Examining Academic Self-Efficacy and Perceived Social Support as Predictors for Coping With Stress in Peruvian University Students

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This study determines if academic self-efficacy and perceived social support are predictors for coping with stress in Peruvian university students. A cross-sectional research study of the predictive design was employed. The study participants included 455 Peruvian university students. The global academic self-efficacy questionnaire, perceived social support survey, and academic stress coping scale were employed for the analysis. Further, the collected data were analyzed using correlation coefficients and multiple linear regression models. The study results revealed a statistically significant relationship between coping with stress, academic self-efficacy, and perceived social support. Linear regression analyses reported a satisfactory fit for the model (F-test = 76.938, \(p < 0.001\)) wherein academic self-efficacy (\(\beta = 0.292, p < 0.05\)) and perceived social support (\(\beta = 0.360, p < 0.01\)) are variables that significantly predict stress-coping means used by the study participants (adjusted \(R^2 = 0.25\)). Hence, it is evident that academic self-efficacy and perceived social support are predictors for coping with stress in Peruvian university students.

Keywords: academic self-efficacy, perceived social support, coping with stress, university students, Peru

INTRODUCTION

College students face numerous academic and personal challenges in the pursuit of their professional and personal development goals, which can be harmful to their mental health (Alarcón, 2019). As a result, psychological changes tend to be common in this population, complicating their professional training (Wada et al., 2019). In this sense, being a university student involves having to deal with various responsibilities, tasks, and demands, which, if not properly controlled, can become risk factors and stressors (Oro et al., 2019). Thus, recent studies have shown that university students having insufficient time to work or perform tasks, combined with work overload, interpersonal conflicts, assessments, academic competitiveness, and other factors, could experience negative impacts on their wellbeing and emotional balance (Chen and Jiang, 2019; Son et al., 2020).

This is added to the reality of undergoing an evolutionary stage—late adolescence—and the beginning of young adulthood, which forces them to define their identity and personality, as well...
as to achieve their aspirations (Gaete, 2015). Thus, students must assess their resources to manage these demands (Sontag-Padilla et al., 2018), particularly their ability to cope with stress.

Coping With Stress

At the university stage, a student’s resources are usually insufficient to manage the demands and pressures of the academic context (Fásoro et al., 2019). Therefore, coping strategies are essential to regulate the pressure caused by tasks, meetings, exams, and group work, among other activities (Radu et al., 2016). In this case, coping with stress is defined as the behavioral and cognitive efforts that a subject undertakes to face stressful demands and suppress the emotional state that causes emotional overload (Barquin-Cuervo et al., 2018). Thus, the students’ reactions to the same stressful situation may vary; some become alert, others try to deny the situation by ignoring it or trying to forget it, or in contrast, they act directly and actively to change the situation or accept it (Enns et al., 2018).

Potential stressors are not only derived from academic demands but also from the difficulty in managing stressful events (Chau and Saravia, 2016). In the Peruvian context, stress among university students has become a crucial topic for educational researchers (Cassaretto et al., 2021). The prevalence of this problem has been demonstrated by various studies conducted in the three regions of Peru; however, in recent years, a unique scenario has emerged, which has increased the pressure on university population (RPP Noticias, 2018). (1) The changes in the new university law (RPP Noticias, 2019) require universities to improve their basic quality conditions and simultaneously demand students to take on more challenging tasks, such as conducting a research to obtain a bachelor’s degree, a thesis for a professional degree, and the knowledge of a foreign language. (2) The emergence of conflicts due to political causes, where young university students have become involved knowing that managing higher education fell to politicians who came to power without democratic support, a fact that has led to various strikes, delayed classes, and even unfortunate deaths (BBC News Mundo, 2020).

These facts, although not directly linked to academics, have tested Peruvian university students’ ability to cope with various pressures caused by educational, social, and personal factors. In this regard, the available scientific literature recognizes that there are other factors that can facilitate the student’s process of adapting and coping with the events of the context in which they interact (Freire et al., 2020). Two of them are the subject of study in this research: academic self-efficacy and perceived social support.

Predictors of Coping With Stress

The academic self-efficacy variable is considered a determining factor for positive experiences in the academic environment (Borzone, 2017). Academic self-efficacy is defined as an individual's belief in their ability to organize and execute actions required to handle difficult or challenging situations in their academic life (Hechenleitner-Carvallo et al., 2019). Students pursuing higher education face learning challenges and other difficult circumstances; therefore, research on self-efficacy has focused on the field of higher education (Fook and Sidhu, 2015). Some research works have shown that academic self-efficacy works as a protective factor that creates motivation to achieve goals and fosters emotional balance and academic progress (Priesack and Alcock, 2015; Schöber et al., 2018; Matteucci and Sonzini, 2021).

Perceived social support represents a construct that triggers interest in different areas, from healthcare to education, and it has been related to stress and its influence over personal and social wellbeing (Azpiazu et al., 2015). This variable is defined as a set of real or perceived instrumental and/or expressive provisions arising from the community, social media, and close friends, which may be created both in daily situations and during a crisis (Reynoso et al., 2018). Scientific literature shows that perceived social support is related to one’s sense of belonging and bonding with other human beings, which creates commitment and concern for others, nurturing situations where advice and material support are provided, and where individuals have the ability to express their emotions (Kang et al., 2016). Therefore, this variable represents a person’s assessment regarding the help they believe they have (Almeida et al., 2018). Research conducted in academic settings has shown that perceived social support enhances academic performance (López-Angulo et al., 2020); further, those believing that they receive affection, assistance, and support from social groups have a greater degree of self-efficacy when facing different experiences as university students (Fernández-Lasarte et al., 2019).

As for the relationship with coping with stress, the available literature points to the recognition that academic self-efficacy and perceived social support may act as predictors. Further, the level of confidence in personal abilities can promote strategies to cope with emotional overload (Freire et al., 2020). A university student with high levels of self-efficacy will consider the obstacles that may arise as challenges because they have a remarkable ability to regulate perceived stress (Schönfeld et al., 2016). This situation is contrary to what could be seen among students with low self-efficacy, who generally have doubts regarding their learning capacities, so the perception of lack of efficacy will influence their consideration of being able to control situations and will make them rate those events as uncontrollable (Ornelas et al., 2012). In this way, when students are confident that they can handle or control environmental stressors, then, these will not be considered as disturbing or adverse. Further, they will put healthy coping strategies in place to mediate between these events and emotional consequences (Piergiovanni and Depaula, 2018).

As for perceived social support, it is known that to face difficult or stressful situations, we need to have trustworthy people with whom we can externalize emotions, problems, or difficulties. Therefore, when students know that others are willing to support them, listen to them, and share their opinions, they might react positively to stressful events in academic settings (Martínez et al., 2019). However, if they do not perceive such support, they might experience even more stress (López-Angulo et al., 2020).

While in the clinical field there are reports that reveal that social support does not determine the type of coping strategy (Amaya-Ropero and Carrillo-González, 2015;
Based on the above, this study aimed to determine if academic self-efficacy and perceived social support are predictors for coping with stress in Peruvian university students. Participants’ age range was 18–28 years ($M = 20.87; SD = 2.62$). All of the participants confirmed that they studied in private universities in the Lima Metropolitan area. Intentional nonprobability sampling was used.

**Measures**

**Global Academic Self-Efficacy Questionnaire**

This brief questionnaire (Torre, 2006) analyzes general self-efficacy for academic learning; it constitutes nine items that are evaluated on a Likert scale (0 = Completely disagree to 4 = Completely agree). For the present study, the Cronbach's alpha coefficient value for estimating the reliability of the questionnaire was good [$\alpha = 0.82$ (95% CI: 0.77–0.85)].

**Perceived Social Support Survey (MOS)**

This questionnaire evaluates the social support perceived by people (Sherbourne and Stewart, 1991). The instrument's 20 items are scored from 0 (Never) to 4 (Always). In the present study, this showed good internal consistency [$\alpha = 0.92$ (95% CI: 0.89–0.93)].

**Academic Stress Coping Scale (A-CEA)**

This scale (Cabanach et al., 2010) was employed to measure the strategies that university students use to manage demands and potentially stressful academic situations. It comprises 23 items that are evaluated on a Likert scale (0 = Never and 3 = Always). In the present study, this scale reported adequate reliability [$\alpha = 0.84$ (95% CI: 0.77–0.85)].

**Procedure**

University students of legal age were identified and informed of the study purposes, the use of data, and the confidentiality agreement. It was also emphasized that their participation was voluntary, and only those who gave their consent and met the study conditions would be considered. After providing their informed consent, the university students completed the questionnaire and the survey and provided their responses for the aforementioned scale, which took approximately 10 min.

**Ethical Considerations**

The study was approved by the Ethics Committee of the Universidad Peruana Union.

**Statistical Analysis**

The Statistical Package for the Social Sciences Statistics software program version 25.0 was used to conduct the statistical analyses, which were completed in stages. In Stage 1, the average score, standard deviation, skewness, and kurtosis of the study variables (self-efficacy for academic writing, reading comprehension, and reading self-efficacy) were estimated, while Stage 2 involved the Students’ $t$-test that was performed for independent samples, and Cohen’s $d$ was used as a measure of effect size (ES) to find out whether there are significant differences in the scores of the variables between men and women; Cohen's (1988) guidelines were followed, indicating that values of 0.20, 0.50, and 0.80 represent a small, moderate, and large ES, respectively. In Stage
3, an analysis of Pearson’s correlation between variables was conducted, where values of \( r \geq 0.20 \), \( r \geq 0.50 \), and \( r \geq 0.80 \) express a minimum, moderate, and strong ES, respectively (Ferguson, 2016). Finally, a multivariate linear regression analysis considering a significance level of 0.05 was performed. The ES of the regression analysis was calculated using the coefficient of determination \( (R^2) \); an \( R^2 < 0.02 \) indicates the absence of the ES; \( R^2 \geq 0.02 \) expresses a small ES, \( R^2 \geq 0.13 \) stands for a medium ES, and \( R^2 \geq 0.26 \) accounts for a large ES (Ellis, 2010). To complete this stage, a Microsoft Excel\textsuperscript{®} document was used (Caycho-Rodriguez, 2018).

## RESULTS

### Descriptive Analysis

Table 1 presents the descriptive analysis of the study variables. The skewness and kurtosis coefficients of the variables are adequate, as they do not exceed the range \( >\pm 1.5 \) (Pérez and Medrano, 2010).

### Differences Between Coping With Stress, Academic Self-Efficacy, and Perceived Social Support

With regard to the median comparison (Table 2), we found no statistically significant differences among men and women in coping with stress and academic self-efficacy (\( t = -0.195, p = 0.845; t = -0.780, p = 0.436 \)). However, when we compared the perceived social support between genders, we found statistically significant differences in favor of women (\( t = 2.402, p = 0.02 \), with an effect size that was not moderate (\( d = 0.39 \)).

Results of the correlation analysis were statistically significant (Table 3). The highest scores of coping with stress are correlated to the highest scores in academic self-efficacy (\( r = 0.359 \)) and perceived social support (\( r = 0.415 \)).

### Prediction on Coping With Stress

Results from the multiple regression analysis show a satisfactory model fit (\( F = 76.938, p < 0.001 \)); where academic self-efficacy (\( \beta = 0.292, p < 0.05 \)) and perceived social support (\( \beta = 0.360, p < 0.01 \)) significantly predict university students’ stress coping (adjusted \( R^2 = 0.25 \)). The \( R^2 \)-value indicates that the regression model has a small size effect. Additionally, the \( t \)-values of the predictor variable’s beta regression coefficients are highly significant (\( p < 0.01 \)) (Table 4).

### DISCUSSION

In recent years, research has been conducted on issues related to positive psychological functioning in academic settings (Denovan and Macaskill, 2013). Although these environments impact and increase stress vulnerabilities, university Students’ personal stress-coping skills need broader analysis and study (Phang et al., 2015). Therefore, this study analyzes the role of two positive psychological resources—academic self-efficacy and perceived social support—in coping with stress during university studies.

Initially, the variables of academic self-efficacy, perceived social support, and coping with stress were compared based on participants’ gender. A single significant difference was reported when comparing perceived social support in favor of the women’s group, which is consistent with other research findings (Cheng and Chan, 2004; Kendler et al., 2005). This can be explained by the fact that support networks, which are more common among women than in men, enable better social and academic performance. Such networks become a protective agent that lessens the harmful effects of tense interactions (Awang et al., 2014; Soman et al., 2016). Support networks are more common among women because women tend to express their emotions more easily than men and have better interaction skills (Hess et al., 2000).
This study's main analysis was performed using a multivariate linear regression. The results show that academic self-efficacy and perceived social support explain 25% of Students' coping with stress. This is because self-efficacy is an important factor in the theory of stress developed by Lazarus and Folkman (1984); that is, an individual's beliefs regarding their own abilities impact the way in which they perceive difficulties. If individuals believe that they can handle difficulties and develop coping strategies, they will perceive the difficult situation as a challenge rather than as a threat. Likewise, when individuals who do not trust their abilities face a threatening situation, they will experience higher levels of stress and perceive the context as dangerous (Bandura, 1986). Therefore, individuals with higher self-efficacy beliefs perceive that their lives are less stressful when compared to those with low self-efficacy perceptions; additionally, self-efficacy is considered the strongest element to moderate stress (Jerusalem and Mittag, 1997). The perception of belated and unsatisfactory support generates greater distancing when dealing with pain, as well as hostile and negative coping strategies (Holtzman et al., 2004).

The results support the hypothesis proposed in this study. Nevertheless, it is important to mention some limitations. First, self-report measures were used to evaluate all the constructs. The answers provided by participants may be influenced by social desirability biases; however, as we previously mentioned, the findings are consistent with previous research. We would recommend that this study's measures be combined with other qualitative or observational evaluation techniques. The use of observation, self-reporting measures, and interviews with students would enrich the study of the psychological resources of students and provide greater soundness to the findings (Freire et al., 2019). Second, university students participated voluntarily and were not chosen using a rigorous procedure. Therefore, the sample was not representative of the population. For this reason, caution should be exercised when generalizing these findings, and further research should be conducted using more representative samples and probability sampling. Third, the correlational nature of the investigation design did not allow for causal relationships to be established between the analyzed variables. This is an issue that should be addressed afterward using longitudinal research designs. Fourth, the characteristics of the participants may also constitute a limitation because they are all students from private universities in the Lima Metropolitan area. Therefore, future research that replicates this study with students from other geographic and cultural backgrounds is needed in order to generalize these findings for university students throughout Peru. For instance, studies that analyze groups of students from public and private universities of the three regions of the country and sampling techniques other than those used in this study may be applied. Finally, although some predictor variables of coping with stress were considered, other variables that may provide a better understanding of the problem were ignored. Hence, future correlational, predictive, or explanatory studies must consider variables such as academic engagement, satisfaction with studies, self-concept, coping with academic stress, psychological distress, and psychological wellbeing, among others.

This study provides empirical evidence on the joint effects of academic self-efficacy and perceived social support on university Students' stress-coping mechanisms. Therefore, academic self-efficacy and perceived social support are relevant tools that promote adequate coping with academic stress. These findings constitute an important contribution to the study of stress prevention in students, highlighting academic self-efficacy and perceived social support as valuable psychological resources. The study shows that positive psychological interventions can be an effective tool to foster the personal resources of university students (Lambert et al., 2019). These interventions aim to help students discover, nurture, and use their personal resources and qualities appropriately.

In summary, the results of this study show that academic self-efficacy and perceived social support are significant predictors of students’ coping with stress. These findings serve as evidence to support the development of intervention programs that strengthen strategies for coping with academic stress as a measure to prevent emotional exhaustion, psychological distress, dropout, and/or academic stagnation in university students.

**DATA AVAILABILITY STATEMENT**

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

**ETHICS STATEMENT**

The studies involving human participants were reviewed and approved by the Universidad Peruana Unión. The patients/participants provided their written informed consent to participate in this study.

**AUTHOR CONTRIBUTIONS**

RA and RC conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, and wrote the manuscript. OM-B and TC-R contributed reagents, materials, analysis tools and data, and wrote the manuscript. All authors contributed to the article and approved the submitted version.

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**APPENDIX**

**AUTHOR STATMENT**

RA and RC conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, and wrote the manuscript. OM-B and TC-R contributed reagents, materials, analysis tools and data, and wrote the manuscript. All authors contributed to the article and approved the submitted version.
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