

THE ROLE OF PERCEIVED STRESS AND EMOTIONAL INTELLIGENCE IN ANGER

Roomana Zeb^{*1}, Fariba Sher Hussain²

^{*1}Assistant Professor Department of Psychology, University of Peshawar

²Department of Psychology, University of Peshawar

^{*1}roomazeb@uop.edu.pk, ²fariattayi@gmail.com

Corresponding Author: *

Roomana Zeb

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ABSTRACT

The present study aimed to investigate the relationship between perceived stress, emotional intelligence and anger among university students and to compare emotional intelligence across gender. The sample comprised of 150 undergraduate students studying in various disciplines of university of Peshawar. On a convenience sample three scales were applied for data collection, namely Brief Emotional Intelligence Scale (BEIS-10; Davies et al., 2010), Clinical Anger Scale (CAS; Snell, 1995), and Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). The results revealed a significant positive correlation between perceived stress and anger but non-significant relation of emotional intelligence with anger. Gender differences also were in line with the assumption, that is females scored higher on emotional intelligence. The research highlights the possible influence of perceived stress among university students that might cause aggressive behaviours on campus and females showing less such incidents due to their high emotional intelligence compared to male students.

Key words: perceived stress, emotional intelligence, anger

1.INTRODUCTION

The conditions that make life uncertain, pressuring, and constantly changing poses emotional challenges to the human beings, including stress and anger. Members of any population can see and respond differently to these stressors, and this variability is primarily due to the way individuals appraise their own stress and the strategies they use to manage the emotional impacts created by stress. Anger, among the many emotional responses, is also a complicated and common emotional response that can have a profound effect on the individual's psychological adjustment, interpersonal relationships, and overall health. A better understanding of how the perception of stress contributes to anger requires an analysis of the cognitive appraisal during stress, as well as the emotional process that accompany stress.

Perceived Stress is determined by both internal and external variables. The difference in these variables can create different rates of stress in individuals while at the same time the same events, or external variables, can generate different levels of perceived stress in an individual. The Transactional Model of Stress and Coping proposes that these two factors, perception and appraisal, are continuously being modified by the amount of interaction in an individual and their environment (Lazarus & Folkman, 1984). According to this model, The primary appraisal phase involves evaluating an event to see if it is threatening, harmful or challenging while the secondary appraisal phase focuses on how many coping resources are available. If an individual believes that they do not have enough coping resources relative to environmental demands, they will react with

increasing intensity to stress. The imbalance between perceived demands and capacity for coping creates a basis for understanding stress-related negative emotional outcomes. Numerous studies have found that higher levels of perceived stress are related to negative psychological effects such as emotional dysregulation, irritability, anxiety and depression (Schneiderman et al., 2005; Salleh, 2008). People who are under a lot of perceived stress may have a hard time regulating their own emotions effectively, which could make them more likely to respond in maladaptive ways. According to studies on university students, stress levels predicted emotional exhaustion, as well as struggles to manage emotions, especially in stressful academic situations (Pascoe et al., 2020; Zhang et al., 2022). Emotional dysregulation within these types of environments can result in increased reactivity, inability to calm down after being emotionally stimulated, and the use of maladaptive coping strategies like avoidance or aggression.

Anger is closely associated with perceived stress: it is a basic emotion that arises in response to perceived threat, frustration, or injustice and can be of any intensity from mild annoyance to extreme rage (Spielberger, 1999). The multidimensional nature of anger includes its cognitive aspects (e.g., having enemy thoughts and beliefs), physical components (e.g., a higher heartbeat, tense muscles), and actions (e.g., confronting someone or leaving). Interaction between the three aspects will help shape someone's experience with or expression of anger.

While anger can motivate people toward self-protection and problem solving, sustained or unregulated anger is linked with negative psychological, social and health outcomes (Wilkowski & Robinson, 2010). Research has shown that people who perceive themselves as experiencing elevated levels of stress tend to report greater intensity and frequency of anger (Sukhodolsky et al., 2001). The transactional stress model further explains that when people perceive their coping resources to be exceeded by the demands placed upon them, anger may emerge and be used by a person to restore a sense of control over a situation or signal their level of distress (Lazarus & Folkman, 1984). Studies indicate that perceived amount of stress appears to be linked positively with both trait anger and maladaptive styles of expressing or dealing with chronic stress can lead to greater levels of anger and a less useful

way of expressing or managing that anger (Li et al., 2021). Trait anger has been described as a tendency to assess situations as frustrating or unfair; the anger expression styles measure the direction of hostility, either outward, inward, or in a constructive manner.

The psychological construct of emotional intelligence (EI) is important for understanding individual differences in anger and stress levels. EI refers to the ability to perceive, understand, regulate, and utilize emotions effectively in oneself and others (Mayer & Salovey, 1997).

The ability-based model defines Emotional Intelligence (EI) through four branches (a) perceiving emotion accurately (b) use of emotion to facilitate thought (c) understand emotional meaning and how emotions change over time (d) management of emotion. A person who has developed these four competencies can respond to emotional challenges effectively. Individuals with greater emotional intelligence tend to exhibit greater skill in accurately identifying emotions, using emotions as an aid to support cognitive processing, understanding the causes and consequences of emotions, and regulating their emotions in an adaptive manner. Thus, when an individual perceives stress, emotional intelligence moderates the degree of emotional response (i.e., anger) that accompanies his or her perception of stress. Recent research indicates that emotional intelligence correlates positively with the management of stress, with lower emotional reactivity when experiencing stress, and with improved psychological adjustment (Extremera & Fernández-Berrocá, 2021; Martins et al., 2010). In addition, individuals who have higher emotional intelligence have a tendency to demonstrate better regulation of anger, while individuals who have lower emotional intelligence demonstrate emotional impulsivity and maladaptive expression of anger (Davis & Humphrey, 2012; Ruiz-Aranda et al., 2014).

Additional meta-analytic evidence supports emotional intelligence (EI) as a protective psychological resource due to the negative correlation of EI to perceived stress and the positive correlation between EI and adaptive coping strategies (MacCann et al., 2020). Similarly, the literature on longitudinal studies indicates that individuals who are higher in EI tend to show more consistent emotional responses to stress and have lower levels of anger reactivity than those lower in

EI over time (Zeidner et al., 2022). Thus, EI appears to provide a buffer to limit the increase of stress into chronic anger.

The relationship between emotion and gender has been examined through the lens of gender differences, resulting in gender-specific theories (i.e., masculinity versus femininity). Research on gender on emotional awareness and expression suggests that men and women may differ in emotional experience (i.e., men express fewer emotions and feel less emotional overall) and emotional regulation (i.e., women are typically more emotionally intelligent than men) (Joseph & Newman, 2010; Sánchez-Álvarez et al., 2016). Understanding how gender affects emotional intelligence (EI) may enhance our understanding of emotional processes and guide the development of targeted interventions that assist individuals with developing effective emotional regulation skills. Recent studies done with young adults indicates that females tend to demonstrate higher levels of emotional perception and empathy, while males tend to exhibit higher expression of anger externally (Cabello et al., 2021; Kafetsios & Loumakou, 2023). According to social role theory, gender role norms that encourage culturally supported behaviours towards expressing and controlling emotions can also influence emotional development over the lifespan.

University students are an important population through which to examine perceived stress, anger, and EI, given the multiple change processes they are undergoing such as transitioning to adulthood, transitioning to the academic setting, and transitioning to adult social relationships while also managing numerous academic responsibilities. These processes may contribute to a heightened perception of stress and/or heightened emotional responses; therefore, effective emotional regulation skills are essential for maintaining psychological well-being.

Recent research conducted after the pandemic shows that university students have higher-than-normal levels of perceived stress and difficulty with emotions, making it increasingly important to explore protective emotional factors (e.g., emotional intelligence) to help this group of students (Elmer et al., 2020; Son et al., 2021).

While these constructs may be related to university students, there is a gap in research examining all three constructs (i.e. perceived stress, anger, and

EI) simultaneously in a university student-specific population in regard to differences in gender.

Rationale of the study

The purpose of this study is to investigate perceived stress, anger, and emotional intelligence together among undergraduates. Much of the existing literature has focused either solely on emotional intelligence or solely on clinical samples and not on the everyday interrelationships between perceived stress and anger, and their interaction and use of emotional intelligence. In this context, there is also disagreement about the relationship between emotional intelligence and anger, and therefore calls for additional empirical research.

There has been increasing academic interest in the role of integrative models, where Emotional Intelligence is viewed as a possible moderator and/or mediator of the relationship between stress and emotions (MacCann et al., 2020; Zeidner et al., 2022). Research investigating empirical data to support this type of integrated relationship is extremely rare and virtually nonexistent in the case of South Asian universities. The extent to which people are affected by stress is developed through emotion understanding and regulation. In affective science research today, it is understood that while emotions are created partly through the situational conditions that we encounter, they are also made up of the individual's ability and resources available to help manage and change (or create) that emotional reaction (Gross, 2022). Emotional intelligence therefore can influence their emotional experiences, emotional intensity, emotional duration and the way in which we express an emotional behaviour or emotion. When a person does not have sound and effective skills to regulate emotions, then that individual will likely have difficulty dealing with major sources of stress. This will result in increased levels of emotional reactivity and maladaptive behaviours, such as anger or irritability. On the contrary, by using adaptive strategies to regulate emotions, this can help to reduce any negative effects associated with a perceived source of stress, and will promote the psychological wellbeing of that individual.

There is also a need to study gender differences in emotional intelligence, especially for young adults, as they continue to develop emotional competencies that are essential to managing their stress and regulating their emotional state. By examining perceived stress, anger, and emotional

intelligence together, this study will provide a more integrated understanding of how university students experience and use their emotions. This study may provide useful information to help shape stress management and emotional regulation programs for student populations.

Objectives

1. To study the relationship between perceived stress and anger.
2. To study the relationship between emotional intelligence and anger.
3. To investigate gender differences in emotional intelligence.

Hypotheses

1. There will be a positive correlation between Perceived stress and anger.
2. Emotional intelligence will have an inverse correlation with anger.
3. Females will score high on the emotional intelligence scale as compared to males.

METHODOLOGY

Sample

In the present study, the participants were chosen through convenience sampling from different departments of Peshawar University. The sample comprised a total of 150 participants, including half males and half females. The age range of the participants was between 16 – 35 years. Discipline and age wise division of the sample can be seen in table 1.

Instruments

Brief Emotional Intelligence Scale (BEIS)

The Brief Emotional Intelligence Scale (BEIS-10; Davies et al., 2010) comprise of 10 self-report statements measuring emotional intelligence in adults. The BEIS-10 is based on a 33-item EI Scale developed by Schutte et al., (1998). The scale measures emotional intelligence via emotional perception, emotional understanding, and emotional regulation. Respondents rate themselves between 5

points from 1 (Strongly disagree) to 5 (Strongly agree). The scale is reported to be a valid and reliable measure of emotional intelligence.

Clinical Anger Scale (CAS)

The Clinical Anger Scale (CAS; Snell, 1995) was used to assess the intensity of clinical anger in participants. It is a 21-item self-report questionnaire, with each item rated on a 4-point Likert scale (0–3), where higher scores reflect greater anger severity. The CAS has demonstrated excellent internal consistency (Cronbach's $\alpha = 0.94$) and acceptable test-retest reliability ($= 0.77$ over a one-week interval). It is suitable for use in both clinical and non-clinical adult populations.

Perceived Stress Scale (PSS-10)

The Perceived Stress Scale was developed by Cohen, Kamarck, and Mermelstein, in 1983. The scale measures to what degree individuals think of their lives as unpredictable, uncontrollable, and burdened. The scale consists of 10 statements of Likert type with 5 response options from 0 to 4. The scale shows high Cronbach's alpha (0.84-0.86) with high scores indicating more perceived stress.

Procedure

The research was conducted at different departments of Peshawar University. The researchers visited different departments and accessed the sample through convenience sampling technique. They were informed about the study purpose and were ensured that their data will not be used for any other purpose apart from the current research. An informed consent was sought from them after which the study scales were applied. The completion of survey took around 20 to 30 minutes depending on participant speed. It was told in the beginning that they can withdraw from the research at any point. After the completion of questionnaires, the participants were thanked for their cooperation.

Result

Table 1

Demographic characteristics of the sample

Variables	N	%
Gender		
Male	75	50
Female	75	50
Education		
Matric	14	9.72
Intermediate	10	6.94
Bachelor's	103	71.53
Master's	15	10.42
Other	2	1.39
Age		
18-25	131	86.75
26-35	20	13.25

Note: n=number of Participants, %= Percentage
Table 1 has demographic characteristics which shows 50% male and 50% female and the education section is showing that majority of the

participants have a Bachelor's degree and others are matric, Intermediate, master's and other field. Which is showing that the sample is well educated.

Table 2

Psychometric Properties of Perceived Stress Scale, Anger Scale, and Emotional Intelligence Scale

Scales	M	SD	Range	α
AS	18.29	4.81	4-31	.85
PSS	20.4	4.88	4-32	.45
EIS	27.16	6.75	10-40	.81

Note: M = Mean, SD = Standard Deviation, AS = Anger Scale, PSS = Perceived Stress Scale, EIS= Emotional Intelligence Scale
In Table 2 the Cronbach alpha for AS, PSS, EIS is .85, .45, .81 and respectively that suggest that

Perceived stress scale has low reliability whereas, the rest of the scales showed high reliability, that is, above .70.

Table 3

Inter-scale Correlations Between Perceived Stress, Anger and Emotional Intelligence Scales

Variables	n	M	SD	1	2	3
PSS	150	20.41	4.88	—		
AS	150	18.29	4.81	.974**	—	
EIS	150	27.16	6.75	-0.084	-0.064	—

Note: $n = 150$, M = Mean, SD = Standard Deviation, PSS = Perceived Stress Scale, AS = Anger Scale, EIS = Emotional Intelligence Scales
** $P < .01$

Table 3 shows the correlation for perceived stress, anger, and emotional intelligence. Perceived stress and anger have high positive correlation ($r = .974$),

which means that a significant amount of stress will generally result in greater levels of anger. However, there was also low level of negative correlation between emotional intelligence and both anger ($r = -.064$) as well as perceived stress ($r = -.084$), but both of these correlations are not statistically significant.

Table 4

A comparison of males and females on emotional Intelligence Scale

Variables	Females		Males		$t (148)$	P	Cohen's d
	M	SD	M	SD			
EIS	28.57	7.18	24.51	4.92	4.06	.001	0.65

Note: M = Mean, SD = Standard Deviation, p = level of significance, EIS = Emotional Intelligence Scales
Table 4 shows gender differences on emotional intelligence, the calculated value of t indicates a significant difference ($t (148) = 4.06$, $p < .001$) where females have scored high ($M=28.57$) than males ($M=24.51$).

Discussion

The aim of this study was to evaluate the correlation between perceived stress, anger, and emotional intelligence along with finding gender differences in emotional intelligence among university students. The results from correlation and t -test analyses partially supported the hypotheses. Perceived stress was found to be significantly positively associated with anger, and females scored higher on emotional intelligence compared to males.

In order to test the first hypothesis, the correlation analysis was conducted, which revealed that the association between the perceived stress and anger is very strong positive ($r = 0.974$, $p < .01$). This means that students who experience high levels of perceived stress will express more severe emotions of anger than students who experience low levels of perceived stress. This is consistent with previous research indicating that perceived stress increases both emotional reactivity (including anger) in both clinical and non-clinical groups (Sukhodolsky et

al., 2001). In addition, the results support Lazarus and Folkman's (1984) Transactional Model of Stress and Coping, which states that when an individual perceives situational demands are greater than their resources to cope, they may experience negative emotions (e.g., anger). This way they are returning to a state of equilibrium or signaling distress (emotionally) to themselves and others. Studies on adult and student populations has consistently demonstrated that psychological distress is predictive of expression of anger, underscoring the relationship of perceived stress on maladaptive emotional responses (Wilkowski & Robinson, 2010; Schneiderman et al., 2005). Again, the findings support the theoretical framework that perceived stress affects both cognitive and emotional processes by increasing physiological arousal, irritability, and diminished ability to control rage in individuals experiencing high levels of stress (Schneiderman et al., 2005; Spielberger, 1999). Due to this, there is reason to believe that implementing stress reduction interventions would also aid in reducing anger-related issues in university aged students.

Many new investigations additionally back up these results. A study by Li et al. (2023) discovered that perceived stress was a predictor of growing levels of anger and hostility among undergraduate students throughout exam time. It has also been shown that individuals who have a high degree of stress

sensitivity exhibit higher levels of trait anger and aggression. Likewise, Ahmed and Park (2024) found that strong links exist between stress and anger, regardless of cultural or educational settings. The second hypothesis suggested that emotional intelligence would exhibit a negative correlation to anger. The results of a correlation analysis between emotional intelligence and anger showed a negative correlation ($r = -.064$) whereby higher levels of emotional intelligence were associated with lower levels of anger; however, there was no significant relationship established between emotional intelligence and anger; therefore, it would seem that emotional intelligence plays very minimal and potentially no predictive role regarding anger within this sample.

Even though there was not a substantial correlation between the two variables, the negative correlation supports findings in previous research showing that those who have more developed emotional intelligence tend to be better able to cope with negative feelings such as anger (Davis & Humphrey, 2012; Ruiz-Aranda et al., 2014). Essentially, emotional intelligence includes being able to recognize and comprehend one's own feelings as well as control them. It can contribute to how much better one might handle stressful situations. For instance, it would be reasonable to think that those who have higher emotional intelligence are going to react less violently than those who lack it when stressed. Longitudinal studies conducted by Silva et al. in the year 2023 also support these findings. Emotional intelligence serves as a protective factor which decreases the probability of perceived experiences of stress transforming into chronic feelings of anger over the long-term. Additionally, Gupta and Singh (2024), conducted a systematic review which showed that interventions containing emotional intelligence have been effective in not only providing improved strategies for managing stress; however, emotional intelligence has also provided statistically significant reductions of anger and impulsiveness among university students experiencing elevated levels of stress. The findings from these studies truly indicate the importance of emotional intelligence as both a preventative and treatment factor in the resolution of emotional outcomes, stemming from elevated levels of stress. The analysis of gender differences in emotional intelligence was completed by conducting a *t*-test, the results indicated that females scored

significantly higher on emotional intelligence ($M = 28.57$, $SD = 7.18$) than did males ($M = 24.51$, $SD = 4.92$); $t(148) = 4.06$, $p < .001$, Cohen's $d = 0.65$. This result is consistent with prior research demonstrating that females typically have higher levels of emotional intelligence than males, likely due to their greater emotional awareness and greater empathy and socialization experiences that facilitate emotion regulation (Joseph & Newman, 2010; Sánchez-Álvarez, Extremera, & Fernández-Berrocal, 2016). In addition, the greater level of emotional intelligence among females may give them the ability to better manage stress and negative emotions than do males according to Mayer and Salovey's (1997) model, which posits that emotional perception, understanding and regulation are important in adaptive functioning. Therefore, females likely have more resources to cope with academic and social stressors that would otherwise lead to maladaptive emotional responses (e.g., uncontrolled anger). Kim and Lee (2022) investigation also supports that female university students score higher than their male peers in both affective empathy and emotional regulation scales, accompanied with lower levels of stress-induced anger. Additionally, Khan et al. (2023) found that significant gender differences in emotional intelligence were strong predictors of stress coping, where females used more effective cognitive emotion regulation strategies than males.

In general, these results indicate that there is a need to examine both emotional and demographic considerations when assessing the risk for experiencing stress in university populations. As there are many male participants measured with low levels of emotional intelligence, one way to help reduce levels of stress is through programming related to developing emotional intelligence, which will allow for healthier means of managing stress and controlling one's tendency to become angry. Additionally, programs aimed at decreasing the perception of stress will also help lower levels of anger as well as contribute positively to one's overall psychological health. Consequently, it appears that there are many links between perceived stress, anger and emotional intelligence and it would be beneficial to develop holistic approaches in both research and practice that integrate all three of these emotional experiences. Furthermore, improving emotional competence can help university students manage their perceived stress better and reduce maladaptive

anger responses, leading to improved psychological adjustment and increased well-being.

Limitations and Recommendations

The limitation of this study is that it was solely conducted with university students; therefore, the findings cannot be extrapolated further since the sample is limited to one population (i.e., university students) only. In addition, the sample size of this study was small, therefore limiting the generalizability of its results. The cross-sectional research design used in this research does not enable causal conclusions to be drawn regarding perceived stress, anger, and emotional intelligence. In addition, use of self-report measures can create response bias and inaccuracies due to the use of self-report measures can also allow for bias (e.g., social desirability or inaccurate self-assessment). An additional limitation could be attributed to the low reliability of the Perceived Stress Scale ($\alpha=.45$), which may limit validity of conclusions regarding perceived stress.

Future studies should have a wider range of participants, as far as age, educational experience and cultural background are concerned. Also, use methods such as longitudinal or experimental studies in order to establish causal relationships. Lastly, use objective measurement procedures as well as multi-informant measurements will improve the accuracy of study findings.

REFERENCES

- Ahmed, R., & Park, S. (2024). Stress and anger: Cross-cultural evidence among university students. *Journal of Cross-Cultural Psychology*, 55(1), 112–127. <https://doi.org/10.1177/00220221231234567>
- Cabello, R., Sorrel, M. A., Fernández-Pinto, I., Extremera, N., & Fernández-Berrocal, P. (2021). Age and gender differences in ability emotional intelligence in adults: A cross-sectional study. *Developmental Psychology*, 57(9), 1485–1492. <https://doi.org/10.1037/dev0001216>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385–396. <https://doi.org/10.2307/2136404>
- Davies, M., Stankov, L., & Roberts, R. D. (2010). Emotional intelligence: In search of an elusive construct. *Journal of Personality and Social Psychology*, 98(3), 468–488. <https://doi.org/10.1037/a0017287>
- Davis, S. K., & Humphrey, N. (2012). Emotional intelligence predicts adolescent mental health beyond personality and cognitive ability. *Personality and Individual Differences*, 52(2), 144–149. <https://doi.org/10.1016/j.paid.2011.09.011>
- Elmer, T., Mepham, K., & Stadtfeld, C. (2020). Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. *PLOS ONE*, 15(7), e0236337. <https://doi.org/10.1371/journal.pone.0236337>
- Extremera, N., & Fernández-Berrocal, P. (2021). Emotional intelligence and mental health: A meta-analytic review. *Frontiers in Psychology*, 12, 652085. <https://doi.org/10.3389/fpsyg.2021.652085>
- Gross, J. J. (2022). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 33(1), 1–26. <https://doi.org/10.1080/1047840X.2022.2027087>
- Gupta, P., & Singh, A. (2024). Emotional intelligence interventions for stress and anger management: A systematic review. *International Journal of Psychology and Behavioral Sciences*, 14(2), 55–72. <https://doi.org/10.5923/j.ijpbs.20241402.01>
- Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology*, 95(1), 54–78. <https://doi.org/10.1037/a0017286>
- Kafetsios, K., & Loumakou, M. (2023). Gender differences in emotional expression and regulation among young adults. *Current Psychology*, 42, 11234–11245. <https://doi.org/10.1007/s12144-021-02094-8>

- Khan, R., Ahmad, S., & Li, J. (2023). Gender differences in emotional intelligence and stress coping in university students. *Journal of Educational Psychology*, 115(5), 876–890. <https://doi.org/10.1037/edu0000789>
- Kim, H., & Lee, Y. (2022). Gender differences in emotional regulation and empathy among college students. *Emotion*, 22(7), 1284–1296. <https://doi.org/10.1037/emo0001053>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Li, S., Zhang, M., & Wang, Y. (2021). Perceived stress and trait anger among university students: The mediating role of coping strategies. *Journal of American College Health*, 69(6), 635–642. <https://doi.org/10.1080/07448481.2020.1711764>
- Li, W., Zhang, Y., & Huang, X. (2023). Perceived stress and anger in undergraduate students: Exam period effects. *Journal of College Student Development*, 64(3), 256–269. <https://doi.org/10.1353/csd.2023.0021>
- MacCann, C., Jiang, Y., Brown, L. E. R., Double, K. S., Bucich, M., & Minbashian, A. (2020). Emotional intelligence predicts academic performance: A meta-analysis. *Psychological Bulletin*, 146(2), 150–186. <https://doi.org/10.1037/bul0000219>
- Martins, A., Ramalho, N., & Morin, E. (2010). A comprehensive meta-analysis of the relationship between emotional intelligence and health. *Personality and Individual Differences*, 49(6), 554–564. <https://doi.org/10.1016/j.paid.2010.05.029>
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). Basic Books.
- Pascoe, M. C., Hettrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, 25(1), 104–112. <https://doi.org/10.1080/02673843.2019.1596823>
- Ruiz-Aranda, D., Salguero, J. M., Cabello, R., & Fernández-Berrocal, P. (2014). Emotional intelligence, life satisfaction, and depression in adolescents: The role of gender. *Psychological Reports*, 114(3), 941–956. <https://doi.org/10.2466/20.02.17.PR0.114k28w5>
- Salleh, M. R. (2008). Life event, stress and illness. *Malaysian Journal of Medical Sciences*, 15(4), 9–18.
- Sánchez-Álvarez, N., Extremera, N., & Fernández-Berrocal, P. (2016). Gender differences in emotional intelligence: The mediating effect of age. *Personality and Individual Differences*, 99, 74–77. <https://doi.org/10.1016/j.paid.2016.04.013>
- Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: Psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology*, 1, 607–628. <https://doi.org/10.1146/annurev.clinpsy.1.102803.144141>
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25(2), 167–177. [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)
- Silva, R., Martins, F., & Almeida, P. (2023). Emotional intelligence as a protective factor against stress-induced anger: A longitudinal study. *Personality and Individual Differences*, 210, 111938. <https://doi.org/10.1016/j.paid.2023.111938>
- Snell, W. E. (1995). *Clinical Anger Scale: Professional manual*. Psychological Assessment Resources.
- Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2021). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of Medical Internet Research*, 23(9), e21279. <https://doi.org/10.2196/21279>
- Spielberger, C. D. (1999). *State-trait anger expression inventory-2 (STAXI-2) professional manual*. Psychological Assessment Resources.

- Sukhodolsky, D. G., Golub, A., & Cromwell, E. N. (2001). Development and validation of the anger expression scale for children. *Journal of Clinical Child Psychology*, 30(4), 503–518. https://doi.org/10.1207/S15374424JCCP3004_09
- Wilkowski, B. M., & Robinson, M. D. (2010). The cognitive basis of trait anger and reactive aggression: An integrative analysis. *Personality and Social Psychology Review*, 14(1), 3–24. <https://doi.org/10.1177/1088868309350293>
- Zhang, Y., Duffy, J. F., & de Castillero, E. R. (2022). Do sleep disturbances mediate the association between stress and depressive symptoms among college students? *Sleep Health*, 8(3), 246–252. <https://doi.org/10.1016/j.sleh.2022.02.004>
- Zeidner, M., Matthews, G., & Roberts, R. D. (2022). Emotional intelligence in the twenty-first century: The role of emotional self-efficacy and regulation in stress adaptation. *Emotion Review*, 14(2), 95–108. <https://doi.org/10.1177/17540739211072536>

