

A Comparison of Perceived Stress Levels and Coping Styles of Non-traditional Graduate Students in Distance Learning versus On-campus Programs

Jose A. Ramos
University of Iowa, United States

Abstract

The purpose of this study was to explore the differences in perceived stress and coping styles among non-traditional graduate students in both on-campus and distance-learning programs. The study employed a quantitative causal-comparative design that involved collecting survey data. The sample consisted of 36 non-traditional graduate students who enrolled in distance learning classes along with 36 non-traditional students attending traditional on-campus courses in a graduate program. For statistical analyses, *t*-test and multiple linear regressions were conducted to simultaneously assess the effects of group membership and all demographic variables on each of the dependent variables (stress level and coping style). An alpha level of .05 was used to test statistical significance. Overall, there is no significant difference between the coping styles and the perceived stress levels of non-traditional graduate students who enrolled in distance-learning and on-campus programs.

Keywords: *Distance learning; Non-traditional students; Stress; Coping styles; Graduate education; On-campus programs*

Background

Research has shown that college students, including non-traditional graduate and distance learning students, are prone to stress (D’Zurilla & Sheedy, 1991). Students entering graduate school programs must adjust to time management demands and higher academic expectations than they dealt with during their undergraduate studies.

Furthermore, non-traditional students are often faced with additional stresses such as raising a family and working a fulltime job, which can increase stress levels. Although these stressors do not cause anxiety and stress by themselves, stress results from direct interaction with stressors and individual perceptions (Romano, 1992). Thus, in order to create effective interventions, stressors for non-traditional graduate students in distance-learning programs and non-traditional graduate students in on-campus programs were explored.

Non-traditional students are returning to school for a number of different reasons. According to Rahman, Situ and Jimmo (2005) a large number of mature students are seeking to expand their educational background, increase self-esteem, find a career change, enter the work field, or fulfill a personal agenda that requires going back to school. Donovan (2009) defines a non-traditional student as “a person who returns to school part or full-time while maintaining further responsibilities such as having a family, being employed full or part-time or having

other responsibilities associated with adult life.” The National Center for Education Statistics (NCES) (2006), states that current non-traditional students have the following, but not limiting, characteristics (a) non-dependent on parents for financial support, (b) married, (c) single parent, (d) have one or more children, (e) delay entry into post-secondary education or (f) employed part or full-time while being enrolled in higher education.

The traditional on-campus graduate learning classrooms have historically consisted of daily face-to-face interactions with instructors and peers, class lectures and discussion groups. Learning, in the on-campus tradition, takes place at the physical site of an institution. Furthermore, face-to-face interaction with peers, faculty, and school administrators is part of the traditional on-campus graduate school experience. Distance learning students, however, experience graduate school differently. Kitahara and Westfall (2007) explain that distance learning graduate students are typically older and have compiled numerous skills and life experiences. These types of students are often burdened with further responsibilities outside their graduate study such as work, family, social, and/or financial obligations (Karoly & Panis, 2006).

There is a number of stressors non-traditional students experience while attending graduate school that traditional students do not experience. These common stressors are employment demands, time constraints, financial problems, academic workload, and family obligations (Snyder & Tate, 2010). Thus, non-traditional graduate students must juggle different roles to succeed in graduate school. More and more students must effectively cope with the stressors of parenting, work, and finances in addition to coping with the rigorous stressors of graduate school (Snyder & Tate, 2010).

This study explores four main research questions: (1) Is there a significant difference in the perceived stress levels of non-traditional graduate students in distance learning versus non-traditional graduate students in on-campus programs? (2) Is there a significant difference in the coping styles of non-traditional graduate students in distance-learning versus non-traditional graduate students in on-campus programs? (3) Is there a significant relationship between demographics (e.g., variables of age, gender, marital status, employment) and the perceived stress in non-traditional graduate students? (4) Is there a significant relationship between demographics (e.g., variables of age, gender, marital status, employment) and the perceived coping styles in non-traditional graduate students?

Methods

Sample

The population of interest for this research was graduate students enrolled in distance-learning and on-campus programs. The sample consisted of 36 non-traditional students who enrolled in distance-learning classes and 36 non-traditional students who enrolled in on-campus courses. A total of 72 participants were recruited from two mid-western universities. For this study, non-traditional students were defined as students who are 25 years or older, enrolled in programs part-time or full-time and maintained further responsibilities such as family, employment and other responsibilities associated with adult life. This study, which used a quantitative causal-comparative design, included only students who met the non-traditional student criteria.

Distance learning students were recruited via a web announcement posted in their online learning platform. Before the study took place, distance-learning instructors were contacted by the researcher and were asked for permission to post the web announcement in their online learning platform. Because this study employed convenience sampling, only interested students who met the inclusion criteria were allowed to participate. A link to the survey web site was included in the recruitment web posting. For those students who were enrolled in on-campus programs, the researcher established contact with the graduate school instructors and asked permission to make an announcement before or after each class. The announcement consisted of outlining the study and asked interested students to stay after class.

Instrumentation

The first scale used in this study was the *Perceived Stress Scale-14* (PSS), which measures student's individual perception of stress. The PSS-14 is a paper and pencil questionnaire consisting of fourteen items. Each particular item is designed to identify how unpredictable, uncontrollable or overloaded the respondent has found his or her life to be within the last month. Responses are assessed on a 5 point scale, with 0 = never and 4 = very often (Cohen, Kamarack, & Mermeistein, 1983).

The PSS-14 is one of the most widely used psychological instruments for measuring an Individual's perception of stress (Cohen, 1986). Reliability of the PSS-14 was determined in three separate tests using three samples. Two of the samples were college students, while one test used a heterogeneous group in a smoking cessation class. The coefficient alpha scores for each test respectively were .84, .85 and .86. Additionally, a test-retest correlation was administered to a group of college students from the University of Oregon. The test was conducted two days apart. The students were told to strive for accuracy rather than consistency across time. The results yielded a test-retest correlation of .85 (Cohen, Kamarack, & Mermeistein, 1983).

Validity of this instrument was determined with extensive normative data on 2,387 respondents. According to Cohen, Kamarack, and Mermeistein (1983) strong correlations of .76 and .65 were noted between the PSS and depressive symptoms. Furthermore, recent studies have validated the prospective associations of perceived stress as measured by the PSS and a variety of relevant outcomes such as stress measures, self-reported health and health services measures, health behavior measures, smoking status and help seeking behavior (Koopman et al., 2000).

The second instrument that was used in this study was the *Moos Coping Responses Inventory* (CRI-Adult). This instrument uses a 48-item self-report measure of coping responses. The CRI is a 48-item self-report measure of coping responses. It appraises items on a 4-point scale, ranging from Definitely No to Definitely Yes. Furthermore, it assessed whether respondents have enough time to prepare for the focal stressor, whether they viewed it as a threat, and whether they viewed it as a challenge. The CRI is measured by summing response to the logical analysis and guidance/support seeking subscales and divided them by the sum of the problem solving and positive reappraisal subscales.

Furthermore, the CRI-Adult is designed to measure eight different types of coping responses to stressful life circumstances. These responses are measured by eight subscales – Logical

Analysis (LA), Seeking Guidance and Support (SG), Positive Reappraisal (PR), Problem solving (PS), Cognitive Avoidance (CA), Seeking Alternative Rewards (SR), Acceptance or Resignation (AR) and Emotional Discharge (ED). The first four scales measure approach coping and the second four set of scales measure avoidance coping (Moos, 1997).

The reliability coefficient of the CRI-Adult ranges from .58 to .74 and thus indicates moderate to high internal consistency for the test. The CRI-Adult is considered to be valid and has been used extensively by researchers (Finney & Moos, 1995). Validity for the CRI-Adult was established in a normative sample of 1900 participants. The sample consisted of alcoholic, depressed and arthritic patients that were compared to healthy controls.

Results

The sample of the study was selected using a convenience sampling method which consist 36 subjects enrolled in distance learning and 36 subjects from the on-campus programs as determined by the power analysis. As seen in Table 1, 36% of the respondents are female. Most of the respondents are at the younger generation with ages 25-30 (38%), and 48% of the students work on a full-time basis with approximately 40 hours or above a week. On the other hand, 43% of the students are white, and 32% are married.

Table 1. Frequency and Percentage of Demographics (N=72)

		Frequency	Percent
Gender	Female	43	35.8
	Male	29	24.2
Age	25-30	46	38.3
	31-35	8	6.7
	36-40	10	8.3
	41-45	4	3.3
	46-50	3	2.5
	older	1	0.8
	Ethnicity	AA	9
African		1	0.8
Asian		7	5.8
Hispanic		2	1.7
Other		1	0.8
White		52	43.3
Marital Status	Divorced	5	4.2
	Married	38	31.7
	Other	2	1.7
	Separate	1	0.8
	Single	26	21.7

Employment	Full-time	57	47.5
	Not Employed	4	3.3
	Part-time	11	9.2

Table 2 presents the descriptive statistics for the study variables which represent the stress level and coping styles of students engaged in the two programs. The table should be read as the following: Logical Analysis (LA), Seeking Guidance and Support (SG), Positive Reappraisal (PR), Problem solving (PS), Cognitive Avoidance (CA), Seeking Alternative Rewards (SR), Acceptance or Resignation (AR), Emotional Discharge (ED) and Perceived Stress Scale (PSS). It could be observed that the mean values for the first four variables which represent the measure of coping are above a score of 15 while the avoidance to coping scores is generally lower than a score of 15. As for the PSS Score, the mean is at 39.9583.

Table 2. Descriptive Statistics of Study Variables

	N	Minimum	Maximum	Mean	Std. Deviation
LA	72	8.00	24.00	18.0083	3.11280
SG	72	6.00	24.00	18.1361	3.77670
PR	72	10.00	22.00	15.9972	2.78234
PS	72	10.00	52.00	19.2917	4.81031
CA	72	7.00	23.00	14.8028	3.52144
SR	72	6.00	21.00	13.4056	3.41743
AR	72	6.00	24.00	14.6194	3.57758
ED	72	7.00	22.00	13.2444	3.04024
PSS	72	27.00	55.00	39.9583	6.78324

Prior to conducting tests to determine the differences of means between the scores of the respondents, it is essential to perform the Kolmogorov-Smirnov test to determine whether the sample data is normally distributed. Table 3 presents the hypothesis test summary of the tests conducted. This shows that all except PS are normally distributed. Thus, the independent sample t-test could be run to determine whether there are differences between the means of the coping styles and stress levels. On the other hand, for the PS score, since this is not normally distributed, an ANOVA table will be generated to test whether there is a significant difference between the two groups. This would be employed because this type of statistical test does not require the samples to be normally distributed.

Table 3. Hypothesis Test Summary

Null Hypothesis	Test	Sig.	Decision
1. The distribution of LA is normal with mean 18.008 and standard deviation 3.113.	One –Sample Kolmogorov-Smirnov Test	.124	Retain the Null Hypothesis
2. The distribution of SG is normal with mean 18.136 and standard deviation 2.782.	One –Sample Kolmogorov-Smirnov Test	.214	Retain the Null Hypothesis

3. The distribution of PR is normal with mean 15.997 and standard deviation 4.81.	One –Sample Kolmogorov-Smirnov Test	.490	Retain the Null Hypothesis
4. The distribution of PS is normal with mean 19.292 and standard deviation 4.81.	One –Sample Kolmogorov-Smirnov Test	.001	Reject
5. The distribution of CA is normal with mean 14.803 and standard deviation 3.521.	One –Sample Kolmogorov-Smirnov Test	.258	Retain the Null Hypothesis the Null Hypothesis
6. The distribution of SR is normal with mean 13.406 and standard deviation 3.417.	One –Sample Kolmogorov-Smirnov Test	.526	Retain the Null Hypothesis
7. The distribution of AR is normal with mean 14.619 and standard deviation 3.578.	One –Sample Kolmogorov-Smirnov Test	.205	Retain the Null Hypothesis
8. The distribution of ED is normal with mean 13.244 and standard deviation 3.04.	One –Sample Kolmogorov-Smirnov Test	.277	Retain the Null Hypothesis
9. The distribution of PSS is normal with mean 39.958 and standard deviation 6.783.	One –Sample Kolmogorov-Smirnov Test	.330	Retain the Null Hypothesis

*Significance level is 0.05.

The above analyses suggest that:

1. The difference between the perceived stress of graduate students enrolled in distance learning and in on-campus programs was statistically insignificant.
2. The difference between the coping styles of students from the two groups according to the eight subscales was insignificant except for Emotional Discharge. Graduate students from on-campus programs had higher scores for this subscale.
3. Generally, the demographics had no relationship with the perceived stress and coping styles of graduate students from these two groups.

In order to examine the differences between the perceived stress levels of non-traditional graduate students in distance learning and those in on-campus programs, a t-test for independent samples was run. As seen in Table 4, the Levene’s test for equality of variance is at 0.376, which is greater than 0.05. This makes it safe to assume that the samples have equal variances.

Moreover, the two-tailed significance is at 0.524, which means that there is no significant evidence to reject the null hypothesis suggesting that the means are equal. Therefore, the difference between the perceived stress levels of students in these two groups could be left to chance since it is not statistically significant.

Table 4. Independent t-test for Equality of Mean Scores of Perceived Stress Level

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
PSS	0.795	0.376	0.64	70	0.524	1.02778	1.60551	-2.1743	4.22987

*Significance level is 0.05.

Likewise, in order to compare the difference of means between the groups in terms of their coping styles, an independent samples t-test for equality of means was run. For all the coping styles' subscales as seen in Table 5, it could be observed that the Levene's test provided a significance of greater than 0.05, which means that the samples have equal variances. However, the significance level for the two-tailed test was deemed to be significant for the subcategory of Emotional Discharge (ED). This means that among all the coping styles, the difference is only significant for this subscale at 0.037. Therefore, graduate students in on-campus programs have higher ED scores than those enrolled in distance learning.

Table 5. Independent t-test for Equality of Mean Scores of Perceived Stress Level

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
LA	0.387	0.536	-0.278	70	0.782	-0.20556	0.73851	-1.67846	1.26735
SG	0.885	0.35	1.767	70	0.082	1.55	0.87716	-0.19944	3.29944
PR	3.2	0.078	1.355	70	0.18	0.88333	0.65198	-0.417	2.18366
CA	0.085	0.772	-1.079	70	0.284	-0.89444	0.82906	-2.54794	0.75905
SR	1.456	0.232	-0.715	70	0.477	-0.57778	0.80828	-2.18985	1.0343
AR	5.876	0.018	-1.102	70	0.274	-0.92778	0.84197	-2.60704	0.75149
ED	0.182	0.671	2.129	70	0.037	1.48889	0.69941	0.09396	2.88381

*Significance level is 0.05.

On the other hand, analysis on the Problem Solving Score (PS) is run through ANOVA. It could be seen in Table 6 that the significance is at 0.827 between groups. This means that there is no significant difference between the PS scores of students enrolled in Distance Learning and On-campus programs.

Table 6. ANOVA Table of PS Score between Distance Learning and On-campus Subjects

			Sum of	Mean			
			Squares	df	Square	F	Sig.
PS	* Between	(Combined)	1.125	1	1.125	.048	.827
GradProgram	Groups						
	Within Groups		1641.750	70	23.454		
	Total		1642.875	71			

*Significance level is 0.05.

Further, to test whether there is a relationship between the demographics and the study variables, a Multiple Regression Analysis was conducted. The responses of respondents were translated to numerical format to run the regression analysis. This made use of the ranks for each demographics to determine the numerical value. For example, the age of 25-30 is 1, 31-35 is 2 and so on.

As seen in Table 7 that demonstrates the outcomes of the regression analyses, the dependent variable LA is related to the ethnicity of the respondent with a p-value of 0.025. On the other hand, the age of the respondents could predict its score on PR. Moreover, the PSS level is significantly related to the demographic variables such as graduate program attended, the ethnicity and employment. The regression model for this is significant at 0.002 as seen in Table 8 which suggests that this model could predict the score of respondents on the perceived stress level.

Table 7. Multiple Regression Analysis for the Stress Level and Coping Styles vs. Demographics

LA	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	15.789	2.865	5.512	0.000	10.068	21.510
GradProgram	0.197	0.746	0.265	0.792	-1.292	1.686
Age	0.348	0.303	1.147	0.255	-0.258	0.953
Gender	-0.137	0.753	-0.182	0.856	-1.642	1.367
Ethnicity	0.611	0.266	2.294	0.025	0.079	1.142
Marital Status	0.173	0.445	0.388	0.700	-0.717	1.062
Employment	-0.539	0.646	-0.834	0.408	-1.829	0.752
SG	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	16.062	3.547	4.529	0.000	8.977	23.147
GradProgram	-1.696	0.919	-1.845	0.070	-3.533	0.141
Age	0.433	0.375	1.155	0.252	-0.316	1.181
Gender	-0.045	0.930	-0.048	0.962	-1.903	1.814
Ethnicity	0.400	0.328	1.219	0.227	-0.256	1.056
Marital Status	0.766	0.551	1.389	0.170	-0.335	1.866
Employment	0.263	0.803	0.327	0.745	-1.342	1.868

<i>PR</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	14.712	2.535	5.803	0.000	9.647	19.777
GradProgram	-0.711	0.657	-1.082	0.284	-2.024	0.602
Age	0.647	0.268	2.417	0.019	0.112	1.182
Gender	0.443	0.665	0.665	0.508	-0.886	1.771
Ethnicity	-0.062	0.235	-0.264	0.793	-0.531	0.407
Marital Status	-0.635	0.394	-1.612	0.112	-1.422	0.152
Employment	0.681	0.574	1.186	0.240	-0.466	1.829
<i>PS</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	15.902	2.710	5.868	0.000	10.488	21.315
GradProgram	0.533	0.702	0.759	0.451	-0.870	1.937
Age	-0.092	0.286	-0.321	0.749	-0.664	0.480
Gender	-0.096	0.711	-0.135	0.893	-1.516	1.324
Ethnicity	0.269	0.251	1.072	0.288	-0.232	0.770
Marital Status	0.666	0.421	1.581	0.119	-0.176	1.507
Employment	0.047	0.614	0.077	0.939	-1.179	1.273
<i>CA</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	13.998	3.322	4.214	0.000	7.361	20.635
GradProgram	0.730	0.861	0.847	0.400	-0.991	2.450
Age	0.021	0.351	0.060	0.953	-0.680	0.722
Gender	-0.103	0.871	-0.119	0.906	-1.844	1.638
Ethnicity	-0.228	0.308	-0.741	0.462	-0.842	0.387
Marital Status	0.720	0.516	1.395	0.168	-0.311	1.752
Employment	-0.139	0.753	-0.185	0.854	-1.642	1.365
<i>SR</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	9.301	3.317	2.804	0.007	2.675	15.926
GradProgram	0.614	0.860	0.714	0.478	-1.104	2.331
Age	-0.033	0.350	-0.095	0.925	-0.733	0.667
Gender	1.377	0.870	1.583	0.118	-0.361	3.115
Ethnicity	-0.055	0.307	-0.180	0.858	-0.669	0.558
Marital Status	-0.283	0.515	-0.549	0.585	-1.312	0.747
Employment	0.674	0.751	0.897	0.373	-0.827	2.175
<i>AR</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	14.936	3.423	4.363	0.000	8.097	21.774
GradProgram	0.550	0.887	0.620	0.537	-1.222	2.323
Age	-0.012	0.362	-0.034	0.973	-0.735	0.710
Gender	-1.158	0.898	-1.289	0.202	-2.952	0.636
Ethnicity	-0.234	0.317	-0.738	0.463	-0.867	0.399
Marital Status	0.275	0.532	0.517	0.607	-0.787	1.338
Employment	0.476	0.776	0.614	0.541	-1.073	2.026
<i>ED</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	18.310	2.818	6.499	0.000	12.681	23.939
GradProgram	-1.456	0.730	-1.993	0.051	-2.915	0.004
Age	-0.503	0.298	-1.690	0.096	-1.097	0.092
Gender	-0.011	0.739	-0.015	0.988	-1.488	1.465
Ethnicity	-0.225	0.261	-0.861	0.392	-0.746	0.296
Marital Status	-0.282	0.438	-0.644	0.522	-1.156	0.593
Employment	-0.158	0.638	-0.248	0.805	-1.434	1.117

<i>PSS</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	36.148	4.382	8.250	0.000	27.395	44.902
GradProgram	-2.315	1.136	-2.038	0.046	-4.585	-0.046
Age	0.746	0.463	1.611	0.112	-0.179	1.670
Gender	0.781	1.149	0.679	0.500	-1.516	3.077
Ethnicity	1.509	0.406	3.718	0.000	0.698	2.319
Marital Status	-0.683	0.681	-1.003	0.319	-2.043	0.677
Employment	2.025	0.993	2.039	0.046	0.041	4.008

*Significance level is 0.05.

Table 8. ANOVA Table for the Regression Model of the Perceived Stress Level

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance</i>
Regression	6	515.52	85.92	4.00	0.0018
Residual	64	1373.58	21.46		
Total	70	1889.10			

*Significance level is at 0.5

As a whole, the analysis of data has supported the null hypotheses of this study which states that there is no significant difference between the coping styles and the perceived stress levels of graduate students enrolled in distance learning and in on-campus programs. As for the expected findings, this analysis did not prove: that there is a significant difference in perceived stress in non-traditional female versus non-traditional male students; and that students who work part-time have less stress when compared to students who work full-time.

Moreover, the demographics do not affect the overall scores of respondents in terms of their coping styles and stress levels. Thus, being enrolled in either of the two graduate programs would yield the same coping style and perceive the same stress level.

Implications and Recommendations

The findings of this study suggest that there are no perceived differences in stress and coping skills between non-traditional graduate students and distance learning students; both types of students perceived high levels of stress and used approach coping strategies when coping with stressors. Thus, to help non-traditional graduate students cope with stress effectively, school administrators must do a better job brining to light the effects of stress on graduate school studies. There are numerous ways that school administrators can do this, for example, for on-campus students, they can implement stress and coping skills related classes during campus orientation. Often times, because non-traditional students work a full time job, they are forced to enroll in evening classes, therefore missing out on orientation usually given during the day.

Distance-learning administrators could implement web seminars, pamphlets or mandatory reading material regarding proper coping techniques at the beginning of each semester. They should require students to read, sign and select a mentor that will assist them with graduate school stressors. Perhaps, a Perceived Stress Scale should be given at the beginning and middle of each semester to identify students with high levels of stress.

Furthermore, they must implement a stress inoculation program which advises students in advance of the difficulties they might face as non-traditional graduate students and help them develop appropriate coping strategies to combat stress. A study by Rosenblat and Christensen (1993) concluded that graduate students had lower levels of anxiety when given a proper orientation. Thus, if an orientation is implemented by school administrators, this may help non-traditional graduate students be better equipped to cope effectively with graduate school stressors.

Not only must faculty and school administrators create stress inoculation programs but furthermore, they must assist them in learning appropriate coping strategies, specifically approach coping. In their findings, Folkman and Lazarus (1985) suggest that students who used positive thinking were more satisfied when coping compared to those students who relied on withdrawal and wishful thinking coping strategies, otherwise known as avoidance coping response. According to Noh and Kaspar (2003) the most effective form of coping is the use of active approach coping techniques with avoidance coping being relatively less effective. As demonstrated above, Logical Analyses, Positive Reappraisal, Seeking Guidance and Support and Problem Solving are more effective when students have control over a stressor.

Another recommendation to assist non-traditional graduate students deal and cope with stressors is by developing a mentoring program. Mentors should be selected from faculty or advisors who understand non-traditional student's stressors. However, it is extremely important that these mentors have appropriate training and understanding of perceived stress and appropriate coping strategies to better help non-traditional students. Appropriate training must be provided to these mentors before engaging in their roles. Moreover, non-traditional graduate students should be advised to seek appropriate help when encountering stress. According to Gulgoz (2001), graduate students do not often ask professors for help when encountering stress. He postulates that graduate students assume that it is not appropriate to seek help from a faculty or staff. Therefore, employing a mentoring program may indeed help reduce stress and assist non-traditional graduate students employ proper coping mechanism.

References

- Cohen, S. (1986). Contrasting the Hassles Scale and the Perceived Stress Scale: Who is really measuring appraised stress? *American Psychologist, 41*, 716-718.
- Cohen S., Kamarck, T., Mermelstein, R. (1983). A Global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385-396.
- Donavant, B. (2009). The new, modern practice of adult education. *Adult Education Quarterly, 59*(3), 227-245.
- Dzurilla, T. J. & Sheedy, C. F. (1992). The relationship between social problem solving ability and subsequent level of academic competence in college students. *Cognitive Therapy and Research, 16*(5), 589-599.
- Finney, J. & Moos, R. (1995). Entering treatment for alcohol abuse: A stress and coping model. *Addiction, 90*, 1223-1240.
- Folkman, S. & Lazarus, R. S. (1985). If it changes it must be a process- study of emotion and coping during 3 stages of a college-examination. *Journal of Personality and Social Psychology, 48*(1), 150-170.

- Gulgoz, S. (2001). *Stresses and strategies for international students succeeding in graduate school: The career guide for psychology students*. Mahwah: Lawrence Erlbaum Associates.
- Karoly, L. A. (2007, February). Forces shaping the future U.S. workforce and workplace: Implications for 21st century work (Testimony No. CT-273).
- Kitahara, R. & Westfall, F. Promoting academic integrity in online distance learning courses. *MERLOT Journal of Online Learning and Teaching*, 3(3).
- Koopman, C., Gore-Felton, C., Marouf, F., Butler, L. D., Field, N., Gill, M., Chen, X., Israelski, D., & Spiegel, D. (2000). Relationship of perceived stress to coping, attachment and social support among HIV-positive persons. *AIDS Care*, 12(5), 663-672.
- Moos, R. H. (2003). *Coping responses inventory adult form: Professional manual*. Psychological Assessment Resources. Odessa, FL.
- Noh, S. & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American Journal of Public Health*, 93(2), 232-238.
- Pusser, B., & Breneman, D. (2007). *Returning to learning: Adults' success in college is key to America's future*, 1–26. Lumina Foundation for Education.
- Rahman, A., Situ, J., & Jimmo, V. (2005, October). Participation in postsecondary education: Evidence from the Survey of Labour and Income Dynamics (Research Paper No. 81-595-MIE— No. 036). Retrieved from Culture, Tourism and the Centre for Education Statistics, Statistics Canada, Ottawa website: <http://dsp-psd.pwgsc.gc.ca/Collection/Statcan/81-595-MIE/81-595-MIE2005036.pdf>
- Romano, J. L. (1992). Psychoeducational interventions for stress management and well-being. *Journal of Counseling and Development*, 71(2), 199-202.
- Snyder, P. & Tate, P. (2010). The Catalyst. Back to school. *The Council for Adult and Experiential Learning*, 4(2).
- U.S. Department of Education, National Center for Education Statistics. (2009). *Digest of Education Statistics, 2008* (NCES 2009-020).

Correspondence: Jose A. Ramos, Ph.D., Henry B. Tippie School of Management, College of Business, University of Iowa, Iowa City, USA.
