health goes hand in hand with subjective well-being. How people feel and think about their own lives is fundamental to understanding well-being in any

community (Diener et al., 2003). Similarly, how international students perceive their lives is vital to understanding the well being of international students in places of higher education.

While every university student must adapt to their new academic environment, international students face specific challenges around cultural adjustment that could influence their psychological well-being. These challenges pose unique sources of stress for international students. Culture is a critical influence in the way people might perceive their sense of self, which in turn shapes their experiences and their interpretation of those experiences (Suh & Oishi, 2004). Well-being and culture are interrelated and greatly influence each other (Diener et al., 2003). For instance, a study by Oishi (2001) showed that European Americans had significantly higher life satisfaction compared to their Asian American counterparts. Another study revealed that the collectivist inclination to think about one's group membership made individuals focus on negative consequences while the individualistic inclination to think about one's self as separate from others made people focus on positive consequences (Lee et al., 2000). Because of the relationship between culture and well-being, it is essential to examine the possible connection between bicultural stress and psychological well-being.

Bicultural stress may have a negative impact on a person's ethnic identity, and research suggests a general link between a secure and fixed identity and psychological well-being (Piña-Watson et al., 2013). This implies that negative effects of bicultural stress on a person's identity may have effects on their psychological well-being. In addition to that, another study shows how being at ease with both the home culture and the dominant culture and being able to retain that sense of ease over time is related to more positive self-concepts, and a more favourable outlook on the future (Schwartz et al., 2015). The findings surrounding biculturalism and psychological well-being imply that biculturalism may entail positive outcomes regarding psychological well-

being in bicultural individuals who do not perceive their identities to be in conflict. (Benet-Martinez & Haritatos, 2005).

However, bicultural stress has negative outcomes for psychological well-being. In a study that looked at acculturative stress and its relation with ethnic identity and psychological well-being, bicultural stress and vertical collectivism (seeing oneself as part of a group where some members have more status than others) were negatively associated with psychological outcomes. More specifically, individuals who reported higher levels of bicultural stress also reported higher levels of depressive symptoms alongside lower levels of well-being (Na, 2012; Singelis et al., 1995) Bicultural stress is associated with positive and negative mental health outcomes such as life satisfaction and depressive symptoms, which categorizes it as a valid stressor that is connected with mental health (Piña-Watson et al., 2015). Asides life satisfaction and depressive symptoms, bicultural stress was also associated with less optimism in females that were tested for optimism (Romero et al., 2007). However, a study shows how individuals who identified as bicultural showed greater life satisfaction in interpersonal relationships and personal growth than their counterparts who identified only with Western culture or only with their home culture (Baker et al., 2012). Another study showed that biculturalism was associated with higher levels of psychological well-being compared to other acculturation strategies such as assimilation (Phinney et al., 2001). While this is of importance, seeing the effects of experiencing bicultural stress, as opposed to merely identifying as bicultural, can be insightful.

The existence of perceived family support is connected to life satisfaction in bicultural youth (Piña-Watson et al., 2013). This is important because the greater portion of international students live far away from familial connections, and while international students may

experience family support through modern means of communication, factors like time zones and geographical distance may skew their perception of family support.

The Current Study

Previous research shows evidence that international students experience additional stressors that are unique to them and may impact their psychological well-being. These stressors are not just evident in their social lives, but also their academic life. There is also limited research that observes the effect of bicultural stress as a unique stress in international students and its effect on their academic and psychological well-being. While there is substantial research on bicultural stress, academic burnout and psychological well-being, there is a limited amount of research on exploring these concepts together, especially with international students. The bulk of research surrounding bicultural identity stress has focused on immigrants in general as they adapt to a new country, or on adolescent youth, many of whom still live with their family and still have an easily accessible support system. International students encounter a different circumstance as they are, in most cases, separated from immediate family and friends.

Therefore, the purpose of this study is to explore how these two dynamic factors-- academic stress and bicultural stress might be related to the psychological well-being and academic burnout of international post-secondary students living in Canada. We also hope to understand how emotions that are related to achievement play a role in these relationships.

Hypothesis

International students may face a variety of stressors beyond that of domestic students such as difficulty navigating home and host cultures, language learning, negative stereotypes and

discrimination when adjusting to life as a university student. These stressors will be captured by the perceived stress associated with maneuvering around these difficulties (Bicultural Stress). Based on findings from the past literature, we explore for following hypotheses:

Hypothesis 1.

Higher levels of bicultural stress will be related to lower levels of psychological well-being, and lower levels of bicultural stress will be related to higher levels of psychological well-being.

Hypothesis 2.

Higher levels of bicultural stress will be related to higher levels of school burnout, and lower levels of bicultural stress will be related to lower levels of school burnout.

Hypothesis 3.

Higher levels of bicultural stress will be related to lower levels of achievement emotions, and lower levels of bicultural stress will be related to higher levels of achievement emotions.

Method

Participants

The purpose of this study was to understand the role of bicultural stress as it relates to the well-being and academic performance of international students. For this reason, the sample consisted of undergraduate and graduate international students from a variety of racial, ethnic, and cultural backgrounds. The final sample for the study was 117 international students enrolled at universities in Canada. The participants were from 30 different countries, with 68 (58.1%) participants from Africa, 25 (21.4%) from Asia, 13 (11.1%) from the Caribbean, 6 (5.1%) from Latin America and 5 (4.3%) from Europe and the United States of America. The vast majority were undergraduate students (n=99; 84.6%), while the rest were graduate students (n= 18;

15.4%). There were 88 women (75.9%) and 28 men (24.1%), with a mean age of 22.1 (range 16-46, SD=4.50).

Procedure

Researchers obtained approval from the Research Ethics Board at the University of Prince Edward Island. Participants were recruited through a snowball sampling design. Online advertisements were posted by the researcher on social media forums for international students and through the researcher's social networks. Participants were asked to consider forwarding the advertisements to other forums and social media platforms. Participants completed an online survey that was available for three weeks.

Measures

Socio-demographic Items

Participants were asked questions regarding their age, gender, ethnicity, marital status, academic level, presence of immediate or extended family in host country, country of origin, time spent in home country before moving, countries lived in besides home and host country, number of and preferred language(s) spoken. These questions are important since they capture factors that predispose an individual to bicultural stress based on previous studies.

Predictor Variable

Bicultural Stress Scale (Romero & Roberts, 2003) is a 19-item scale that measures bicultural stress. The scale not only gives insight into the number of stressors that participants experience, but also the degree of stress caused by each stressor. Items on this scale were modified for the current study by replacing Mexican and Spanish-related terms with broader and non-ethnic, national, or culture-specific terms. For instance, the question "I have felt pressure to learn Spanish" was changed to "I have felt pressure to learn my language." The scale comprises

four subscales: Family Stressors (e.g., "Family obligations"), Discrimination Stressors (e.g. "Uncomfortable with ethnic jokes"), Monolingual Stressors (e.g. "Treated badly because of accent") and Peer Stressors (e.g., "My friends think I act White"). Items are rated on a 5-point Likert-type scale ranging from 1 (not stressful at all) to 5 (very stressful). See Appendix C for a list of all items used. The scores of the responses to each subscale were calculated with acceptable to very good levels of reliability. Cronbach's α for Family Stress = 0.81, Discrimination = 0.62, Monolingual = 0.76, Peer Bicultural Stress = 0.75).

Outcome Variables

Life Satisfaction Scale (Diener et al., 1985) is a 5-item scale that measures subjective well-being and perceived life satisfaction. It measures life satisfaction as a cognitive-judgemental process in that it focuses on the individual's judgement as opposed to expectations of life satisfaction from the researcher. This focus on the individual's judgement on life satisfaction is demonstrated with questions such as "In most ways, my life is close to ideal" and "So far I have gotten the important things I want in life." See Appendix D for a list of all items used. The scores of the responses calculated into one total score. Cronbach's α for life satisfaction was 0.79.

The School Burnout Inventory (Salmela-Aro et al., 2009) is a 10 - item scale that measures school burnout. The School Burnout Inventory measures three factors related to school burnout: exhaustion at school (e.g. "I often slept badly because of matters relating to my school work"), cynicism towards the meaning of school (e.g. "I was continually wondering whether my school work has any meaning"), and sense of inadequacy at school (e.g., "I often had feelings of inadequacy in my school work"). All items were rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). See Appendix E for a list of all items. The scores

of the responses were calculated into one total score after an exploratory factor analysis revealed a one-factor model for this variable. Cronbach's α for the School Burnout Inventory was 0.89.

Achievement Emotions Questionnaire (Pekrun et al., 2011) is a 24-item scale that measures achievement emotions. This scale was modified for the current study by using only one section out of the three sections of the scale - the class-related emotions. The class-related emotions section of the scale measures class-related emotions such as Enjoyment ("I enjoy being in class"), Pride (" I am proud of myself"), Anger ("I am angry"), Shame ("I get embarrassed"), and Anxiety ("Thinking about class makes me feel uneasy"). Items were modified for the current study by changing tense to reflect the recent classroom interactions. For instance, "I enjoy being in class" was changed to "I enjoyed being in class." Items are rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Negative achievement emotions, such as anger, shame, and anxiety, were reversed scored and calculated into a total mean score. See Appendix F for a list of all items used. Cronbach's α this study was 0.82.

Results

Descriptive Analysis

Means, standard deviations and reliability coefficients were calculated for the variables of the study See Table 1. All the measures reached a satisfactory level of internal consistency (Cronbach's alpha), ranging from .62 to .89. Variables were analyzed and were found to be normally distributed.

Correlational analysis among descriptive variables found that older participants tended to have higher levels of family-related stressors (r [105]= -0.29, $p < .01$) and monolingual stress, which is the stress that is related to acquiring a second language (r [104] = -0.21, $p < .05$). Participants who spent more time in their home country before moving to their host country had

lower levels of family stress (r [107] = -0.26, $p < .01$). No significant relationships were found for gender, the number of languages spoken, and the presence of an immediate or extended family member. See Table 1

Hypothesis 1: Higher levels of bicultural stress will be related to lower levels of psychological well-being, and lower levels of bicultural stress will be related to higher levels of psychological well-being.

(a) A correlation was conducted to analyze the relationship between total bicultural stress (combining all the bicultural stress variables) and life satisfaction. No statistically significant relationship was found between total bicultural stress and life satisfaction.

(b) The four subscales on the Bicultural Stress Scale – family stressors, discrimination stressors, monolingual stressors, and peer stressors – were entered into a multiple linear regression analysis to evaluate the effects of any specific bicultural stressors on life satisfaction. Discrimination stressors were found to be a statistically significant predictor to life satisfaction, $B = -0.244$, $t(106) = -2.17$, $p = 0.03$, $R^2 = 0.06$. Although the total mean score for bicultural stress did not show a statistically significant direct relationship with life satisfaction, The findings do support the hypothesis that higher levels of bicultural stress, particularly discrimination stressors, are related to lower levels of life satisfaction.

Hypothesis 2: Higher levels of bicultural stress will be related to higher levels of school burnout, and lower levels of bicultural stress will be related to lower levels of school burnout.

(a) A correlation was used to analyze the relationship between total bicultural stress (combining all the bicultural stress variables) and school burnout. A significant relationship was found between total bicultural stress and school burnout (r [108] = 0.27, $p < .01$). See Table 1.

(b) The four subscales on the Bicultural Stress Scale – family stressors, discrimination stressors, monolingual stressors, and peer stressors – were entered into a multiple linear regression analysis to evaluate the effects of any specific bicultural stressors on school burnout. Monolingual stressors significantly predicted school burnout, $B = 0.43$, $t(105) = 3.75$, $p < 0.001$, $R^2 = 0.17$. Findings support the hypothesis that higher levels of bicultural stress, particularly monolingual stressors, are related to lower levels of school burnout.

Hypothesis 3: Higher levels of bicultural stress will be related to lower levels of achievement emotions, and lower levels of bicultural stress will be related to higher levels of achievement emotions.

(a) A correlation matrix was used to analyze the relationship between total bicultural stress (combining all the bicultural stress variables) and achievement emotions. A significant relationship was found between total bicultural stress and positive achievement emotions (r [108] = -0.19, $p < .05$). See Table 1

(b) The four subscales on the Bicultural Stress Scale – family stressors, discrimination stressors, monolingual stressors, and peer stressors – were entered into a multiple linear regression analysis to evaluate the effects of any specific bicultural stressors on achievement emotions. There was no statistically significant relationship between bicultural stress and positive achievement emotions.

Discussion

The purpose of this study was to investigate the relationship that bicultural stress may have on psychological well-being, academic burnout, and achievement emotions among international students.

The findings from this study suggest that perceived discrimination – a bicultural stressor – is a predictor of psychological well-being but not for academic burnout. This result is consistent with past studies that demonstrate how acculturative stress predicts depressive symptoms – an antecedent for poor psychological well-being (Constantine et al., 2004; Na, 2012; Piña-Watson et al., 2013; Romero & Roberts, 2003; Singelis et al., 1995). Discrimination stressors are an essential consideration for psychological well-being in international students, especially as a number of them are members of visible minority groups and are likely to experience stress that surrounds their race or ethnic group (Stafford et al., 2011).

Although we did not find any relationship between other bicultural stressors and psychological well-being, we did find a moderate relationship between bicultural stress and school burnout. Higher levels of bicultural stress were related to higher levels of school burnout. Furthermore, we found that monolingual stressors – a bicultural stressor, significantly predicted school burnout. This means that people higher in bicultural stress tend to experience more academic burnout, especially as it relates to language barriers and monolingual stressors. This result is consistent with findings from other studies that show how bicultural and acculturative stress, particularly low proficiency in the dominant language of the host country, predicted academic stress (Akhtar, 2012; Romero & Roberts, 2003).

Lastly, we found a weak relationship between bicultural stress and achievement emotions. Higher levels of bicultural stress were related to lower levels of achievement emotions. This means that participants higher in bicultural stress tend to experience less positive achievement emotions. Studies in the past show that achievement emotions can predict academic burnout in students (Artino, 2009; Pekrun et al.,2011; Putwain et al., 2013). Our study revealed a strong and statistically significant relationship between achievement emotions and satisfaction

with life, and achievement emotions and school burnout. This may suggest that achievement emotions might be better studied as a predictor or outcome variable to satisfaction with life and academic burnout rather than an outcome variable that is predicted by bicultural stress.

Limitations and Future Research

A limitation of this study is that the sample is not fully representative of international students studying at universities in Canada. For example, the study majorly included students studying from the university where the research was conducted. Moreover, the sample was not entirely representative of the diversity of international students studying in Canada as a vast majority of the sample was from Africa. The recruitment method confined the generalizability of the findings. Future studies should include a more representative and randomly selected sample of the international student body in Canada.

Since this is a cross-sectional study, the correlations do not provide precise information about cause and effect relationships. It also does not allow for changes to be observed, which can be crucial to this type of study. Future studies could benefit from a longitudinal study design, which can account for a greater understanding of the role that acculturation and bicultural stress play over time. Comparing domestic students with international students may also allow for insight into any differences in psychological well-being and overall academic performance since domestic students are unlikely to experience bicultural stress. Future studies might also investigate the role that socio-economic class, networks and social capital may play in international student adjustment and acculturation.

It should be noted that the data collected for this study occurred in the early phases of the COVID-19 global pandemic. This may have had effects on the bicultural stress of participants and psychological well-being and influenced their response to the survey.

Finally, the survey was conducted in the English language, which might have been a challenge for different groups of international students. This linguistic challenge may have accounted for differences in expected results. Subsequent studies could be conducted in other languages in order to allow for ease of interpretation. In addition to that, qualitative data that capture the experiences of international students can be used to reinforce quantitative findings. The results of this study also have practical applications. For example, universities often invest heavily in securing and supporting students in mastering language and other practical aspects of an international school experience such as writing centres and English Academic Preparation. This is expected if academic burnout may lead to students not completing their academic studies. However, based on the results of this study, they may also wish to address practices that lead to international student experiences of racism, xenophobia and discrimination, and support students who experience chronic stress that stem from discrimination and microaggressions. While monolingual stress might be related to performance and behaviour, discrimination stressors might be related to identity and self-concept and long-lasting life effects. Discrimination stressors may further prevent international students from fully adapting and taking part in society.

Conclusion

Findings from this study indicate that bicultural stress plays an important role related to psychological well-being, academic burnout and achievement emotions for international students who must navigate different cultural frames of reference. In particular, it appears that discrimination stress has a stronger relationship with life satisfaction but not with school burnout. Similarly, monolingual stress appears to have a stronger relationship with academic burnout than with life satisfaction. The results give vital insight into some of the factors that could prevent

international students from excelling in the primary reason they migrated, as well as their mental health. Knowledge of some of the factors surrounding academic burnout and psychological well-being for international students can help inform university mental health services as they develop effective programs for international students to succeed.

References

Aguayo, R., Gustavo R. Cañadas, Latifa Assbaa-Kaddouri, Guillermo A Cañadas-De, la Fuente,
Lucía Ramírez-Baena, & Elena Ortega-Campos. (2019). A risk profile of
sociodemographic factors in the onset of academic burnout syndrome in a sample of
university students. *International Journal of Environmental Research and Public Health,*
(5), 707. https://doi.org/10.3390/ijerph16050707

Akhtar, M. (2012). Acculturative stress and its association with academic stress and
psychological well-being of international students.

Artino, A. R. (2009). Think, feel, act: Motivational and emotional influences on military
students' online academic success. *J.Comput.High.Educ., 21*(2), 146-166.
https://doi.org/10.1007/s12528-009-9020-9

Baker, A. M., Soto, J. A., Perez, C. R., & Lee, E. A. (2012). Acculturative status and
psychological well-being in an Asian American sample. *Asian American Journal of
Psychology, 3*(4), 275-285. https://doi.org/10.1037/a0026842

Benet-Martinez, V., & Haritatos, J. (2005). Bicultural identity integration (BII): Components and
psychosocial antecedents. *Journal of Personality,* (4), 1015.

Berry, J. W. (1990). In Holtzman W. H., Bornemann T. H. (Eds.), Acculturation and adaptation:
A general framework. *Hogg Foundation for Mental Health*.

Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-concealment, social self-efficacy,
acculturative stress, and depression in African, Asian, and Latin American international
college students. *American Journal of Orthopsychiatry, 74*(3), 230-241.
https://doi.org/10.1037/0002-9432.74.3.230

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology.*

Gartman, K. D. (2016). Challenges of international students in a university setting. *MPAEA Journal of Adult Education, 45*(2), 1-7.

Hovey, J. D., & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *Journal- American Academy of Child and Adolescent Psychiatry,* (9), 1183.

ICEF Monitor. (2020,). Canada had another strong year of growth in 2019. https://monitor.icef.com/2020/02/canada-had-another-strong-year-of-growth-in-2019/

Jacobs, S. R., & Dodd, D. K. (2003). Student burnout as a function of personality, social support, and workload. *ACPA Executive Office*. https://doi.org/10.1353/csd.2003.0028

Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology,* (3)

Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Research Papers.*

Na, S. (2012). The relations between identity, cultural values and mental health outcomes in Asian adults living in Canada

Nguyen, A. D., & Benet-Martínez, V. (2007). Biculturalism unpacked: Components, measurement, individual differences, and outcomes. *Social & Personality Psychology Compass, 1*(1), 101.

Nguyen, A. D., & Benet-Martinez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology,* (1), 122.

Pekrun, R., Goetz, T., Frenzel, A. C., Barchfeld, P., & Perry, R. P. (2011). Measuring emotions in students' learning and performance: The achievement emotions questionnaire (AEQ*). ACU Research Bank.*

Phinney, J. S., Horenezyk, G., Liebkind, K., & Vedder, P. (2001). Ethnic identity, immigration, and well-being: An interactional perspective. *Journal of Social Issues, 57*(3), 493. https://doi.org/10.1111/0022-4537.00225

Piña-Watson, B., Llamas, J. D., & Stevens, A. K. (2015). Attempting to successfully straddle the cultural divide: Hopelessness model of bicultural stress, mental health, and caregiver connection for Mexican descent adolescents. *Journal of Counseling Psychology, 62*(4), 670-681. https://doi.org/10.1037/cou0000116

Piña-Watson, B., Ojeda, L., Castellon, N. E., & Dornhecker, M. (2013). Familismo, ethnic identity, and bicultural stress as predictors of Mexican American adolescents' positive psychological functioning. *Journal of Latina/O Psychology, 1*(4), 204-217. https://doi.org/10.1037/lat0000006

Poyrazil, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling, 7*(1), 73-82. https://doi.org/10.1002/j.2161-1882.2004.tb00261.x

Putwain, D. W., Sander, P., & Larkin, D. (2013). Using the 2×2 framework of achievement goals to predict achievement emotions and academic performance. https://doi.org/https://doi.org/10.1016/j.lindif.2013.01.006

Romero, A. J., Carvajal, S. C., Valle, F., & Orduna, M. (2007). Adolescent bicultural stress and its impact on mental well-being among Latinos, Asian Americans, and European Americans. *Journal of Community Psychology,* (4), 519.

Romero, A. J., Piña-Watson, B., & Toomey, R. B. (2018). When is bicultural stress associated with loss of hope and depressive symptoms? variation by ethnic identity status among Mexican descent youth. *Journal of Latina/O Psychology, 6*(1), 49-63. https://doi.org/10.1037/lat0000078

Romero, A. J., & Roberts, R. E. (2003). Stress within a bicultural context for adolescents of Mexican descent. *Cultural Diversity and Ethnic Minority Psychology, 9*(2), 171-184. https://doi.org/10.1037/1099-9809.9.2.171

Romero, A., Piña-Watson, B., Stevens, A. K., Schwartz, S. J., Unger, J. B., Zamboanga, B. L., Szapocznik, J., Lorenzo-Blanco, E., Cano, M. Á, Meca, A., Baezconde-Garbanati, L., Córdova, D., Villamar, J. A., Soto, D. W., Lizzi, K. M., Des Rosiers, S. E., Pattarroyo, M., & Oshri, A. (2020). Disentangling relationships between bicultural stress and mental well-being among Latinx immigrant adolescents. *Journal of Consulting and Clinical Psychology, 88*(2), 149-159. https://doi.org/10.1037/ccp0000466

Salmela-Aro, K., Kiuru, N., Leskinen, E., & Nurmi, J. (2009). School burnout inventory (SBI): Reliability and validity. *European Journal of Psychological Assessment, 25*(1), 48-57. https://doi.org/10.1027/1015-5759.25.1.48

Schwartz, S. J., Unger, J. B., Baezconde-Garbanati, L., Benet-Martínez, V., Meca, A., Zamboanga, B. L., Lorenzo-Blanco, E. I., Rosiers, S. E. D., Oshri, A., Sabet, R. F., Soto, D. W., Pattarroyo, M., Huang, S., Villamar, J. A., Lizzi, K. M., & Szapocznik, J. (2015). Longitudinal trajectories of bicultural identity integration in recently immigrated Hispanic adolescents: Links with mental health and family functioning. *International Journal of Psychology, 50*(6), 440-450. https://doi.org/10.1002/ijop.12196

Singelis, T. M., Triandis, H. C., Bhawuk, D., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research: The Journal of Comparative Social Science, 29*(3), 240-275. https://doi.org/10.1177/106939719502900302

Stafford, M., Newbold, B. K., & Ross, N. A. (2011). Psychological distress among immigrants and visible minorities in Canada: A contextual analysis. *International Journal of Social Psychiatry, 57*(4), 428-441. https://doi.org/10.1177/0020764010365407

Statista. (2019) *Immigrants in Canada.* Statista. https://www.statista.com/statistics/443063/number-of-immigrants-in-canada/

Suh, E. M., & Oishi, S. (2004). Culture and subjective well-being: Introduction to the special issue. *Journal of Happiness Studies, 5*(3), 219-222. https://doi.org/10.1007/s10902-004-8783-y

Thomas, K., & Althen, G. (1989). In Pedersen P. B., Draguns J. G., Lonner W. J. and Trimble J. E. (Eds.), *Counseling foreign students*. University of Hawaii Press.

Wei, M., Liao, K. Y., Chao, R. C., Mallinckrodt, B., Tsai, P., & Botello-Zamarron, R. (2010). Minority stress perceived bicultural competence, and depressive symptoms among ethnic minority college students. *Journal of Counseling Psychology, 57*(4), 411-422. https://doi.org/10.1037/a0020790

WHO. (2002). *Constitution of the world health organization. 1946*. World Health Organization.

Tables

Table 1.

Means, standard deviations, and correlation matrix for independent and dependent variables

	N	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	109	22.1	4.50	-										
2. TimeHomeCnty	113	17.6	6.05	0.642***	-									
3. nLang	117	2.17	1.23	0.115	0.112	-								
4. Family BiStress	113	2.95	0.98	-0.291**	-0.261**	-0.039	-0.095	-						
5. Discrimination BiStress	114	3.09	0.90	-0.154	-0.118	-0.091	-0.096	0.645***	-					
6. Monolingual BiStress	114	2.84	1.21	-0.209*	-0.077	-0.051	-0.091	0.771***	0.613***	-				
7. Peer BiStress	116	2.82	1.36	-0.186	-0.119	0.030	-0.072	0.759***	0.599***	0.670***	-			
8. Total BiStress	111	2.95	0.98	-0.277**	-0.218*	-0.040	-0.129	0.944***	0.771***	0.877***	0.858***	-		
9. TotalSchoolBurn	115	3.39	0.99	-0.145	-0.099	0.030	-0.179	0.188*	0.206*	0.385***	0.185*	0.266**	-	

	N	M	SD	1	2	3	4	5	6	7	8	9	10	11
10. Total AchieveEmotions	116	3.56	0.74	0.140	0.050	0.075	0.478^{***}	-0.126	-0.138	-0.216^{*}	-0.168	-0.194^{*}	-0.485^{***}	-
11.Total LifeSatis	117	3.21	0.77	0.052	0.102	0.054	0.249^{**}	-0.024	-0.174	-0.075	0.029	-0.043	-0.289^{**}	0.409^{***}

Note. Total Bicultural Stress scores calculated as a mean of all four Bicultural Stress Subscales

$^{*}p < .05$, $^{**}p < .02$, $^{***}p < .001$

Appendices

Appendix A

Participant Consent Form

You have been invited to participate in a research study titled: "Bicultural Stress, Academic Burnout, and Psychological Wellbeing: Challenges for International Students". This study is being conducted by Joy Nnadi under the supervision of Dr. Raquel Hoersting, from the Department of Psychology at the University of Prince Edward Island. If you have any questions or concerns about the research, please feel to contact either Joy Nnadi at jnnadi@upei.ca or Dr. Raquel Hoersting at rhoersting@upei.ca.

I understand that:

- I can contact the UPEI Research Ethics Board at (902) 620-5104, or by email at reb@upei.ca if I have any concerns about the ethical conduct of this study.

- I understand that I am not required to answer any questions that I do not wish to answer and that I may withdraw from study at any time, with no penalty.

- I can print and keep a copy of this form

- My information will be kept confidential within the limits of the law.

My questions have been answered to my satisfaction, and I agree to participate in this study. My consent to participate is presumed when I click "Continue" to the survey page. Please print a copy of this page for your records.

If you consent to participate in the study (i.e., choose to continue) please click the "Continue" button. If you decide to not participate, please click the "Exit" button.

Also, if at any point during the survey you wish to withdraw, please do so using the "Exit" button at the bottom of the page.

Appendix B

Participant Information Letter

You have been invited to participate in a research study titled: "Bicultural Stress, Academic Burnout, and Psychological Wellbeing: Challenges for International Students". This study is being conducted by Joy Nnadi under the supervision of Dr. Raquel Hoersting, from the Department of Psychology at the University of Prince Edward Island. If you have any questions or concerns about the research, please feel to contact either Joy Nnadi at jnnadi@upei.ca or Dr. Raquel Hoersting at rhoersting@upei.ca.

Purpose of the Study

This study is being conducted to understand how international students perceive a type of stress. International students usually face multiple types of stress, which include adapting to a new country, trying to understand how they might fit into a new culture, and how to navigate new academic environments. We are interested in understanding how some of these issues contribute to stress and wellbeing—all issues related to academic success.

Procedures

If you volunteer to participate in this study, you will be asked to complete an online survey that will take about 10 - 15 minutes. The online survey tool used is LimeSurvey hosted on UPEI server which is firewall protected. The questions are related to how motivated you might feel towards school and your feelings going to school, satisfaction with life, and the stresses of navigating multiple cultural frameworks. We will also ask a few demographic questions about your background.

Potential Risks and Discomforts

You will be asked to think about how stressed you feel as an international student living in Canada, which for some people can cause a mild discomfort. If this happens, there will be some resources provided to you at the end of the survey.

Potential Benefits to Subjects and/or Society

Although there may not be any substantial immediate benefits to you, the opportunity to reflect on these issues may be interesting and help you think about stress and how it might impact your academic life. At the end of the survey, we will provide some resources that might be helpful for coping and thriving with stress.

Also, the knowledge gained from this study will help us understand an important aspect of cultural transitions and their stress on academic performance. This information could then be used for universities and other programs that work with international students to think about ways that might reduce unnecessary stress and so international students might have meaningful experiences engaging in learning.

Payment for Participation

There is no payment for participation.

Confidentiality

Your answers to the questions will remain anonymous and confidential within the limits of the law. To ensure confidentiality and anonymity, you will not be asked to provide any identifiable information on the survey such as name or city of residence. No personal information will be collected as part of this research. Your survey responses will be entered into a data file with all other data. Data will be hosted on UPEI server which is firewall protected. Individual

information will not be released to any third parties. To ensure anonymity, no one will be identified through written material.

Participant Inclusion/ Exclusion Criteria

The project will be advertised on social media pages frequented by international students living in Canada in order to include any student that meets the inclusion criteria. Through a snowballing sampling method, we hope to reach a wider audience of immigrant students in Canadian universities. The focus is solely based on international students in Canada. Efforts will be made to include students from a variety of racial, ethnic, and cultural backgrounds, by not focusing only one specific national group. University undergraduate and graduate international students and foreign exchange students are welcome to participate. High school students are not included in this study.

Feedback of the Results of this Study to the Participants

You will have an opportunity to receive feedback on the results of this study. At the end of the survey, another link will be available to you if you desire to receive the results of the survey. Only emails will be requested. These emails are stored in a different data file and cannot be linked to the survey information you completed. You are in no obligation to submit your email— but this is a way in which we can send information for those participants who wish to receive feedback from the study. Note that we cannot give individual feedback and that the results will be given in aggregated and summarized format. Once the emails are sent with feedback, the data file and your information will be destroyed. Your information will not be shared with anyone and only the primary research and research supervisor will have access.

Indication of Ongoing Consent

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. There is no penalty if you do not answer questions that you do not wish to answer." after the sentence. You may also refuse to answer any questions you do not want to answer and still remain in the study. However, you are encouraged to answer as completely as possible. Once you have advanced to a new page in the survey you cannot withdraw your answers, however closing your browser will end your participation beyond that point. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

Rights of Research Subjects

You may withdraw your consent at any time and discontinue participation without penalty. If you have any questions or concerns about this research project, you may consult with either Joy Nnadi at jnnadi@upei.ca or Dr. Raquel Hoersting at rhoersting@upei.ca.

This research has received the approval of University of Prince Edward Island's Research Ethics Board. Any concerns about the ethical aspects of your involvement in this research project may be directed to the UPEI REB, ph. (902) 620-5104, or email: reb@upei.ca.

Recruitment

In striving to find as many international students with a variety of experiences, we ask that you consider forwarding the link to our survey to other international students and social networks only if you feel comfortable doing so. You are not required to forward the link, as we cannot guarantee anonymity on social media.

Appendix C

Bicultural Stress Scale (Romero & Roberts, 2003)

Please indicate how stressful the following experiences have been for you. If you have never had the experiences listed, please mark #5 (does not apply). Please fill in only one for each item.:

Not at all stressful = 1

A little bit stressful = 2

Quite a bit stressful = 3

Very stressful = 4

 Does not apply = 5

1. I have been treated badly because of my accent.

2. Because of family obligations I can't always do what I want.

3. I have worried about family members or friends having problems with immigration.

4. I have had problems at school because of my poor English.

5. I do not feel comfortable with people whose culture is different from mine.

6. I have felt pressure to learn my language*.

7. I have felt that I need to speak my language* better.

8. I have argued with my boyfriend/girlfriend over being too traditional.

9. My friends think I'm acting "White."

10. My parents feel I do not respect older people the way I should.

11. I feel uncomfortable when others make jokes about or put down people of my ethnic background.

12. I have argued with family members because I do not want to do some traditions.

13. I have had to translate/interpret for my parents.

14. I have felt lonely and isolated because my family does not stick together.

15. I have felt that others do not accept me because of my ethnic group.

16. I have had to help my parents by explaining how to do things in Canada*.

17. I feel like I can't do what most Canadian* students do because of my parents' culture.

18. Sometimes I do not understand why people from a different ethnic background act a certain way.

19. Sometimes I feel that it will be harder to succeed because of my ethnic background

Appendix D

Life Satisfaction Scale (Diener et al., 1985)

Below are five statements that you may agree or disagree with. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your response.

7 = strongly agree

6 = Agree

5 = Slightly agree

4 = Neither agree nor disagree

3 = Slightly disagree

2 = Disagree

1= Strongly disagree

In most ways my life is close to ideal

The conditions of my life are excellent

I am satisfied with my life

So far, I have gotten the important things I want in life

If I could live my life over, I would change almost nothing.

Appendix E

The School Burnout Inventory (Salmela-Aro et al., 2009)

Please choose the alternative that best describes your situation (estimation from previous month) Completely disagree = 1

Partly disagree = 2

Disagree = 3

Partly agree = 4

Agree = 5

Completely agree = 6

1. I feel overwhelmed by my schoolwork (EXH1)

2. I feel a lack of motivation in my schoolwork and often think of giving up (CYN1)

3. I often have feelings of inadequacy in my schoolwork (INAD1)

4. I often sleep badly because of matters related to my schoolwork. (EXH2)

5. I feel that I am losing interest in my schoolwork (CYN2)

6. I'm continually wondering whether my schoolwork has any meaning (CYN3)

7. I brood over matters related to my schoolwork a lot during my free time (EXH3)

8. I used to have higher expectations of my schoolwork than I do now (INAD2)

9. The pressure of my schoolwork causes me problems in my close relationships with others (EXH4)

Note. EXH = exhaustion at schoolwork; CYN = cynicism toward the meaning of school; INAD = sense of inadequacy at

Appendix F

Achievement Emotions Questionnaire (Pekrun et al., 2011)

Using the 1-5 scale below, indicate your agreement with each item by choosing the appropriate number that best describes your agreement with the statement. Please be open and honest in your response. 5 -Strongly Agree 4 - Agree 3 - Neither Agree nor Disagree 2 - Disagree 1 - Strongly Disagree

I enjoyed being in class.

I was confident when I went to class.

I was proud of myself.

Thinking about class made me feel uneasy.

I felt satisfied with my academic performance.

I felt embarrassed.

I felt hopeless.

I was angry.

I was bored.