

## **Psychological Adaptation, Marital Satisfaction, and Academic Self-Efficacy of International Students**

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### **ABSTRACT**

*The authors investigated marital satisfaction and academic self-efficacy in relation to psychological adaptation (i.e., psychological well-being, life satisfaction) in a sample of 198 married international students. Results of multiple regression analyses indicated that marital satisfaction and academic self-efficacy accounted for 45.9% of variance in psychological well-being and 25.8% of variance in life satisfaction scores. Based on the results, the differences between cognitive and emotion oriented processes during psychological adaptation were explained. The authors discuss implications for programs with international students and mental health professionals working in university campuses.*

**Keywords:** academic self-efficacy, life satisfaction, marital satisfaction, married international students, psychological well-being, university

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According to the Institute of International Education (IIE, 2015), there was a record high of 974,926 international students enrolled in higher education institutions in the United States in the 2014-2015 academic year. The report indicated that new international student enrollments rose by 8.8% from the previous academic year, whereas the total number of international students increased by 10%. International students help universities become international communities that add to the production and development of knowledge (Chapdelaine & Alexitch, 2004). Furthermore, international students are a significant economic contribution to the U.S. For example, considering that the U.S. federal revenue in 2015 was estimated as \$3,250 billion and the U.S. total revenue as \$6,452 billion, international students' and their dependents' contribution to the U.S. economy during the 2014-

2015 academic year was estimated as \$30.5 billion (NAFSA, 2015). With its contribution to the U.S. economy and intellect, the international student population and their adjustment process to the U.S. are critical. Therefore, in this study we will examine the influence of marital satisfaction and academic self-efficacy on married international students' psychological adaptation to the U.S.

## **LITERATURE REVIEW**

### **Psychological Adaptation**

Psychological adaptation in this study refers to psychological well-being and life satisfaction as measured in previous empirical studies (e.g., Polek & Schoon, 2008). The study of well-being in psychology has emerged from two overlapping but distinct philosophical roots (Ryan & Deci, 2001). The hedonic view is focused on pleasure or happiness, whereas the eudaimonic view concentrates on what the person is doing or thinking rather than how he or she is feeling (Lent, 2004). Well-being and quality of life are some of the concepts that represent different levels of generality/specificity in studying positive adaptation (Lent, 2004). Specifically, well-being encompasses empirically based subjective well-being and theoretically based psychological well-being. Subjective well-being involves life satisfaction (i.e., judgments of satisfaction that are dependent upon a comparison of one's circumstances with a standard that each individual sets for himself or herself; Diener, Emmons, Larsen, & Griffin, 1985), positive affect, and the absence of negative affect (Diener, Lucas, & Oishi, 2002); whereas, psychological well-being entails autonomy, personal growth, self-acceptance, purpose in life, environmental mastery, and positive relations with others (Ryff, 1989). Because well-being is a multidimensional phenomenon (Ryan & Deci, 2001), the present study considers both life satisfaction and psychological well-being in order to get a more integrated understanding of the experiences of international students going through the adjustment process.

Having an academic training in the U.S. could be an exciting as well as a demanding experience for married international students. Students might experience the joy of fulfilling their educational and vocational expectations, whereas they might also experience the stress of starting all over in another country. Specifically, whether or not the students are academically confident about themselves could make a difference in terms of easing or challenging the adaptation process for them. Married students may come to the U.S. with their spouses and families or by themselves, which could also influence the psychological adaptation process differently. For the purpose of this study, marital satisfaction and academic self-efficacy, which are two factors that have received little attention on the

married international student population will be examined in relation to psychological adaptation.

### **Marital Satisfaction**

The adjustment process for international students acculturating with spouses and family is more complicated (Oropeza, Fitzgibbon, & Baron, 1991). Duru and Poyrazlı (2007) in a sample of 229 Turkish international students studying in 17 universities throughout the U.S. found that single students were less likely to experience acculturative stress than were married students, which suggests that married students may have some disadvantages in the process of cross-cultural adjustment. The researchers discussed that as single students cope mainly with academic problems, married students have to deal with academic and immediate family problems (Duru & Poyrazlı, 2007). Furthermore, married international students who likely spend a considerable amount of social time with their spouses and family may experience fewer opportunities for social interaction with other students. For example, Trice (2004) in a quantitative study investigating the social interactions of 497 international graduate students in the U.S., found that married students interacted less with host nationals when compared to single students. As relationships established with domestic students are influential in the adjustment process (Hammer, 1992), married international students might have difficulties because of the need to spend more time with their families and not having enough time to socialize with domestic students. Therefore, married students might experience the adaptation process differently from single students due to marriage having an important place in their lives (Poyrazlı & Kavanaugh, 2006).

Healthy adaptation to a new culture has been linked to marital satisfaction in previous research studies (Abu-Rayya, 2007; Im, Lee, & Lee, 2014). For example, in a quantitative study on 501 international women, who immigrated to South Korea due to marriage, Im, Lee, and Lee (2014) have found that higher levels of mental health were related to higher marital satisfaction levels. Moreover, among factors of acculturation stress, coping resources, socio-demographics, social support, and marital satisfaction, marital satisfaction was the strongest predictor of international women's mental health levels (Im, Lee, & Lee, 2014). In addition, Ng, Loy, Gudmunson, and Cheong (2009), in a sample of 425 Chinese individuals living in Malaysia, have found that marital satisfaction significantly predicted life satisfaction for both women and men. Abu-Rayya (2007) studying psychological and marital well-being and acculturation styles of 156 European wives of Arabs in Israel adapting to a new cultural environment, has found that those women who adopted integration and assimilation styles had higher levels of self-esteem, positive affect, marital

satisfaction, and marital intimacy than those who adopted separation and marginalization styles. Even though not investigating cross-cultural adjustment, Meehan and Negy (2003), in a sample of 79 married and 192 unmarried undergraduate students in the U.S., found that married students experienced moderately poorer adjustment to college than unmarried students. The researchers indicated that married students mostly had difficulties in becoming involved with other students and feeling connected to the institution they attended. In addition, researchers found a significant relationship between marital satisfaction and adaptation to college. Due to the lack of research studies focusing on the international student population, it seems necessary to conduct further research examining the relationship between marital satisfaction and psychological adaptation of married international students.

### **Academic Self-Efficacy**

The international students in the U.S. are generally very successful students in their own countries, who choose to leave their countries because of academic aspirations, to enhance career opportunities, to broaden their perspective, and to experience a different culture (IIE, 2016). Bandura (1995) stated that student's capacity to self-manage their academic performance is a function of cultural, social, environmental, and personal factors. Therefore, it is critical to consider international students' academic self-efficacy in their new cultural context. Academic self-efficacy in the present study refers to the individuals' confidence in their ability to successfully carry out academic tasks (Schunk, 1991). According to Bandura (1986a), a strong sense of self-efficacy helps individuals adapt emotionally. In the educational setting, self-efficacy is connected to perseverance and achievement (Bandura, 1986b). Researchers indicate that students who have high academic self-efficacy make more use of effective cognitive strategies in learning, control their time more effectively, and are better at watching and checking their own effort (Chemers, Hu, & Garcia, 2001).

There have been very few studies (e.g., Poyrazlı, Arbona, Nora, McPherson, & Pisecco, 2002) examining the relationship between psychological adaptation and academic self-efficacy. Poyrazlı and her colleagues (2002) indicated that English proficiency, assertiveness, and academic self-efficacy contributed uniquely to the psychosocial adjustment of graduate international students. Gong and Fan (2006) in a sample of 165 undergraduate international students in the U.S. found that students' academic and social self-efficacy were positively related to their academic and social adjustment respectively. In addition, Yusoff (2012) in a study on 185 undergraduate international students in Malaysia found that there was a significant relationship between students' self-efficacy and their

psychological adaptation. Conducting further studies would help understand the relationship between academic self-efficacy and psychological adaptation that could better fulfill married international students' needs for personal and professional development.

## RESEARCH METHOD

### Participants

One hundred ninety-eight married international student volunteers, who are enrolled at universities in the U.S. participated in the study (Table 1).

**Table 1: Participants' Demographic Characteristics (N = 198)**

Variables	N	%
Gender		
Women	104	52.5
Men	92	46.5
Program Level		
Undergraduate	27	13.5
Master's	46	23.2
Doctoral	116	58.6
Post Doctoral	5	2.5
Other	4	2.0
Spouse Nationality		
International	150	75.8
U.S. Citizen	26	13.1
Living Arrangement		
With Spouse	141	71.2
Without Spouse	56	28.3
Parental Status		
Have Children	58	29.3
No Children	139	70.2
English Reading Level		
Fluent	105	53.0
Very Good	59	29.8
Good	22	11.1
Average	12	6.1
Spouses' Education Level		
High School	7	3.5
Associates Degree	8	4.0
Undergraduate	62	31.3
Master's	74	37.4
Doctoral	30	15.2

Among the participants who reported their gender ( $n = 196$ ), 104 (52.5%) were women and 92 (46.5%) were men. Participants' age ranged between 18 and 52 years ( $M = 29.79$ ,  $SD = 5.75$ ). Twenty-seven (13.5%) of the participants were

undergraduates, 46 (23%) of them were masters students, 116 (59%) of them were doctoral students, five (2.5%) of them were post doctoral students, and the rest were either visiting scholars or students in professional training. Participants were from 52 different countries and identified their nationalities mostly as Chinese ( $n = 35$ ), Turkish ( $n = 22$ ), Indian ( $n = 21$ ), Korean ( $n = 17$ ), Romanian ( $n = 11$ ), Columbian ( $n = 8$ ), Canadian ( $n = 6$ ), Pakistani ( $n = 6$ ), Egyptian ( $n = 5$ ), Russian ( $n = 5$ ), and Taiwanese ( $n = 5$ ). In addition, participants identified themselves as majoring in 68 different fields, which were grouped as 54 (27%) of them in Engineering, 32 (16%) of them in Business and Management, 31 (15%) of them in Liberal Arts, 24 (12%) of them in Science, 18 (9%) of them in Education, 12 (6%) of them in Agriculture, 12 (6%) of them in Health Sciences, and the others in different fields. Hundred and fifty (76%) of the participants' spouses were international and the rest were U.S. citizens. Hundred and forty-one (71.2%) of the participants' spouses were living together with them in the U.S. and 56 (28.3%) of them were living outside the U.S. Fifty-eight (29%) of the participants had children, whereas most of them did not. The duration of the participants' marriage had an average of 50.82 months ( $SD = 47.47$ , range = 1 – 304 months). The time participants had spent in the U.S. ranged between one and 264 months ( $M = 50.65$ ,  $SD = 44.46$ ). On a 7-point scale ranging from (1) *poor* to (7) *fluent*, 105 (53.0%) of the participants rated their English reading levels fluent, 59 (29.8%) as very good, 22 (11.1%) as good, and 12 (6.1%) as average.

## Measures

**Demographics.** Questions related to participants' age, gender, education level, field of study, nationality, duration of marriage, time spent in the U.S., language proficiency and some questions related to their spouses were included in the questionnaire.

**Psychological well-being.** Psychological well-being was measured by Scales of Psychological Well-Being that has six dimensions (i.e., autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance) and 54 items at total (Ryff, 1989). Participants respond using a 6-point format ranging from (1) *strongly disagree* to (6) *strongly agree*, in which higher scores indicate higher self-ratings on the dimensions assessed. The internal consistency coefficients for the subscales ranged from .83 to .91 and test-retest reliability over a six-week period ranged from .81 to .88 (Ryff, 1989). The dimensions correlated positively with measures of self-esteem and life satisfaction and negatively with measures of depression and external control indicating adequate convergent and discriminant validity (Ryff, 1989). The internal consistency coefficient for the total scale was .94 for the current study.

**Life satisfaction.** Life satisfaction was measured by Satisfaction with Life Scale (SWLS) developed by Diener, Emmons, Larsen, and Griffin (1985). The measure is made up of five items with a 7-point response format ranging from (1) *strongly disagree* to (7) *strongly agree*, in which higher scores indicate higher satisfaction with life (Pavot & Diener, 1993). Normative data for the measure are available for diverse populations including college students and doctoral students as well as some cross-cultural data. Diener and his colleagues (1985) reported the internal consistency of the scale as .87 and the test-retest reliability after a two-month period as .82. The scale demonstrates adequate convergent validity with related measures and adequate discriminant validity with clinical measures of distress (Pavot & Diener, 1993). The internal consistency coefficient for the total scale was .84 for the current study.

**Marital satisfaction.** Marital satisfaction was measured by Revised Dyadic Adjustment Scale (RDAS), which measures adjustment in relationships in terms of consensus/decision making, values, affection, satisfaction, conflict, cohesion, and discussion (Busby, Christensen, Crane, & Larson, 1995). It was developed in order to revise the 32-item Dyadic Adjustment Scale (DAS; Spanier, 1985). The measure consists of 14 items in which higher scores indicate higher adjustment. The internal consistency of the scale was calculated as .90, the Guttman split-half reliability coefficient as .94, and the Spearman-Brown split-half coefficient as .95. The correlation coefficient between RDAS and DAS was .97 indicating a great representation of the domains of DAS with less than half the items (Busby et al., 1995). The internal consistency coefficient for the total scale was .86 for the current study.

**Academic self-efficacy.** Academic self-efficacy was measured by the College Academic Self-Efficacy Scale developed by Owen and Froman (1988). The scale consists of 33 items that are rated on a 5-point scale ranging from (A) *quite a lot* to (E) *very little*. Owen and Froman (1988) calculated the internal consistency of the scale as .90 and .92, the test-retest reliability as .85, and reported adequate concurrent validity. The internal consistency coefficient for the total scale was .93 for the current study.

## **Procedures**

We collected the data of the current study by reaching married international students through Registrar and International Student Organization Offices such as African Students Association, Indian Student Association, Japan Student Association, and Turkish Student Association of various universities in the U.S. We sent an e-mail introducing the study, providing with the link to the surveys, and asking for voluntary participation to the International Student Association Offices of universities asking to forward the e-mail to the students on their list serves. In this brief introduction, the

individuals were asked to forward the study to other college students that they knew. If they were willing to participate and met the inclusion criteria, they would read the research participation information sheet and participate in the survey.

Data were collected by online surveys, which were administered in English. The survey included brief description of the study and research participant information sheet together with the measures to be administered. We paid attention to issues of anonymity and confidentiality, which were covered in the Research Participant Information Sheet. It took about 10-20 minutes on average for the participants to complete the survey.

Inclusion criteria for the participants were being older than 18 years of age, being students who were born outside of the U.S., moved to the U.S. after the age of 14, are married at the time of the data collection, and identified their reading ability at least as four out of a 7-point scale. Snowball sampling technique was used to collect the data. Participants had a chance to join a raffle to win one of the three \$20 gift certificates.

## RESULTS

### Preliminary Analyses

Preliminary exploratory analyses indicated that variable inflation factors were below 1.3, tolerance values were above .78, and the correlation between the predictor variables were .47 indicating no multicollinearity problems in the data. There were no outliers in the data and the assumptions of independence, normality, and heteroscedasticity were met. Following the assumption checks, independent samples *t* test was conducted to examine whether there were any differences between groups based on gender, spousal nationality, and living arrangements on the dependent variables (Table 2).

Results indicated that there were significant mean differences between males' and females' scores on psychological well-being [ $t(172.87) = 2.57; p < .05$ ]. Specifically, females ( $M = 251.93; SD = 29.90$ ) scored significantly higher than males ( $M = 239.87; SD = 37.79$ ) on psychological well-being. However, there were no significant mean differences between the genders in terms of their scores on life satisfaction [ $t(186.96) = 1.60; p > .05$ ]. In addition, there were significant mean differences between individuals' who were living with their spouses and those who were not living with their spouses on psychological well-being [ $t(94.30) = 3.76; p < .05$ ]. Specifically, individuals who were living with their spouses ( $M = 252.03; SD = 32.34$ ) scored significantly higher than individuals who were not living with their spouses ( $M = 231.70; SD = 35.03$ ) on psychological well-being. However, there were no significant mean differences between living arrangements in terms of their scores on life satisfaction [ $t(114.98) =$

2.52;  $p > .05$ ]. Lastly, there were no significant mean differences between individuals whose spouses were U.S. citizens and whose spouses were international in terms of their scores on the well-being scale [ $t(33.24) = -2.14$ ;  $p > .05$ ] or the life satisfaction scale [ $t(32.87) = -2.37$ ;  $p > .05$ ].

As there were some differences according to gender and living arrangements, interaction effects of gender and the independent variables (i.e., marital satisfaction and academic self-efficacy) and living arrangements and the independent variables were tested to see their influence on psychological well-being and life satisfaction. Results indicated that there were no significant interaction effects of gender and the independent variables (marital satisfaction and academic self-efficacy) on psychological well-being ( $p = .088$ ;  $p = .173$  respectively) and life satisfaction ( $p = .690$ ;  $p = .881$  respectively). Similarly, there were no significant interaction effects of living arrangements and the independent variables (marital satisfaction and academic self-efficacy) on psychological well-being ( $p = .766$ ;  $p = .537$  respectively) and life satisfaction ( $p = .937$ ;  $p = .877$  respectively).

**Table 2: Independent Samples *t*-tests for Gender, Spousal Nationality, and Living Arrangement on the Criterion Variables**

Variables	Psychological Well-Being			<i>d</i>	Life Satisfaction			
	<i>M</i> ( <i>SD</i> )	<i>t</i>	<i>df</i>		<i>M</i> ( <i>SD</i> )	<i>t</i>	<i>df</i>	<i>d</i>
Gender		2.57*	172.87	.37		1.60	186.96	.23
Female	251.93(29.90)				25.27(5.89)			
Male	239.34(37.79)				23.87(6.33)			
Spousal Nationality		-2.14	33.24	-.46		-2.37	32.87	-.52
International	246.36(32.28)				24.41(6.04)			
U.S. Citizen	261.77(34.09)				27.65(6.52)			
Living Arrangement		3.76*	94.30	.60		2.52	114.98	.39
With spouse	252.03(32.34)				25.26(6.30)			
W/o spouse	231.70(35.03)				22.98(5.50)			

Note. \* $p < .05$ .

Lastly, correlations coefficients were calculated as part of the preliminary analyses. According to the results, there were significant positive correlations between participants' age and psychological well-being ( $r = .29$ ;  $p < .01$ ), length of stay in the U.S and psychological well-being ( $r = .20$ ;  $p < .01$ ), and GPA and psychological well-being ( $r = .27$ ;  $p < .01$ ). In other words, as individuals' age, length of stay, and GPA increased so did their psychological well-being scores. In addition, there were significant positive correlations between participants' GPA and life satisfaction ( $r = .15$ ;  $p < .05$ ), which indicated that individuals with higher GPA had higher life satisfaction scores. There were also significant positive correlations ranging

from  $r = .58$  to  $r = .35$  between the predictor and outcome variables (Table 3).

**Table 3: Intercorrelations for the Study Variables**

Variables	Bivariate Correlations For Outcome Variables			
	<i>M</i>	<i>SD</i>	Psychological Well-Being	Life Satisfaction
Demographic Variables				
Age	29.27	5.75	.29**	.07
Length of Stay in the U.S.	50.65	44.46	.20**	.10
GPA	3.66	.37	.27**	.15*
Predictor Variables				
Marital Satisfaction	62.75	9.67	.58***	.49***
Academic Self-Efficacy	130.15	18.35	.58***	.35***
Outcome Variables				
Psychological Well-Being	246.11	34.37	1.00	.63***
Life Satisfaction	24.60	6.15	.63***	1.00

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

### Multiple Regression Analyses

Two separate multiple regression analyses were utilized to test the two dependent variables (i.e., psychological well-being and life satisfaction). Results indicated that marital satisfaction and academic self-efficacy significantly contributed to psychological well-being,  $F(2, 194) = 82.29, p < .001, R^2 = .46$ , adjusted  $R^2 = .45$ . The combination of these two predictors accounted for 45.9% of the variation in psychological well-being (Table 4). Marital satisfaction ( $\beta = .39, p < .001$ ) and academic self-efficacy ( $\beta = .40, p < .001$ ) both uniquely contributed to psychological well-being.

Furthermore, marital satisfaction and academic self-efficacy significantly explained life satisfaction,  $F(2, 194) = 33.73, p < .001, R^2 = .26$ , adjusted  $R^2 = .25$ . The combination of these two predictors accounted for 25.8% of the variation in life satisfaction. Marital satisfaction ( $\beta = .42, p < .001$ ) and academic self-efficacy ( $\beta = .15, p < .05$ ) both uniquely contributed to life satisfaction.

As the sample was heterogeneous, we tested to see if there would be any differences in the multiple regression analyses when excluding the undergraduate students who were younger in age and would probably have different experiences when compared to the graduate students. Multiple regression analyses on both dependent variables in the graduate student sample had very similar results to those of the total sample. Specifically, in a sample of only graduate students ( $n = 170$ ) marital satisfaction and academic self-efficacy significantly explained psychological well-being  $F(2, 167) = 69.85, p < .001, R^2 = .46$ , adjusted  $R^2 = .45$  and life satisfaction  $F(2, 167) = 27.99, p < .001, R^2 = .25$ , adjusted  $R^2 = .24$ . In other words, the combination of the predictors accounted for very similar variation in psychological well-being (45.6% and 45.9%) and life satisfaction (25.1% and 25.8%) in the

graduate student sample and in the total sample respectively. Therefore, the results of the total sample were taken into consideration while discussing the findings.

**Table 4: Multiple Regression Analyses Predicting Psychological Well-Being and Life Satisfaction**

Variable	Psychological Well-Being				Life Satisfaction			
	$\beta$	Adj. $R^2$	$R^2$ Change	$\Delta F$	B	Adj. $R^2$	$R^2$ Change	$\Delta F$
Marital Satisfaction	.39***	.45	.46	82.29***	.42***	.25	.26	33.37***
Academic Self-Efficacy	.40***				.15*			

Note. \* $p < .05$ , \*\*\* $p < .001$ ;  $R^2 = .46$  for Psychological Well-Being,  $R^2 = .26$  for Life Satisfaction.

## DISCUSSION AND CONCLUSIONS

The results supported our hypothesis that marital satisfaction and academic self-efficacy significantly explain married international students' psychological adaptation, measured by psychological well-being and life satisfaction. Based on the results, we can infer that married international students who have higher satisfaction levels in their marriages and those who have higher self-efficacy related to their academic aspirations have a better psychological adaptation process.

Our study findings are in line with Shek's (2001) finding, which indicated that married Chinese adults who displayed more signs of marital maladjustment showed more psychiatric symptoms and lower levels of life satisfaction and purpose in life. Proulx, Helms, and Buehler (2007) in a meta-analysis examining 93 studies of marital quality and individual well-being found that higher levels of marital quality were related to greater individual well-being both concurrently and over time. This study further supports the significant influence of marital satisfaction in married international students' adaptation process.

Similarly, our findings indicated that international students who had higher academic self-efficacy seemed to be better at psychologically adapting to the U.S. The results were in line with previous research supporting a positive relationship between academic self-efficacy and adjustment to the U.S. (Poyrazlı et al., 2002). The current study supports that academically believing in themselves significantly help married international students in the adaptation process.

According to the findings, marital satisfaction and academic self-efficacy accounted for higher variance in married international students' psychological well-being when compared to their life satisfaction scores. A

possible explanation could be that marital satisfaction and academic self-efficacy during the adaptation process were more related to being challenged, putting forth effort, and seeking development; when compared to feeling happy for married international students. In other words, the two factors contributed more to cognitive processes rather than they did to feeling oriented processes of these students. Students' perception of their marital relationship and their academic confidence could be more important in achieving goals or dealing with the challenges rather than experiencing happiness and minimizing stress.

However, marital satisfaction and academic self-efficacy have different levels of unique contribution to psychological well-being and life satisfaction. Whereas the unique contribution of marital satisfaction on psychological well-being ( $\beta = .39$ ) and life satisfaction ( $\beta = .42$ ) are similar, academic self-efficacy has much lower contribution to life satisfaction ( $\beta = .15$ ) than to psychological well-being ( $\beta = .40$ ). Based on these findings, it may be assumed that even though the marital relationship is significant for both hedonic and eudaimonic processes; academic self-efficacy is more significant for the cognitive process. In addition to the statistical significance, the medium effect size for the variability in psychological well-being explained by marital satisfaction and academic self-efficacy and the relatively smaller effect size for the variability in life satisfaction explained by marital satisfaction and academic self-efficacy indicate the practical and clinical significance of the findings as well (Thompson, 2002).

There are some limitations of the study that should be considered. First, our data were collected by an online survey. Researchers paid attention to ethical considerations such as anonymity and confidentiality; however, limitations of online surveys apply to this study as well. Second, we collected data through self-response surveys, which have the problem of social desirability. Third, the study was correlational; therefore, no causal conclusions can be made. Lastly, our study only included married international students, which prevented us from making comparisons to single international students considering the study variables.

## **IMPLICATIONS**

Our findings highlight that living together with their spouses in the U.S. helps married international students have better psychological adaptation, which is also a possible explanation for the positive relationship between marital satisfaction and psychological adaptation. It could be helpful for married international students acculturating with their spouses to be supported by the universities and programs they are enrolled in by including their spouses to the orientation process. Getting their spouses involved in orientation could help international students feel that they are not alone in

the process, which may indirectly improve their marital relationship. Being exposed to the university environment could also help their spouses get a sense of the academic life and better understand what these students would be bringing into the marriage. Depending on the student's particular needs, programs could also help the student get connected to useful resources such as international student organizations, the student counseling center, day care facilities, conversational language classes early in the process. Similar adjustment strategies addressing the needs and expectations of international employees relocating to the U.S. with families could be found in Lachnit (2001). As Lachnit (2001) suggests, it is important to acknowledge the emotional cycle of ups and downs that people go through during cross-cultural relocation. Therefore, helping international students get ready for the transition by addressing their needs and providing them with the resources is very important for healthy psychological adaptation. A psychosocial wellness seminar aiming to support psychosocial well-being and deal with various stressors and difficulties (see Conley, Travers, & Bryant, 2014) could also be adapted to the international student population to help them throughout their first year of transition.

In addition, our results have important implications for mental health professionals working in college counseling centers. First, the university counseling centers could offer groups focusing on psychological adaptation for new coming married students and their spouses at the beginning of each academic year. Students could share their experiences, learn from each other's experiences, and feel that they are not alone through these support and process groups. Furthermore, college counseling centers could implement programs that provide students with effective studying skills and skills on how to balance work and family life in order to help increase students' academic self-efficacy and marital satisfaction. Moreover, the students themselves could be more aware of the significant contribution of their marital satisfaction and their academic self-efficacy levels to their psychological adaptation process, and could take better care of themselves and ask for help whenever they need it. Mental health professionals who have married international students as their clients could also take into consideration their clients' perception of marital satisfaction and academic self-efficacy when they are dealing with adaptation issues.

Psychological adaptation is a complex process, which includes multiple dimensions with different levels of predictors as indicated in this study. When working with international students and helping their positive adaptation, mental health professionals could be aware of the differences between eudaimonic / hedonic (cognitive based / feeling based) processes and what contributes to these processes. While academic self-efficacy appears to be important in achieving one's goals, marital satisfaction seems to be a more essential construct for the happiness of international students.

We believe that it is necessary to conduct further studies looking at the influence of different variables on cross-cultural adaptation in order to help international students with their personal and professional development. In addition, to our knowledge this is the first study investigating the contribution of marital satisfaction and academic self-efficacy to psychological adaptation among married international students. The results of this study could be expanded by conducting a quasi-experimental study investigating married and single international and domestic students' academic self-efficacy, marital satisfaction, and psychological adaptation in order to observe the casual mechanisms and give the opportunity to make comparisons between these student groups.

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