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EXAMINING EMOTION-FOCUSED COPING AMONG EAST ASIANS AND EUROPEAN

AMERICANS: A CROSS-CULTURAL COMPARISON

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ABSTRACT

The purposes of this study were (a) to investigate culturally specific emotion-focused coping behaviors among East Asians by incorporating coping and emotion regulation research into cross-cultural evidence on emotion and (b) to examine cultural differences in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. A convenience sample of 232 East Asian international college students and 216 European American college students participated in an online survey and completed the following self-administered questionnaires: demographics questionnaire, the Coping Orientation to Problem Experience (COPE) inventory, the Ambivalence over Emotional Expressiveness Questionnaire (AEQ), the Perceived Emotional Support (PES) scale, and the East Asian Acculturation Measure (EAAM). A series of multivariate analyses of variance (MANOVAs) and follow-up analyses of variances (ANOVAs) and discriminant function analyses (DFAs) were performed to test the study hypotheses. Unexpectedly, ethnic differences among East Asian international and European American college students did not emerge in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. As anticipated, gender differences among East Asian male and female international students existed in emotion-focused coping behaviors. Also, differences in acculturation processes among East Asian international students emerged. Implications for clinical practice and recommendations for future research are discussed.

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CHAPTER 1

INTRODUCTION

Acculturative Stress and Coping in East Asian International Students

According to *Open Doors:2010* (Institute of International Education [IIE], 2010), East

Asian students, consisting of students from South Korea, China, Taiwan, and Japan, are one of

the largest groups of all international students in colleges and universities across the United

States. East Asian international students are clustered together not only by geographical regions

but also by cultural similarity. These students share similar cultural values derived from ethical

philosophies and beliefs such as Confucianism, Buddhism, and Taoism (Zhang, Lin, Nonaka, &

Beom, 2005). Due to the large number of students from East Asian countries, this population

has received increasing attention from cross-cultural researchers.

Like other international students, East Asian students engage in the process of

acculturation via interaction with the American culture (Berry, 1997, 2005). Depending on the

level of acculturation, East Asian students may present various emotional and psychological

reactions to the host country and culture (Ye, 2005). For example, an East Asian student who

feels isolated and marginalized from the host society may experience higher levels of distress

than a student who is assimilated to the dominant culture. The acculturation process that

influences individuals' emotions, behaviors, values, attitudes, and self-concepts can be a stressful

experience (Berry, 2005).

Cross-cultural researchers have proposed that acculturative stress is linked to international students' adjustment in the United States (e.g., Constantine, Kindaichi, Okazaki, Caidor, & Baden, 2005; Yeh & Inose, 2002, 2003). Acculturative stress is defined as "a stress reaction in response to life events that are rooted in the experiences of acculturation" (Berry, 1997, p. 19). Acculturative stress occurs during the process of adapting to a new culture and derives from unfamiliarity with new customs or conflicts between different cultural norms (Berry, 1997). It is well-documented that international students are exposed to multiple stressors such as academic achievement, communication difficulty, interpersonal stress, and financial problems (Constantine et al., 2005). In comparison to international students from Europe, East Asian students are found to experience a higher level of acculturative stress (Hanassab, 2006; Yeh & Inose, 2003). Major acculturative stress salient to East Asian students involves the English language barrier, cultural value conflicts, and perceived discrimination or alienation (Dao, Lee, & Chang, 2007; Fritz, Chin, & DeMarinis, 2008; Hanassab, 2006; Wei, Ku, Russell, Mallinckrodt, & Liao, 2008; Yeh & Inose, 2002, 2003). Evidence indicates that among East Asian international students, acculturative stress can cause increased emotional distress, identity conflict, academic dissatisfaction, and psychosocial maladjustment. For example, acculturative stress was positively associated with depression among Korean (Lee, Koeske, & Sales, 2004), Chinese (Dao et al., 2007), and Taiwanese international college students (Wei et al., 2007).

The positive association between acculturative stress and psychological distress has stimulated cross-cultural researchers to investigate coping strategies that mediate or buffer the relationship between stress and adjustment (e.g., Chang, 1996, 2001; Constantine et al., 2005; Misra, Crist, & Burant, 2003). Unlike domestic students, international students usually do not have comparable resources to cope with their distress. The lack of social resources can increase

acculturative stress and lead to a higher risk of emotional distress (Dao et al., 2007; Yeh & Inose, 2003). Thus, a large amount of research with East Asian international college students has focused on the role of social support or social coping as a predictor of acculturative process or as a buffer against the impact of acculturative stress (e.g., Lee et al., 2004; Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004; Yeh & Inose, 2003).

Seeking social and emotional support can be complicated due to the East Asian cultural belief that one should not show emotions in front of others (B. S. K. Kim, Atkinson, & Yang, 1999). Because emotional self-control is espoused in East Asian cultures, these students may believe that they should manage emotional distress on their own instead of disclosing concerns to their family or friends (H. S. Kim, Sherman, & Taylor, 2008; Wei et al., 2007). Unfortunately, previous studies failed to provide in-depth knowledge about how East Asian students regulate their emotions under distress. When marked distress occurs, East Asian international students may use culturally congruent coping practices. Given the limited range of external support systems that international students may receive, it is vital to examine how East Asian students internally regulate their emotional distress. Hence, it seems appropriate to explore emotion-oriented coping practices of East Asian college students who undergo a period of cultural adjustment.

Statement of the Problem

Despite the high level of emotional burden and psychological distress that East Asian international students in the United States may experience, few studies have investigated the ways East Asians manage their emotions. The paucity of research is partly attributed to little communication between researchers who study coping, emotion regulation, and culture. The way an individual manages and regulates emotions has been investigated in the separate areas of

coping and emotion regulation (Compas, 2009). Coping and emotion regulation both involve

efforts at managing emotional distress (Lazarus & Folkman, 1984). Specifically, emotion-

focused coping and emotion regulation tap similar constructs in that both involve managing the

emotions aroused by a stressor (Gross & Thompson, 2007). Regardless of explicit links between

literature on emotion-focused coping and emotion regulation, these two areas of study have

generally evolved independently, creating "relatively little cross-talk between the two" (Compas,

2009, p. 89).

Furthermore, cross-cultural perspectives on emotion have been insufficiently adopted into

coping and emotion regulation research. Cross-cultural researchers have extensively

documented that cultural scripts may shape emotional responses (e.g., Frijda, 1986; Markus &

Kitayama, 1999; Matsumoto, 2006; Mesquita, 2001). Unfortunately, this knowledge has not

been adequately embedded into the coping and emotion regulation literature. A large amount of

coping research has shown that East Asians tend to utilize avoidance coping that is perceived to

be maladaptive in Western cultures (e.g., Bjorck, Cuthbertson, Thurman, & Lee, 2001; Chang,

2001; Jung, 1995; Lam & Zane, 2004). Similarly, research on emotion regulation with East

Asians has been limited to emotion suppression or inhibition that is also regarded as

dysfunctional in the U.S. society (e.g., Butler, Lee, & Gross, 2007; Gross & John, 2003). These

findings from coping and emotion regulation research contributed to the notion that East Asians

tend to use maladaptive coping or emotion regulation strategies. Indiscriminate application of

Western coping and regulation theories to East Asians can disregard East Asians' emotional

experience. It is important to consider coping and emotion regulation behaviors among East

Asians within a cultural context. For this reason, incorporating cross-cultural research into

emotion and coping literature is the first step to examine the culturally specific way East Asians regulate their emotions under distress.

Purpose of the Study

The purpose of the current study was twofold: (a) to incorporate coping and emotion regulation research into the cross-cultural evidence on emotion in order to appreciate culturally specific emotion-focused coping behaviors among East Asians and (b) to examine cultural differences between East Asian international college students and European American college students in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support.

In an attempt to identify culturally specific emotion-focused coping behaviors among East Asians and understand cultural differences in emotion-focused coping practices, I took an integrative approach to coping, emotion regulation, and cross-cultural research on emotion. The integrative approach defines *coping* as regulation under stress and *emotion-focused coping* as emotion regulation under distress (Eisenberg, Fabes, & Guthrie, 1997; Gross & Thompson, 2007; Skinner & Zimmer-Gembeck, 2009). Bringing an integrative approach to this study allowed me to identify both the similar and distinctive aspects of coping and emotion regulation processes among East Asian international students and between East Asian international and European American college students.

This emerging integrative approach further highlighted cultural differences in coping and emotion regulation because it placed considerable emphasis on the role of culture in shaping the development of coping (Compas, 2009). In this study, cultural constructs such as individualism versus collectivism (Hofstede, 2001; Triandis, 1995), independent versus interdependent self-construals (Markus & Kitayama, 1991), and East Asian dialecticism (Peng & Nisbett, 1999)

were employed to examine emotion-focused coping practices among East Asians. Despite a variety of East Asian values and cultural differences in emotional norms and experiences, the constructs of individualism–collectivism (Hofstede, 2001; Triandis, 1995) and independence–interdependence (Markus & Kitayama, 1991) are most commonly accepted in cross-cultural research. These constructs have been particularly useful to understand cultural differences in how an individual views self and one's relationships with others. Although each individual's self-construal falls on the continuum between individualism and collectivism, or independent and interdependent self, cross-cultural researchers have agreed that relative to Westerners, East Asians tend to self-define as a member of a significant in-group (Hofstede, 2001; Markus & Kitayama, 1991). Additionally, Peng and Nisbett's (1999) work on East Asian dialectical values is applicable to this study because the central aspect of dialectical thinking (e.g., balance) is useful in explaining moderation and complexity in emotional behaviors among East Asians.

Subsequently, the integrative approach I present here includes three major categories of emotion-focused coping practices that are commonly utilized by East Asians: critical reappraisal, emotion moderation, and relational support. Although investigated separately, a large amount of theoretical and empirical evidence has demonstrated that these three constructs are associated with East Asians' coping and emotional behaviors (e.g., Heppner et al., 2006; H. S. Kim et al., 2008; Schimmack, Oishi, & Diener, 2002; Tsai & Levenson, 1997). Yet, these three constructs have not been examined together as emotion-focused coping behaviors used by East Asian international college students. Remarkably, little attention has been paid to the emotion regulation of East Asian foreign students who experience cultural transitions and acculturative processes. Thus, it seemed important to examine these culturally specific emotion-focused coping behaviors and provide empirical evidence regarding the way emotion-focused coping

behaviors may operate among East Asian international college students and how emotion-focused coping behaviors may differ between East Asian international and European American college students.

<div align="center">**Research Questions**</div>

On the basis of existing literature concerning coping, emotion regulation, and culture, I posed the following general research questions:

Research Question 1

Are there differences due to ethnicity between East Asian international college students and European American college students in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?

Cross-cultural researchers have suggested cultural variation in emotion-focused coping practices, indicating that East Asians tend to use critical reappraisal, emotion moderation, and relational support (Heppner et al., 2006; H. S. Kim et al., 2008; Schimmack et al., 2002; Tsai & Levenson, 1997). However, these constructs have not been directly investigated as East Asian culture-specific emotion-focused coping behaviors, particularly within an East Asian international college population. Thus, I conducted an ethnic comparison in order to examine the differential use of emotion-focused coping behaviors between East Asian international students and European American students. I hypothesized that differences due to ethnicity would emerge in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. I expected East Asian students to report higher scores on emotion-focused coping behaviors as compared to their European counterparts.

Research Question 2

Are there differences due to gender among East Asian international college students in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?

Emotion research on gender has indicated that women experience emotions more frequently and more intensely than do men (Schimmack et al., 2002). Larger gender differences in emotional responses have emerged among European American samples than among non-European American samples (Durik et al., 2006). Thus, gender differences in East Asians' emotion-focused coping behaviors remain unclear due to mixed findings. Some researchers found gender differences in emotional complexity (e.g., Bagozzi, Wong, & Yi, 1999) and emotional suppression (e.g., Chen, Cheung, Bond, & Leung, 2004). On the other hand, a few researchers reported no gender differences in emotional responses among East Asians and East Asian Americans (e.g., Spencer-Rodgers, Peng, & Wang, 2010). Cross-cultural researchers seem to agree that women including Europeans and Asians use social supports more than do men (Jung, 1995; H. S. Kim, Sherman, Ko, & Taylor, 2006). Relative to critical reappraisal, however, no prior evidence in support of gender difference was found. No specific direction was hypothesized for gender difference in emotion-focused coping behaviors.

Research Question 3

What is the effect of acculturation status among East Asian international college students on emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?

Relatively few empirical studies have examined the association between the acculturation process, coping choices, and emotion regulation. The less acculturated or more traditional East

Asians reported a greater use of emotion suppression (Butler et al., 2007) and less use of social

support (H. S. Kim et al., 2008) than the more assimilated individuals. These findings are

limited given that they were not directly examined in the context of emotion-focused coping

behaviors. Thus, it was hypothesized that East Asian international students' reported emotion-

focused coping strategies would vary as a function of acculturation status.

Significance of the Study

The examination of culturally specific emotion-oriented coping practices among East

Asian international students has the potential to impact scholarly research, clinical practice, and

educational interventions. First, this study will extend existing knowledge in the emotion

regulation and coping literature by filling the gap between the two areas of study. Further, the

integrative approach and empirical examination of relevant cultural constructs will provide

evidence of culturally valid emotion-focused coping behaviors. A finding of cultural differences

between East Asians and European Americans in emotion-focused coping behaviors would assist

cross-cultural researchers to appreciate the culturally congruent way East Asians manage and

regulate emotional distress. Given the lack of an emotion-oriented coping inventory for use with

East Asians, this study will provide preliminary evidence for the development of an emotion-

focused coping measure for East Asians.

Secondly, knowledge about culturally specific emotion-focused coping behaviors in East

Asians will assist mental health professionals in university and community counseling settings to

address effectively East Asian clients' psychosocial and academic adjustment in the United

States. Despite the fact that East Asians are one of the largest groups of Asian international

students on most U.S. university campuses, they are one of the most invisible and underserved

groups in university counseling centers (Mori, 2000). Furthermore, cultural aspects tend to be

under-appreciated in counseling practice with international students; instead, traditional counseling interventions that are deeply embedded in cultural assumptions of individualism and are conducted with European Americans have been employed with this population. In this regard, there is an urgent call for psychologists and counselors on university campuses to be aware that East Asian international students are at risk for diverse psychological problems and to provide culturally sensitive clinical assessments regarding the type of emotion regulation strategies utilized and the effectiveness of these strategies. An enhanced understanding of emotion-focused coping behaviors in East Asian students can help clinicians avoid cultural bias toward Asian clients' emotional behaviors and gain a finer understanding of the cultural aspects of their behaviors, which will facilitate the therapy process and outcome. This study's findings can be used to facilitate culturally empathetic communication between mental health professionals and East Asian clients.

Thirdly, the increased knowledge gained from this study will assist administrators, academic advisors, and campus personnel in higher education institutions to accommodate East Asian international students' unique needs and develop educational policies that improve students' adjustment in the United States. U.S. institutions of higher education have traditionally been unaware of the adjustment difficulties among foreign students due to lack of knowledge or guidelines for serving this population (Wei et al., 2007). Therefore, the findings may help American advisors understand their East Asian advisees' emotion management behaviors and adjustment, thus increasing effective communication and assistance.

Definitions of Terms

Acculturation: social interaction and communication styles that newcomers adopt to interact with a host culture (Berry, 1980). According to Berry (1980), immigrants tend to

experience one of four acculturation processes: assimilation, separation, integration, or marginalization. Assimilation relates to giving up one's own cultural tradition and moving into the dominant culture. Separation involves holding on to one's own cultural traditions and avoiding interactions with the host culture. Integration entails maintaining one's cultural integrity while simultaneously interacting with the dominant culture. Finally, marginalization refers to one's lack of interest or wish to have contact with one's own culture or the host culture.

Acculturative stress: "a stress reaction in response to life events that are rooted in the experiences of acculturation" (Berry, 1997, p. 19).

Collectivism versus individualism: collectivism refers to subordinating personal goals to the collective goals, which includes the concern about the effect of one's choices on others, sharing of resources, concern about presentation and loss of face and feeling that one is involved in and contributes to others' lives. On the other hand, individualism is defined as giving priority to personal goals over the goals of collectives (Hofstede, 2001; Triandis, 1995). East Asian cultures are typically described as embracing the values of collectivism whereas Western cultures are characterized as individualism-oriented. Cross-cultural researchers have employed these concepts to explain cultural differences in psychological processes between East Asians and European Americans (e.g., Hofstede, 2001; Markus & Kitayama, 1991).

Coping: cognitive, affective, and behavioral efforts to manage stressful events (Lazarus & Folkman, 1984). In this study, coping is defined as regulation under stress (Skinner & Zimmer-Gembeck, 2009).

Critical reappraisal: changing one's perspective of a situation's meaning by reframing and accepting the stressful situation. In this study, critical reappraisal was measured by the

Positive Reinterpretation and Growth and the Acceptance subscales of the Coping Orientation to the Problem Experience (COPE; Carver, Scheier, & Weintraub, 1989) inventory.

East Asia and East Asians: East Asia is a subregion of Asia that can be defined in either geographical or cultural terms. East Asia contains the entirety of China, Taiwan, Japan, and Korea (East Asia, 2010). In this study, I refer to the East Asians living in East Asia as East Asians, the East Asians living in the United States as East Asian Americans, and the European Americans living in the United States as European Americans.

East Asian international college students: non-immigrant foreign students in the United States on temporary visas at the postsecondary level whose nationalities include the East Asian countries identified above (IIE, 2010).

Emotion-focused coping: a type of coping directed at managing emotional distress, which includes affective strategies such as processing and expressing emotions, cognitive strategies such as reframing a stressful event, or behavioral strategies such as seeking emotional support (Lazarus & Folkman, 1984). In this study, emotion-focused coping is defined as emotion regulation under distress and includes critical reappraisal, emotion moderation, and relational support.

Emotion moderation: individuals' efforts to regulate their emotional response by making emotions less extreme or intense. In this study, emotion moderation was measured by the Ambivalence over Emotional Expressiveness Questionnaire (AEQ; King & Emmons, 1990).

Emotion regulation: "individuals' attempts to influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998, p. 275).

Nationality versus ethnicity: nationality refers to citizenship whereas ethnicity is characterized as a group of people who are united by similar cultural, religious, linguistic

backgrounds (Phinney, Horenczyk, Liebkind, & Vedder, 2001; Zagefka, 2009). Ethnicity is often used interchangeably with nationality or cultural group. Ethnicity can be subgroups within a larger context, such as a nation, that claim a common ancestry and shared history, place of origin, kinship, language, or culture (Phinney et al., 2001).

Relational support: individuals' efforts to regulate their emotions through perceived, implicit emotional support such as empathetic presence of close ones and emotional connection with close ones. In this study, relational support was measured by the Perceived Emotional Support (PES; Hisada, Senda, & Minoguchi, 1989) scale.

Problem-focused coping: a type of coping that addresses a problem directly, which involves making a plan of action to resolve a problem (Lazarus & Folkman, 1984).

Limitations and Delimitations of the Study

The present study was delimited to examine only emotion-focused coping behaviors. Coping has multiple aspects and is best studied in a multi-dimensional manner. However, problem-solving coping has been overemphasized in coping research whereas emotion-focused coping has been under-researched. This academic trend may be due to the value placed on cognition by Western cultures as a critical core aspect of the coping process. Thus, in this study, I exclusively highlighted coping through emotion, hoping that the current research would add to the body of emotion-focused coping research with East Asians.

This study was further delimited by focusing on East Asian international college students. Given the fact that Asians are one of the most diverse racial and ethnic groups, the present study only included one Asian subgroup, East Asians. It is important to note that international students from India comprise one of the largest populations among Asian international students in U.S. higher education (IIE, 2010). However, Indian cultures are dissimilar from East Asian cultures

in terms of geographical region, cultural values, and philosophical beliefs. As such, this study only focused on East Asian cultures as defined above. Although China, Taiwan, Japan, and Korea were clustered for the purposes of this study due to shared cultural values and philosophies, the variations among these East Asian cultures should be acknowledged (Barry, 2001; Boucher, 2010; B. S. K. Kim et al., 1999; Zhang et al., 2005). Most cross-cultural research on emotion and emotion regulation has been conducted with East Asian Americans or East Asians. Remarkably, East Asian international students' emotion-focused coping practices that affect their acculturation and adjustment have been overlooked in existing cross-cultural research. In this study, I acknowledged the importance of emotion regulation and emotional well-being in East Asian international students due to their growing population on university campuses.

An additional delimitation was that I focused exclusively on adult populations who encounter stressful situations. The inclusion of coping research with children and developmental research on emotion regulation that focuses on children was considered beyond the scope of the current study.

There are some methodological limitations in the study. First, I relied on a convenience sample by recruiting student volunteers who responded to an online survey. Some disadvantages of convenience sampling involve sampling bias and representativeness. Because the sample may not be representative of the population, the results of the study cannot speak for the entire population of East Asian international college students who study in the United States. This limitation in generalization may compromise the external validity of the study.

Next, I relied on group comparisons to determine whether cultural differences emerge in emotion-focused coping behaviors. It is noteworthy that ethnic groupings are one way to

examine cultural differences and may not fully explain the cultural variation that exists between and within groups.

Further, I relied exclusively on self-report measures. Emotion encompasses physiological arousal, subjective experience, and behavioral expression; thus, emotion and emotion regulation have been measured by physiological and behavioral observations, observer ratings, or self-reports. Given that culture influences aspects of emotion in different ways, critical issues related to the measurement of emotion need to be taken into account. Particularly, when self-report inventories are employed, the participants may not report their actual coping behaviors or practices because of social desirability or self-improvement motivations that are affected by cultural values.

Summary

East Asian international students who undergo the acculturation process are exposed to acculturative stress that affects their adjustment in the United States. Coping researchers have investigated the way international students cope with acculturative stress; yet, little attention has been paid to the way East Asian students manage their emotional distress. In this study, I took an integrative approach to explore cultural constructs that account for East Asians' emotion-focused coping practices as reflected in critical reappraisal, emotion moderation, and relational support. To provide empirical evidence regarding these constructs among East Asian international students, I investigated the cultural differences between East Asian and European Americans students in emotion-focused coping behaviors. It is my hope that the findings facilitate the efforts of mental health professionals, researchers, and school personnel to assist this population in a culturally sensitive way.

CHAPTER 2

LITERATURE REVIEW

In this chapter I provide an introduction and critical review of relevant research on coping and emotion regulation. I place considerable emphasis on the role of culture in the investigation of East Asian emotion-focused coping behaviors through an empirical examination of cultural constructs. Five primary categories of cross-cultural research on coping and emotion regulation are covered. The first category encompasses Lazarus and Folkman's (1984) cognitive-appraisal theory of stress and coping, attention to emotion-focused coping, and current research on cultural differences in relation to emotion-focused coping. The second category includes Gross's (1998, 2001) model of emotion regulation and empirical evidence on cultural differences in emotion regulation. The third category involves psychometric evaluation of commonly employed inventories in coping and emotion regulation research. These inventories are evaluated on the basis of psychometric soundness and cultural relevance. In the fourth category, I offer an integrative perspective based on theoretical foundations of emotion regulation and coping among East Asians. Through this approach, I integrate empirical evidence from coping and emotion regulation into the cross-cultural literature on self-construals and emotion in East Asians. Relying on critical, dialectical, and relational self-construals in East Asian cultures (Hofstede, 2001; Markus & Kitayama, 1991; Peng & Nisbett, 1999; Triandis, 1995), in the final category I

propose a model of East Asians' emotion-oriented coping practices that includes a combination

of critical reappraisal, emotion moderation, and relational support.

Coping Theory and Research

Coping involves specific efforts that people employ to manage stressful events. The

majority of coping research has utilized Lazarus and Folkman's (1984) cognitive-appraisal

theory of stress and coping in which coping is defined as "constantly changing cognitive and

behavioral efforts to manage specific external and internal demands that are appraised as taxing

or exceeding the resources of the person" (p. 141). Lazarus and Folkman suggested three major

components in the stress-coping process: appraisal, emotion, and coping. A given stressful event

and appraisal of the event elicits emotional reactions and prompts coping responses which, in

turn, affects emotion and subsequent reappraisal of the situation (Lazarus & Folkman, 1984). In

classic stress and coping theory, coping plays a vital role in the stress-adjustment relationship

(Aldwin, 2007). A substantial body of research has indicated that coping plays a critical role in

managing life stressors, often mediating or moderating the association between stress and health

outcomes (Aldwin, 2007; Folkman & Moskowitz, 2004).

On a theoretical level, Lazarus and Folkman (1984) classified coping behaviors as either

problem-focused where problems are directly addressed or emotion-focused where negative

emotions brought on by stressful events are managed. Examples of problem-focused coping are

taking a course of action or making a decision to resolve problems. Emotion-focused coping

includes expressing emotions, distancing, seeking emotional support, reframing, and accepting

responsibility. Indeed, the distinction between the two is unclear and even more complex

because people rarely employ merely problem-focused or emotion-focused types of coping alone

(Folkman & Lazarus, 1985; Folkman & Moskowitz, 2004). Researchers who study coping have

suggested that individual differences or the type of stressful event may determine the

employment of one strategy over another (Aldwin, 2007). For example, problem-focused coping

is more likely to occur to address primarily controllable stressors that are perceived as

changeable or remediable, such as work-related problems. In contrast, people tend to use

emotion-focused coping to deal with stressors recognized as less controllable, such as

relationship issues or chronic health problems (Folkman & Lazarus, 1985; Stanton, Kirk,

Cameron, & Danoff-Burg, 2000).

An additional distinction frequently mentioned in the coping literature is active versus

avoidant coping (Endler & Parker, 1990). Active coping involves efforts aimed at addressing the

stressor itself. On the other hand, avoidant coping engages an attempt irrelevant to a stressor,

such as drinking alcohol. Avoidant coping may be adaptive in negative life circumstances that

cannot be improved. Overall, active coping is regarded as an effective way to address life

stressors (Folkman & Moskowitz, 2004).

Coping research has evolved to develop a variety of coping strategies. Yet, broad

classifications, such as problem-focused versus emotion-focused or active versus avoidant, have

been extensively used in the coping literature due to their convenience (Folkman & Moskowitz,

2004). It is important to note the considerable overlap between problem-focused and active

coping strategies. An overlap between emotion-focused and avoidant coping strategies is also

noticeable. As a result, these constructs have been used indistinctively and interchangeably in

the literature on coping.

Emotion-Focused Coping

A large number of researchers who investigated the link between coping and

psychological well-being suggested that emotion-focused or avoidant coping strategies are less

likely to be adaptive, whereas problem-focused or active coping strategies are more adaptive (Aldwin, 2007; Endler & Parker, 1990; Folkman & Moskowitz, 2004). Folkman and Lazarus (1988) proposed that this relationship might be complex, suggesting that some problem-focused coping practices, such as confronting, were often problematic, whereas some emotion-oriented coping strategies, such as positive reappraisal, were more functional. Indeed, research findings have consistently shown that positive reappraisal, which involves creating new perspectives or making meaning of stressful life circumstances, is associated with positive affect toward stressful events (Folkman & Moskowitz, 2004).

Recently, some researchers have raised questions about conceptualizing and measuring emotion-focused coping behaviors, arguing that existing emotion-focused coping measures were confounded with emotional avoidance, venting, or distress (Austenfeld & Stanton, 2004; Folkman & Moskowitz, 2004; Stanton et al., 2000). For instance, Stanton, Danoff-Burg, Cameron, and Ellis (1994) pointed out some critical issues that are prevalent in frequently researched coping inventories such as, the Ways of Coping Questionnaire (WCQ; Lazarus & Folkman, 1984), the COPE (Carver, Scheier, & Weintraub, 1989), and the Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990). They argued that these emotion-focused coping measures included items on emotional distress (e.g., "I get upset and let my emotions out"), which act as a confounding variable that may have a negative impact on the relationship between emotion-oriented coping and adjustment. It is imperative to pay attention to methodological concerns regarding emotion-focused coping because of puzzling research findings on East Asians' coping behaviors. Studies indicated that East Asians employed emotion-focused coping strategies that were associated with psychological maladjustment (e.g., Chang, 1996; Essau & Trommsdorff, 1996). Utilizing emotion-oriented coping measures that

are confounded with avoidance or emotional distress is more likely to link East Asians' emotion-focused coping behavior with negative mental health outcomes.

Cultural Difference in Emotion-Focused Coping

There is limited and indirect evidence on emotion-focused coping among East Asians because emotion-focused coping strategies have been interchangeably used with avoidant coping in cross-cultural studies. Cross-cultural investigations on coping indicate that there is more evidence for the link between a collectivistic orientation and the employment of avoidance or emotion-focused coping than for the link between an individualistic orientation and the use of problem-focused coping (Chang, 1996). As compared to European Americans, Asians and Asian Americans more often utilize emotion-focused coping (Bjorck et al., 2001; Essau & Trommsdorff, 1996), avoidant coping (Chang, 1996; Jung, 1995; Sheu & Sedlacek, 2004), and passive coping strategies (Bjorck et al., 2001).

Cross-cultural researchers who examined cultural variances in coping choice speculated that the preference for avoidant or emotion-focused coping among Asians may be accounted for by cultural factors (e.g., Bjorck et al., 2001; Taylor et al., 2004; Yeh & Inose, 2002). In Bjorck and colleagues' (2001) study, Korean and Filipino Americans were found to use accepting responsibility, escape and avoidance, distance, and religious coping more than European Americans. The researchers suggested that the greater reliance on passive or avoidant coping strategies by Asian groups may be attributed to differences in cognitive reappraisal which are affected by cultural values. To illustrate, the Asian worldview where one makes peace with nature, other people, and the world may result in greater dependence on coping strategies, such as acceptance or meaning-making reappraisal, which Bjorck and colleagues classified as

"passive." Chun, Moos, and Cronkite (2006) accurately described the relationship between the Asian worldview and the development of coping choice:

> In the Eastern collectivistic cultures, the worldview is more holistic and the separation between person and environment is considered artificial and meaningless. When problems arise between the self and the environment, the cause is perceived to be neither within the person nor in the external world, and a "mature" person would take actions to control the self to make it fit better with the environment. Hence, coping strategies that focus on exercising secondary control, in other words, controlling one's own internal states and behaviors, are deemed desirable and may be more effective in achieving coping goals. Such coping efforts are neither passive nor avoidant; in reality they require intense effort and concentration on the target of control, the mind and behaviors of the self. (p. 46)

Indeed, an essential aspect that distinguishes problem-focused coping from other coping strategies is perceived control, the perception that one can exert an influence on the environment (Carver et al., 1989). Carver and colleagues (1989) demonstrated the association between situational appraisals of control and problem-focused coping. In this context, control strategies reflected a "take charge" perspective often focusing efforts on resolving the problem and taking direct action (Carver et al., 1989). It is unsurprising that Asians, who do not believe in exerting unending control over their environment, employ more emotion-focused or avoidant and less problem-focused coping than European Americans.

Cross-cultural researchers have provided empirical evidence that European Americans have a stronger sense of internal locus of control than East Asians (Chun et al., 2006). Lam and Zane (2004) found that Asian Americans employed more secondary control and less primary

control than European Americans. In an additional analysis, an interdependent self-construal

orientation predicted the preference for secondary control among Asians. In comparison, an

independent self-construal orientation predicted the greater use of primary control among

European Americans (Lam & Zane, 2004). These findings indicate that what is construed as

avoidant-passive coping behavior is indeed a culturally consonant effort to compromise

uncontrollable life stressors and maintain harmony with self, others, and environments (Yeh,

Inman, Kim, & Okubo, 2006).

Several researchers have supported the positive link between avoidant coping and

adjustment among East Asians. In Chang's (2001) study, the use of avoidant strategies was

associated with less life satisfaction and fewer distress outcomes in European Americans; yet,

these negative health outcomes did not occur among Asians and Asian Americans. These

findings indicate that cultural differences in coping goals influence choices of coping strategies

and psychological adjustment (Chun et al., 2006). It is important to note that scholarship on

coping has largely been investigated on the level of individuals' self-constructs such as

individuals' cognitive, affective, and behavioral responses (Heppner et al., 2006; Moore &

Constantine, 2005). As such, researchers who study coping have overlooked cross-cultural and

contextual processes and focused primarily on problem-focused coping strategies that are highly

valued and emphasized in Western cultures (Butler et al., 2007). Notably, when indirect coping

strategies such as passive or avoidant coping practices are identified and associated with East

Asian populations, these emotion-focused coping behaviors carry negative connotations and are

seen as less favorable, less adaptive, or less well-developed than problem-focused coping

behaviors. Failing to consider cultural contexts may result in misunderstandings regarding the

coping strategies of East Asians, which contribute to culturally based biases toward this population.

Emotion Regulation Theory and Research

Researchers who study emotion regulation examine the way an individual experiences, expresses, and regulates emotion as well as the manner in which emotion regulation affects adjustment and psychological functioning (Gross & Thompson, 2007). Emotion regulation involves individuals' attempts to "influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998, p. 275). Emotion regulatory processes can be conscious, effortful, and controlled as well as unconscious, effortless, and automatic (Gross, 1998). Unlike coping behavior that primarily focuses on negative emotional response in a stressful situation, emotion regulation involves both positive and negative emotions. An individual may manage either negative or positive emotions, by either underregulating or overregulating them (Gross & Thompson, 2007). Emotion regulation also includes unconscious processes that do not fall under the classic concept of coping (Folkman & Moskowitz, 2004; Gross, 1998).

Emotion regulation research has evolved relying heavily on stress and coping theories (Gross, 1998). The development of emotion regulation has borrowed from a model of emotional arousal where a stimulus elicits appraisal, which then prompts an emotional reaction (Gross, 1998). The aroused emotion is manifested in cognitive, affective, and physiological responses (Folkman & Moskowitz, 2004). Existing emotion regulation theories are mainly based on the notion that emotions are prompted by appraisals, which significantly stresses the importance of cognitive aspects of emotions (Gross, 1998).

Among the divergent theories, Gross's (1998) model has been largely accepted in the field of emotion regulation. Gross proposed a process of emotion regulation by underscoring five timelines in which emotions are regulated: (a) situation selection, (b) situation modification, (c) attentional deployment, (d) cognitive change, and (e) response modulation. Gross referred to the first four as antecedent-focused regulation and the fifth as response-focused regulation. Focusing on cognitive change and response modulation, Gross and John (2003) suggested two kinds of emotion regulation strategies: suppression and reappraisal. Suppression is "a form of response modulation that involves changing the way one responds behaviorally to an emotion-eliciting event by inhibiting ongoing emotion-expressive behavior" (Gross & John, 2003, p. 349). The most studied antecedent strategy is reappraisal, "a form of cognitive change which involves altering the way one thinks about an emotional situation" (Gross & John, 2003, p. 349). Gross and John suggested that reappraisal occurs before peak emotion is felt whereas suppression is activated during or after peak emotional experience.

A series of experimental studies conducted by Gross and colleagues have demonstrated that, as compared to suppression, cognitive reappraisal is associated more with positive affect, interpersonal functioning, and psychological well-being (e.g., Butler et al., 2007; Gross, 1998; Gross & John, 2003; Gross & Levenson, 1993, 1997; Richards & Gross, 1999, 2000). In a series of studies, participants were exposed to emotion-inducing films or slides and were instructed to suppress or reappraise consciously their overt emotional reactions. Suppression was found to decrease the facial expression of positive and negative emotions but had little impact on suppressors' self-reported feelings (i.e., emotion experience; Richards & Gross, 1999, 2000). The suppression of positive and negative emotions was found to cause a cognitive burden as well as physiological arousal (Richards & Gross, 2000). On the other hand, cognitive reappraisal was

found to be an adaptive strategy to manage negative emotions (Gross, 2001; Gross, Richards, &

John, 2006). Using self-reports and peer-reports, Gross and John (2003) found that individuals

who frequently employed a reappraisal strategy reported greater positive affect, less negative

affect, and improved interpersonal functioning. In a study on emotion regulation in relationship

conflicts (Richards, Butler, & Gross, 2003), dating couples were asked to reappraise a conflictual

situation in positive terms or to suppress any emotional expression. Richards and colleagues

(2003) found that suppression impaired memory for the verbal content of the conversation

whereas reappraisal did not. These researchers concluded that suppression was costly because it

not only co-occurred with emotion but also entailed constant self-monitoring and self-control

(Gross, 2002; Richards et al., 2003).

Overall, emotion regulation studies show that suppression can be cognitively demanding

leading to a decrease in memory and communication. In comparison, reappraisal is adaptive,

contributing to a decreased level of negative affect and an increased level of positive affect.

These findings are not without limitations, because most emotion regulation research has been

conducted with homogenous samples in lab settings with little emphasis on cultural variability.

Cultural Difference in Emotion Regulation

One major limitation of the earlier literature on emotion regulation is that it rarely takes

into account cultural norms or values in explaining emotional behaviors (Butler et al., 2007). In

light of Gross's (1998) emotion regulation process model, Matsumoto (2006) attempted to

describe cultural differences in emotion regulation processes. According to Matsumoto, culture

affects reappraisal as a result of differences in self-construals, values, and practices. In other

words, culture influences not only the way individuals evaluate emotion-eliciting situations but

also how people experience, express, and suppress emotions (Matsumoto, 2006). For example,

East Asian collectivistic cultures (Hofstede, 2001) tend to place one's in-group goals ahead of individual goals. Accordingly, emotional expressions that demoralize in-group harmony are downplayed, and emotions that maintain or enhance harmony are encouraged (Matsumoto, 2006).

Ethnographic studies have indirectly shown the existence of cultural differences in emotion expression and suppression (Ekman, 1972). Whereas European Americans were more concerned with expressions of anger, Japanese and Chinese people typically inhibited most negative emotions (Mesquita, 2001). Hispanics and European Americans were more likely to engage in positive feelings because pleasant feelings are considered to be more desirable and appropriate than unpleasant emotions (Markus & Kitayama, 1999). Overall, ethnographic accounts have indicated that many East Asian cultures value emotional control and emphasize social harmony over individual expression.

Most studies relied on ethnographic methodology, but some investigated the role of culture in shaping emotional responses under controlled laboratory conditions. Gross and John (2003) compared cross-cultural differences in suppression and cognitive reappraisal. Asian Americans experienced greater levels of emotional suppression than did European Americans. Another study conducted by Butler and colleagues (2007) also indicated that women with bicultural Asian-European values suppressed emotions more frequently than did women with European values. In their advanced analysis, habitual suppression was linked to negative affect and self-protective social goals for European women. The positive association between suppression and negative affect did not emerge in bicultural Asian women (Butler et al., 2007). This finding that suppression is less associated with negative health outcomes in Asian

participants indicates that the consequences of emotion inhibition may vary depending on cultural variables such as acculturation or the cultural conceptualization of emotion.

In general, findings on emotion regulation should be interpreted in light of several methodological advantages and disadvantages. Most emotion regulation research was conducted in lab settings where respondents' actual physiological, subjective, and behavioral responses to stressful events were examined. However, the self-report measures of subjective data predominantly relied on the employment of a few measures, such as the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003), that might not be culturally sensitive for use with East Asians. At this point, it seems necessary to evaluate existing instruments that measure emotion regulation and coping before examining culturally specific emotion-focused coping behaviors among East Asians.

Psychometric Evaluation of Measures of Coping and Emotion Regulation

Existing instruments including items regarding emotion-oriented coping and emotion regulation are reviewed in light of theoretical, empirical, methodological, and cultural relevance. A review of each follows.

Coping Inventory for Stressful Situations (CISS)

The CISS (Endler & Parker, 1990, 1994) is a 48-item self-report inventory measuring three major coping styles: task-oriented, emotion-oriented, and avoidance-oriented. Given that problem-focused, emotion-focused, and avoidance styles are most commonly utilized in coping literature, the CISS reflects the most common coping structures. Task-oriented coping relates to problem-solving strategies whereas emotion-oriented coping involves emotional venting. Avoidance coping relies on social diversion or distraction. Some examples of Task-Oriented Coping items are "determine a course of action and follow it" and "analyze the problem before

reacting." Examples of Emotion-Oriented Coping items include "blame myself for not knowing what to do" and "become very upset." Examples of Avoidance Coping items contain "watch TV" and "try to be with other people." Participants are asked to rate how much they involve identified coping activities on a 5-point Likert scale, ranging from 1 (*not at all*) to 5 (*very much*). Coefficient alphas for the Emotion-Oriented and Avoidance Coping scales were .89 and .82, and the test-retest reliability estimates were .71 and .60, respectively (Endler & Parker, 1994). Whereas task-oriented coping strategies were positively associated with adaptation, emotion-oriented coping styles were negatively related to psychological well-being (Endler & Parker, 1994).

It is noteworthy that CISS distinguishes emotion-oriented coping from avoidance coping; yet, items related to emotion-oriented coping are mainly associated with emotional distress such as emotional venting or outbursts. Additionally, the CISS is limited to three components that do not reflect the complexity and diversity of coping responses.

Coping Orientation to Problem Experience (COPE) Inventory and Brief COPE

The COPE (Carver et al., 1989) is a 60-item inventory that yields 15 conceptually distinct coping styles with four items each. The COPE was theoretically driven and was validated with a sample of 978 college students in southern Florida (Carver et al., 1989). The respondents are asked to choose how they react to stressful events on a 4-point Likert scale ranging from 1 (*I don't do this at all*) to 4 (*I do this a lot*). Subscales include Positive Reinterpretation and Growth (i.e., making the best of the situation by growing from it), Acceptance (i.e., accepting the fact that the stressful event has occurred), Use of Emotional Social Support (i.e., seeking sympathy or emotional support), Use of Instrumental Social Support (i.e., seeking assistance, information, or advice), Focus on and Venting of Emotions (i.e., venting or discharging emotional distress),

Suppression of Competing Activities (i.e., suppressing one's attention to other activities in order to deal with the stressor), Active Coping (i.e., taking action), Planning (i.e., planning one's active efforts), Religious Coping (i.e., engaging in religious activities), Restraint (i.e., holding back one's coping attempts), Denial (i.e., rejecting the reality of the stressful event), Mental Disengagement (i.e., psychologically disengaging from the goal with which the stressor is interfering, through daydreaming, sleep, or self-distraction), Behavioral Disengagement (i.e., giving up, or withdrawing effort), Substance Use (i.e., turning to the use of alcohol and drugs as a way of disengaging from the stressor), and Humor (i.e., making jokes about the stressor).

The COPE has varied psychometric properties with Cronbach's alphas ranging from .45 (Mental Disengagement) to .92 (Turning to Religion); eight-week test-retest reliabilities ranging from .46 (Suppression of Competing Activities) to .86 (Turning to Religion); and some evidence of convergent and discriminant validity with control, optimism, and self-esteem (Carver et al., 1989). Despite some criticism towards its unstable factor structure and low alpha coefficients, the COPE has been extensively used due to its multidimensional aspects.

The Brief COPE (Carver, 1997) is an adaptation of the original COPE, with two items on each of 14 subscales. The scales include: Active Coping, Planning, Positive Reframing, Acceptance, Humor, Religion, Using Emotional Support, Using Instrumental Support, Self-Distraction, Denial, Venting, Substance Use, Behavioral Disengagement, and Self-Blame. A 4-point Likert response format range from 0 (*I haven't been doing this at all*) to 3 (*I've been doing this a lot*). The subscales relevant to emotion-focused coping include Emotional Social Support, Positive Reframing, and Resignation/Acceptance. An example of Emotional Support is "I talk to someone about how I feel." Examples of Positive Reframing and Acceptance are "I look for something good in what is happening" and "I learn to live with it," respectively (Carver, 1997).

The Brief COPE was derived from a sample of adults who suffered from a natural disaster. Like the COPE, the Brief COPE included only a small number of Asians (i.e., 5% of the sample) in the original validation study. The alpha reliabilities in the original validation study varied from .50 (Venting) to .90 (Substance Use). A factor analysis yielded a structure generally consistent with the original version of the COPE (Carver, 1997; Carver et al., 1989). In H. S. Kim and colleagues' (2006) study on social support seeking with Asian American college students, Cronbach's alpha for social support subscales on the Brief COPE was .92.

The COPE and the Brief COPE have been employed in a variety of studies with international populations (Miyazaki, Bodenhorn, Zalaquett, & Ng, 2008). In a study with international college students in the United States, the resulting factor structure of the Brief COPE was somewhat different from the original Brief COPE, but major factors were included (Miyazaki et al., 2008). The structure for the United States international students included seven factors. The three major factors, Positive Coping, Support Seeking, and Denial were consistent with original factors, which indicated that the essential part of the Brief COPE transcends culture. The four other factors, also found in the original structure, were Religion, Self-Blame, Humor, and Substance Use. Overall coefficient alpha values were deemed acceptable and ranged from .60 to .89 (Miyazaki et al., 2008).

It is notable that both the COPE and Brief COPE add a range of potential coping responses beyond problem- and emotion-focused coping practices. Additionally, Carver and colleagues (1989) provided advanced analyses by distinguishing between Seeking Social Support for Instrumental Reasons and Seeking Social Support for Emotional Reasons. They classified social support (i.e., seeking advice, assistance, or information) as problem-focused coping,

whereas emotional support (i.e., receiving encouragement, sympathy, or understanding) was classified as emotion-focused coping.

Coping through Emotional Approach (EAC)

The EAC (Stanton et al., 2000) is theoretically derived from a functionalist theory of emotion in which approaching one's emotions positively contributes to intrapersonal and interpersonal functioning. Stanton and colleagues (2000) developed the 16-item EAC, designed to measure "coping through emotional approach" (p. 1150) without confounding factors. In an attempt to amend problems in operationalizing emotion-focused coping, Stanton and colleagues took items relevant to emotions from most commonly used coping instruments and changed them into descriptions of client behavior. Consistent with Lazarus and Folkman's (1984) conceptualization of coping processes, emotional approach coping involved approaching one's emotions in response to stressful situations (Stanton et al., 2000).

The EAC assesses two distinct components, Emotion Processing (i.e., efforts to acknowledge and understand emotion) and Emotion Expression. An example of Emotion Processing items includes "I explore my emotions" whereas Emotion Expression contains items such as "I express the feelings I am having." The EAC has been shown to be beneficial in dealing with stressors related to mental health as well as physical pain (Austenfeld & Stanton, 2004). Stanton and colleagues (2000) suggested that the EAC was more adaptive to interpersonal situations than achievement-related circumstances and was a better predictor of health for women than men. The EAC demonstrated acceptable internal consistency reliability (.72 to .94) and four-week test-retest reliability (.72 to .78) with convergent and discriminant validity across relevant studies with mostly European American samples (Austenfeld & Stanton, 2004). Despite its efficacy, this inventory was developed from Western cultural constructs of

emotion expression and processing. Unfortunately, there has been a lack of replication studies on the role of emotional approach coping with East Asian populations.

Collectivist Coping Styles Inventory (CCS)

A 30-item CCS (Heppner et al., 2006) inventory assesses East Asians' use of a combination of primary and secondary control efforts. The CCS was developed with a sample of 3,000 Taiwanese university students in order to reflect different coping orientations than those typically found on coping inventories in Western cultures. The CCS consists of five scales: (a) Acceptance, Reframing, and Striving; (b) Family Support; (c) Religion and Spirituality; (d) Avoidance and Detachment; and (e) Private Emotional Outlets. Participants are asked to designate how certain coping strategies are helpful in dealing with stressful events on a 6-point Likert-type scale anchored 0 (*never used this strategy/not applicable*), 1 (*used but of no help at all*), to 5 (*a tremendous amount of help*). In the original study, Taiwanese college students reported acceptance, reframing, and striving as most frequently being used (90.7%), followed by avoidance and detachment (71.0%), family support (65.8%), religion and spirituality (39.5%), and private emotional outlets (30.0%). Subsequently, participants rated cognitive reappraisal (i.e., acceptance and reframing) as the most helpful, which was followed by family support, avoidance and detachment, private emotional outlets, and religion-spirituality. The coefficient alphas varied from .76 (Private Emotional Outlets) to .90 (Religion-Spirituality) and the two-week test-retest reliabilities ranged from .56 (Acceptance, Reframing, and Striving) to .91 (Family Support). Estimates of construct and concurrent validity showed that the CCS was associated with problem solving and psychological distress but was not strongly related to social desirability. In general, CCS was regarded as a psychometrically sound measure of collectivistic coping.

Notably, some of the CCS coping strategies involve private or confidential settings. Such examples are "chatting on the Internet" and "seeking professional help." These coping behaviors are different from items that are typically found on coping inventories in Western countries. Studies indicate that East Asians generate a strict division between public and private areas and express their emotion in a private way (Cross & Morris, 2003). Although items pertaining to emotion regulation are relatively few and confounded with emotional distraction (e.g., items on Emotional Release), the CCS reflects the way East Asians manage their negative emotions. Given that previous coping inventories emphasized primary control with little attention to secondary control, the development of the CCS coping scale focusing on secondary control is noteworthy, but more replication studies are needed with Asians from other countries.

Collectivistic Coping Styles Measure (CCSM)

The CCSM (Moore & Constantine, 2005) is a 9-item scale that assesses the way Asian, Latin, and African international college students utilize social support seeking and forbearance when under stress. Seeking Social Support involves international students' active ways of seeking support from close ones whereas Forbearance refers to their reluctance to share their concerns with close ones. The notion of forbearance, which derives from concerns about close ones, needs to be understood in the context of relationships with close ones. Moore and Constantine (2005) found Asian international students to report significantly higher forbearance than African and Latin American students. The original study demonstrated sound reliabilities with Cronbach's alpha coefficients of .84 and .95 and adequate test-retest reliability (two-week) of .71 and .80 for the Seeking Social Support and Forbearance subscales, respectively. According to Moore and Constantine, on one hand, international students from collectivistic cultures appreciate the presence of close ones and acknowledge close ones as a primary support.

On the other hand, they are reluctant to seek social support from their family or friends in order to avoid being a burden to close ones. The concepts of forbearance and seeking social support appear incompatible, yet the interaction between the two describes the way individuals from collectivistic cultures cope with distress (Moore & Constantine, 2005). Although the CCSM does not directly measure emotion-focused coping behaviors, the conflicting constructs of forbearance and seeking social support adequately reflect the relational aspect of emotional behaviors among East Asians.

Emotion Regulation Questionnaire (ERQ)

The ERQ (Gross & John, 2003) is a 10-item scale that assesses an individual's use of two emotion regulation strategies: Cognitive Reappraisal and Suppression. Cognitive Reappraisal includes six items such as, "When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm." Suppression contains four items such as, "When I am feeling negative emotions, I make sure not to express them." Respondents are asked to rate the degree to which they regulate their emotional expression and suppression on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The ERQ showed acceptable Cronbach's alpha coefficients for Suppression (.79) and Reappraisal (.76) with a U.S. sample. In Matsumoto's (2006) study, the alpha coefficients of Reappraisal for the Japanese was low (.56), implying that the measure may not be culturally sensitive. In the same study, ethnic differences were found between European Americans and the Japanese on reappraisal and suppression as measured by the ERQ. Japanese respondents reported experiencing more suppression than did the European Americans whereas European Americans experienced more reappraisal than the Japanese (Matsumoto, 2006).

Summary

Researchers who study coping have attempted to measure multidimensional aspects of coping practices. Yet, current coping inventories bear witness to an imbalance between cognition and emotion coping and are heavily weighted toward the cognitive part of the coping process. Subsequently, emotion-focused coping is narrowly or negatively reflected in major coping inventories. Appraising a cognitive component in the coping process reflects a cultural preference for a problem-solving orientation in Western cultures. In the same vein, a few of the instruments that measure emotion regulation contributed to inadequate measurement of the emotion experiences and emotion regulation of East Asians. Furthermore, some culturally oriented coping inventories, such as the CCS and CCSM only partly tap emotion-oriented coping behaviors among East Asians. Consequently, it is imperative to investigate and appreciate culturally specific emotion-focused coping behaviors among East Asians. To establish a conceptual ground for examining emotion-focused coping behaviors among East Asians, an integrative perspective on coping and emotion regulation is suggested.

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An Integrative Approach

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An integrative approach (Compas, 2009; Eisenberg et al., 1997; Skinner & Zimmer-Gembeck, 2009) incorporates research on coping and emotion regulation in order to broaden both areas of study. As seen in the existing coping and emotion regulation literature, both constructs have evolved separately; yet, blurred divisions between emotion-focused coping and emotion regulation are manifested in theoretical and empirical studies as well as in the measures that have been developed to assess each construct (Compas, 2009). First, the theoretical concepts of emotion-focused coping and emotion regulation overlap because both are elicited in emotion-related responses to stressful events. Traditionally, emotion-focused coping has been

primarily concerned with the management of negative emotion, whereas emotion regulation has

been related to regulating both positive and negative emotions (Folkman & Moskowitz, 2004;

Gross & Thompson, 2007). Yet, these distinctions between emotion-focused coping and

emotion regulation have become unclear. Lately, researchers who study coping have begun

emphasizing the importance of measuring both negative and positive emotions when exploring

the role of coping in adjustment to stressful events (Folkman & Moskowitz, 2000). Similarly,

researchers who study emotion regulation have primarily focused on negative aspects of emotion

regulation, such as emotion inhibition, emotion suppression, and emotion dysregulation. To the

extent that emotion regulation research emphasizes emotional response to disturbing events, the

forms of emotion regulation can be regarded as emotion-focused coping (Gross & Thompson,

2007). For example, cognitive reappraisal has been considered to be an emotion-focused coping

strategy since the time of Lazarus and Folkman's (1984) work. Yet, it has been extensively

researched in emotion regulation literature, being accepted as an adaptive form of emotion

regulation (Gross & Thompson, 2007).

The blurred division between emotion-focused coping and emotion regulation is further

reflected in questionnaire methods (Compas, 2009). Several instruments on emotion regulation

contain items that measure cognitive reappraisal (e.g., "I control my emotions by changing the

way I think about the situation I am in") on the ERQ (Gross & John, 2003) and positive

reappraisals (e.g., "I think that there are good sides to it as well") on the Cognitive Emotion

Regulation Questionnaires (CERQ; Garnefski, & Kraaij, 2006). Likewise, coping measures,

such as the Coping Strategies Inventory (Tobin, Holroyd, Reynolds, & Wigal, 1989), include a

Cognitive Reappraisal subscale (e.g., "I convinced myself that things are not quite as bad as they

seem"). These items present substantial overlap in the measurement of reappraisal as both emotion-focused coping and emotion regulation (Compas, 2009).

There are several marked advantages to integrating emotion-focused coping and emotion regulation in this study. First, by regarding emotion regulation as a type of emotion-focused coping, I can conceptually connect areas that have been previously studied as separate, which allows for the elaboration of emotion-focused coping constructs (Compas, 2009; Folkman & Moskowitz, 2004). From this integrative perspective, coping is viewed as a regulatory process in response to stress and emotion-focused coping is defined as emotion regulation under distress.

Next, methodology used in emotion regulation research compensates for the disadvantages of coping research (Compas, 2009). Existing coping research heavily relies on respondents' self-report on survey questionnaires. Conversely, much of emotion regulation research has been conducted in controlled lab settings where participants' emotional behaviors are directly observed, subjective experiences are reported, and physiological data are measured. The addition of experimental work in emotion regulation research can offset a methodological limitation of coping research.

This emerging view has not been fully developed in terms of its conceptualization, measurement, or cultural relevance. Nonetheless, such a combined approach provides a considerable foundation for greater integration of coping, emotion regulation, and culture. Particularly, this approach provides an opportunity to see how an individual's self-construal in the cultural context shapes coping and emotion regulation (Compas, 2009). In this regard, an integrated framework offers an enhanced understanding of cultural differences by exploring emotion-focused coping behaviors specific to East Asians.

Cultural Perspective Emphasized: Self Construct and Emotion

An integrative approach to coping and emotion regulation incorporates findings from cross-cultural research on self-construals and emotion in order to understand emotion-focused coping practices in East Asians. Cross-cultural studies on emotion have investigated an individual's subjective, behavioral, and physiological responses to an emotional event, focusing on whether cultural differences emerge across these aspects of emotion (e.g., Ekman, 1972; Frijda, 1986; Matsumoto, 1993; Mesquita, 2001). In these studies, cultural differences were viewed as evidence that emotional responses are culturally shaped whereas cultural similarities were interpreted as indication that emotional behaviors are universal (Chun et al., 2006). In general, cultural differences in emotional response have been well-documented, suggesting that cultural factors, especially self-construals, may shape emotional experiences and expressions (e.g., Lam & Zane, 2004; Scollon, Diener, Oishi, & Biswas-Diener, 2004). Therefore, this integrative approach emphasizes cultural construals of self that affect emotion-focused coping behaviors in East Asians.

Critical, dialectical, and relational self. People in different cultures present distinct construals of self and others that affect not only their use of specific types of coping behavior but also their emotion regulation (Markus & Kitayama, 1991). A large amount of cross-cultural research has been developed in light of cultural constructs such as individualism–collectivism (Hofstede, 2001; Triandis, 1995) and independent–interdependent self-construals (Markus & Kitayama, 1991; Singelis, 1994). These studies have indicated that members of collectivistic cultures, such as East Asians, are more likely to hold interdependent self-construals whereas individuals in individualistic cultures, such as European Americans, tend to have independent self-construals (e.g., Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1991).

Additionally, Peng and Nisbett (1999) proposed the notion of East Asian dialecticism as an important self-construal (Spencer-Rodgers, Boucher, Mori, Wang, & Peng, 2009). Dialectical self-construal is used to explain East Asians' moderation and complexity concerning self-concept.

On the basis of these three cultural constructs (i.e., individualism–collectivism, independent–interdependent self-construals, and East Asian dialecticism), I suggest that East Asian cultures, which are characterized as collectivistic, interdependent, and dialectical, support the development of critical, dialectical, and relational self. First, the orientation for collectivism and interdependence leads East Asians to make constant efforts to meet culturally defined standards and hence develop a critical self-concept (Boucher, 2010; Heine et al., 1999). The critical self-evaluative nature of East Asians is encouraged via the mechanism of self-discipline, self-awareness, and self-reflection (Heine & Lehman, 1995). Virtues such as humility, perseverance, and endurance are highly valued (Boucher, 2010; B. S. K. Kim et al., 1999). This self-examination serves continual improvement of the self in order to fit into the community (Heine et al., 1999). Members from East Asian cultures "concern themselves more with the process of becoming better, than with being good" (Heine et al., 1999, p. 771). The motivation of self-improvement serves to validate one's identity as an interdependent being committed to the shared values of the group and the maintenance of relationship harmony (Heine et al., 1999).

Critical self-concept is in contrast to a self-concept of Western cultures where enhancing or maintaining a positive evaluation of the self is of concern. There is considerable evidence indicating that individuals from Western cultures have a strong need to self-enhance. Cross-cultural studies show that Westerners self-enhance more than East Asians, and East Asians are more self-critical than Westerners (Boucher, 2010; Heine et al., 1999). For example, in

Hamamura, Heine, and Takemoto's (2007) study, European Canadians consistently viewed themselves to be better than average and Japanese perceived themselves less positively than average. Asian Canadians fell in between the two samples. Similarly, a recent meta-analysis on self-enhancement (Heine & Hamamura, 2007) indicated ethnic differences between East Asians and European Americans. Across all studies, there were pronounced ethnic differences in self-enhancement. European Americans were found to show strong evidence of a clear self-serving bias ($d = .87$), whereas East Asians were not ($d = -.01$). East Asians appeared to self-enhance through methods that involved comparing themselves to average others but were self-critical in general (Heine & Hamamura, 2007). These findings support the notion that East Asians' need for self-enhancement is group-oriented and motivated by a critical self-evaluation.

Another important self-concept of East Asians is the dialectical self derived from Peng and Nisbett's (1999) work on East Asian dialecticism. East Asian dialectical thinking is distinct from Western dialectical thinking. Western dialecticism stems from Greek, Hegelian, and contemporary German philosophies wherein thinking is regarded as meta-cognition that involves resolving contradictions to reach complex levels of comprehension (Wong, 2006). In contrast, East Asian dialectical thinking emphasizes acceptance and tolerance of contradictions (Spencer-Rodgers et al., 2009). In comparison to Western cultures where changes are perceived as linear and progressive, East Asian cultures assume that processes oscillate continuously between extremes (Heine & Lehman, 1997; Peng & Nisbett, 1999). Subsequently, East Asians tend to reconcile or uphold seemingly incompatible arguments. Peng and Nisbett proposed that "dialectical cultures exhibit greater ambivalence in their self-evaluations and all phenomena in the universe which are seen as interconnected and mutually dependent" (p. 130).

The dialectical self, derived from East Asian dialecticism, refers to "the contradictory, changeable, and holistic nature of the East Asian self-concept" (Spencer-Rodgers et al., 2009, p. 30). The dialectical self among East Asians is seen as context-oriented and seemingly inconsistent and ambivalent (English & Chen, 2007). Evidence from cross-cultural investigations supports the dialectical self-construal among East Asians. For example, East Asians were found to experience less dissonance or tension when their attitudes and behaviors were incompatible (Heine & Lehman, 1997). Choi and Choi (2002) examined ethnic differences in the dialectical tendency to endorse contradictory statements about the self (e.g., extravert versus introvert). In their study, Koreans were shown to hold less consistent beliefs regarding their personality characteristics and values than European Americans. In Suh's (2002) study, as compared with U.S. college students, Korean college students presented themselves as more flexible across situations, and their psychological well-being was not predicted from the consistency of their identity. Holding a consistent self-view was associated with positive evaluations from others among the U.S. sample; this positive relationship did not occur with Koreans (Suh, 2002). In a similar vein, English and Chen (2007) investigated ethnic differences in the consistency of self-descriptions across specific contexts and the stability of these descriptions within contexts over time. As compared to European Americans, Asian Americans were found to be less consistent in their self-descriptions within relationship contexts. Interestingly, Asian Americans' self-descriptions were highly consistent within these contexts over time (English & Chen, 2007). English and Chen further demonstrated that dialectical beliefs mediated the ethnic difference in self-consistency across contexts. These findings show that unlike European Americans who view behavioral variability as less reflective of the true

self, East Asians "place more meaning on fluctuations in their behavior and environment" (English & Chen, 2007, p. 488).

Finally, the collectivist and interdependent nature of the East Asian cultures tends to encourage the development of a self-construct that is greatly responsive to others and is relational. For East Asians, self-concept is "adapted to specific relationship contexts, and relationships also take an interdependent form in which relationships with others are less voluntary" (Markus & Kitayama, 1991, p. 25). In East Asian cultures, the self is shaped in terms of one's relatedness to a social group (Markus & Kitayama, 1999). Individuals are encouraged to attend to others, to fit into the group, and to uphold harmonious relationships (Markus & Kitayama, 1999). The relational self is aligned with the relationship maintenance goals of collectivistic cultures (English & Chen, 2007).

The nature of this collectivistic version of the relational self-construct is distinct from the relational self of the individualistic cultures (Cross & Morris, 2003). In individualistic cultures, individuals seek to hold their independence from others by attending to their unique inner attributes, and relationships are more voluntary and reciprocal (Markus & Kitayama, 1991; Taylor et al., 2004). The relational self of Western culture is more likely to be based on individual relationships, such as with a partner, friend, or colleague, in their self-representations. However, the relational self of East Asians is more likely to be group-oriented and be rooted in a sense of unity (Cross & Morris, 2003). Group memberships are relatively more important to the East Asian cultures as compared to the U.S. cultures where group memberships and loyalty to in-groups are regarded as somewhat informal and less significant (Cross & Morris, 2003; Triandis, 1995).

Cross-cultural investigations showed that East Asians' self-concept was defined by specific relationship contexts (English & Chen, 2007), presenting more distinct boundaries between the in-group and out-group (H. S. Kim et al., 2006). As compared to European Americans, members of East Asian cultures were more reluctant to disclose personal concerns and were more cautious in seeking support from close ones (Cross & Morris, 2003; H. S. Kim et al., 2006). This tendency became marked when East Asians dealt with a group more closely tied with themselves (i.e., in-group) than with a group of little personal connection (i.e., out-group; H. S. Kim et al., 2006).

Three East Asian Emotion-Focused Coping Practices

The evidence for critical, dialectical, and relational self-construals (Heine & Lehman, 1995; Markus & Kitayama, 1991; Peng & Nisbett, 1999) in East Asian cultures support my identification of the following three constructs as key contributors to emotion-focused coping practices among East Asians: critical reappraisal, emotion moderation, and relational support. Critical reappraisal and emotion moderation emphasize the cognitive and the emotional aspects of emotion-focused coping, respectively. Relational support focuses on the relational aspect of emotion-focused coping. I will use the terms critical reappraisal, emotion moderation, and relational support to characterize East Asians' emotion-focused coping behaviors. Considering emotion-focused coping among East Asians as a combination of critical reappraisal, emotion moderation, and relational support may be helpful in understanding apparent cultural differences in coping as a function of underlying cultural values and self-construals.

Critical Reappraisal

Consistent with the existing literature on critical self-construal, critical reappraisal is identified as an emotion-focused coping practice among East Asians. Critical reappraisal is

defined as changing one's view of a situation by reframing and accepting stressful

circumstances. It is important to distinguish the notions of cognitive reappraisal and critical

reappraisal so as to avoid confusion between the two. Also, the division can highlight the

cultural difference in emotion-focused coping strategies between the East Asians and European

Americans.

Reappraisal or cognitive reappraisal involves changing the way an individual perceives

an emotional situation (Gross & John, 2003). Reappraisal is a broad concept including positive

reappraisal (i.e., granting a positive meaning to the stressful events), acceptance (i.e., accepting

what has occurred), or positive refocusing (i.e., having positive and pleasant thoughts instead of

negative thoughts about stressors; Garnefski, Kraaij, & Spinhoven, 2001). Coping and emotion

regulation inventories are inconsistent in the classification of reappraisal. Some measures

attempt to differentiate between positive reappraisal and acceptance (e.g., Brief COPE, CERQ,

and WCQ). Others include only one component (e.g., Cognitive Restructuring on the CSI and

CISS) or do not differentiate positive reappraisal, acceptance, and positive refocusing (e.g.,

Cognitive Reappraisal on ERQ). Chun and colleagues (2006) claimed, "This type of conflicting

or inconsistent categorization is partly due to the fact that many cross-cultural studies

categorized coping strategies empirically by using exploratory factor analytic methods and then

labeled the factors/components by examining the factor solutions" (p. 46). This becomes more

problematic when those measures are employed in cross-cultural research. For example,

cognitive reappraisal has been categorized as a passive type of coping (e.g., acceptance) in some

studies (e.g., Yoshihama, 2002) and as an active type (e.g., positive reframing) in others (e.g.,

Bjorck et al., 2001; Chang, 1996).

Cross-cultural researchers have extensively examined cognitive reappraisal due to its adaptive function; yet, findings have varied depending on the specific measures employed. For example, Matsumoto (2006) found that European Americans reported using reappraisal more than the Japanese, as measured by the ERQ (Gross & John, 2003). In Chang's (1996) study where the CSI (Tobin et al., 1989) was used, there were no significant ethnic differences in the use of cognitive restructuring, problem solving, seeking social support, and expressing emotions. Yet, as compared to European Americans, Asian American college students utilized more avoidance and social withdrawal coping behaviors (Chang, 1996). In the same vein, Bjorck and colleagues (2001) examined ethnic differences across coping behavior as measured by the Ways of Coping Questionnaire (WCQ; Folkman & Lazarus, 1985). Their finding showed that, even though insignificant, both the Filipino Americans and Korean Americans reported using more of all of the coping behaviors (i.e., positive reappraisal, problem solving, seeking social support, and confrontation) than did the European Americans. Korean Americans and Filipino Americans also reported using more strategies, which included accepting responsibility, religious coping, distancing, and escape-avoidance, than the European Americans. In Taylor and colleagues' (2004) study where the Brief COPE (Carver, 1997) was employed, there were no group differences between East Asians and European Americans across coping strategies such as positive reframing or planning. The only ethnic difference occurred in social support seeking behaviors. Although varied, overall evidence indicates that European Americans are more likely to use one form of reappraisal, positive reframing; East Asians tend to use acceptance as well as positive reappraisal. This finding is supported in the development of the CCS inventory with Taiwanese college students (Heppner et al., 2006). In their exploratory factor analysis, Heppner and colleagues (2006) found that acceptance, reframing, and striving coping strategies were

factored together, accounting for 20.14% of the total variance. This factor reflected the

Taiwanese participants' combined efforts to accept existing realities and reframe the meaning of

suffering. The highest loading items were "As a starting point, I tried to accept the trauma for

what it offered me" and "Believed that I would grow from surviving the traumatic event." This

finding indicates that acceptance and reframing are not only frequently utilized but also

identified as useful by Taiwanese college students (Heppner et al., 2006). Similarly, Miyazaki et

al. (2008) examined the factor structure of the Brief COPE for 555 international college students

from 36 countries. In their study, positive reframing and acceptance were factored together and

fell under positive coping. Although this study was conducted with international students in

general, not just East Asians, the results are worthy of attention because many international

college students are from collectivistic cultures.

These research findings support the notion that reappraisal can take different forms in

East Asian cultures. In Western cultures, cognitive reappraisal is similar to positive reframing.

Western worldviews support positive self-evaluation, exaggerated perceptions of control or

mastery of the environment, and optimism for the future (Taylor & Brown, 1988). An individual

is emphasized as an active agent, which is associated with a greater tendency to attribute causes

of events to the self or other individuals. Optimism is an effective way to create self-fulfilling

prophecies to control situations or solve problems (Taylor & Brown, 1988). There is

considerable evidence that positive perceptions and beliefs enhance psychological adjustment in

European Americans (Taylor & Brown, 1988).

When East Asians use cognitive reappraisal as an emotion-focused coping behavior, it

may not operate the same as it does in Western cultures. In East Asian cultures, the critical or

humble self is regarded as mature and healthy, which is in contrast with the optimistic or

competent self (Heine et al., 1999). Members of East Asian cultures are encouraged to see the

self in a realistic and critical manner in an attempt to reach maturity (Heine & Lehman, 1995;

Heine et al., 1999). In a study on the development of an Asian American values scale (B. S. K.

Kim et al., 1999), humility was identified as an Asian American value. As shown in some

experimental studies on dispositional and situational attributions (Choi & Nisbett, 1998; Morris

& Peng, 1994), East Asians believe that they have less personal control or mastery over their

environments than Westerners (Heine & Lehman, 1995; Yamaguchi, Gelfand, Ohashi, & Zemba,

2005). As a result, East Asians are more apt to accept changing contexts (Heine & Lehman,

1995). It is likely that acceptance may derive from a self-critical perspective or an accepting

attitude, which is often regarded as a pessimistic attitude toward life in Western cultures. It is

important to note that acceptance involves contextualizing a meaning of a stressful event among

East Asians, which can be different from a pessimistic perspective as an opposite concept of

optimistic in Western cultures. Chang's (1996) study provides further evidence of cultural

differences in optimism and pessimism. Chang found Asian Americans to be significantly more

pessimistic, but not significantly different in their level of optimism from European Americans.

Pessimism was negatively linked with problem-solving coping strategies and emotional

expression among European Americans. Interestingly, pessimism was positively related to these

coping strategies in Asian Americans. This notion, that optimism and pessimism are not bi-

dimensional constructs for East Asians, implies that positive reframing and acceptance are

compatible coping strategies for this cultural group.

Emotion Moderation

Emotions are moderated in East Asian cultures. East Asian cultures are typically known

to have more emotional rules, thus moderating expression of emotions (Markus & Kitayama,

1999). Emotion moderation, regulating emotional distress by avoiding both positive and

negative extremes, is one of the emotion-focused coping strategies that East Asians employ.

Emotion moderation or a dialectical approach to emotions among East Asians is derived from a

dialectical self-construal (Goetz, Spencer-Rodgers, & Peng, 2008), for which there is growing

empirical evidence (Bagozzi et al., 1999; Goetz & Keltner, 2007; Schimmack et al., 2002). East

Asians with dialectical self-construals adopt multiple perspectives with respect to the self,

experiencing a broad range of emotions or emotional complexity (Goetz et al., 2008).

Two essential aspects of dialectical emotions are moderation and balance: "good is

counterbalanced by bad, happiness is offset by sadness, and self-criticism is tempered by

sympathy for the self" (Peng & Nisbett, 1999, p. 130). East Asians tend to experience "balance

over positivity, moderation over intensity, and complexity over purity" (Spencer-Rodgers,

Williams, & Peng, 2010, p. 303) in their emotional life. Emotions such as happiness and sadness

are viewed as compatible with each other, which is in contrast with emotional norms in Western

cultures where pleasant and unpleasant emotions are perceived as oppositional (Bagozzi et al.,

1999; Markus & Kitayama, 1999; Peng & Nisbett, 1999).

In early studies, East Asians were found to display less emotional intensity and regard

emotional expression as less appropriate than European Americans (Markus & Kitayama, 1999;

Matsumoto, 1993). Consistent with ethnographic accounts, empirical studies have indicated that

relative to European Americans, East Asians experience a greater mix of positive and negative

emotions (Bagozzi et al., 1999; Schimmack et al., 2002) or greater emotional complexity (Goetz

et al., 2008). In these studies, emotion moderation was defined as "a conflicting desire to

express versus to inhibit emotions" (Butler et al., 2007, p. 31). Emotion moderation, also called

mixed emotions, emotional ambivalence, emotional complexity, or dialectical emotions, has

been generally measured by having respondents report the frequency and intensity of positive and negative emotions (Spencer-Rodgers, Williams, & Peng, 2010).

Controlled laboratory studies indicated marked ethnic differences in emotion moderation (Tsai & Levenson, 1997; Tsai, Levenson, & McCoy, 2006). Tsai and Levenson (1997) asked European American couples and Chinese American couples to engage in a series of tasks that elicited both positive and negative affect or conflicting feelings. Chinese American couples reported fewer positive emotions and showed less variability in their reported emotional experience than did European American couples. In these studies, East Asians were found to have more tolerance for opposing or mixed emotions. In Williams and Aaker's (2002) study, East Asians were less likely to feel conflicted than European Americans when exposed to verbal messages that elicited mixed emotions (e.g., both happiness and sadness). In Aaker, Drolet, and Griffin's (2008) two longitudinal experiments, mixed emotional experiences led to a decline in memory among European Americans. This memory bias did not appear in Asian Americans. European Americans perceived mixed emotions as a stressful condition that led to feelings of conflict. Asian Americans, on the other hand, viewed emotional complexity as a less stressful state (Aaker et al., 2008). These findings showed that tolerance for contradiction is related to the interpretations individuals place on their emotional complexity, which is affected by cultural variables.

Additional evidence indicates cross-cultural differences in self-reported emotional suppression. English and colleagues found that Chinese participants suppressed simple emotions more than complex emotions, whereas European American participants suppressed complex emotions more than simple emotions (as cited in Goetz et al., 2008, p. 530). This finding

suggested that Chinese participants were more comfortable with complex emotions and tended to tolerate these emotions more than European Americans (Goetz et al., 2008).

The cross-cultural analysis of emotion moderation and subjective well-being adds further evidence for emotion moderation as a common emotion-focused coping strategy among East Asians. Among Western cultures, internal emotional conflict is negatively associated with psychological well-being. For instance, King and Emmons (1990) found that the degree of emotional ambivalence between one's urge to express or inhibit emotional feelings was related negatively to psychological well-being but linked positively to psychological distress among a U.S. college sample. These findings were not applicable to East Asians. In Suh, Diener, Oishi, and Triandis's (1998) study, the negative association between emotional ambivalence and life satisfaction was significantly weaker in collectivist cultures. Emotional ambivalence was negatively linked to life satisfaction for European Americans, but this negative correlation did not emerge for East Asians.

Relational Support

Emotions are relational in East Asian cultures. Emotions tend to be part of social relationships rather than being the basis of an individual's inner feelings (Suh et al., 1998). Hence, emotions that promote interdependence and relationship harmony are encouraged (Kitayama, Mesquita, & Karasawa, 2006; Mesquita, 2001). Context-oriented emotions or relational emotions such as perspective-taking and sympathy are emphasized, contributing to a greater level of emotional complexity. To describe the way East Asians employ emotional support and to distinguish it from European Americans' way of coping, the term relational support, an implicit and perceived form of emotional support, is used. The concept of relational support is derived from relational self-construal.

Coping through relationship has been studied in social support literature, especially as it pertains to the effects of emotional support (Thoits, 1995). According to Carver and colleagues (1989), emotional support involves verbal and physical encouragement, emotional presence and connection, and compassion, whereas social support includes instrumental support, such as seeking advice and assistance. In the COPE inventory, Carver and colleagues (1989) made a conceptual distinction between social support and emotional support. They viewed social support as problem-focused coping and emotional support as emotion-focused coping. In frequently employed coping inventories, social support items tend to overlap emotional support items, and the two concepts become combined into a single category of social support. Although emotional support is conceptually distinct from social support, in practice they often occur concomitantly (Aldwin & Revenson, 1987; Heppner et al., 2006).

A large amount of research with East Asians and East Asian international students indicated that social support is one of the most frequently utilized coping strategies (Lee et al., 2004; Misra et al., 2003; Yeh & Inose, 2002). Despite its manifest and potential benefits, researchers who study social support have suggested that social support can be an additional source of concern for an individual under stress. Cross-cultural research has shown that relative to European Americans, Asians and Asian Americans tend to seek less support for dealing with distress and regard support seeking as less effective (H. S. Kim et al., 2006; H. S. Kim et al., 2008; Taylor et al., 2004). H. S. Kim and colleagues (2006) found that Asian Americans sought social support and emotional support less often than European Americans. Additional analysis showed that whereas European Americans' willingness to seek support was unaffected by relationship, Asian Americans' support seeking behaviors decreased when their relationship was closer to the self (H. S. Kim et al., 2006). In a subsequent study (H. S. Kim et al., 2008), Asians

and Asian Americans were shown to utilize and benefit from a type of emotional support irrelevant to explicit disclosure of personal problems and distress. These findings indicate that relationship concerns underlie support seeking attitudes among East Asians. That is, Asian Americans are more concerned about the potential negative consequences of support seeking (e.g., making close ones worry, being a burden, or disrupting relationship harmony), and these relationship concerns seem to discourage Asian Americans from seeking emotional and instrumental support from their social networks.

In an attempt to explain support seeking behaviors among Asians, H. S. Kim and colleagues (2008) proposed a distinction between implicit and explicit forms of emotional support. They defined implicit emotional support as being comforted by the company of close others without disclosure of distress and explicit emotional support as the explicit sharing of one's concerns (H. S. Kim et al., 2008; Taylor, Welch, Kim, & Sherman, 2007). This notion of implicit emotional support is similar to the concept of perceived emotional support, which refers to comfort perceived through the presence of close ones. In an experiment (Taylor et al., 2007), Asians, Asian Americans, and European Americans were randomly assigned to either an implicit support condition (i.e., writing about the importance of having close ones) or an explicit support condition (i.e., writing about one's distress to close ones) prior to being exposed to a stressful situation. Indeed, Asians and Asian Americans in an implicit support condition reported lower distress in response to the stressor than those who experienced the explicit support condition; the reverse occurred for European Americans. In another online diary study, European Americans reported using more explicit social support in coping with their daily stressors than did Koreans. Conversely, Koreans reported using more implicit social support than did European Americans (H. S. Kim et al., 2008).

In a similar vein, Uchida, Kitayama, Mesquita, Reyes, and Morling (2008) suggested that perceived emotional support was more likely to be beneficial for Asians. In the first part of the study with a college sample, the positive relationship between perceived emotional support and mental health outcome variables (i.e., positive affect and well-being) was significant among Japanese and Filipino Americans even after self-esteem was controlled. In contrast, the effect of perceived emotional support on positive affect and well-being among European American students was insignificant and even disappeared after self-esteem was controlled. In their replication study with a community adult sample (i.e., European Americans in the United States and Japanese adults in Japan), perceived emotional support positively predicted well-being and health for Japanese adults, but such effects did not appear for American adults. Based on these findings, Uchida and colleagues (2008) concluded that perceived emotional support is not beneficial in individualistic cultures because this perception can compromise the sense of the independent self. Individuals from individualistic cultures may make an explicit request before receiving support because it can protect their sense of independence. On the other hand, the beneficial effects of perceived emotional support among the Japanese can be explained by the notion that perceived emotional support affirms the sense of the interdependent self, especially when the support is unsolicited.

Although limited, these findings indicate that self and relationship concerns account for cultural differences in the willingness to seek and perceive emotional support, and that an implicit and perceived form of emotional support is preferred and seen as beneficial in East Asian cultures. Varying notions of relational support underlie the complex dynamics that exist between perceiving close ones as support and not seeking support from close ones (Sung & Ganapathy-Coleman, 2010). Indeed, Moore and Constantine's (2005) study investigating the

structure of coping within a collectivistic cultural context revealed the dynamics of relational support through seeking social support and forbearance. Even though East Asians view the presence of close ones as a basis of emotional support, they are concerned about the extent to which they share with close ones for fear of burdening them.

Summary

In this chapter I reviewed existing research on coping and emotion regulation with an emphasis on cultural relevance. I proposed an integrative approach to coping and emotion regulation to present a conceptual foundation for the examination of emotion-focused coping behaviors among East Asians. On the basis of this integrative and cultural analysis, critical reappraisal, emotion moderation, and relational support were identified as important emotion-focused coping practices among East Asians. Ethnographic accounts and empirical research have shown that cultural differences between European Americans and East Asians emerge in critical reappraisal, emotion moderation, and relational support. In this study, cultural differences in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support strategies will be investigated among East Asian international college students who are experiencing acculturation processes.

CHAPTER 3

METHODOLOGY

In this chapter, I provide an overview of the research methodology that was used in this study. The study design, data collection method, and data analyses for research questions are discussed. I present the rationale for utilizing a quantitative approach, identify a target population and sample, discuss how given instruments were chosen, describe how the instruments were delivered, and explain the selected data analyses for this study.

Design

In this study, I relied on a quantitative survey design; in particular, an ex post facto research design was employed. An ex post facto design is optimal when independent variables such as ethnicity or gender cannot be manipulated (Heppner, Wampold, & Kivlighan, 2008). This type of design has been used to investigate research questions that are inappropriate for experimental research. In the ex post facto design, the hypotheses are theoretically derived and tested after the relationships between the variables are examined (Heppner et al., 2008). The ex post facto design is similar to an experimental study because it compares two or more groups of individuals who are exposed to different conditions (Heppner et al., 2008). Unlike experimental research designs, the ex post facto design does not allow the researcher to infer cause and effect relationships because there is neither randomization nor control group comparisons. Despite the fact that an ex post facto study cannot allow the researcher to infer causation, it may provide

insight into the understanding of cultural variables. In this study, the dependent variables (DVs) included three emotion-focused coping behaviors: critical reappraisal, emotion moderation, and relational support. The independent variables (IVs) were cultural differences: ethnicity, gender, and acculturation status.

Participants

The target populations of this study were East Asian international students and European American students who studied at universities in the United States. An East Asian international student refers to a non-immigrant foreign student whose nationality is East Asian (i.e., Chinese, Japanese, Korean, or Taiwanese) and who came to the United States to study on a temporary visa (i.e., F1 or J1 visa) at the postsecondary level (IIE, 2010). A European American student refers to a student who was born in the United States and whose ethnicity is non-Hispanic Caucasian.

A convenience sample of 232 East Asian international college students and 216 European American college students at U.S. universities participated in the study. A power analysis was conducted to determine the appropriate number of participants suitable to detect the effect size at the desired level of significance. Power analysis is a statistical procedure that is employed to justify the appropriate sample size for testing a given statistical hypothesis (Cohen, 1988). Determining sample size is a vital issue because samples that are too large or too small may lead to inaccurate results. Power analyses for MANOVAs were conducted in G-POWER to determine a sufficient sample size using an alpha of .05, a power of .80, and a medium effect size, $f^2 = .25$ (Faul, Erdfelder, Lang, & Buchner, 2007). Two power analyses were conducted. The first power analysis for MANOVA utilized responses of East Asian participants. It was performed with five levels of acculturation (i.e., integration, assimilation, separation, marginalization, and mixed acculturation) and three DVs (i.e., critical reappraisal, emotion

moderation, and relational support). The power calculation suggested a minimum of 30

participants in each of the five groups, resulting in a minimum total sample size of 150. Because

equal group sizes could not be guaranteed, it was decided to start with a sample of at least 200 to

ensure reaching the required minimum for each group. Second, the power analysis for the

MANOVA with two ethnic groups (i.e., East Asians and European Americans) and three DVs

suggested 48 participants for each group, yielding a minimum total sample size of 96. Because

approximately 200 participants were proposed for East Asians in the first power analysis, a

minimum sample of 150 European Americans was targeted to increase the likelihood of

obtaining similar sample sizes for the two ethnic groups.

Participants were 232 East Asian international students and 216 European American

students who enrolled in 34 universities located within the United States. The data were

collected for four months from August to November in 2011. A total of 718 individuals

accessed the survey on- line; however, 471 participants completed the survey and 247

participants left the majority of the survey blank. I eliminated data from those participants who

did not complete the questionnaires. Also, data from 23 individuals who identified themselves as

multiracial or Asian Americans were deleted. Consequently, 448 surveys were considered valid

and were retained for data analysis.

Procedure

Participants were European American undergraduate and graduate students and East

Asian international undergraduate and graduate students at 34 universities in the United States.

Potential participants were contacted by (a) institutional announcements and (b) email listservs.

First, recruitment messages were delivered via portal campus announcements at a

midsized Midwestern university. With the assistance of the offices of Student Affairs and the

College of Graduate and Professional Studies, I completed a targeted announcement request to submit recruitment messages and obtained permission to have announcements appear in the campus announcements area. The messages advertising an online survey were targeted to both East Asian international students and European American students. The announcement included the purpose of the study, the anticipated time for survey completion, and an invitation to participate in the study (see Appendix A).

Second, potential East Asian participants were solicited nationally through email listservs to participate in the online study. For example, I contacted international offices of the universities where a large number of East Asian international college students enrolled, explained the purpose of the study, and requested that they forward the study invitation to lists of East Asian international students. Also, I contacted representatives and advisors of student organizations across universities and requested that they post the invitation to email listserv members.

Data were collected through an internet-based administration system, Qualtrics Survey Software (Qualtrics Labs, 2009). This method of delivery was chosen due to cost-effectiveness and convenience issues, including quick survey distribution and administration as well as ease of data handling and analysis (Yun & Trumbo, 2000). Online surveys are commonly conducted in social science research. Studies comparing electronic versus postal surveys indicate that electronic survey results may be no different than using postal surveys; yet electronic surveys provide strong advantages of quick distribution and response cycles (Yun & Trumbo, 2000). Particularly, the online survey allows a college population that is interested in the research to have easy access to the study. In contrast, disadvantages of such a method include sampling issues, uncertainty over the validity of the data, and concerns surrounding the design of an online

survey (Wright, 2005). Data were collected for approximately four months from August to November in 2011. Data collection was stopped once it reached a sufficiently sized total.

Participants were informed that if they clicked the link at the bottom of the announcement, they would be directed to a secure server that contained the Qualtrics Survey Software. The Qualtrics web page served as both an introduction to the study and an informed consent document (see Appendix B). As a condition to participation in this study, participants were asked to read and agree to the requirements of the study. This document informed participants that their participation in this study was voluntary and that they were free to withdraw from the study at anytime without penalty. This page also explained how the participant could take part in a drawing for a $50 Wal-Mart gift card. They were required to click to the next page if they read and agreed to the content of the informed consent. Once participants agreed to the informed consent information, the online survey packet, including a demographic questionnaire followed by the other inventories, was made available. In case they decided to change their answers on specific questions, participants were able to navigate both forward and backward throughout the survey. In order to allow participants to opt out if they did not want to continue, they were able to close the survey window at any time.

All participants who agreed to participate in the survey were eligible for a drawing for a $50 Wal-Mart gift card. At the end of the survey, participants were directed to another server that led to participation in the drawing. At this separate link they were given the option to enter an email address if they desired to participate in the drawing. If participants did not wish to enter the drawing, closing the window took them away from the page. The information given for the drawing was stored on a second server that saved email addresses as data in a separate file. In order to select a winner, a computerized random generator, random.org, was utilized. All email

addresses were numbered and the lowest and the highest numbers of participants (e.g., 1, 718) were submitted to random.org. The random sequence generator randomly generated a list where the first number was the winning number. An email address that correlated with the first number was offered the prize. The winner received an email notification announcing the $50 Wal-Mart gift certificate prize. The gift certificate was mailed to an address of the participant's choice. Once the participant received the gift card, all participant email addresses were deleted and the given data were destroyed.

Instrumentation

Demographics

The demographics questionnaire (see Appendix C) that I developed included questions concerning (a) age, (b) gender, (c) nationality, (d) ethnicity, (e) current academic status (e.g., freshman, graduate student), (f) major, (g) relationship status, (h) religious or spiritual beliefs and the importance of religious beliefs, and (i) perceived social class. For East Asian international college students, additional questions were asked, such as length of stay in the United States, first language, language with which they are most comfortable, and score on the Test of English as a Foreign Language (TOEFL).

Critical Reappraisal

To assess critical reappraisal, two subscales of the COPE Inventory (Carver et al., 1989) were utilized: Positive Reinterpretation and Growth and Acceptance. The COPE Inventory is a 60-item self-report inventory that measures the 15 coping strategies: positive reinterpretation and growth, acceptance, use of emotional social support, use of instrumental social support, focus on and venting of emotions, suppression of competing activities, active coping, planning, religious coping, restraint, denial, mental disengagement, behavioral disengagement, substance use, and

humor. Each subscale has four items, respectively. Each item is rated on a 4-point scale, ranging from 1 (*I usually don't do this at all*) to 4 (*I usually do this a lot*).

The four items of Positive Reinterpretation and Growth are "I try to grow as a person as a result of the experience;" "I try to see it in a different light, to make it seem more positive;" "I look for something good in what is happening;" and "I learn something from the experience." The four items of Acceptance include "I get used to the idea that it happened;" "I accept that this has happened and that it can't be changed;" "I accept the reality of the fact that it happened;" and "I learn to live with it."

In the original validation studies (Carver et al., 1989), the coefficient alphas for Positive Reinterpretation and Growth and Acceptance were .68 and .65, respectively. The four items from each subscale were added together, and then a total score for critical reappraisal was obtained by summing the scores on the two subscales. Higher scores indicated a greater use of critical reappraisal. In this study, the internal reliability of the scale was tested via Cronbach's alphas and indicated that the scale was fairly reliable, $\alpha = .78$. The coefficient alphas for East Asians and European Americans were .81 and .75, respectively.

Emotion Moderation

To assess emotion moderation, the Ambivalence over Emotional Expressiveness Questionnaire (AEQ; King & Emmons, 1990) was employed. The AEQ was developed to tap ambivalence about expressing both negative and positive emotions. The AEQ contains 28 items that are rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The original study with a total of 299 college students showed two factors: Ambivalence Over the Expression of Positive Emotions and Ambivalence Over Expression of Negative Emotions. Yet, the high correlation of items with both factors indicated that the AEQ is a single, general

construct of ambivalence (King & Emmons, 1990). Examples of AEQ items include "Often I'd

like to show others how I feel, but something seems to be holding me back" and "I try to

suppress my anger, but I would like other people to know how I feel." King and Emmons (1990)

demonstrated acceptable reliabilities for the AEQ, reporting a Cronbach's alpha coefficient of

.89 and a test-retest reliability of .78 over a 6-week interval. In King and Emmons's study

utilizing 299 college students (117 men and 182 women), the mean score was 2.90 on a 5-point

scale with a standard deviation of .58. The means on the AEQ were 2.99 for women and 2.88 for

men. Women were reported as scoring significantly higher than men on the AEQ, $r = .10$, $p <$

.05. In this analysis, correlation coefficients were computed for the AEQ score and gender

(female coded as 1 and male as 0). The authors suggested positive correlations as an indication

that women scored higher on the scale. Although the authors did not directly address effect size,

the relative magnitude of the effect is equivalent to $r = .10$. Pearson's correlation coefficient r

has been used as a common measure of effect size (e.g., Ferguson, 2009). Cohen (1988)

proposes to interpret $r = .10$ as a small effect size, $r = .30$ as a medium effect size, and $r = .50$ as

a large effect size. Given the very weak and small effect size ($r = .10$) in King and Emmons's

study, it is important to note that there is no clear evidence to support the conclusion for gender

differences in the AEQ score. The AEQ was positively associated with poor psychological

adjustment and emotional functioning, and was inversely related to emotional expressiveness.

For example, the AEQ and the Emotion Expressiveness Questionnaire (EEQ) were negatively

correlated, indicating that individuals who are ambivalent about expression tend to be more

suppressive (King & Emmons, 1990). In Lu and Stanton's (2010) study where the AEQ, a

measure of emotion moderation, was used, Asian or Asian American college students ($n = 71$)

exhibited a higher level of emotion moderation, $M = 2.90$, $SD = .71$, $n = 70$, than European

American college students, $M = 2.57$, $SD = .73$, $n = 59$, $F(1, 121) = 7.56$, $p = .007$. In terms of

gender difference, Chen and colleagues (2004) examined the construct of ambivalence over

emotional expression (AEQ; King & Emmons, 1990) with a total of 359 (172 men and 148

women) college students in China. In their study, gender was negatively related to the AEQ with

Chinese men reporting moderating their emotion more than Chinese women.

The AEQ was chosen for this study because research shows that emotion moderation is

derived from the concept of emotional ambivalence for East Asians (Tsai & Levenson, 1997;

Tsai et al., 2006). Although AEQ does not directly measure coping behaviors, it reflects the

conflict component of emotional expression and suppression. In the current study, the total score

for emotion moderation was obtained by summing scores on each item on the AEQ. High scores

on the AEQ indicated a stronger tendency to moderate emotion. In the present study, the internal

reliability tested via Cronbach's alpha was fairly reliable, $\alpha = .88$. The coefficient alphas for

East Asians and European Americans were .87 and .88, respectively.

Relational Support

The Perceived Emotional Support (PES) scale, a 16-item self-report inventory, was

employed to assess relational support. This scale was originally developed by Sarason, Shearin,

Pierce, and Sarason (1987) and subsequently modified by Hisada, Senda, and Minoguchi (1989).

The scale assesses the perception of receiving encouragement, compassion, and other forms of

emotional support from close others. Participants are asked to think about a close person in their

lives and then indicate the extent to which they perceive emotional support on a scale from 1

(*definitely no*) to 5 (*definitely yes*). Examples include "If he/she finds out that you are shocked,

he/she will sympathize with you from the bottom of his/her heart" and "If you want to vent your

frustration, he/she is there for you." In a study with European American, Filipino, and Japanese

college students (Uchida et al., 2008), coefficient alphas were .91, .92, and .91, for Americans, Filipinos, and Japanese, respectively.

Although this scale does not directly measure coping in response to distress, the instrument reflects the implicit and perceived emotional support that East Asians use. In this study, relational support was scored by summing responses to all of the PES items, with higher scores indicating a greater use of relational support. In the current study, Cronbach's alpha was computed and showed a high internal reliability, $\alpha = .93$. Cronbach's alpha for East Asians and European American were .94 and .92, respectively.

Acculturation

The East Asian Acculturation Measure (EAAM; Barry, 2001) was employed in order to assess four acculturation dimensions. The EAAM is based on Berry's (1980) multidimensional model of acculturation that examines four modes of social interaction and communication: assimilation, separation, integration, and marginalization. Berry (1980) conceptualized acculturation as a multidimensional phenomenon that occurs at different levels. The EAAM, a 29-item self-report inventory, was designed to measure the acculturation process in the four dimensions of Assimilation (8 items), Separation (7 items), Integration (5 items), and Marginalization (9 items). A sample item for Assimilation is "I feel that Americans understand me better than Asians do" whereas Separation is "My closest friends are Asian." An example of *Integration* is "I feel very comfortable around both Americans and Asians," whereas *Marginalization* is "I sometimes find it hard to make friends." Items are scored using a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

The EAAM was developed with 150 East Asian immigrants in the United States (75 men, 75 women) with a mean age of 28.70 years (*SD* = 6.40). Participants' average years of residency

were 7.40 years (*SD* = 6.40). Cronbach's alpha coefficients for assimilation, separation, integration, and marginalization scales were .77, .76, .74, and .85, respectively. Conceptually consistent with Berry's (1997) acculturation model, negative correlations were found between assimilation and separation (*r* = −.39, *p* < .001) and integration and marginalization (*r* = −.40, *p* < .001). Integration was positively correlated with assimilation (*r* = .46, *p* < .001). The length of stay in the United States was positively associated with assimilation and integration but negatively associated with marginalization. Gender was not related to any dimensions of acculturation. The EAAM assimilation scale score predicted increased willingness to use psychological services, whereas the EAAM marginalization scale score predicted guarded self-disclosure (Barry & Grilo, 2002). In terms of social functioning, EAAM integration predicted perceived egalitarian treatment from Americans, whereas EAAM marginalization predicted perceived ethnic-group discrimination (Barry & Grilo, 2003).

The EAAM was chosen for the current study because it not only allows researchers to assess multiple dimensions of the acculturation process, but it was also originally developed for East Asians. The total score for each subscale was derived by summing the relevant items. High scores indicated a greater tendency toward each acculturative status. In the present study, alpha coefficients were .82, .68, .71, and .85 for assimilation, separation, integration, and marginalization, respectively.

Data Analyses

Data analyses were performed with the Statistical Packages for the Social Sciences (SPSS) version 18.0. Data analyses addressed three main research questions.

1. Do East Asian international students differ from European American students in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?

2. Do East Asian men and women differ in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?

3. Do East Asians within each acculturation status differ in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?

To address the three main research questions, a series of MANOVAs were conducted. MANOVA is a type of multivariate analysis used to analyze data that involve more than one dependent variable (Tabachnick & Fidell, 2001). MANOVA tests whether the mean differences between two or more groups on a combination of dependent variables are likely to have occurred by chance. One-way MANOVA analysis determines differences among multiple dependent variables when there are two or more levels of an independent variable.

There are two major conditions in which MANOVA is performed (Tabachnick & Fidell, 2001). First, when there are several correlated dependent variables, it is recommended that a single overall statistical test be performed on this set of variables instead of multiple separate ANOVA tests. MANOVA allows researchers to examine simultaneously the relationships between the outcome variables. Second, MANOVA is more effective than a series of ANOVAs because it protects against an inflated Type I error rate. In reference to the current study, it is reasonable to assume that the coping strategy outcomes are correlated because cross-cultural research shows that critical reappraisal, emotion moderation, and relational support are among East Asians' emotion-oriented coping practices (e.g., Heppner et al., 2006; H. S. Kim et al., 2008; Schimmack et al., 2002; Tsai & Levenson, 1997). Unlike ANOVA that detects a group

difference on a single outcome, MANOVA can analyze the multivariate information between or among the outcomes.

When a test of MANOVA is shown to be significant, it is often followed by other analyses. Two follow-up analyses include univariate ANOVA and discriminant function analysis (Borgen & Seling, 1978). A series of individual ANOVAs on each of the dependent variables are performed to detect the differences among the groups on each of the dependent variables. Discriminant function analysis (DFA) is employed to examine the multivariate relationship between the groups and the combination of the independent variables.

Data Analysis: Research Question 1

To answer this first research question, "Do East Asian international college students differ from their European American counterparts in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?," a one-way MANOVA was performed. The independent variable (i.e., ethnicity) included two levels (i.e., East Asians and European Americans). There was no significant difference between East Asian international students and European American counterparts on the linear composite of dependent variables.

Data Analysis: Research Question 2

The second research question was "Is there a gender difference among East Asian students in emotion focused coping as reflected in critical reappraisal, emotion moderation, and relational support?" A one-way MANOVA was computed to detect differences in emotion-focused coping behaviors between East Asian men and women. There was one independent variable (i.e., gender) with two levels (i.e., male and female). As a way to follow up a significant MANOVA, univariate ANOVAs and DFA were employed. I performed DFA using the

dependent variables from the MANOVA as predictors and the group from the MANOVA as a categorical dependent variable.

Data Analysis: Research Question 3

The third research question was "Are there acculturation status differences among East Asian students on emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support?" First, according to the highest mean scores on the EAAM, East Asian international students were classified into one of five acculturation groups: integration-oriented, assimilation-oriented, separation-oriented, marginalization-oriented, and mixed acculturation. A one-way MANOVA was conducted to investigate the group differences in acculturation status on emotion-focused coping behaviors as reflected in critical reappraisal, emotion moderation, and relational support. Individual ANOVAs and DFA were used as a follow-up procedure to a significant MANOVA. For DFA, the dependent variables from the MANOVA were used as predictors and the groups from the MANOVA were used as a categorical dependent variable.

<div align="center">

Summary

</div>

In this chapter, I presented an overview of the research methodology that was employed in the current study. I explained the rationales for the selected research design, instruments, and data analysis techniques. A quantitative descriptive survey design was used through online data collection. Data analyses involved descriptive statistics for demographic information and a series of MANOVAs, ANOVAs, and DFAs computed using SPSS version 18.0.

CHAPTER 4

RESULTS

In this chapter, I present the data analysis results for descriptive statistics regarding the sample and tests of the main hypotheses. An alpha level was set at .05 for all of the following data analyses.

Descriptive Statistics of the Sample

Prior to the main analyses, preliminary analyses on the variables of interest were conducted via SPSS 18.0 software to examine accuracy of data entry, missing values, and univariate and multivariate outliers and to assess the distribution of variables. To address missing data in the online survey, several steps were followed. Missing values in categorical data (e.g., perceived social class) were dealt with by creating an additional level for these variables, such as "unreported." In order to examine missing values in continuous data, as a first step, I ran descriptive statistics to examine the pattern of missing data and determine whether data were randomly missing. The following missing values for study variables were noted: a total of six missing cases on the 8-item COPE, 18 cases on the 28-item AEQ, 18 cases on the 16-item PES, and eight cases on the 29-item EAAM. For example, on the COPE inventory, two cases for item 3 and one case each for items 4, 5, 6, and 8, were missing. On the AEQ measure, there was one missing case each for items 1, 13, 17, 18, 19, and 22, and two cases each for items 9, 10, 11, 16, 20, and 26. On the PES measure, there was one missing case for items 1, 4, 9, 11,

13, and 15, respectively, and two missing cases for items 3 and 7. However, there were three missing cases for item 15 (i.e., "they accept you for who you are, including your strengths and weaknesses") and five missing cases for item 8 (i.e., "if you want to vent your frustration, they will be there to take it"). On the EAAM, there was one missing case for items 8, 9, 15, 16, 21, 22, 25, and 26, respectively. Overall, missing data appeared to be randomly scattered throughout groups and study variables.

Next, Little's MCAR test was conducted to determine if the missing value was missing completely at random (MCAR) or missing at random (MAR). MCAR refers to a condition wherein the missing data are completely independent of both the observed and the missing values. On the other hand, MAR indicates that the missing data depend on the observed values, but is independent of the missing values. The null hypothesis is that the missing data are MCAR, and the p value is set at the .05 level. Thus, a non-significant result indicates that data are completely missing at random. If the value is less than .05, the data are not missing completely at random (Little & Rubin, 1989).

Little's MCAR test for each dependent variable resulted in mixed findings: for COPE, chi-square = 55.16 (df = 35, p = .02); for AEQ, chi-square = 331.02 (df = 350, p = .76); for PES, chi-square = 172.55 (df = 147, p = .07); and for EAAM, chi-square = 302.91 (df = 224, $p < .001$). The mixed results from this series of Little's MCAR tests indicated that data imputation for missing values was inevitable. When there are few missing values, usually less than 5% of the total number of cases, and those values are regarded to be missing completely at random (MCAR), the common method is listwise deletion (Little, 1988; Little & Rubin, 1989; Tabachnick & Fidell, 2001). In other words, respondents or cases having missing scores on one or more variables are simply omitted from the analysis. Despite the fact that the listwise deletion

often results in a substantial decrease in the sample size and a loss in power, its advantages outweigh the disadvantages in that it leads to unbiased parameter estimates (Tabachnick & Fidell, 2001). However, listwise deletion was excluded in this study because there was evidence of MAR in the pattern of missing data. Little (1988) warned researchers about employing listwise deletion for MAR, which can cause potential bias in results.

Therefore, several methods that preserve all cases for further analysis were considered (Little, 1988; Little & Rubin, 1989; Tabachnick & Fidell, 2001). When a missing value is MAR, and less than 10% of the data are missing, statisticians recommend employing single imputation such as the Expectation-Maximization (EM) method for estimating missing values (Tabachnick & Fidell, 2001). Considering that MCAR was violated for some study variables, and less than 10% of the data were missing, the EM method was performed in this study. This method "forms a missing data correlation matrix by assuming a distribution for the partially missing data and basing inferences about missing values on the likelihood under that distribution" (Tabachnick & Fidell, 2001, p. 63). The EM estimation involves an iterative procedure with expectation and maximization where the conditional expectation of the "missing" data is found and, then, maximum likelihood estimates of the parameters are computed as though the missing data had been filled in (Tabachnick & Fidell, 2001). The EM method has advantages over other methods, such as mean substitution or regression substitution, because it generates less biased estimates. One drawback of the EM method is that, although it produces the correct parameter estimates, it does not generate standard error estimates. The EM method was performed on the SPSS Missing Value Analysis (MVA) module.

Further, all study variables were examined for normality of distributions and multivariate outliers. I examined distributions of the variables and examined the range and minimum and

maximum scores for all study variables to identify any potential errors in data entry. Overall, the

study variables were normally distributed. For instance, the skewness and kurtosis of the

dependent variables was less than ± 2.0, indicating the scores from this sample were

approximately normally distributed (Green & Salkind, 2008). I also examined reliabilities of

study variables to be used in the analyses and obtained alphas for the measures that were

reported in the instrumentation section in Chapter 3.

The descriptive statistics on characteristics of East Asian students and European

American students are shown in Tables 1 and 2. Table 1 presents the descriptive statistics for

participant demographic information. Out of 448 participants, 147 (32.8%) were males and 301

(67.2%) were females. Participants consisted of 280 undergraduate (62.5%) and 168 graduate

students (37.5%). The sample ranged in age from 17 to 41 years ($M = 23.2$, $SD = 4.7$). The

Table 1

Participants' Characteristics as a Number and Percentage (N = 448)

Characteristic	N	%
Ethnicity		
East Asian	232	51.8
European American	216	48.2
Gender		
Female	301	67.2
Male	147	32.8
Nationality		
American	216	48.2
Chinese	125	27.9
Korean	43	9.6
Japanese	20	4.5
Taiwanese	44	9.8

majority of East Asian students were from China ($n = 125$, 53.9%) followed by students from

Taiwan ($n = 44$, 19.0%), Korea ($n = 43$, 18.5%), and Japan ($n = 20$, 8.6%). Participants came

from different majors and different universities across the United States.

Table 2 provides an overview of the sample's characteristics by ethnicity. The average

age of East Asians was 23.7 years ($SD = 4.8$) whereas that of European Americans was 22.6

years ($SD = 4.6$). As seen in Table 2, 48.2% of East Asians were graduate students whereas

25.9% of European Americans were graduate students. As for relationship status, the majority of

participants were single (63.4%) followed by participants who were partnered (19.4%). By

ethnicity, 70.3 % of East Asian students and 56.0% of European American students were single,

respectively. Regarding religious beliefs, 58.6% of East Asians reported being non-religious

whereas 24.2% of European Americans reported being non-religious. On the other hand, 31.5%

of East Asians and 48.9% of European Americans reported that their religious beliefs are very or

extremely important. More than half of the participants perceived themselves as middle class

(i.e., 55.6% for East Asian and 59.7% for European Americans).

Table 2

Participants' Characteristics as a Number and Percentage by Ethnicity (N = 448)

Characteristic	n (%)					
	East Asian		European American		Total	
Academic Status						
Freshman	36	(15.5)	40	(18.5)	76	(17.0)
Sophomore	33	(14.2)	40	(18.5)	73	(16.3)
Junior	27	(11.6)	29	(13.4)	56	(12.5)
Senior	24	(10.3)	51	(23.6)	75	(16.7)
Masters	45	(19.4)	42	(19.4)	87	(19.4)
Doctoral	67	(28.8)	14	(6.5)	81	(18.1)

(continued)

Table 2 (continued)

Participants' Characteristics as a Number and Percentage by Ethnicity

Characteristic	East Asian		European American		Total	
			n (%)			
Relationship Status						
Single	163	(70.3)	121	(56.0)	284	(63.4)
Partnered	35	(15.1)	52	(24.1)	87	(19.4)
Married	31	(13.4)	31	(14.4)	62	(13.8)
Other	3	(1.3)	12	(5.6)	15	(3.4)
Social Class						
Lower	18	(7.8)	5	(2.3)	23	(5.1)
Lower-middle	43	(18.5)	62	(28.7)	105	(23.4)
Middle	129	(55.6)	130	(60.2)	259	(57.8)
Upper-middle	39	(16.8)	17	(7.9)	56	(12.5)
Upper	1	(.4)	0	(0.0)	1	(.2)
Unreported	2	(.9)	2	(.9)	4	(.9)
Religious Belief						
Protestant Christian	48	(20.7)	101	(46.8)	149	(33.3)
Catholic	10	(4.3)	30	(13.9)	40	(8.9)
Confucian	5	(2.2)	0	(0.0)	5	(1.1)
Buddhist	24	(10.3)	1	(.5)	25	(5.6)
Non-Religious	136	(58.6)	53	(24.5)	189	(42.2)
Other	9	(3.9)	30	(13.9)	40	(8.9)
Importance of Religious Belief						
Not at all important	62	(26.7)	31	(14.4)	93	(20.8)
Very unimportant	15	(6.5)	15	(6.9)	30	(6.7)
Neither important nor unimportant	81	(34.9)	66	(30.6)	147	(32.8)
Very important	58	(25.0)	76	(35.2)	134	(29.9)
Extremely important	15	(6.5)	27	(12.5)	42	(9.4)
Unreported	1	(.4)	1	(.5)	2	(.4)

Table 3

East Asian Participants' Characteristics as a Number and Percentage by Gender (N = 243)

Characteristic	Male (*n* = 91)		Female (*n* = 141)	
		n (%)		
Nationality				
Chinese	52	(57.1)	73	(51.8)
Japanese	6	(6.6)	14	(9.9)
Korean	16	(17.6)	27	(19.1)
Taiwanese	17	(18.7)	27	(19.1)
Academic Status				
Freshman	13	(14.3)	23	(16.3)
Sophomore	16	(17.6)	17	(12.1)
Junior	11	(12.1)	16	(11.3)
Senior	7	(7.7)	17	(12.1)
Masters	11	(12.1)	34	(24.1)
Doctoral	33	(36.3)	34	(24.1)
Relationship Status				
Single	63	(69.2)	100	(70.9)
Partnered	11	(12.1)	24	(17.0)
Married	17	(18.7)	14	(9.9)
Other	0	(0.0)	3	(2.1)
Social Class				
Lower	9	(9.9)	9	(6.4)
Lower-middle	20	(22.0)	23	(16.3)
Middle	47	(51.6)	82	(58.2)
Upper-middle	15	(16.5)	24	(17.0)
Upper	0	(0.0)	1	(.7)
Unreported	0	(0.0)	2	(1.4)

(continued)

Table 3 (continued)

East Asian Participants' Characteristics as a Number and Percentage by Gender (N = 243)

	n (%)			
Characteristic	Male (*n* = 91)		Female (*n* = 141)	
Religious Belief				
Protestant Christian	13	(14.3)	35	(24.8)
Catholic	4	(4.4)	6	(4.3)
Confucian	2	(2.2)	3	(2.1)
Buddhist	8	(8.8)	16	(11.3)
Non-Religious	59	(64.8)	77	(54.6)
Other	5	(5.5)	4	(2.8)
Importance of Religious Belief				
Not at all important	35	(38.5)	27	(19.1)
Very unimportant	8	(8.8)	7	(5.0)
Neither important nor unimportant	21	(23.1)	60	(42.6)
Very important	21	(23.1)	37	(26.2)
Extremely important	5	(5.5)	10	(7.1)
Unreported	1	(1.1)	0	(0.0)
Comfortable Language				
Chinese	58	(63.7)	82	(58.2)
Korean	13	(14.3)	23	(16.3)
Japanese	7	(7.7)	7	(5.0)
Taiwanese	4	(4.4)	7	(5.0)
English	8	(8.8)	1	(.7)
Other	1	(1.1)	8	(5.7)

East Asian participants consisted of 143 women and 90 men. East Asian female

participants ranged in age from 17 to 38, with a mean age of 23. 57 years (*SD* = 4.70). East

Asian males ranged in age from 18 to 41 with a mean age of 23.92 years ($SD = 4.93$). Length of residence in the United States varied from 3 months to 15 years with a mean of 2.13 years ($SD = 2.6$). Among the 232 East Asian participants, 104 (44.8%) reported that they had been in the United States for less than a year, 73 (31.4 %) for 1 to 3 years, 37 (16.5%) for 4 to 6 years, 13 (5.7%) for 7 to 9 years, and 5 (2.1%) for more than 10 years. Table 3 provides an overview of the East Asian sample's characteristics by gender.

Main Analyses

The following section presents the results of hypothesis testing for the three research questions. The research questions were answered by comparing scores for groups of participants. A series of one-way MANOVAs and follow-up ANOVAs and DFAs statistics were performed.

Ethnic Difference

The first research question for this study was whether East Asian international students differ from European American students in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. It was hypothesized that differences due to ethnicity would emerge in emotion-focused coping behaviors. As compared to their counterparts, East Asian students would report higher scores on emotion-focused coping behaviors.

A one-way MANOVA was conducted to determine the effect of ethnicity on emotion-focused coping behavior. Assumptions of the MANOVA were examined. The distribution of scores on the dependent variables was univariate normal and multivariate normal when considered together. The linear combination of variables was also normally distributed. The assumption of homogeneity of covariance was examined. Box's M test was used to test whether

the population variance-covariance matrices of the different groups in the analysis were equal.

Box's M test was significant, indicating that the assumption of homogeneity of covariance

matrices was violated. Given that this was a large sample and the groups were similar in size,

this problem was not regarded as serious. Also, because logarithmic determinants for each

group's variance and covariance matrix were similar, homogeneity was assumed. Nonetheless,

the result for ethnic differences should be interpreted with caution.

Overall significant differences were not found for ethnicity on the dependent measures,

Wilks's $\Lambda = .98$, $F(3, 444) = 2.48$, $p = .06$, two-tailed. The multivariate η^2 based on Wilks's Λ

was not strong, .02, indicating that only 2% of the variability in the emotion-focused coping

behaviors was explained with group membership. This effect seems small based on Cohen's

(1988) conventions (.01 = small, .06 = medium, .14 = large). Thus, ethnicity did not impact

Table 4

Summary of Intercorrelations, Means, and Standard Deviations for Emotion-Focused Coping as a Function of Ethnicity

Measure	1	2	3	M	SD
1. COPE	–	−.10	.18**	24.76	3.94
2. AEQ	.19**	–	−.25**	88.63	14.68
3. PES	.26**	.06	–	66.04	9.95
M	24.30	91.36	64.31		
SD	4.25	13.75	11.25		

Note. Intercorrelations for European American participants (*n* = 216) are presented above the diagonal, and intercorrelations for East Asian participants (*n* = 232) are presented below the diagonal. Means and standard deviations for European Americans are presented in the vertical columns, and means and standard deviation for East Asians are presented in the horizontal rows. For all scales, higher scores are indicative of more extreme responding in the direction of the construct assessed. COPE = Coping Orientation to Problem Experience. Only two subscales, Positive Reinterpretation and Growth and Acceptance, were used; AEQ = Ambivalence over Emotional Expressiveness Questionnaire; PES = Perceived Emotional Support scale. ** *p* < .01 (two-tailed).

emotion-focused coping behavior as reflected in critical reappraisal, emotion moderation, and

relational support. Table 4 contains the intercorrelations, means, and the standard deviations for

the dependent variables for the two ethnic groups. The COPE (critical reappraisal) was

positively and mildly correlated with the AEQ (emotion moderation; $r = .19$, $p < .01$) and PES

(relational support; $r = .26$, $p < .01$) among East Asians whereas the COPE was only positively

and mildly correlated with the PES ($r = .18$, $p < .01$) in European Americans. The AEQ was

negatively and mildly correlated with the PES among European Americans ($r = -.25$, $p < .01$).

Gender Difference

The second research question involved whether there were differences due to gender

among East Asian students in emotion-focused coping as reflected in critical reappraisal,

emotion moderation, and relational support. A one-way MANOVA was computed to detect

differences in emotion-focused coping behaviors between East Asian men and women.

Assumptions of the MANOVA were met. Box's M indicated that the assumption of

homogeneity of covariance matrices was met. Overall the multivariate result was significant for

gender, Wilks's $\Lambda = .89$, $F(3, 228) = 9.42$, $p < .001$, $\eta^2 = .11$, indicating that 11% of the

variability in the emotion focused coping behaviors was explained by gender. There was a

difference in the level of use of emotion-focused coping behaviors between East Asian male and

female students.

The ANOVAs on each dependent variable were conducted as follow-up tests to the

MANOVA. The homogeneity of population variances assumption was tested for each analysis

and no violations were noted. The ANOVA on the COPE was significant, $F(1,230) = 4.65$, $p =$

.03, $\eta^2 = .02$, as was the ANOVA on the PES scores, $F(1, 230) = 27.32$, $p < .001$, $\eta^2 = .11$.

However, the ANOVA on the AEQ scores was not significant, $F(1, 230) = .007$, $p = .94$, $\eta^2 <$

.001. The largest univariate effect was noted for relational support, for which 11% ($\eta^2 = .11$) of

the variability in the PES scores can be explained by gender. Table 5 shows the means and

standard deviations on the dependent variables for East Asian men and women. East Asian

women reported significantly higher scores on COPE (critical reappraisal) and PES (emotion

moderation) than East Asian men. A further analysis with COPE indicated that East Asian

women ($M = 12.20$, $SD = 2.52$) reported significantly higher scores than men ($M = 11.45$, $SD =$

2.38) on Acceptance, $F(1, 230) = 5.21$, $p = .02$. However, there was no difference in Positive

Reframing between East Asian men and women, $F(1, 230) = 2.10$, $p = .15$ ($M = 12.12$, $SD = 2.36$

for men; $M = 12.58$, $SD = 2.39$ for women).

Table 5

Summary of Intercorrelations, Means, and Standard Deviations for Emotion-Focused Coping as a Function of Gender (N = 232)

Measure	*1*	*2*	*3*	*M*	*SD*
1. COPE	–	.09	.20*	24.78	4.13
2. AEQ	.38**	–	.05	91.42	14.58
3. PES	.27*	.08	–	67.25	9.98
M	23.56	91.26	59.75		
SD	4.33	12.49	11.65		

Note. Intercorrelations for East Asian female participants (*n* = 141) are presented above the diagonal, and intercorrelations for East Asian male participants (*n* = 91) are presented below the diagonal. Means and standard deviations for East Asian females are presented in the vertical columns, and means and standard deviation for East Asian males are presented in the horizontal rows. For all scales, higher scores are indicative of more extreme responding in the direction of the construct assessed. COPE = Coping Orientation to Problem Experience. Only two subscales, Positive Reinterpretation and Growth and Acceptance, were used; AEQ = Ambivalence over Emotional Expressiveness Questionnaire; PES = Perceived Emotional Support scale. ** $p < .01$; *$p < .05$, two-tailed.

The MANOVA was followed with the DFA, which revealed one discriminant function, canonical $R^2 = .11$, indicating that gender accounted for 11% of function variance. The discriminant function significantly differentiated gender, $\Lambda = .89$, $\chi^2(3) = 26.69$, $p < .001$. As seen in Table 6, the discriminant function coefficients showed how the emotion-focused coping behaviors were combined to discriminate maximally between the East Asian men and women. The correlations between emotion-focused coping indicators and the discriminant function coefficients indicated that PES (relational support) and COPE (critical reappraisal) contributed most to the prediction of gender ($r = .98$, $r = .40$, respectively) as compared to AEQ (emotion moderation; $r = .02$). The function was made up of relational support and critical appraisal, with no contribution of emotion moderation. The nature of this discriminant function was named "relational situation acceptance." As shown in Table 7, the model correctly classified 63.4% of the cases.

Table 6

Correlation of Predictor Variables for Gender with Discriminant Functions (Function Structure Matrix) and Standardized Discriminant Function Coefficients

Predictor variable	Correlation with discriminant functions	Standardized discriminant function coefficients
	Function 1	Function 1
COPE	.40	.21
AEQ	.02	−.08
PES	.98	.94

Note. COPE = Coping Orientation to Problem Experience. Only two subscales, Positive Reinterpretation and Growth and Acceptance, were used; AEQ = Ambivalence over Emotional Expressiveness Questionnaire; PES = Perceived Emotional Support scale.

Table 7

Classification Analysis for Gender

		Predicted group membership	
Actual group membership	*N*	Male	Female
Male	91		
n		52	39
%		57.1	42.9
Female	141		
n		46	95
%		32.6	67.4

Note. Overall percentage of correctly classified cases = 63.4%.

Difference in Acculturation Status

The third question involved whether East Asian students from different acculturation statuses differed from one another in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. Before running the MANOVA, all respondents were categorized into one of four acculturation strategies. Acculturation status was assessed by the EAAM which generated four mean scores, representing the four dimensions of acculturation (i.e., assimilation, integration, separation, and marginalization), for each respondent. East Asian international students were classified according to their highest mean score on the EAAM into one of the four acculturation groups: integration-oriented, assimilation-oriented, separation-oriented, and marginalization-oriented. For participants who had the same scores on different acculturation groups, a mixed acculturation group was created. For example, some participants fell into a combination of assimilation and integration or separation and marginalization; others fell into a combination of separation and integration. Recent evidence from acculturation

literature shows that there are latent categories of acculturation that are not captured by the four widely utilized acculturation strategies (Schwartz & Zamboanga, 2008). For example, Schwartz and Zamboanga's findings indicate that classifying acculturation groups through cluster analysis or latent class analysis may not extract all of the categories or may extract multiple variants of one or more of the categories. Their findings suggest that not all of Berry's (1997) categories exist in a given population and that some categories may have multiple subgroups. For this reason, I labeled the group that had latent classes of acculturation as "mixed acculturation." Rather than forcing this group into one of the four original categories, I treated it as one acculturation group and created a separate group status.

Table 8 shows intercorrelations among the four EAAM acculturation statuses and the emotion-focused coping dependent variables for East Asian international students. More than half of East Asian international students were in the separation status (34.9%) and the marginalization status (34.1%). Assimilation was positively correlated with integration ($r = .54$, $p < .01$) and marginalization ($r = .15$, $p < .05$) but negatively and moderately correlated with separation ($r = -.59$, $p < .01$). Separation was negatively and moderately correlated with integration ($r = -.43$, $p < .01$). Integration was negatively and mildly correlated with marginalization ($r = -.16$, $p < .01$). COPE (critical reappraisal) was positively and mildly correlated with AEQ (emotion moderation; $r = .19$, $p < .01$) and PES (relational support; $r = .26$, $p < .01$) and integration ($r = .17$, $p < .05$) but negatively correlated with marginalization ($r = -.14$, $p < .05$). AEQ (emotion moderation) was positively and mildly correlated with separation ($r = .17$, $p < .01$) and marginalization ($r = .29$, $p < .01$). PES (relational support) was negatively and mildly correlated with marginalization ($r = -.25$, $p < .01$). The length of stay in the United

Table 8

Summary of Intercorrelations for Emotion-Focused Coping and Acculturation Statuses (N =
232)

Variable	1	2	3	4	5	6	7
1. COPE	–						
2. AEQ	.19**	–					
3. PES	.26**	.06	–				
4. Assimilation	−.07	−.06	−.11	–			
5. Separation	.12	.17**	.04	−.54**	–		
6. Integration	.17*	−.06	.02	.59**	−.43**	–	
7. Marginalization	−.15*	.29**	−.25**	.15*	.11	−.16*	–

Note. Correlation is significant at the .001 level (two-tailed). COPE = Coping Orientation to
Problem Experience. Only two subscales, Positive Reinterpretation and Growth and Acceptance,
were used; AEQ = Ambivalence over Emotional Expressiveness Questionnaire; PES = Perceived
Emotional Support scale. ** $p < .01$; * $p < .05$, two-tailed.

States was positively and mildly associated with integration ($r = .17$, $p < .01$) and age ($r = .17$, p

$< .05$). Gender was not related to any dimension of acculturation.

A MANOVA was computed with group membership as the independent variable and

scores from COPE, AEQ, and PES as the dependent variables. Assumptions of the MANOVA

were met. The overall MANOVA for dependent variables was significant for acculturation

status, Willks's $\Lambda = .84$, $F(12, 595.586) = 3.50$, $p < .001$, $\eta^2 = .06$, indicating a difference in the

level of use of emotion-focused coping behaviors among different acculturation groups. With

regard to effect size, 6% of the variability in the emotion focused coping behaviors was

explained with acculturation group membership. This effect could be judged as medium

according to Cohen's (1988) convention. Table 9 contains the means and the standard deviations

on the emotion-focused coping dependent variables for the five acculturation groups identified in

this study.

Table 9

Means and Standard Deviations for Emotion-Focused Coping by Acculturation Status

	Acculturation Status					All
	Assimilation	Separation	Integration	Marginalization	Mixed	
	($n = 39$)	($n = 81$)	($n = 13$)	($n = 79$)	($n = 20$)	($N = 232$)
Variable	Mean	Mean	Mean	Mean	Mean	Mean
	(*SD*)	(*SD*)	(*SD*)	(*SD*)	(*SD*)	(*SD*)
COPE	24.73	24.92	27.38	23.27	23.05	24.30
	(4.12)	(4.41)	(2.26)	(3.99)	(4.45)	(4.25)
AEQ	88.18	89.61	89.92	94.40	93.56	91.36
	(12.41)	(14.52)	(15.14)	(13.54)	(11.50)	(13.77)
PES	66.00	66.70	63.69	60.58	66.46	64.31
	(9.95)	(9.93)	(9.56)	(13.02)	(8.94)	(11.25)

Note. COPE = Coping Orientation to Problem Experience. Only two subscales, Positive Reinterpretation and Growth and Acceptance, were used; AEQ = Ambivalence over Emotional Expressiveness Questionnaire; PES = Perceived Emotional Support.

Individual ANOVAs were tested at the $p < .05$ divided by 5 or $p < .01$ level. The univariate *F* tests were significant for scores on the COPE and PES: $F(4, 227) = 4.04$, $p = .003$, $\eta^2 = .07$; $F(4, 227) = 3.66$, $p = .007$, $\eta^2 = .06$, respectively. However, the *F* test was not significant for the AEQ, $F(4, 227) = 2.01$, $p = .10$, $\eta^2 = .03$. Games-Howell post hoc comparisons tests revealed that the integration group reported significantly higher scores on the COPE (critical reappraisal) than the assimilation, separation, marginalization, and mixed acculturation groups. The separation group reported significantly higher scores on the PES (relational support) than the marginalization group. There were no acculturation group differences on the AEQ (emotion moderation).

A further analysis for the critical reappraisal variables of acceptance and positive reframing on the COPE was conducted to examine any group differences in the two subscales of the COPE. Group differences emerged on Positive Reframing, $F(4, 227) = 4.36$, $p = .002$, $\eta^2 = .07$; yet, there was no difference on Acceptance, $F(4, 227) = 2.07$, $p = .09$, $\eta^2 = .04$. Games-Howell post hoc analysis showed that the integration group ($M = 14.08$, $SD = 1.44$) reported significantly higher scores on Positive Reframing than the marginalization group ($M = 11.83$, $SD = 2.28$) and the mixed acculturation group ($M = 11.50$, $SD = 2.56$). Also, the integration group ($M = 13.31$, $SD = 1.60$) reported a significantly higher score on Acceptance than the marginalization group ($M = 11.55$, $SD = 2.89$).

The MANOVA was followed with DFA, which revealed three discriminant functions. The first explained 76.5% of the variance, canonical $R^2 = .13$, whereas the second and third explained 21.7%, and 1.8% of the variance, canonical $R^2 = .04$ and $R^2 = .003$ respectively. In combination, these discriminant functions significantly differentiated the acculturation groups, $\Lambda = .84$, $\chi^2(12) = 40.96$, $p < .001$, but removing the first function indicated that the second and third functions did not significantly differentiate the coping behaviors, $\Lambda = .96$, $\chi^2(6) = 10.01$, $p = .12$ and $\Lambda = .10$, $\chi^2(2) = .80$, $p = .67$, respectively. As shown in Table 10, the correlations between the outcomes and the discriminant functions revealed that AEQ loaded almost exclusively on the third function ($r = .88$); COPE loaded more highly on the first function ($r = .63$) than on the second function ($r = -.55$) and the third function ($r = .55$); and PES loaded more highly on the second function ($r = .67$) than on the first ($r = .55$) and third functions ($r = .49$). The first function is a combination of the COPE, AEQ, and PES, indicating that each of the three measures contributes to this most important function. Thus, emotion-focused coping as a

Table 10

Correlation of Predictor Variables for Acculturation with Discriminant Functions (Function Structure Matrix) and Standardized Discriminant Function Coefficients

Predictor variable	Correlation with discriminate functions			Standardized discriminant function coefficients		
	Function 1	Function 2	Function 3	Function 1	Function 2	Function 3
COPE	.63*	−.55	.55	.68	−.76	.28
AEQ	−.47	−.10	.88*	.68	−.00	.78
PES	.55	.68*	.49	.46	.86	.34

Note. COPE = Coping Orientation to Problem Experience. Only two subscales, Positive Reinterpretation and Growth and Acceptance, were used; AEQ = Ambivalence over Emotional Expressiveness Questionnaire; PES = Perceived Emotional Support scale. *Largest absolute correlation between each variable and any discriminant function.

Table 11

Classification Analysis for Acculturation

Actual group membership	N	Predicted group membership				
		Assimilation	Separation	Integration	Marginalization	Mixed
Assimilation	39					
n		7	5	12	6	9
%		17.9	12.8	30.8	15.4	23.1
Separation	81					
n		13	9	27	14	18
%		16.0	11.1	33.3	17.3	22.2
Integration	13					
n		1	2	7	3	0.0
%		7.7	15.4	53.8	23.1	0.0
Marginalization	79					
n		8	3	13	33	22
%		10.1	3.8	16.5	41.8	27.8
Mixed	20					
n		2	1	4	4	9
%		10.0	5.0	20.0	20.0	45.7

Note. Overall percentage of correctly classified cases = 28.0%.

combination of COPE, AEQ, and PES predicts acculturation status, or differentiates across acculturation statuses. As seen in Table 11, the model correctly classified 28.0% of the cases.

As a supplemental analysis, a one-way MANOVA was performed to examine whether East Asian students who stayed in the United States for a year or stayed less than one year in the United States differed from those who stayed longer than one year in the United States in emotion-focused coping behaviors as reflected in critical reappraisal, emotion moderation, and relational support. Assumptions of the MANOVA were met. Box's M indicated that the assumption of homogeneity of covariance matrices was met. Overall, significant differences were not found among the residence year groups on emotion-focused coping, Wilks's $\Lambda = .97$, $F(3,328) = 2.06$, $p = .11$, $\eta^2 = .03$. Emotion-focused coping did not vary as a function of East Asian international students' length of residency in the United States.

Summary

In this study, I investigated cultural differences in emotion-focused coping behaviors as reflected in critical reappraisal, emotion moderation, and relational support. Following preliminary analyses, a series of multivariate analyses of variance, analyses of variance, and discriminant function analyses were performed to test the study hypotheses.

Several hypotheses were formed to guide the data analysis. First, it was hypothesized that East Asian international college students and European American college students would differ significantly in emotion-focused coping behavior as reflected in critical reappraisal, emotion moderation, and relational support. Further, East Asians would report higher scores on the emotion-focused coping behavior than European Americans. This hypothesis was not supported. There were no differences due to ethnicity in emotion-focused coping. Second, it was hypothesized that East Asian men and women would differ significantly in emotion-focused

coping behavior as reflected in critical reappraisal, emotion moderation, and relational support. This hypothesis was supported by the emotion-focused coping data. An examination of the individual group differences indicated that East Asian women utilized critical reappraisal and relational support to a greater extent than East Asian men. There was no difference due to gender in emotion moderation. Relational support, critical reappraisal, and emotion moderation accurately classified gender for nearly two thirds of the cases, with relational support as the strongest contributor to the prediction. Third, it was hypothesized that East Asian students experiencing different acculturation statuses would vary in emotion coping behavior as reflected in critical reappraisal, emotion moderation, and relational support. The hypothesized differences in emotion-focused coping by acculturation were supported by the data. Group differences in critical reappraisal and emotional support occurred as a function of acculturation status. The integration group reported using critical reappraisal more often than other groups. The separation group reported employing relational support more often than the marginalization group. There were no group differences in emotion moderation.

CHAPTER 5

DISCUSSION

In this chapter I discuss the results presented in Chapter 4. First, the findings for each research question and hypothesis are reviewed, along with the findings of prior research. Next, limitations of the study are discussed, which is followed by suggestions for future research and practice and a conclusion.

Explanation of Findings

Effects of Ethnicity

I examined the effects of ethnicity on emotion-focused coping behavior as reflected in critical reappraisal, emotion moderation, and relational support. It was anticipated that group differences between East Asian international students and European American students would emerge in emotion-focused coping strategies. Specifically, it was expected that East Asian students would report using emotion-focused coping more than European American students. Unexpectedly, there were no overall ethnic differences in emotion-focused coping practices.

Contrary to expectations, ethnic differences did not emerge in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. My literature review indicated that there was no prior research that examined the effects of ethnicity on a collection of emotion-focused coping behavior as reflected in critical reappraisal, emotion moderation, and relational support. Previous cross-cultural researchers only studied an individual component of

emotion-focused coping when examining behavioral differences between East Asians and European Americans. For example, critical reappraisal was found to be one type of emotion-focused coping behavior employed by East Asians (Heppner et al., 2006; Miyazaki et al., 2008). Critical reappraisal, which is referred to as a combination of acceptance and positive reframing, involves a realistic reframing in the evaluation of stressors and the self. Critical reappraisal has been investigated separately as acceptance and positive reframing, and existing evidence showed that East Asians were more likely to rely on acceptance as well as positive reappraisal, whereas European Americans preferred using positive reappraisal (Bjorck et al., 2001; Chang, 1996; Taylor et al., 2004). These previous findings indicate that positive reframing and acceptance are compatible coping strategies for East Asians. Emotion moderation is another type of emotion-oriented coping strategy utilized by East Asians. Research findings consistently indicated that East Asians reported a higher level of emotion moderation than European Americans (Bagozzi et al., 1999; Matsumoto, 1993; Schimmack et al., 2002; Tsai & Levenson, 1997; Tsai et al., 2006). Emotion moderation involves regulating emotional distress by avoiding both positive and negative extremes. According to Bagozzi and colleagues (1999), relative to cultures influenced by the Western religions (e.g., Christianity), East Asian cultures that espouse Confucianism and Buddhism are likely to facilitate more experiences of mixed emotions. Further, as opposed to their European American counterparts, East Asians were found to use more relational support in the form of implicit and perceived emotional support (H. S. Kim et al., 2008; Uchida et al., 2008). Cross-cultural researchers suggest that emotional norms in East Asian cultures discourage the active and explicit engagement of one's support network in ways that may harm interpersonal harmony. Thus, East Asians tend to use perceived and implicit emotional support,

namely, relational support that affirms their sense of interdependence (Taylor et al., 2004; Taylor et al., 2007).

My study was the first attempt to investigate a combination of emotion-focused coping strategies as reflected in critical reappraisal, emotion moderation, and relational support. Due to a lack of previous studies that employed a multifaceted definition of emotion-focused coping, direct comparisons between my findings and prior findings are not possible.

There are several potential explanations for the lack of ethnic differences in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. First, it is likely that the relationships among the three constructs may not be strong enough to be considered as one emotion-focused coping behavior among East Asians. Each construct was investigated separately in previous studies, and the relationships among them have rarely been examined together as emotion-focused coping behaviors. What is missing from interpretations of East Asian and European American responses to emotion, as obtained from all the examinations of individual emotion-focused elements, is information about the relationships among emotion-focused coping behaviors such as critical reappraisal, emotion moderation, and relational support. My finding of lack of ethnic differences in emotion-focused coping strategies indicates that researchers may not be able to predict systematic differences between East Asians and European Americans based on the information yielded by individual examination alone.

In the current study, critical reappraisal was mildly and positively associated with emotion moderation and relational support among East Asian international students. Critical reappraisal was only mildly and positively related to relational support, whereas relational support was moderately and negatively associated with emotion moderation among European American students. The mild positive association between emotion moderation and critical

reappraisal among East Asian participants was in contrast with the mild negative association between emotion moderation and relational support among European American participants. The dissimilar relationships among these constructs in East Asian and European American college students may imply that emotion-focused coping behaviors, as a combination of critical reappraisal, emotion moderation, and relational support, are used differently in these two ethnic groups. Nonetheless, my finding of lack of group difference indicates that the investigation of the relationship patterns among emotion-focused coping practices failed to support an integrative framework of coping and emotion regulation. It is possible that the lack of a significant and positive relationship between emotion moderation and relational support among East Asian students decreased the relationships among these three emotion-focused coping behaviors.

The dynamics between emotion moderation and relational support are somewhat similar to the conflicting ideas of social support and forbearance (i.e., reluctance to share concerns with close ones) suggested by Moore and Constantine (2005). In their factor analysis study on the development of a collectivistic coping styles measure with international college students, Moore and Constantine found that while international students used perceived emotional support, they tended to regulate internally their own emotional distress to avoid being a burden to close ones. The relationship between social support and forbearance supports the incompatible relationship between emotion moderation and relational support in my study, which may be related to the inherent conflicts international students experience by being pressured to navigate U.S. cultures as well as their own cultures. The ambivalent relationship between emotional support and emotion regulation is also supported by a recent interview study with Asian international students (Sung & Ganapathy-Coleman, 2010). In this study, most Asian international students identified family as a primary source of emotional support even though they would not share

emotional distress with family. Due to concerns about making their family worry, Asian students often decided to take care of their emotional distress on their own.

Second, another possible explanation for the lack of ethnic differences in emotion-focused coping is the limitations of the instruments. I made considerable effort to find measures that reflected the three constructs of emotion-focused coping behaviors that I proposed in this study. The alpha coefficients in my study showed that the instruments that measured critical reappraisal, emotion moderation, and relational support were reliable. However, it is probable that the measures used in this study did not adequately reflect the proposed elements of emotion-focused coping and were not sensitive enough to detect ethnic differences. For example, existing studies employed different measures to assess positive reappraisal and acceptance and there is no exact coping measure that directly assesses the concept of critical reappraisal (Chang, 1996). In my study, two subscales from the COPE (Carver et al., 1989), Positive Reinterpretation and Growth and Acceptance were used as the measure of critical reappraisal. It is likely that the combination of two measures developed for use with European Americans was not sensitive enough to measure critical reappraisal as it exists among East Asians. Relatedly, it is possible that the measure of relational support (PES), which was developed from individualistic cultural constructs, may not adequately differentiate implicit emotional support and explicit support. Some items (e.g., "he/she always understands your true feelings") are based on an individual's inner feelings, which relates to an individualistic-oriented self-construal. Other items (e.g., "if you want to vent your frustration, they will be there to take it") may not differentiate explicit and implicit emotional support. If the PES as a measure of relational support is confounded with explicit emotional support, it is possible that the observed lack of differences in emotion-focused

coping between East Asian international and European American college students can be attributed to the use of an insensitive measure.

Third, findings from prior emotion research that compared East Asians or Asian Americans and European Americans may not account for or apply to emotion-focusing coping behaviors in East Asian international college students. It is important to consider unique emotional experiences and acculturation processes of East Asian international college students who study in the United States. (Sung & Ganapathy-Coleman, 2010). Emotion-focused coping strategies utilized by East Asian international students might be dissimilar to emotion-focused coping practices used by East Asians or Asian Americans. It is likely that emotion-focused coping behaviors reflected in critical reappraisal, emotion moderation, and relational support may not be major coping strategies utilized by East Asian international college students. For instance, East Asian international college students who tend to prioritize their academic success over their relationships may not utilize relational support as a way of coping with stress.

Also, the international status itself may limit the utilization of relational support among East Asian international college students. It is important for East Asian international students to receive emotional support from people from home countries as well as support from the host cultures and other international students. Studies show that emotional support from Americans positively impacts all aspects of international student adjustment (Poyrazli et al., 2004). However, it has been documented that, regardless of their acculturation level, East Asian international students perceive less access to resources and support as compared to domestic students (Lee et al., 2004; Poyrazli et al., 2004; Yeh & Inose, 2003). Thus, it is likely that an overall lack of social support networks may compromise perceived or implicit support among East Asian international college students whose support system may not be physically and

psychologically available for them. Furthermore, it is important to note that a large number of East Asian participants in this study were in the marginalization status in terms of their acculturation process. Available evidence consistently indicates that less acculturated individuals, particularly students who are marginalized or alienated, tend to experience a higher level of acculturative stress (Barry, 2001; Berry, 1980). Thus, it is possible that students who are in the marginalization status experience high acculturative stress, resulting in being reactive to current stressors and less attuned to their adaptive coping strategies.

Additionally, it is noteworthy to address the issue of conceptualizations of emotion-focused coping or acculturation in this study. Concepts such as critical reappraisal, emotion moderation, relational support, and acculturation can be likely understood and defined differently among East Asian students. Prior cross-cultural research on emotion has been conducted on the basis of ethnic categorization (i.e., European American versus East Asian). Researchers may fail to take into account the varied interpretations of terms relevant to emotions, subjective dimensions and meanings of emotion-focused coping behaviors, and variations among individuals within ethnic groups. For instance, although East Asian international students may share some cultural values, they use different languages that can affect their emotional experiences. Given that language plays a vital role on how emotions are understood, regulated, and conceptualized, it is clear that East Asian international students may have a different understanding of descriptions or concepts of emotions on the instruments that were written in English in this study. Problems arising from disregarding the complicated nature of emotion in different languages can lead to difficulties in interpreting participants' responses in meaningful ways (Phinney, 1996).

In sum, the results of the current study did not support the research question regarding an overall effect of ethnicity on emotion-focused coping behaviors as reflected in critical reappraisal, emotion moderation, and relational support. Re-examining relationships among the three emotion-focused coping behaviors, developing sensitive measures, and using different comparative samples (e.g., East Asians who live in East Asian countries) may be necessary in order to provide clear evidence that supports critical reappraisal, emotion moderation, and relational support as culture-specific emotion-focused coping behaviors.

Effects of Gender

I investigated gender differences in emotion-focused coping among East Asian international students as reflected in critical reappraisal, emotion moderation, and relational support. As anticipated, there were overall gender differences in the emotion-focused coping. Specifically, East Asian women reported using emotion-focused coping behaviors more than men. The results of this study on gender differences in emotion-focused coping behaviors among East Asians offer unique evidence that has not been examined in previous studies.

Prior researchers who studied gender differences in coping and emotion regulation separately examined critical reappraisal, emotion moderation, and relational support, and their findings varied depending on each construct. Available research indicates that East Asian men tended to use positive reframing strategies more than women (Taylor et al., 2004). Previous research on gender differences in emotion moderation is unclear due to mixed findings with some studies reporting gender differences (e.g., Bagozzi et al., 1999; Chen et al., 2005) and others indicating no gender differences (e.g., Spencer-Rodgers, Peng, & Wang, 2010). Researchers who examined gender differences in emotional support suggest that East Asian women tended to rely on emotional support more than men (Jung, 1995; H. S. Kim et al., 2006).

It is important to note that there has been a paucity of prior studies that examine inter-

relationships, as in a theoretically derived combination of emotion-focused coping behaviors

between East Asian men and women. Further, previous findings varied depending on the

emotion-focused coping strategy being examined (i.e., critical reappraisal, emotion moderation,

and relational support). For this reason, the results of my study offer the first direct evidence that

East Asian male and female international college students differ in terms of using emotion-

focused coping strategies as reflected in the combination of critical reappraisal, emotion

moderation, and relational support.

Gender differences in emotion-focused coping can be explained in several ways. Firstly,

relationships among three constructs of emotion-focused coping among East Asians allow the

investigation of the combined patterns among emotion-focused coping strategies, resulting in

significant gender differences. Secondly, the characteristics of emotion-focused coping practices

that were developed in East Asian cultural values, such as interdependence or respect for

relationship harmony, may fit into East Asian women's gender roles or gender stereotypes. It is

possible that using emotion-focused coping strategies is not only culturally encouraged but also

gender appropriate to female East Asian international students. Thirdly, it is important to note

that the relationship between critical reappraisal and relational support particularly contributed to

differentiate East Asian women's emotion-focused coping behaviors from those of East Asian

men. The underlying dimension that tied critical reappraisal with relational support is defined as

relational situation acceptance. Relational support and critical reappraisal are similar in that

both are centrally dependent on their contexts. Relational support relies on implicit emotional

connection with others, which relates to not seeking explicit emotional support due to

consideration of others. Critical reappraisal refers to reframing and acceptance, which involves

re-contextualization of a negative emotion in more cognitive terms. The interplay between relational support and critical reappraisal can occur through contextualization of emotional distress in a relationship framework. It is likely that East Asian women are more flexible or sensitive to contextual demands than East Asian men; thus, they tend to accept emotional distress in an attempt to consider others.

An individual examination of each construct may give clearer explanations for the noted gender differences. I found East Asian female students to report higher levels of critical reappraisal and relational support than their male counterparts. Consistent with available literature (Jung, 1995; H. S. Kim et al., 2006), East Asian women employed relational support for coping with distress to a greater extent than East Asian men. It is noteworthy that most of the prior findings do not separate social support from emotional support, perceived support from received support, or implicit support from explicit support. Nonetheless, researchers who study social support seem to agree that women are more relational than men and use emotional support as a major coping practice (H. S. Kim et al., 2006). One exception is in Uchida and colleagues' (2008) study where gender differences did not emerge in the use of perceived emotional support among Japanese and Filipino samples. Although it is not clear why gender difference did not occur in perceived emotional support in their study, using different samples might contribute to different results. For example, participants in Uchida and colleagues' study were Japanese adults in Japan or Pilipino Americans in the United States, but the majority of the participants in my study were Chinese international college students. Japanese participants in my study consisted of a very small sample.

Additionally, I found that East Asian women and men differed on their preference to employ critical reappraisal, with women reporting higher levels than men. Interestingly, further

examination indicated that East Asian women reported higher levels of acceptance than East Asian men. There was no gender difference in positive reframing. These results were inconsistent with the limited amount of available evidence. In Taylor and colleagues' (2004) study where the Brief COPE was used, men reported using positive reframing strategies more than Asians and European American women, but there was no gender difference in acceptance. Given that few studies are available, it is likely that different sample sizes or sample characteristics may be attributed to the different results. For example, characteristics of East Asian international college students might be different from East Asian immigrants or East Asian Americans. Because few studies in the literature separate acceptance from positive reframing, it is unknown how accurately gender differences in cognitive reappraisal would reflect acceptance, positive reframing, or both.

In terms of emotion moderation, there was no significant difference between East Asian men and women in using emotion moderation as a coping strategy. Previous findings on gender differences in emotion moderation have been inconsistent due to mixed findings. Some researchers found gender differences in emotional moderation (e.g., Bagozzi et al., 1999; Chen et al., 2005), but others reported no gender differences in emotional moderation (e.g., Spencer-Rodgers, Peng, & Wang, 2010). No difference in emotion moderation among East Asian men and women in my study can be attributed to different sample sizes, the characteristics of the sample, or employment of a different measure for emotion moderation.

In sum, the results of the current study support an overall effect of gender on emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. Gender differences in emotion regulation and coping have been supported in Western culture where observed emotional expression or suppression is heavily influenced by gender stereotypes.

Considerable work on gender differences in emotion regulation has been conducted largely with European American samples, leaving unanswered the question of whether these differences are salient among East Asians. Limited available research indicates that, like European American women, East Asian women are more likely to use emotion-oriented coping strategies, such as venting or crying. However, it is noteworthy that these traditional emotion-oriented coping constructs were developed from Western cultural values and were based on commonly accepted Western gender stereotypes. Because emotion-oriented coping styles have been regarded as maladaptive coping strategies, unintentionally, prior findings that women tend to use emotion-oriented coping strategies more than men have often contributed to perceptions of psychological maladjustment in women (Hyun, Quinn, Madon, & Lustig, 2006). For this reason, the current finding that East Asian women use emotion-focused coping behaviors that are culturally appropriate and perceived as adaptive coping strategies in East Asian cultures is promising for future research on gender differences in East Asians. Further replication studies with different populations (e.g., subgroups of East Asians; recent East Asian immigrants) are necessary to expand the findings of the present study.

Effects of Acculturation

I examined the group differences across acculturation strategies in emotion-focused coping practices among East Asian international college students. It was expected that group differences in acculturation would emerge in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. As predicted, acculturation groups differed in utilizing emotion-focused coping strategies.

Unfortunately, there is a lack of prior research on the overall effect of acculturation status on emotion-focused coping as reflected in critical reappraisal, emotion moderation, and

relational support. Only a few studies examined the effect of acculturation on certain types of emotion-focused coping strategies. Butler and colleagues (2007) found the less acculturated or more traditional East Asians to report a greater use of emotion suppression. H. S. Kim and colleagues (2008) found more assimilated Asians to use emotional support more than less acculturated Asians. Liem, Lim, and Liem (2000) examined acculturation and emotion (i.e., ego-focused emotion and other-focused emotion). According to the work of Markus and Kitayama (1991), other-focused emotions that are associated with an interdependent self-construal tend to have the other as the primary referent. On the other hand, ego-focused emotions that are associated with an independent self-construal are centered on the individual and involve self-affirmation. Liem and colleagues found that Asians and Asian Americans used other-focused emotions more generally than European Americans. Also, emotions varied depending on the acculturation levels among Asians. Asians who were assimilated were found to use other-focused emotions more than the other acculturation groups. On the other hand, Asians who were separated or integrated were less distinct in their responding.

Given the lack of previous research findings, results of the current study offer the first direct evidence regarding the effect of acculturation processes on emotion-focused coping strategies among East Asian international college students. The effect of differences in acculturation status on emotion-focused coping behaviors can be explained in several ways. Firstly, the variation in levels of acculturation may have led to group differences in emotion-focused coping behaviors. In previous studies on acculturation levels among international students, most participants were categorized in the assimilation or integration acculturation groups, which often led to the researcher removing participants categorized in the marginalization group from further analyses (Gu, 2009). Distinct acculturation strategies of East

Asian international students might affect the way they use emotion-focused coping practices.

East Asian international students who are in the separation status may try to maintain their

cultural heritage to feel secure whereas others who are in the marginalization status may stay

away from their home cultures and the U.S. cultures so as to solely focus on their academic

performance. Also, some international students work hard to assimilate or fit into the U.S.

culture whereas others attempt navigating both cultures. Thus, it is possible that East Asian

international students from different acculturation categories use different emotion-focused

coping behaviors.

Secondly, given that the majority of participants in this study were students who were in

the separation acculturation status, it is likely that these students who favored their own cultural

values preferred utilizing emotion-focused coping practices that are supported in their home

cultures. As cultural contacts with the host cultures occur, East Asian foreign students

experience significant cultural transitions and adjustment. To deal with potential acculturative

stress and subsequent emotional distress, East Asian students may develop their own emotion-

focused coping strategies. Initially, students might rely on coping strategies that are useful in

their home cultures and progressively try to adjust their coping methods to strategies that are

culturally appropriate in the United States. It is important to note that East Asian international

students who stayed in the United States for a year or less and those who stayed longer than one

year in the United States did not differ in using emotion-focused coping behaviors. In research

that examines acculturation, time-in-residence measured in years has been regarded as one of the

factors impacting acculturation levels. Other factors such as preferred language, a circle of

friendship, or the extent and type of internet-facilitated contact (e.g., Skype or FaceTime) with

the family and culture of origin can be considered in future investigations of the acculturation

process. For example, language choice or English language proficiency has been a stronger predictor of adjustment than the other domains of acculturation among Asian international students (Dao et al., 2007; Wei et al., 2007). In fact, in this study, the length of stay in the United States was only positively associated with integration group membership and age. This result is not congruent with findings from Barry's (2001) study where the length of stay in the United States was positively associated with assimilation and integration but negatively associated with marginalization.

Further individual examination of each of the constructs comprising emotion-focused coping showed that East Asian students who were in the separation status reported using relational support to a greater extent than students in the marginalization status. This result is distinct from previous findings that less acculturated Asians report less use of emotional support than more assimilated individuals (H. S. Kim et al., 2008). This is because H. S. Kim and colleagues (2008) measured explicit emotional support which is different from the concept of relational support discussed in my study. Researchers who study acculturation have associated separation with negative acculturation experiences and linked integration with better adjustment (Barry & Grilo, 2002). However, it seems that relational support plays a protective role for East Asian international students who are in the separation status and may help them make positive adjustments. The finding that students in the separation acculturation status rely on relational support shows that relational support is associated with East Asian international students' culture-specific coping.

Interestingly, East Asian participants who were in the integration status reported using critical reappraisal to a greater degree than those in the marginalization status. In other words, international students who are inclined to favor both their own culture and the host culture are

more likely to rely on critical reappraisal than those who are inclined to disfavor their own culture and host culture. Integration-oriented students are characterized by biculturalism between East Asian and American cultures and mastery of living in two cultures. It is probable that the construct of critical reappraisal as measured by Brief COPE in this study may not be sufficient to reflect East Asian culture-specific coping behaviors.

Somewhat surprisingly, assimilation was positively associated with marginalization in my sample. This is inconsistent with the result from Barry's (2001) study where assimilation was not associated with marginalization. On the basis of Berry's (1980) multidimensional model of acculturation, it is inherently implausible that East Asian students who value only their host culture also favor neither their own cultural values nor their host cultures. However, this is consistent with acculturation research indicating mild positive correlations between the measurements of assimilation and marginalization (Berry, 1997). The positive association between marginalization and assimilation can be explained by some cultural barriers that East Asian international students experience, such as English language difficulty, perceived interpersonal discrimination, or cultural value conflicts. Students described in the marginalized acculturation status may sacrifice their own cultural values to learn about or fit into the host culture but realize that they are not easily accepted by people in the host culture or that they cannot connect with people in the United States. Students who are in the assimilation status may venture to assimilate to the U.S. cultures by actively choosing to behave like Americans and following cultural customs and values supported in the United States (Gu, 2009). The assimilated students' distancing from their own cultural practices could result in social isolation due to potential negative reactions from their own cultural groups. These students might be criticized or isolated by their own cultural group due to their efforts "to immerse into American

culture in terms of values, language, and friendship making" (Gu, 2009, p. 66). Further, the assimilated students quickly learn that they may not be able to connect to people in the host cultures due to cultural dissimilarity. Thus, it is probable that a strong attachment to the host culture (i.e., assimilation) is not necessarily incompatible with a rejection of one's own culture and host culture (i.e., marginalization). The positive association between assimilation and marginalization is also supported by the existence of a mixed acculturation group in my study, which may represent students who simultaneously or progressively experience two to three acculturation processes, such as assimilation-marginalization or assimilation-integration-separation.

In sum, the results of this study offer the first unique evidence that East Asian international college students from different acculturation statuses differ in terms of using emotion-focused coping strategies as reflected in critical reappraisal, emotion moderation, and relational support.

Limitations of the Study

The results of the current study need to be considered in light of the study's limitations. Firstly, East Asian students who participated in this study were predominantly Chinese (53.9%) and Taiwanese (19.0%). Korean (18.5%) and Japanese (8.6%) students were less well represented in this study and may not be representative of the proportions of East Asian international college students on campuses in the United States. Furthermore, given the relatively small sample sizes of Korean, Taiwanese, and Japanese participants, data analysis within groups was not possible.

It is important to note that East Asian students who pursue study overseas may be different from East Asians who pursue higher education in East Asian countries. For example,

this student population may display a greater level of independence than those in colleges in East Asian countries (Gu, 2009). This population may be more goal-oriented and achievement-focused than college populations in East Asian countries. Thus, East Asian culture-specific emotion-focused coping practices found in traditional East Asian cultures may not be robustly present within this population. If this is the case, then the research questions may be applicable to a more traditional East Asian sample. East Asian culture-specific emotion-focused coping strategies were developed for traditional East Asians. Hence, the findings with East Asian international students who study in the U.S may not be generalizable to the population of East Asian countries. For future studies, I suggest researchers reexamine emotion-focused coping strategies with East Asians who live in East Asian countries.

Secondly, it is essential to note that most of the measures used in this study that were developed for use with Western individuals may not be applicable for use with East Asian international students. It is possible that the measures were culturally insensitive and thus not salient measures of critical reappraisal, emotion moderation, and relational support in East Asian participants. The construct of emotion regulation is subtle and culturally laden and can therefore be difficult to measure. Thus, caution should be exercised in the interpretation of these results. Because all the questionnaires were administered in English, it is possible that some participants may have had difficulty comprehending some of the items on the questionnaires. The East Asian participants in this study were expected to meet a certain level of English reading comprehension and minimum TOEFL score to be admitted to U.S. universities. Nonetheless, it is probable that the level of English skill has affected the results because most participants were in the United States for a relatively short period of time (with an average of 2.13 years) and were more likely

to have some difficulty in understanding English. Particularly, terms and descriptions in the instruments can be understood differently due to different cultural values and languages.

Thirdly, limitations of the acculturation measures used in this study should be noted (Suinn, 2010). The measure of acculturation status (i.e., EAAM) is based on Berry's (1997) multidimensional acculturation model that measures a person's status on both their culture of origin and the host culture. Although this approach provides a more comprehensive profile of the acculturation process, four modes of acculturation style are rather arbitrary because they were generated by dichotomizing the underlying two dimensions (i.e., attitudes toward home and host cultures). It is possible that the underlying dimensions could produce more than four acculturation groups (Rudmin, 2003; Schwartz & Zamboanga, 2008). One such consequence is the lack of independence among the four acculturation groups, which was manifested in the presence of a mixed acculturation group in my study. Further, the current assessment of acculturation processes may be limited and incomprehensive because of the exclusive reliance on a self-report method (Suinn, 2010).

Fourthly, it is noteworthy to mention the impact of missing data which can represent a serious threat to internal validity. Failing to account for the influence of missing data can cause a substantial parameter bias and can also influence efficiency and power. In this study, only 62% of the original data was used. There are several explanations that may account for incomplete data, such as survey length or participant fatigue. Some students filled out only the beginning and ending part of the survey in order to participate in the raffle drawing. The ethnic category item appeared to be confusing to many participants and may have contributed to a majority of the data lost in this study. Students who self-identified as East Asian or European American were included for data analyses. Some East Asian students seemed unfamiliar with the word "East

Asian" and thus were unsure of whether they fell into these ethnic and cultural categories or not.

Similarly, many American college students appeared confused about the ethnic categories of

Caucasian, White, European American, and non-Hispanic European American. Some would

identify themselves as Caucasian or White but not as European American because they may be

unfamiliar with the term European American. I attempted to include these students through a

thorough data screening process. If an American student disclosed himself or herself as White or

Caucasian rather than European American in terms of ethnicity, the participant was included for

data analysis. Similarly, if an international student specified himself or herself as Chinese,

Taiwanese, Korean, or Japanese rather than East Asian in terms of nationality, this respondent

was included for data analysis. Nonetheless, a European American student or an East Asian

student who identified himself or herself as "other" in the ethnic category but did not specify an

ethnicity was omitted in the data screening process. Further, I compared a participant's ethnic

category with his or her nationality and included an individual whose nationality was Korean,

Chinese, Japanese or Taiwanese but who identified himself or herself in other ethnic categories.

Future cross-cultural researchers need to keep in mind that young adult college students and

international students may not be knowledgeable about the ethnic category designations that are

frequently used in cross-cultural research. It might be helpful to provide specific responses such

as Korean, Chinese, Japanese, or Taiwanese rather than using the category of East Asian.

Fifthly, it is important to note that using ethnic categories in this study to detect cultural

differences among East Asians and European Americans can result in an oversimplified

depiction of participants' emotion-focused coping practices. The use of a single criterion such as

ethnicity is likely to lead to confusion because culture is a complex whole and can be understood

better by using many criteria to differentiate between one culture and another. Further, imposing

on participants "categorical, mutually exclusive, pre-determined ethnic categories raises

methodological problems" (Zagefka, 2009, p. 236) because it may not reflect the complex and

multidimensional construct of ethnicity. As seen in the issues with missing data, if a participant

does not accept a certain ethnic categorization, information about him or her will be lost. If

participants are forced to identify themselves with a certain ethnic group, they might present

themselves in accordance with social desirability (Zagefka, 2009). Such ethnic-labeling imposed

by researchers can disregard participants' subjective and internalized ethnic identity and further

contribute to an issue of power imbalance between researcher and participants (Phinney,1996).

This issue can be more complicated with international students. Typically, international students

do not identify themselves within ethnic categories that are frequently used in the United States

(e.g., Asian). In this study, when asked about their ethnicity, many international students

identified themselves with their nationality such as Korean, Taiwanese, Chinese, or Japanese.

Also, some international students may use the term ethnicity for their ethnic identity (i.e.,

subjective feeling of belonging to a group where particular cultures are shared). It is not unusual

that international students pay no attention to the whole idea of national or ethnic identity until

they enter the host cultures. When international students become aware that they are different

from the U.S. population, students begin to present themselves in terms of their nationality and

learn that they are perceived within ethnic categories. Likewise, the U.S. people tend to perceive

international students as representatives of their nationality or perceive those students based on

ethnic categories used in the United States. East Asian international students who recently came

to the United States are more likely to identify themselves based on their nationality rather than

ethnicity. However, they may be perceived by people from host cultures as being in an ethnic

category rather than a nationality category because national identity, often based on visual cues

(e.g., skin color), is not easy to recognize. The perceptual discrepancies between international students and people from host cultures can lead to identity confusion among East Asian international students (Sung & Ganapathy-Coleman, 2010). Researchers need to be aware of the constructed nature of ethnicity and the potential risks associated with using ethnic categorization (Phinney, 1996).

Sixthly, my findings need to be interpreted with caution due to weak effect sizes. Effect size emphasizes the size of the difference between groups rather than the difference between sample sizes (Ferguson, 2007). I conducted power analyses to identify the appropriate sample size; yet, it is still possible that I had significant or insignificant results because the sample size affected the results. Although effect size is intended to measure a true effect in the population, it is likely that sampling and various methodological issues (e.g., using poorly standardized measures) can affect effect size estimates (Ferguson, 2007). For instance, participants in this study consisted of volunteers who had access to the online survey. Using non-random samples might generate biased effect size estimates (Ferguson, 2007).

Seventhly, I relied on participants' self-report to assess emotion-focused coping behaviors. Self-report assessments leave findings vulnerable to the effects of cultural norms and gender stereotypes because cultural values can shape self-reports of emotional distress and coping behaviors.

Finally, it is important to note that the type of stressors to which the participants were responding was not specified in this study. It is likely that the students from the different cultures might have applied different coping strategies in response to different stressors they were facing (Taylor et al., 2004). For example, East Asian international students may experience a higher level of acculturative stress, academic difficulty, or financial concerns as compared to

domestic American students. It is probable that participants think of different stressors, which may affect their choice of coping strategies and thus influence the study results.

Research Implications

This study offers some evidence of promise for integrating emotion regulation research with coping literature for East Asians and identifying East Asian culture-specific emotion-focused coping behaviors. The results of this study can be used to increase the understanding of emotion regulation and coping efforts among East Asian international students in future research. Particularly, the current findings indicate that emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support can be a culturally specific coping behavior for East Asian women and East Asians students who are in different acculturation statuses. Further work is warranted to investigate social and cultural contexts in which emotion-focused coping is likely to be effective in East Asians, especially those who are more traditional and are from non-English speaking communities. Also, replication studies that examine the cultural differences in emotion-focused coping as reflected in critical reappraisal and relational support are necessary given that my study provides preliminary evidence.

The results have implications for the measurement of emotion-focused coping through surveys and questionnaires. It is strongly recommended that future researchers develop a new scale that measures emotion-focused coping behaviors for use with East Asians, instead of using scales originally designed for European Americans. The development of measures that accurately reflect culturally specific emotion-focused coping practices among East Asians can provide an accurate picture of coping through emotion in East Asians. Future researchers can extend this preliminary evidence to East Asians in East Asian countries or other Asian

international college students in U.S. colleges and universities by using more elaborate instruments.

I suggest that future researchers pay attention to East Asian international students who are in a mixed acculturation group. These students have been disregarded in acculturation literature because they do not fit into one of four acculturation groups that are suggested by Berry's (1997) multidimensional model of acculturation. Such a mixed acculturation group could include, for example, assimilated and marginalized students who navigate their own culture and host culture in a different way than integrated students do. Perhaps mixed acculturation groupings can be considered as new dimensions between cultural heritage maintenance and participation in the host society, or they can be overlapped with an integration group within the original acculturation model.

Furthermore, researchers can focus on clinical samples of East Asian international students that may be experiencing emotion dysregulation. In the current study, it was impossible to know whether students were experiencing clinical levels of distress in the form of emotional dysregulation. Examining emotion dysregulation as a moderating or mediating factor can help researchers understand psychological maladjustment among East Asian international students. Particularly, considering the implications of gender differences in emotion dysregulation can be helpful to understand gender differences in emotional processing and expression, and gender differences in affective disorders among East Asians. Researchers can also study academic advisors, international office staff, and mental health professionals who closely work with East Asian international students, stressing these groups' perspectives on what can help these students to adjust better in the United States (Gu, 2009). The findings from both the student and the

professional parties might be compared to promote better understanding on East Asian students' academic and psychological adjustment.

Finally, investigation of East Asian international students' interaction with home cultures can add rich information on acculturation processes across cultural contexts. Lately, new technology, particularly social media networking, enables international students to interact freely with their home cultures. The interaction of people from their home network has a large influence on maintaining values, attitudes, and behaviors among East Asian students. Future researchers can explore the impact of new technology on the acculturation process and the emotion regulation and coping strategies of East Asian international students.

Clinical Implications

Based on preliminary evidence regarding cultural differences in emotion-focused coping practices, I offer the following clinical implications for serving East Asian international college students. Firstly, obtaining knowledge about culture-specific emotion-focused coping behaviors could assist mental health professionals to improve their approach to East Asian international students who seek counseling or psychotherapy. Counseling professionals should be aware of potential effects of acculturation and gender on emotion-focused coping strategies. They need to be careful to evaluate emotion regulation and acculturation status in order to assist students effectively. It is recommended that university personnel and counseling professionals properly adapt and tailor their services in order to accommodate East Asian international students' unique cultural needs which may include being in different acculturative statuses.

Secondly, academic advisors and counselors need to attend to the academic and psychological status of an East Asian student who is in the marginalization status. Converging evidence from several studies has shown that those who are in integration experience the least

acculturative stress whereas those who are in marginalization experience the greatest

acculturative stress (Barry, 2001; Berry, 1997). Further, acculturation level is associated with

help-seeking behaviors and mental health service utilization. Individuals with high acculturation

levels demonstrate greater willingness to seek professional help for psychological problems

(Barry & Grilo, 2002). Counseling professionals and university personnel may wish to seek out

marginalized international students and focus on preventive interventions in order to address

potential academic and psychological maladjustment. It is likely that marginalized students may

not develop strong attachment to their own or the U.S. culture. They are at high risk of isolating

themselves, and their lack of interpersonal interactions may lead to poor relational support. As

compared to the other acculturation groups, providing assistance for marginalized students can

be challenging because this population is invisible in various social settings due to their lack of

contact with their own cultural group as well as the host culture group. For this reason, the role

of the academic advisor or instructor is important because this group of students may be only

visible in an academic setting. Students who are in the marginalization status can benefit from

psycho-educational workshops or support groups where professional counselors or peer students

can provide general information about adjustment and proactive support.

Thirdly, in working with students who are in the separation status, mental health

professionals can work closely with international student organization groups and help these

groups identify and access available resources. East Asian international students who are in the

separation status appear to have relationship support from their own cultural groups. In this case,

mental health professionals can provide mental health services to student organizations through

outreach activities or psychoeducational programs (e.g., stress or homesickness management)

that focus on developing adaptive coping strategies.

Fourthly, it is important to pay attention to East Asian men on a university campus. In this study, East Asian international male students used relational support and critical reappraisal less than East Asian international female students, implying that they may have fewer emotion-focused coping methods for dealing with emotional distress. It is important for university counseling center professionals to help East Asian male students develop adaptive coping strategies (e.g., mindfulness) rather than maladaptive coping methods (e.g., drinking alcohol). Given that East Asian men are an underserved population in college counseling centers, it is vital for mental health professionals to seek out this population through outreach activities and provide psychoeducation about mental health in a culturally sensitive way.

Finally, therapeutic assessment and intervention efforts should be made by considering psychologically relevant aspects of the culture (e.g., relational support, assimilation) among East Asian clients. Counselors can provide normalization and validation to international students in order to help them acknowledge that they are not alone in their experiences and adjust to a new culture. Considering cultural factors such as emotion-focused coping can improve service delivery and, therefore, facilitate East Asian international students' cross-cultural adjustment and successful academic accomplishment in the United States.

Conclusion

This study uniquely contributes to acknowledging East Asian culture-specific emotion-focused coping behaviors by integrating emotion regulation into the coping literature and examining cultural differences in emotion-focused coping. It was expected that cultural differences (i.e., ethnicity, gender, and acculturation status) would emerge in emotion-focused coping as reflected in critical reappraisal, emotion moderation, and relational support. Contrary to the expectations, ethnic differences did not emerge in emotion-focused coping behaviors.

However, there are some interesting new findings with respect to emotion-focused coping behaviors in this study. First, gender differences emerged in emotion-focused coping behaviors among East Asian international students. The finding that East Asian women use emotion-focused coping strategies more than East Asian men indicates that emotion-focused coping strategies are adaptive approaches for East Asian women. Second, I found an effect of acculturation status on emotion-focused coping strategies among East Asian international students. East Asian students' employment of emotion-focused coping strategies varied with acculturation level.

These new findings are intriguing to researchers who are interested in investigating cultural differences in emotion-focused coping practices and the impact of emotion-focused coping behaviors on East Asian international students' cultural adjustment and adaptation. The results of this study indicate that both gender and acculturation affect emotion-focused coping behaviors. The study's findings can be used to extend cultural knowledge on emotion among East Asian international students and enhance the provision of psychological and related student affairs services for East Asian international students in the United States. Understanding the emotion-focused coping strategies of East Asian international students can be a crucial factor because their emotion-focused coping strategies can vary depending on their acculturation strategies which in turn can influence East Asian international students' cross-cultural adjustment. By acknowledging East Asian international students' acculturation processes and emotion-focused coping strategies, university advisors and counselors can assist East Asian international students to adjust better to the host society.

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APPENDIX A: Survey Announcement

Dear Student,

I am a Counseling Psychology doctoral student at Indiana State University. Under the direction of Dr. Michele Boyer, my faculty adviser, I am conducting research on emotion-focused coping behaviors among East Asian international college students and European American college students.

If you are an *undergraduate or graduate student* who comes from *China, Taiwan, Japan and Korea*, I would like to invite you to participate in the online survey. If you are a *non-Hispanic European American undergraduate or graduate student* who was born in the United States, you are also welcome to take part in this study.

The survey will be conducted in English. Your responses will be confidential and I do not collect identifying information, such as your name, or IP address. Please be as honest as you can and the results gathered from your responses will help counselors and educators working with East Asian international students better serve this population.

For your participation you will have an opportunity to enter a drawing for a $50 gift certificate to Wal-Mart. If you would like to take the survey, please click the link below. You will be taken to a secure site where you will be given additional information about the study and asked for your consent to participate. You will be able to answer the questions anonymously. At the end of the survey you will be able to enter the Wal-Mart gift card drawing. This survey will take approximately 10-15 minutes to complete. If you have any questions, you may contact me by phone or e-mail below. Thank you in advance for your time and help!

Survey link: https://indstate.qualtrics.com/SE/?SID=SV_eaC60QpKAlUXAy0

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APPENDIX B: INFORMED CONSENT FORM

Examining Emotion-Focused Coping among East Asians and European Americans: A Cross-Cultural Comparison

You are being invited to participate in a study that will examine cultural differences in emotion-focused coping behaviors. I identified you as a possible participant in this study because you are an East Asian or European American. I am conducting this study as part of a doctoral dissertation under the direction of Dr. Michele C. Boyer from the Department of Communication Disorders and Counseling, School, and Educational Psychology at Indiana State University.

Your participation in this online study does not pose greater than minimal risk, and there are no costs to you for participating in the study. The information collected may not benefit you directly, but the knowledge gained from this study could be helpful to counselors and educators who work with East Asian international college students. For East Asian international students, the survey questions will include emotion-focused coping behaviors, acculturation, and demographic information. The questionnaire will take about 15 minutes to complete. For European American students, the questionnaires will include emotion-focused coping behaviors and demographics, which will take about 10 minutes to complete.

This survey is anonymous and no personally identifiable information will be collected about you; however, absolute anonymity cannot be guaranteed over the Internet. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. The results of this study will be used for scholarly purposes only. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By clicking on the web link and completing this survey, you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason.

Once you agree to participate in the survey, you are eligible to take part in the drawing for a $50 Wal-Mart gift card. Even if you choose not to finish, you are still qualified for the drawing. To enter the drawing, you will be directed to another server at the end of the survey. At this location you are asked to enter your email address to participate in the drawing. If you do not want to enter the drawing, closing the window takes you away from the page. Your responses will not be linked to the information you provide for the drawing. The information given for the drawing is stored on a second server that will save e-mail addresses as separate data in a separate file. This information will be password protected.

If you have any questions about the study, please contact Duk-Hae Sung by phone at 812-241-0490 or by e-mail at dsung@sycamores.indstate.edu. You may also contact Dr. Michele C. Boyer by mail at 401 N. 7th Street, Bayh College of Education, Rm. 226, Terre Haute, IN 47809, by phone at (812) 237-7602, or by e-mail at Michele.Boyer@indstate.edu.

The Institutional Review Board (IRB) at Indiana State University has reviewed and approved this study. Individuals from the IRB may inspect these records. If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by e-mail at irb@indstate.edu.

Based on the information above, I agree to participate in this study.

APPENDIX C: DEMOGRAPHIC QUESTIONNAIRE

What is your gender?
- ○ Male
- ○ Female
- ○ Transgender

What is your age? _____

What school are you attending? _____

What best describes your academic standing?
- ○ Freshman
- ○ Sophomore
- ○ Junior
- ○ Senior
- ○ Graduate Student - Masters
- ○ Graduate Student - Doctoral

What is your major? _____

What is your relationship status?
- ○ Single
- ○ Partnered
- ○ Married
- ○ Divorced
- ○ Widowed
- ○ Other (specify) _____

What is your perceived social class?
- ○ Lower class
- ○ Lower-middle class
- ○ Middle class
- ○ Upper-middle class
- ○ Upper class

What is your religion/spirituality?
- ○ Protestant Christian
- ○ Catholic
- ○ Confucian
- ○ Buddhist
- ○ Non-Religious
- ○ Other (specify) _____

How important are your religious/spiritual beliefs?
- ○ Not at all Important
- ○ Very Unimportant
- ○ Neither Important nor Unimportant

❍ Very Important
❍ Extremely Important
What is your ethnic/racial background?
❍ European American
❍ East Asian
❍ Other (specify) _____

*Questions below only apply for East Asians
What is the number of years you have lived in the United States? ____
What is your first/native language?
❍ English
❍ Chinese
❍ Japanese
❍ Korean
❍ Taiwanese
❍ Other (specify) _____
What is the language with which you are most comfortable?
❍ English
❍ Chinese
❍ Japanese
❍ Korean
❍ Taiwanese
❍ Other (specify) _____
What is your score of Test of English as a Foreign Language (TOEFL)?
                    If you took an Internet-based Test (IBT) _____
                    If you took a Paper-based Test (PBT)   _____
What is your nationality?
❍ American
❍ Chinese
❍ Japanese
❍ Korean
❍ Taiwanese
❍ Other (specify) _____