

# Psychological Capital as a Buffer to Student Stress

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## Introduction

Academic stressors pose a threat to the psychological and physical well-being of the estimated 19 million college and students enrolled in college in Fall 2009. Adlaf, Gliksmann, Demers, and Newton-Taylor (2001) found psychological distress among university students to be significantly higher than among general population groups. Undergraduate students are subject of continuous evaluation such as weekly tests and papers (Wright, 1964). According to *US News and World Report* (Bowler, 2009), approximately thirty percent of students enrolled in universities drop out after their first year and half never graduate. The college completion rates in the United States have decreased for more than three decades (Bowler, 2009). Clearly academic stressors take a toll on students in a variety of ways.

While some persons are unable to curb the psychological impact of stressors and they suffer physical and psychological health symptoms (Youssef & Luthans, 2007), others have the capacity to rebound and experience little or no change in their capacity to function. According to Tugade and Fredrickson (2004), these latter individuals demonstrate psychological resiliency; that is, effective adaptation and coping in the face of adversity. One important research question, then, concerns identifying factors that distinguish those who cope more effectively with academic stress.

Positive psychological capital (PsyCap) is a meta-concept that incorporates various traits that are found to foster psychological resilience. PsyCap is defined as

an individual's positive psychological state of development and is characterized by: (a) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (b) making a positive attribution (optimism) about succeeding now and in the future; (c) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (d) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success. (Luthans, Youssef, & Avolio, 2007, p. 3).

## Hypotheses

The general hypothesis is that psychological capital will mitigate the effects of stress on various indices of psychological well-being. Specifically, we hypothesize the following:

Hypothesis 1: Student stress will be significantly related to reports of psychological symptoms (i.e., anxiety, somatic complaints, and depression), satisfaction with life, and health problems.

Hypothesis 2: Psychological Capital will be significantly related to reports of psychological symptoms (i.e., anxiety, somatic complaints, and depression), satisfaction with life, and health problems.

Hypothesis 3 PsyCap will mediate the effects of student stress on psychological symptoms, life satisfaction, and health problems

## Methods

### Participants

Participants were 141 business students from a university in the Western U.S taking one upper division business course. The response rate was 80%. Average age was 23.64 years with a range from 19 to 44 years. Males were 54% and females 46%. The classes were populated mostly by Juniors (40.4%), Seniors (30.5%) and fifth year students (23.4%). On average they worked 15.24 hours per week while in school, and had an average of 5.67 years of previous work history.

### Measures

**Student Stress.** Student challenge stressors (Cavanaugh, Boswell, Roehling, & Boudreau, 2000) are school-related demands or circumstances that, although potentially stressful, have associated potential gains for individuals. Alpha = .742.

**Satisfaction with Life Scale (SWLS).** The SWLS rates overall satisfaction with life using questions such as "In most ways my life is close to my ideal" (Diener, Emmons, Larsen, & Griffin, 1985). Alpha = .890.

**Psychological Symptoms.** Psychological well-being/strain was measured based on the average of four sub-scales from the Brief Symptom Inventory (BSI) (Derogatis & Melisaratos, 1983): Somatization; Depression; Anxiety; Hostility. Alphas for the sub-scales were Somatization .845, Depression .852, Anxiety .827, Hostility .802.

**Health Problems.** Physical health questions (25) of the Lifestyle Questionnaire (Engs & Aldo-Benson, 1985) indicated how frequently students suffered the specific health problems over the month previous; e.g. "headache," "cough," "stomach upset." Test-retest reliability reported by the authors = .89.

**Psychological Capital (PsyCap).** Psychological capital is conceptualized as a combination of efficacy, optimism, resilience, and hope (Luthans, Youssef, & Avolio, 2007). *Efficacy* was drawn from the Professional Efficacy scale of the student version of the Maslach Burnout Inventory (Student Survey, MBI-SS) (Schaufeli, Martinez, Marques-Pinto, Salanova, & Bakker, 2002). Alpha = .778. Dispositional *optimism* was measured using the 4 item optimism sub-scale of the Life Orientation Test (LOT) (Scheier & Carver, 1985). Alpha = .755. *Psychological resilience* was measured using the Ego-Resiliency Scale (Block & Kremen, 1996) Alpha = .748. *Hope* was measured using the Hope Agency and Hope Path scales (Snyder, Cheavens, and Sympson, 1997). Alphas were Hope Agency = .829, Hope Path = .806. The components of PsyCap were normalized and summed.

### Procedures

Participants responded to the measures at two different times. First, after mid-term exams, but prior to the deadlines for class papers and final exams. At this time they responded to the PsyCap measures, and reported various demographic information. The second time point was directly upon completing the class final exam. At this point they responded to the BSI, SWLS, Health Problems, and the Student Stress questions. All responses were kept confidential. Students received extra credit in their classes for their participation.

## Results

### Stress, PsyCap, and student well-being measures

An examination of Table 1 shows that hypothesis 1 is supported since Student Stress was significantly positively correlated with psychological symptoms and health problems, and inversely correlated with satisfaction with life. Hypothesis 2 was supported since PsyCap was significantly inversely correlated with psychological symptoms and health problems, and positively correlated with satisfaction with life. Both student stress and psychological capital operate in the predicted manner.

Table 1.  
Means, SDs, and correlations for major variables

	Mean	SD	1	2	3	4
1 Student Stress	3.47	0.770				
2 Satisfaction with life	5.059	1.209	-.276**			
3 Psychological Symptoms	3.292	2.897	.318**	-.371**		
4 Health Problems	21.99	25.242	.212*	-.048	.442**	
5 Psychological Capital	0.000	0.711	-.282**	.498**	-.292**	-.226**

\*p<.05, \*\*p<.01

### Mediation analyses

Mediation analysis is a two step process commonly undertaken using hierarchical multiple regression. The question answered is whether or not a mediating variable, in this case PsyCap, accounts for some or all of the variance that relates two other variables. In the current study the independent variable was Student Stress, and the dependent variables were Psychological Symptoms, Satisfaction with Life, and Health Problems. Table 2 shows the results of the mediation analyses. The key to accepting the mediating action of a third variable (PsyCap) is whether or not it is significantly related to both the IV and DV, and if, when added in step 2 of the hierarchical regression, the beta for the IV is reduced because some part of its relationship is accounted for by the mediating variable. As Table 2 reveals, Psychological Capital is a sufficiently strong mediator that it deprives Student Stress of its statistical significance in step 2 of the hierarchical regressions with both Satisfaction with Life, and with Health Problems. With Psychological Symptoms, PsyCap adds to the significance of the regression, but only partially mediates the relationship between Student Stress and Psychological Symptoms.

In all three cases, Psychological Capital demonstrates that it mediates between stress and psychological or physical well-being. In the case of Psychological Symptoms and Health Problems, PsyCap buffers the impact of stress so that the relationship between stress and negative outcomes is reduced. In the case of Satisfaction with Life, PsyCap augments a positive psychological outcome. In relation to a variety of measures of student well-being, psychological capital shows its mediating power.

Table 2.  
Mediation analyses for Psychological Capital with Student Stress and three well-being measures

Mediation Analyses	B	SE B	β
<i>Psychological Symptoms</i>			
Step 1 Student Stress	1.156	.293	.318***
Step 2 Student Stress	.930	.299	.256**
Psychological Capital	-.918	.343	-.219**
<i>Satisfaction with Life</i>			
Step 1 Student Stress	-.409	.123	-.276***
Step 2 Student Stress	-.212	.115	-.143
Psychological Capital	.771	.131	.456***
<i>Health Problems</i>			
Step 1 Student Stress	6.428	2.514	.212**
Step 2 Student Stress	4.886	2.589	.161
Psychological Capital	-6.285	2.976	-.180*

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

## Discussion

The study of psychological capital, as a potential antidote to the effects of stress, suggests that this higher-order concept may offer an avenue to boost student immunity to stressors, or even to shape the way in which they appraise and define events to transform them into motivational challenges rather than debilitating threats. Each individual construct of optimism, hope, efficacy, and ego resiliency is imperfect in representing general resilience to stress, and thus their common factor should provide a more complete index of the domain. The current study ported the concept of psychological capital into the student academic work context.

Training students to develop more optimistic explanatory styles, lower levels of distressed thinking, and more constructive envisioning of the future, that persons scoring high on trait PsyCap engage in naturally, may help less psychologically resilient students. Fortunately, Luthans, Avey, and Patera (2008) have demonstrated that PsyCap can be developed in short training classroom interventions.

There is a need to examine how young adults who experience academic stress over a prolonged period of time either adapt to it or fail to cope with it effectively. The current study suggests that the construct of psychological capital may serve a substantial role in differentiating those who prove to be more or less adaptive to stressful environments. Luthans, et al. (2007), suggest that strategies can be developed to better shape these dispositions among young adults and facilitate their coping with stress exposures.