

CAN EMOTIONAL INTELLIGENCE MODERATE THE RELATIONSHIP BETWEEN COPING SELF-EFFICACY AND PERCEIVED STRESS? A STUDY AMONG ITES EMPLOYEES

RAMYA S

Scholar, School of Business and Management, Christ (Deemed to be University), Bangalore.

SUMATHI ANNAMALAI*

Associate Professor, School of Business and Management, Christ (Deemed to be University), Bangalore.

*Corresponding Author Email: sumathi.a@christuniversity.in, Orcid Id: <https://orcid.org/0000-0002-4342-8600>

SANDHYA DS

Scholar, School of Business and Management, Christ (Deemed to be University), Bangalore.

V JOHN PAUL RAJ

Associate Professor, School of Business and Management, Christ University, Bangalore.

Abstract

Stress in the workplace is a significant phenomenon that arises due to various factors such as long working hours, monotonous jobs, dominating and demanding bosses, the targets that the employees must achieve, etc. In the present world, stress has become inevitable due to significant changes in the nature of work. Perceived stress is a feeling or a thought that an individual has about how much stress they are experiencing over a given time. This study aims to examine whether emotional intelligence acts as a moderator between coping self-efficacy and perceived stress among 132 volunteered Information Technology Enabled Services (ITES) employees working in organizations across India. For collecting data, three instruments namely assessing emotions scale developed by Schutte et. al., perceived stress scale developed by Cohen et. al., and coping self-efficacy scale developed by Chesney et. al., was used. We conducted a two-stage hierarchical multiple regression analysis to test our conceptual model. From the results, it can infer that emotional intelligence acted as a significant moderator in the relationship between coping self-efficacy and stress for the employees surveyed. The results can be applied in ITES sector, while developing policies and practices for the employees to help them cope with stress. Also the results can be used by the researchers to evolve the knowledge created in stress, emotional intelligence and self-efficacy research.

Keywords: Emotional Intelligence, Perceived Stress, Self-Efficacy, Coping Self-Efficacy, Information Technology Enabled Services (ITES) Employees, Two-Stage Hierarchical Multiple Regression Analysis

INTRODUCTION

According to Waters and Ussery (2007), stress is an unfavorable response that individuals experience when outside requests surpass their internal capacities. Stress is a part of everyday life (American Psychological Association [APA], 2019a), and the perceived disconnect between a situation and the resources to deal with the situation affects people of all ages. Perceived stress affects psychological and physical health. It results in physical, mental, and behavioral consequences. Researchers worldwide have also stated that living with stress could suppress the immune system (Schedlowski & Schmidt, 1996; Segerstrom & Miller, 2004). This

fact is globally agreed upon and recognized by the medical community. The American Psychological Association (2019b) reported that significant stressors among adults were money (60%), work (64%), family responsibilities (54%), personal and family health concerns (51% and 50%, respectively), and the economy (50%) in 2019. Today's competitive world requires businesses to maintain a sustainable competitive advantage through innovation. Specifically, the information technology sector is highly target-oriented. ITES employees, in specific business process outsourcing employees, are prone to high-stress levels as they have direct contact with the customers. Thorsteinsson, Brown, and Richards (2014) stated that work-related stress is connected to psychological strain, fatigue, depression, and anxiety in their study conducted among office workers and examined that they face psychological and sociological problems work distress. Dhanapal et al. (2011) have discussed that most Indian employees in the Information Technology sector feel that job is the primary source of stress and leads to health complications compared to family or financial issues. In her study, Uma Devi (2011) stated that since IT professionals are target-driven, stress is regarded as an occupational hazard among these employees. As the significance of the study of perceived stress is growing day by day at various levels among ITES employees, it is vital to address the issue and examine the factors influencing perceived stress.

Emotional Intelligence

Peter Salovey and John Mayer (1990) had described emotional intelligence as someone's ability to moderate the effectiveness of specific and individual skills. Goleman (1995) stated that emotional intelligence comprises five primary components – self-awareness, self-regulation, motivation, empathy, and social skills, which individuals could enhance through practice. Once enhanced, Watson and Watson (2016) states that “it could improve an individual's capacity to assess a circumstance, mobilize existing resources, and proactively address a forthcoming issue.” Emotional intelligence is defined as the magnitude to which an individual perceives, analyses, and follows up on data of emotional nature. (Kafetsios, Zampetakis, 2008: 713). Ridhi Sharma et al. attempted to study the link between emotional intelligence and work stress among people who work in the BPO industry. They found out that employees must be aware of emotional intelligence to understand stress reactions. According to Reus and Liu (2004), emotional intelligence has two components: emotional recognition and emotional regulation. Emotional recognition means an individual's capacity to understand feelings and comprehend their expected circumstances and end results. Emotional regulation means an individual's ability to deal with their own and other's emotional feelings.

Coping Self-efficacy

Self-efficacy means an individual's faith in successfully tackling a challenging, stressful situation. Employees with a higher level of self-efficacy will take up difficult tasks and look forward to putting in their maximum effort to get through those tasks. Anderson & Gibson (2004) conducted a study on the workers belonging to a health drink factory. They found that the workers with a more significant self-efficacy level possess significantly higher planning and organization skills. Employees working in almost all industries require self-efficacy. However, self-efficacy becomes even more essential for the ITES industry. Employees in this

sector experience various stress since they often face difficult, challenging situations. Concerning coping self-efficacy, Watson and Watson (2016) observes that persons with higher belief in their capacity to handle the severity are bound to use positive approaches to oversee extreme difficulties in their lives. Be night and Bandura (2004) say that coping self-efficacy must be carefully and uniquely studied in each situation. Hearing and understanding customers' needs and their grievances require a higher self-efficacy degree. Chesney et al. (2006) have stated that three factors comprise coping self-efficacy, which includes confidence in one's ability to make use of problem faced coping, making use of friends and family support, and stopping worrying about unpleasant emotions. Since it is evident that self-efficacy is an inevitable requirement for BPO employees, we have chosen it as one of the variables for our study.

Emotional Intelligence and Stress

It is essential to understand the relationship between emotional intelligence and stress. This understanding is critical because it contributes to an individual's development. Many studies have revealed that people who have weak emotional intelligence are more likely to encounter difficulties managing stress-related problems; hence there is a solid relationship between stress and emotional intelligence (Sharma & Kumar, 2016). We can consider emotional intelligence as a mechanism to reduce stress among employees. Emotionally intelligent people who control their emotions and feelings have the edge over others in handling challenging situations. Employees working in the BPO industry experience a range of stress, and to effectively get through these tough and challenging situations, one must possess a high amount of emotional intelligence. Dealing with customers requires patience, and being emotionally intelligent is the key to successfully handling such cases. Research on emotional intelligence, occupational stress, and job performance conducted by Ismail, Suh – Suh, Ajis, and Dollah (2009) revealed that the link between occupational stress and emotional intelligence correlates with job performance. Since these two variables' impacts are much higher on BPO employees' productivity, we have included them as a part of our study.

Coping Self-efficacy and Stress

Punch and Tuettemann (1990) and Colangelo (2004) believe that lack of self-belief or self-efficacy can be a potential stress source. Workers' stress is the most studied area in Industrial and organizational (I/O) psychology because it might affect work conduct, employee wellbeing, job fulfillment and can even lead to burnout. Researchers have found out specific features that increase a person's resistance to stress, and self-efficacy is among them. Likewise, many researchers have discovered that people who felt command over upsetting circumstances could reduce their stress if they had high self-efficacy levels. Srivastava (2014), in his study conducted among 170 BPO employees from various organizations, examined an inverse relationship between self-efficacy and occupational stress, i.e., highly self-efficacious employees would have less occupational stress and vice-versa. Various research studies have conveyed that a definite sense of efficacy portrays an optimistic view to dealing with the stress associated with job demands and work-related expectations through personal competence. The study conducted by Jex, Steve and Bliese, Paul and Buzzell, Sheri and Primeau, Jessica (2001)

revealed that individuals with high self-efficacy using active coping skills were the most beneficial when dealing with stressors. They believed that it would positively impact the situation. Many studies have revealed that internal control beliefs (one's opinion to have personal control over his/her own life), as opposed to external control convictions (one's belief in factors outside their control), is an essential parameter to deal with stress in personal life and at work.

Stress among ITES (BPO) employees

Among the ITES (Information Technology Enabled Services) Industry, Business Process Outsourcing (BPO) is considered the quickest developing sector. In this field, India enjoys various advantages over other developed countries. It has a large talent pool of skilled and English-speaking experts/graduates, which significantly contributed to India's BPO boom and other advantages like cheap labor and flexibility in working hours. In the BPO sector, employees need to deal with several client interactions daily, which is a critical reason for high-stress levels. Prolonged working hours in shifts have significant implications for employees' mental and physical health. Apart from this geographical time difference with the US and UK, heavy workload, monotonous work, the pressure to achieve performance targets, insufficient holidays, centralized formal organization structure contribute as significant stress factors for the BPO segment. Due to these stressors, the employees are prone to develop various mental and physical issues such as hypertension, anxiety, headache, fatigue, sleeping disorder, insomnia, irritable bowel syndrome, etc. Vaid (2009) examined the routine of young employees working in Indian outsourcing companies. The study revealed that the Indian BPO sector employees experience a high level of stress, which creates a feeling of job dissatisfaction and leads to quitting the job, which affects the organization.

Our research provides empirical evidence for explaining the relationship between perceived stress, coping self-efficacy, and emotional intelligence. We examined that emotional intelligence would act as a moderator between BPO employees' perception of stress and their level of confidence in implementing effective coping strategies while facing adversity successfully. BPO segment under ITES Industry is thoroughly service-oriented; hence employees need to deal with customers directly and address their queries, often leading to difficult work in an environment with high-stress levels, depression, as mentioned by various research studies. Figure 1 depicts the proposed model we have taken for our analysis. Emotional intelligence will moderate the relationship between employees' coping self-efficacy and perceived stress. We offer a surge in coping self-efficacy, and emotional intelligence will decrease stress levels among ITES employees. The proposed model, when proved, will recommend suitable action plans to reduce employee stress levels at work.

Purpose of the study

In the present study, we attempt to determine the relationship between employees' perceived stress and coping self-efficacy in the BPO Industry and the moderating role of emotional intelligence. Based on earlier studies, we think that emotional intelligence is a substantial moderator. Together, emotional intelligence and self-efficacy can decrease stress's negative

consequences; hence, we are undertaking this research on perceived stress and its link with self-efficacy and emotional intelligence. The study's primary objective was to examine the associations of self-efficacy and emotional intelligence with perceived stress in a BPO professionals sample and prove that emotional intelligence and self-efficacy are significant predictors of perceived stress.

METHODS

Participants

Participants for this study included ITES (IT-Enabled Services) employees - BPO (Business Process Outsourcing) companies in India. A total of 132 employees took part in this research. The sample contained 82 males (62.1%) and 50 females (37.9%), and participants' mean age was 34.58 years (18-72 years, SD = 12.345). The respondents voluntarily participated, and we did not offer any remuneration.

Measures

We asked the participants to complete a questionnaire with three sets of the survey and provide demographic details of age and gender.

Assessing Emotions Scale: The Assessing Emotions Scale (AES; Schutte, N.S., Malouff, JM, & Bhullar, N. 2009) (see Appendix A) is a study that helps in assessing how an individual perceive, comprehend, facilitate and use feelings as per the circumstance which consists of 4 subscales: Perception of emotion; Managing own emotions; Managing others emotions; Utilization of emotion and total scale scores were estimated by reverse coding items 5, 28, and 33 and sum of all the items provide scores that range from 33 to 165 with higher scores denoting high emotional intelligence. Every item in the questionnaire asks the participants about their emotions or reactions. The participants use the 5-point scale to respond to the statement. "1" if they strongly disagree, then "2" if they somewhat disagree, "3" if they neither agree nor disagree that, then "4" if they somewhat agree, and the "5" if they strongly agree. An alpha value of 0.85 (Table 1) shows the scale's reliability for the sample studied.

Perceived Stress Scale: The Perceived Stress Scale (Cohen, S., Kamarck, T., & Mermelstein, R. 1983) (see Appendix B) is a 14 item stress assessment psychological instrument for measuring how various situations affect the perceived stress and emotions. The questions in the perceived stress scale ask the respondents about their sentiments and thoughts during the most recent month. The scale instructed the respondents to show how frequently they felt or thought a specific way for each situation. Each item described the experiences, demands, and events that company employees perceive as stressful. We used a 5-point Likert scale to check the intensity of stress they perceived, ranges between 0 (not at all stressful) to 4 (extremely stressful). An alpha value of 0.8 (Table 1) shows the reliability score for the scale used.

Coping self-efficacy scale: We used the Coping Self-Efficacy Scale (Chesney, Neilands, Chambers, Taylor, & Folkman, 2006) (see Appendix C), a 26-item measure that assesses an individual's ability in performing coping practices when confronted with difficult situations

and adversity and focuses mainly on an individual's confidence in their capacity to manage viably. It measures problem-focused coping, receiving social support, and stopping unpleasant emotions and thoughts. The scale asked the respondents regarding confidence level while facing a problem. The respondents also rated the extent to which they believe they could perform a behavior significant to adaptive coping strategies. We used an 11-point scale for this. [Anchor points on the scale were 0 (cannot do at all), 5 (moderately certain can do), and 10 (very certainly can do)]. Table 1 shows an alpha value of 0.87 as the reliability score for the scale used.

We administered the questionnaires according to the standard operating process. We sent an email with a detailed description of the study, instructions to be followed, and the completed questionnaires. They were assured that the information would be used for research purposes only. Consent was sought and obtained from the management of the companies. A total of 132 BPO employees returned the study questionnaire, fully completed through email.

RESULTS

As the first step, we used G*Power 3.1 statistical power analysis software to conduct a priori power analysis. The software was used to determine the minimum sample size required for establishing the statistical power at .80 level ($\alpha = 0.05$). As per the power analysis, we arrived at a minimum sample size of 68 respondents to check the moderate effect ($f^2 = 0.15$) on the criterion variable, influenced by the predictor variables. We collected data from 132 participants, which is considered adequate according to the power analysis results, to describe the association between criterion and predictor variables. We computed descriptive statistics and alpha coefficient for all the scales used as a second step. Table 1 displays the results. As a third step, we did a hierarchical multiple linear regression analysis to determine whether emotional intelligence moderated the relationship between stress and coping self-efficacy. We combined emotional intelligence and coping self-efficacy as criterion variables in the first step. Towards the second step, we included the interaction effect as a criterion variable. We used two-step hierarchical multiple linear regression, for determining the statistical significance, with an alpha level of 0.50. As a priori, all the hierarchical multiple linear regression assumptions were tested. One, Q-Q plots and Kolmogorov-Smirnov goodness of fit test were done to examine the normality of data. Two, the standardized residual plots were examined to assess linearity and homoscedasticity. Three, bivariate correlation and variance inflation factors were computed to determine multi-collinearity. All the results indicated that none of the model assumptions were violated; hence the data is considered appropriate for developing a two-step, hierarchical multiple linear regression model.

DISCUSSION

The two-step hierarchical multiple regression model predicted 5.6% of the difference in stress level, $F(2, 132) = 3.08$, $p < 0.001$, conveying that the respondents perceived less stress when they perceive that they have more ability to deal with the problems that create stress for them, in the first place. And in the second step, when we added the interaction effect, the combined

set of variables, namely coping self-efficacy, emotional intelligence, and its interaction effect, significantly predicts 9.4% of the change/variance in stress level, $F(3, 132) = 4.40, p < 0.001$. It means that the combined effect further helps the respondents perceive lesser stress than previously felt. The variables being studied were centered on adding the interaction effect. An interaction term was created between coping self-efficacy and emotional intelligence to avoid potential high multi-collinearity issues (Aiken & West, 1991). Also, to check the interaction effect to the overall variance in the model, ΔR^2 values are checked. As per the recommendations of Cohen (1992), if the ΔR^2 values are equal to or greater than 0.02, then the interaction effect has a unique contribution to the overall variance of the model studied. In this case, the computed ΔR^2 value of 0.048, obtained after adding the interaction effect, is greater than 0.02 (Cohen, 1992), indicating that emotional intelligence significantly moderates the relationship between stress perceived and coping self-efficacy of the respondents. Table 2 depicts the results. We observe that emotional intelligence is not contributing significantly to the variance in perceived stress independently among employees. But we identified that it had a moderating effect on the relationship between perceived stress and coping self-efficacy. The outcome of the second stage hierarchical multiple regression analysis revealed an interaction between emotional intelligence and coping self-efficacy, indicating moderation's existence as it exceeded the benchmark set by Cohen (1992). Also, Saklofske et al. (2012) observe that previous research studies emphasized emotional intelligence is a vital factor determining individuals' work performance and success. Therefore, it is evident that emotional intelligence has a substantial moderating effect on the relationship between coping self-efficacy and perceived stress. Our research paper's findings emphasize that BPO employees who had greater confidence in managing challenging situations perceived less job stress than their counterparts who had comparatively less or no confidence over their abilities to overcome difficult conditions, similar to previous research findings. As per the fundamental principles stated in the stress and coping theory (Lazarus & Folkman, 1984), we can expect that BPO employees who possess strong efficacy beliefs would overcome challenges and obstacles in day-to-day work.

Moreover, with this enhanced coping ability, BPO employees can quickly bounce back from any setbacks they experience in their work. A BPO employee's work is hectic as it requires them to directly get in touch with customers with queries and address the same. Dealing with impatient and harsh customers involves patience, and employees should understand the customer's questions and respond to them appropriately. Their officials also pressure the employees to achieve particular targets within a specified period, which can be stressful. Under these challenging circumstances, only employees who have a greater confidence level in their coping abilities would tackle them successfully. India is a favored country for many ITES/BPO employees, and it is crucial to address the troubling concern of increasing employee turnover rate. So the company management should focus on improving their employees' problem-focused coping skills and strengthen their emotional intelligence. Encouraging them to respond to adverse situations rather than reacting to them and reduce negative emotions would help the employees enhance their work performance, thereby reducing the amount of job stress they perceive.

CONCLUSION

Previous research studies focused only on disclosing the correlation between coping self-efficacy and occupational stress among BPO employees. Still, our research revealed the moderating effect of emotional intelligence between perceived stress and coping self-efficacy. Yet, researchers need to address a few limitations in their future studies. One such limitation is the sample size being too small, restricting it to be applicable only for the BPO industry and making it tough to generalize to the other industries. Future research studies can focus on different elements influencing stress like personality, work experience, etc. Since employers attempt to address the increasing attrition rates among BPO employees due to stress perception, it becomes significant to understand the factors influencing perceived stress. Organizations need to help employees respond positively to adverse stressful situations. Hence our research findings would allow employers, HR professionals, line managers, and professional counselors to develop appropriate coping mechanisms to manage stress among BPO sector employees.

References

1. Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
2. American Psychological Association. (2019, November 1). Healthy ways to handle life's stressors. <http://www.apa.org/topics/stress/tips>
3. American Psychological Association [APA]. (2019b). 2019 stress in America graphs. www.apa.org/news/press/releases/stress/2019/infographics?gclid=EAIaIQobChMIrvvM5IHE6AIVGL3sCh0kRwW1EAAYASABEgKG3_D_BwE
4. Anderson, G., & G. P. (2004). *Leadership transition*. McMillan.
5. Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: the role of perceived self-efficacy. *Behaviour Research and Therapy*, 42(10), 1129–1148. <https://doi.org/10.1016/j.brat.2003.08.008>
6. Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. *British Journal of Health Psychology*, 11(3), 421–437. <https://doi.org/10.1348/135910705x53155>
7. Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
8. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A Global Measure of Perceived Stress. *Journal of Health and Social Behavior*, 24(4), 385-396. Retrieved March 19, 2021, from <http://www.jstor.org/stable/2136404>
9. Colangelo, T. M. (2004). *Teacher stress and burnout and the role of physical activity and parent involvement* (Doctoral dissertation, Central Connecticut State University).
10. Devi, U. T. (2011). A study on stress management and coping strategies with reference to IT companies. *Journal of information technology and economic development*, 2(2), 30.
11. Goleman, D. (1995). *Emotional Intelligence*. Bantam Books.
12. Ismail, A., Suh-Suh, Y., Ajis, M.N., & Dollah, N.F. (2009). Relationship between occupational stress, emotional intelligence and job performance: An empirical study in Malaysia. *Theoretical and Applied Economics*, 3-16.

13. Jmalouff. (2014, April 27). How can we measure emotional intelligence? Using Psychology. <https://blog.une.edu.au/usingpsychology/2014/04/27/how-can-we-measure-emotional-intelligence/comment-page-1/>
14. Jex, S. M., Bliese, P. D., Buzzell, S., & Primeau, J. (2001). The impact of self-efficacy on stressor-strain relations: Coping style as an explanatory mechanism. *Journal of Applied Psychology*, 86(3), 401–409. <https://doi.org/10.1037/0021-9010.86.3.401>
15. Kafetsios, K., & Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Personality and Individual Differences*, 44(3), 712–722. <https://doi.org/10.1016/j.paid.2007.10.004>
16. Kumar, D. R. R., Ramachandran, M., & Ram, S. S. (2011). Human Resource Management Stress Management-Focused on Indian Information Technology Scenario. In *Proceedings of the World Congress on Engineering (Vol. 1, pp. 6-8)*.
17. Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
18. Punch, K. F., & Tuettemann, E. (1990). Correlates of Psychological Distress among Secondary School Teachers. *British Educational Research Journal*, 16(4), 369–382. <https://doi.org/10.1080/0141192900160405>
19. Reus, T. H., & Liu, Y. (2004). Rhyme and Reason: Emotional Capability and the Performance of Knowledge-Intensive Work Groups. *Human Performance*, 17(2), 245–266. https://doi.org/10.1207/s15327043hup1702_6
20. Saklofske, D. H., Austin, E. J., Mastoras, S. M., Beaton, L., & Osborne, S. E. (2012). Relationships of personality, affect, emotional intelligence and coping with student stress and academic success: Different patterns of association for stress and success. *Learning and Individual Differences*, 22(2), 251–257. <https://doi.org/10.1016/j.lindif.2011.02.010>
21. Salovey, P., & Mayer, J. D. (1990). Emotional Intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211. <https://doi.org/10.2190/dugg-p24e-52wk-6cdg>
22. Schedlowski, M., & Schmidt, R. E. (1996). Stress and the immune system. *Die naturwissenschaften*, 83(5), 214-220.
23. Schutte, N. S., Malouff, J. M., & Bhullar, N. (2009). The assessing emotions scale. In *Assessing emotional intelligence* (pp. 119-134). Springer, Boston, MA.
24. Segerstrom, S. C., & Miller, G. E. (2004). Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 Years of Inquiry. *Psychological Bulletin*, 130(4), 601–630. <https://doi.org/10.1037/0033-2909.130.4.601>
25. Sharma, R., & Kumar, P. (2016). Emotional Intelligence and Stress Coping Styles: A Study of Doctors of Private Hospitals in and around Chandigarh. *IRA-International Journal of Management & Social Sciences (ISSN 2455-2267)*, 3(3), 660–675. <https://doi.org/10.21013/jmss.v3.n3.p24>
26. Sharma, R., & Sharma, K. (2014). The Relationship between Emotional Intelligence and Occupational Stress: A Study on BPO Segment-India. *Journal of Strategic Human Resource Management*, 3(3).
27. Srivastava, R. (2014). Study of Relationship Between occupation Self-efficacy and StReSS in Bpo employeeS. *Journal of Organisation and Human Behaviour*, 3(2), 48.
28. Thorsteinsson, E. B., Brown, R. F., & Richards, C. (2014). The Relationship between Work-Stress, Psychological Stress, and Staff Health and Work Outcomes in Office Workers. *Psychology*, 05(10), 1301–1311. <https://doi.org/10.4236/psych.2014.510141>

29. Vaid, M. (2009). Exploring the Lives of Youth in the BPO Sector: Findings from the study in Gurgaon. Health and Population Innovation Fellowship program working paper.
30. Waters, J. A., & Ussery, W. (2007). Police stress: history, contributing factors, symptoms, and interventions. *Policing: An International Journal of Police Strategies & Management*, 30(2), 169–188. <https://doi.org/10.1108/13639510710753199>
31. Watson, J. C., & Watson, A. A. (2016) "Coping self-efficacy and academic stress among Hispanic first-year college students: the moderating role of emotional intelligence." *Journal of College Counseling*, Vol. 19, No. 3, p. 218-230

Appendix - A

Assessing Emotions Scale

Directions: Each of the following items asks you about your emotions or reactions associated with emotions. After deciding whether a statement is generally true for you, use the 5-point scale to respond to the statement. Please circle the "1" if you strongly disagree that this is like you, the "2" if you somewhat disagree that this is like you, "3" if you neither agree nor disagree that this is like you, the "4" if you somewhat agree that this is like you, and the "5" if you strongly agree that this is like you. There are no right or wrong answers. Please give the response that best describes you.

1=strongly disagree; 2=somewhat disagree; 3=neither agree nor disagree
4=somewhat agree; 5=strongly agree

Table A1: Assessing Emotions Scale items

S. No.	Item	Score
1	I know when to speak about my personal problems to others.	1 2 3 4 5
2	When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	1 2 3 4 5
3	I expect that I will do well on most things I try.	1 2 3 4 5
4	Other people find it easy to confide in me.	1 2 3 4 5
5	I find it hard to understand the non-verbal messages of other people.	1 2 3 4 5
6	Some of the major events of my life have led me to re-evaluate what is important and not important.	1 2 3 4 5
7	When my mood changes, I see new possibilities	1 2 3 4 5
8	Emotions are one of the things that make my life worth living.	1 2 3 4 5
9	I am aware of my emotions as I experience them.	1 2 3 4 5
10	I expect good things to happen.	1 2 3 4 5
11	I like to share my emotions with others.	1 2 3 4 5
12	When I experience a positive emotion, I know how to make it last.	1 2 3 4 5
13	I arrange events others enjoy.	1 2 3 4 5
14	I seek out activities that make me happy.	1 2 3 4 5
15	I am aware of the non-verbal messages I send to others.	1 2 3 4 5
16	I present myself in a way that makes a good impression on others.	1 2 3 4 5
17	When I am in a positive mood, solving problems is easy for me.	1 2 3 4 5

18	By looking at their facial expressions, I recognize the emotions people are experiencing.	1 2 3 4 5
19	I know why my emotions change.	1 2 3 4 5
20	When I am in a positive mood, I am able to come up with new ideas.	1 2 3 4 5
21	I have control over my emotions.	1 2 3 4 5
22	I easily recognize my emotions as I experience them.	1 2 3 4 5
23	I motivate myself by imagining a good outcome to tasks I take on.	1 2 3 4 5
24	I compliment others when they have done something well.	1 2 3 4 5
25	I am aware of the non-verbal messages other people send.	1 2 3 4 5
26	When another person tells me about an important event in his or her life, I almost feel as though I experienced this event myself.	1 2 3 4 5
27	When I feel a change in emotions, I tend to come up with new ideas.	1 2 3 4 5
28	When I am faced with a challenge, I give up because I believe I will fail.	1 2 3 4 5
29	I know what other people are feeling just by looking at them.	1 2 3 4 5
30	I help other people feel better when they are down.	1 2 3 4 5
31	I use good moods to help myself keep trying in the face of obstacles.	1 2 3 4 5
32	I can tell how people are feeling by listening to the tone of their voice.	1 2 3 4 5
33	It is difficult for me to understand why people feel the way they do.	1 2 3 4 5

Appendix - B

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. You will be asked to indicate how often you felt or thought a certain way in each case. Although some of the questions are similar, there are differences between them, and you should treat each one as a separate question. The best approach is to answer each question reasonably quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate. For each question, choose from the following alternatives:

0. Never 1. Almost never 2. Sometimes 3. Fairly often 4. Very often

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you could not control the essential things in your life?
3. How often have you felt nervous and "stressed" in the last month?
4. In the last month, how often have you dealt successfully with irritating life hassles?
5. In the last month, how often have you felt that you were effectively coping with significant changes that were occurring in your life?
6. In the last month, how often have you felt confident about your ability to handle your personal problems?

7. In the last month, how often have you felt that things were going your way?
8. In the last month, how often have you found that you could not cope with all the things you had to do?
9. In the last month, how often have you been able to control irritations in your life?
10. In the last month, how often have you felt that you were on top of the thing?
11. In the last month, how often have you been angered because of things that happened that were outside of your control?
12. In the last month, how often have you found yourself thinking about things you have to accomplish?
13. In the last month, how often have you been able to control the way you spend your time?
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Appendix – C

Coping Self-efficacy Scale

When things aren't going well for you, or when you're having problems, on a scale from 0 to 10 where 0 ('cannot do at all'), 5 ('moderately certain can do') and 10 ('certainly can do'), how confident or sure are you that you can do the following:

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Break an upsetting problem down into smaller parts.

Sort out what can be changed and what cannot be changed

Make a plan of action and follow it when confronted with a problem

Leave options open when things get stressful

Think about one part of the problem at a time

Find solutions to your most difficult problems

Resist the impulse to act hastily when under pressurize

Try other solutions to your problems if your first solutions don't work

Talk positively to yourself

Stand your ground and fight for what you want

See things from other person's point of view during a heated argument –

Develop new hobbies or recreations

- (Usage of problem-focused coping)
- Make unpleasant thoughts go away
- Take your mind off unpleasant thoughts
- Stop yourself from being upset by unpleasant thoughts
- Keep from feeling sad
- Keep from getting down in the dumps
- Look for something good in a negative situation
- Keep yourself from feeling lonely
- Visualize a pleasant activity or place
- Pray or meditate
- (Stop unpleasant emotions and thoughts)
- Get friends to help you with the things you need
- Get emotional support from friends and family
- Make new friends
- Do something positive for yourself when you are feeling discouraged
- Get emotional support from community organizations or resources
- (Get support from friends and family)

Table 1: Descriptive statistics with Alpha Coefficients

Variables	Mean	Standard Deviation	Range	Alpha
Perceived Stress Scale Score	29.25	9.07	12 - 50	.79
Coping Self-Efficacy Scale Score	179.70	29.98	75 - 246	.87
Assessing Emotions Scale Score	123.45	15.32	67 - 153	.85

Table 2: Results of Two-Step Hierarchical Multiple Linear Regression for predicted Perceived Stress level

Variables	β (Beta)	t	sr^2	R	R ²	ΔR^2
First Step				0.213	.056	.046
Coping Self-Efficacy	-0.065	-0.719				
Emotional Intelligence	-0.183	-2.010				
Second Step				0.306	.094	.048
Coping Self-Efficacy	1.273	2.439				
Emotional Intelligence	0.746	2.028				
Interaction Effect	-1.874	-2.603				

Figure 1: The Proposed Model

