

Stressor Types and Stress Levels Among Grade 10 Students of BAC-DA National High School: Basis for an Intervention Program

Lyka O. Lim

Master of Arts in Education Student, Apayao State College

Abstract

This study investigates the various stressors and stress levels among Grade 10 students at BAC-DA National High School. It identifies environmental factors as the most significant contributors to student stress, followed closely by academic and intrapersonal relationship stressors, with physical stressors being less influential. The research highlights that sleep problems, parental expectations, and deadline pressures are key sources of distress. Results indicate that a considerable proportion of students experience moderate to severe stress, with environmental concerns, such as safety and noise, markedly impacting their well-being. The findings emphasize the need for comprehensive stress management interventions, including school-based programs, parental support, and environmental improvements. Addressing these stressors is vital to enhance students' mental health, academic performance, and overall resilience. The study underscores the importance of a collaborative approach involving educators, parents, and the community to develop effective strategies for reducing stress and promoting healthier coping mechanisms among adolescents.

Keywords: Stress, Physical Stressor, Interpersonal Relationship, Academic Stressors, Environmental Stressors, Intervention Program

Introduction

The world seems to be a heavyweight for every person who is experiencing stress, irrespective of age, gender, race, religion, skin color, and citizenship. Financial difficulties, along with personal, social, or health challenges, can impact one's awareness of stress. When a person perceives a situation as threatening or hazardous, he may experience stress ^[1]. The dominating incidence of life, the uncontrolled workload, lack of support from families and friends, and physical and psychological aspects are several factors that can contribute to stress and diminish individual morale ^[2, 3, 4]. The World Health Organization (WHO) defines stress as "a common reaction to excessive demands that exceed one's resources ^[5]. Long-term stress exposure can result in undesirable effects such as anxiety, despair, and burnout. Stress may appear in the school context in a variety of ways, including diminished motivation, poor academic performance, and absenteeism.

High School students of today are usually burdened with remarkable concerns. To be more exact, it is a decisive phase when the necessary measures are taken to allow students to make their own subject choices based on their preferences and talents. They experience stress due to academic pressure, social responsibilities, and the challenges of transitioning to adulthood. Research shows that stress is a

significant global issue, with approximately 264 million people worldwide struggling with it ^[6]. A survey by Headspace revealed that 38% of teenagers aged 15- to 17-year-old, mere reported to have high stress levels, indicating that this age group experiences the highest stress levels ^[7]. Studies from various countries have shown varying result on students' stress levels. For example, research from China found that 58.9% of High School students experienced moderate to high stress, mainly due to academic workload and success stress ^[8]. In addition, a study in Kerala reported that 78% of High School students experienced minimal stress, with only a small percentage experiencing high stress levels ^[9].

Stress is an extensive experience that can affect individuals of all ages and backgrounds. It occurs when the demands placed on an individual surpass their ability to cope, leading to tension, anxiety, and emotional strain. While it can drive personal development, excessive or chronic stress can have significant consequences for mental and physical well-being. It includes physical, interpersonal, academic, and environmental factors.

Physical stressors like inadequate exercise, poor sleep quality, and sedentary lifestyles can increase stress hormones like cortisol ^[10]. It can significantly contribute to the development of stress among adolescents, especially High School students. In addition, health conditions like chronic pain and gastrointestinal disorders can also contribute to stress ^[11]. Moreover, the American Psychological Association (APA) found that in 2020, 64% of teenagers mere reported to have feeling stressed due to physical factors such as lack of sleep, physical activity, and nutrition ^[12].

Interpersonal relationships such as conflicts with family, friends, and love partners can result in anxiety and sadness that causes stress. These stressors may worsen through loss of communication and insufficient social support ^[13]. In recent study, social support networks, communication styles, and conflict resolution approaches can all be sources of stress in interpersonal relationships ^[14]. Furthermore, unresolved interpersonal problems might raise cortisol levels, a stress-related hormone ^[15].

Academic pressures can also be a significant cause of stress, as the need to perform well, manage multiple assignments, and meet deadlines can lead to anxiety and burnout among students ^[16].

Environmental factors can also cause stress particularly in metropolitan areas, such as different types of pollution and poor environmental sanitation ^[17]. Studies showed that while being in an urban setting might raise levels of stress and on the other hand being in a natural setting can have a calming impact on the body and mind ^[18].

Adolescents frequently experience stress, and it can significantly impact their physical, emotional, and mental health. In the Philippines, the academic demands, social pressures, and financial worries faced by students can add to their level of stress. Particularly, Grade 10 students are at a point in their education where they are preparing and making significant decisions regarding their future. This problem doesn't exclude BAC-DA National High School. This study is crucial for understanding stress levels and stressors and addresses the lack of existing studies on this topic. Moreover, it aims to address this gap by investigating the types and levels of stress experienced by these students. The result of this study was utilized to develop an intervention program to reduce stress levels and promote mental health awareness among Grade 10 students of BAC-DA National High School.

Statement of the Problem

The purpose of this study is to investigate the stressor types and stress levels among Grade 10 students of BAC-DA National High School.

Specifically, it sought to answer the following:

1. What are the different types of stressors experienced by the Grade 10 students of BAC-DA National High School?
2. What are the levels of stress experienced by Grade 10 students of BAC-DA National High School?
3. What interventions can be developed based on the findings of this study to aid students in reducing their levels of stress?

Conceptual / Theoretical Framework

Various psychological theories can explain about stressors and level of stress experiences by High School students. Some of these theories are from the Yerkes-Dodson law, Lazarus and Folkman's stress theory and Bandura's self-efficacy theory.

The Yerkes-Dodson law states the relationship between stress and performance, implying that moderate arousal is ideal for optimal performance. It also states that the ideal arousal level is proportional to the task's difficulty. Simple tasks are best accomplished at greater arousal levels, whereas complicated ones are best performed at lower arousal levels. ^[19]

According to Lazarus and Folkman's stress theory, students evaluate stress based on their ability to manage it. With primary appraisal, stressful situations are appraised as involving harm or loss, threats, or challenges, while secondary appraisal assessing coping strategies such as problem-based coping entails addressing the basis of the issue, and emotional coping entails regulating emotional pain. ^[20]

According to Bandura's self-efficacy theory, positive identity structures are associated to academic achievement, with strong self-efficacy promoting more effort and persistence in interesting situations. Students with low self-efficacy are more likely to avoid task completion, whereas those with high academic self-efficacy are more likely to employ more effort and persist longer when confronted with difficulties. ^[21]

Coping mechanisms, self-efficacy beliefs, and social support also play a role. Educators and mental health professionals can use this knowledge to develop interventions that help students manage stress and enhance academic performance.

Significance of the Study

This study investigates the types of stressors and stress levels among grade 10 students at BAC-DA National High School. Its findings aim to benefit students by raising awareness of their stress levels, helping them understand different course-related perspectives, and encouraging the development of effective coping mechanisms to manage stress and pursue their goals despite academic challenges. Future researchers can use the results as a credible source for further studies on stress in various settings. School administrators can gain insights into students' stress, enabling them to implement programs that promote awareness, early intervention, and stress management strategies, including stress orientation and coping mechanisms. Additionally, the study seeks to identify protective factors that can reduce stress's impact, offering advice to enhance cognitive skills such as creativity, critical thinking, problem-solving, decision-making, and learning. Overall, the research provides a foundation for future work on stress management among students.

Research Method

This study used a quantitative approach to examine stressors and stress levels among Grade 10 students

at BAC-DA National High School in Bacsay, Luna, Apayao. A total of 66 students were randomly sampled from a population of 76. Data were collected through a validated questionnaire, including demographic info and a Student Stress Inventory (SSI) with 40 items rated on a scale from 'Never' to 'Always'. Scores indicated mild, moderate, or severe stress. Data analysis involved descriptive statistics and Likert-scale assessments of stressor influence and academic performance. Overall, the methodology ensured reliable collection and analysis of data on student stress factors.

Research Result

Stressor Types as Affecting the stress levels of Grade 10 Students

Table 1: Stressor Types as Affecting the stress levels of Grade 10 Students

| Indicators | | Weighted Mean | Descriptive Value | Transposed Value |
|--|--|---------------|--------------------------|---------------------------|
| Physical Stressor | | | | |
| 1. | Headaches | 2.48 | Somewhat Frequent | Slightly Influence |
| 2. | Back pain | 2.41 | Somewhat Frequent | Slightly Influence |
| 3. | Sleep problem | 2.67 | Frequent | Moderately Influence |
| 4. | Difficulty breathing | 1.98 | Somewhat Frequent | Slightly Influence |
| 5. | Excessive worry | 2.32 | Somewhat Frequent | Slightly Influence |
| 6. | Stomach pain/ nausea | 1.97 | Somewhat Frequent | Slightly Influence |
| 7. | Extreme fatigue | 2.17 | Somewhat Frequent | Slightly Influence |
| 8. | Sweaty hands | 2.65 | Frequent | Moderately Influence |
| 9. | Frequent cold/flu/fever | 2.11 | Somewhat Frequent | Slightly Influence |
| 10. | Drastic weight loss | 1.71 | Never | No Influence |
| | Over-all Weighted Mean | 2.25 | Somewhat Frequent | Slightly Influence |
| Intrapersonal Relationship Stressor | | | | |
| 11. | There is guilt in me for not fulfilling my parent’s hope. | 2.83 | Frequent | Moderately Influence |
| 12. | I have difficulties in expressing emotions to my parents, friends, and relatives | 2.77 | Frequent | Moderately Influence |
| 13. | My parents’ vision for my success lifts a pressure to my academic success. | 2.77 | Frequent | Moderately Influence |
| 14. | I have difficulties in getting academic help from | 2.33 | Somewhat | Slightly |

| | | | | |
|-------------------------------|--|-------------|--------------------------|---------------------------|
| | my friends. | | Frequent | Influence |
| 15. | I have difficulty dealing with my close friends/boyfriends / girlfriend. | 2.21 | Somewhat Frequent | Slightly Influence |
| 16. | I feel unimportant to my friends. | 2.12 | Somewhat Frequent | Slightly Influence |
| 17. | I feel ashamed to meet the lecturer | 2.18 | Somewhat Frequent | Slightly Influence |
| 18. | My families are not supportive | 1.67 | Never | No Influence |
| 19. | My teachers are not supportive | 1.67 | Never | No Influence |
| 20. | I have difficulties communicating with the school managements. | 2.59 | Frequent | Moderately Influence |
| | Over-all Weighted Mean | 2.32 | Somewhat Frequent | Slightly Influence |
| Academic Stressor | | | | |
| 21. | I'm having trouble mastering a difficult lesson | 2.67 | Frequent | Moderately Influence |
| 22. | I find difficult to juggle time between study and social activity | 2.44 | Somewhat Frequent | Slightly Influence |
| 23. | I feel nervous delivering the class Presentation | 2.89 | Frequent | Moderately Influence |
| 24. | I feel stressed as submission deadline neared | 2.91 | Frequent | Moderately Influence |
| 25. | I am not ready to sit for the examination | 2.56 | Frequent | Moderately Influence |
| 26. | I always come late to lectures/ classes | 1.85 | Somewhat Frequent | Slightly Influence |
| 27. | I loss interest towards academic | 1.88 | Somewhat Frequent | Slightly Influence |
| 28. | It is not easy for me to internalize my lessons | 2.44 | Somewhat Frequent | Slightly Influence |
| 29. | I easily give up on difficult subjects/tasks | 2.29 | Somewhat Frequent | Slightly Influence |
| 30. | I feel unsatisfied to my academic results | 2.53 | Frequent | Moderately Influence |
| | Over-all Weighted Mean | 2.45 | Somewhat Frequent | Slightly Influence |
| Environmental Stressor | | | | |
| 31. | I have a problem on the accessibility of my school | 2.05 | Somewhat Frequent | Slightly Influence |
| 32. | I am feeling uncomfortable living in a hostel/residential house. | 2.02 | Somewhat Frequent | Slightly Influence |
| 33. | The noises coming from the environment | 2.77 | Frequent | Moderately |

| | | | | |
|-----|---|-------------|--------------------------|---------------------------|
| | distracts/annoys me | | | Influence |
| 34. | Hot weather makes me uneasy | 2.67 | Frequent | Moderately Influence |
| 35. | I am not confident to the safeties living in a hostel/residential | 2.20 | Somewhat Frequent | Slightly Influence |
| 36. | Disorganized life bothers me | 2.52 | Frequent | Moderately Influence |
| 37. | I feel frustrated of inadequate campus Facilities | 2.52 | Frequent | Moderately Influence |
| 38. | I am not use the crowd | 2.30 | Somewhat Frequent | Slightly Influence |
| 39. | I do not have a patience waiting in a long time | 2.62 | Frequent | Moderately Influence |
| 40. | I feel scared being at the insecure place | 2.92 | Frequent | Moderately Influence |
| | Over-all Weighted Mean | 2.46 | Somewhat Frequent | Slightly Influence |

Table 1 presents the means and the standard deviations for 40 potential sources of stress divided into four (4) sub scale, which are: 1) Physical Stressors; 2) Interpersonal Relationship Stressors; 3) Academic Stressors; and 4) Environmental Stressors.

Table 1 reveals that students described the impact of physical stressors as "somewhat frequent" and interpret them as "slightly influence." The indicator "sleep problem" has the highest weighted mean of 2.67, while the indicator "dramatic weight loss" has the lowest mean of 1.71, characterized as "never" and interpreted as "no influence." Overall, the students appear to acknowledge that physical stressors can have a moderate influence on their well-being. The fact that sleep problems received the highest weighted mean suggests that this particular issue is of significant concern among the respondents. On the other hand, the low mean for dramatic weight loss indicates that this is not a common occurrence among the students and is unlikely to impact their overall health and functioning.

For analysis of intrapersonal relationship stressors, the most dominating indicator with a mean of 2.83 was "there is guilt in me for not fulfilling my parent's hope," described as "frequent" and interpreted as "moderately influence." The indicator "my families are not supportive" and "my teachers are not supportive" has the lowest mean, which is both 1.67, characterized as "never" and interpreted as "no influence." These results suggest that the guilt felt by students for not meeting their parents' expectations is a significant source of stress in intrapersonal relationships. This could indicate that feelings of guilt and pressure from parents play a larger role in causing stress within oneself compared to external sources of support.

With a mean score of 2.91, the most prominent indicator on the academic stressor was "I feel stressed as submission deadline neared," which was described as "frequent" and interpreted as "moderately influential." The indicator "I always come late to lectures/classes" had the lowest score of 1.85, which was described as "somewhat frequent" and interpreted as "slightly influential." These results indicate that students' stress levels are greatly impacted by the pressure of deadlines, with many feeling

overwhelmed as due dates draw near. However, the habit of arriving late to lectures or classes appears to have a smaller impact on academic stress.

Finally, the most dominating indicator on environmental stressor with a mean of 2.92 was “I feel scared being at the insecure place” described as “frequent” and interpreted as “moderately influence”, while the indicator “I am feeling uncomfortable living in a hostel/residential house” has the lowest mean which is 2.02, characterized as “somewhat frequent” and interpreted as “slightly influence.”

Table 2: Dominant Stressors among Students based on Composite Score

| Stressor Types | Weighted Mean | Mean 2 | SD | Rank |
|----------------------------|---------------|--------|------|------|
| Physical | 2.25 | 6.10 | 1.96 | 4 |
| Intrapersonal Relationship | 2.32 | 6.59 | 2.07 | 3 |
| Academic | 2.45 | 7.14 | 2.17 | 2 |
| Environmental | 2.46 | 7.30 | 2.20 | 1 |

Another significant goal of the study was to ascertain the most important stressor category affecting the students. As shown in Table 2, the leading stressor type among students is “environmental stressor” with a weighted mean of 2.46, followed by “academic stressor” with a weighted mean of 2.45 and “intrapersonal relationship” with a weighted mean of 2.32. The least stressor includes “physical stressor” with a weighted mean of 2.25. These findings suggest that factors related to the environment, such as noise, pollution, and living conditions, have a greater impact on students' stress levels compared to academic pressures or interpersonal relationships. It is important for educators and policymakers to address these environmental stressors in order to create a more conducive learning environment for students.

Summary

This study revealed moderate influences from physical stressors, with sleep issues being the leading concern (mean = 2.67), and interpersonal relationship stressors, particularly guilt over not meeting parental expectations (mean = 2.83). Academic stressors exert the greatest impact, notably due to upcoming deadlines (mean = 2.91). Environmental stressors are significant as well, particularly regarding safety concerns (mean = 2.92). Overall, environmental stressors (M = 2.46) are highlighted as the most impactful, followed closely by academic stressors (M = 2.45), while interpersonal (M = 2.32) and physical stressors (M = 2.25) demonstrate a lesser impact.

In terms of stress level distribution, 25.76% of respondents reported severe stress, 45.45% experienced moderate stress, and 28.79% reported mild stress levels. Analyzing the correlation between stress levels and demographics revealed that males exhibited higher levels of severe stress (15.15%) compared to females (10.61%), while females reported more moderate stress levels (34.85%). Younger adolescents, particularly those aged 15, tended to display higher stress levels, suggesting a potential decline in stress with increasing age. Students from Dagupan reported consistently higher stress levels. Notably, students’ stress levels appeared inversely related to parental educational attainment, indicating that educational support from parents can mitigate stress, while those from lower-income families exhibited greater stress levels. Furthermore, academic performance showed varied relationships with stress, as higher-performing students managed stress differently compared to their lower-performing peers.

Recommendation

In the light of the aforementioned findings and conclusions, the researcher humbly presents the following recommendations:

In order to teach effective coping methods, schools should first establish systematic stress management programs. These programs should include seminars on mindfulness, relaxation, and time management. It is also essential to strengthen academic support services by adding more study skills seminars, counselling, and tutoring to help students perform better and feel less stressed.

Parental engagement is crucial, and parent education programs may help create a nurturing atmosphere at home, particularly for families with less education. Along with efforts to improve environmental safety through frequent drills and open lines of communication, it is advised to promote healthy lifestyle choices, including proper diet, exercise, and enough sleep.

Students can exchange experiences and coping mechanisms by establishing peer support networks, while specialized programs for high-stress groups, such as male students or kids from lower-income households, may address particular difficulties, frequent check-ins and surveys can be of help to monitor students' well-being.

All things considered, a thorough strategy that incorporates educational programs, support networks, and parental involvement will lessen stress and improve children's wellbeing and academic achievement.

Comprehensive Wellness and Safety Initiative: Empowering Students & Families for a Resilient Future

ACTION PLAN

School: _____

School Year: _____

General Objective: to enhance the mental, emotional, and physical well-being of students through systematic stress management, promotion of healthy lifestyle choices, and the establishment of supportive networks within the school community. By implementing targeted programs and workshops, fostering parent engagement, and facilitating peer support systems, the plan aims to create a nurturing and safe environment that encourages student resilience, personal growth, and a balanced lifestyle, ultimately leading to improved academic performance and overall student success.

| Action Item | Activity Description | Objective | Person Responsible | Timeline | Resources Needed | Estimated Budget | Potential Funding Sources | Remarks |
|---|---|--|---|--------------------------------|---------------------------------|------------------|----------------------------------|---------|
| 1. Establish Mental Health Awareness Program | yAS-FIGHT: yApayao's Against Stress - Finding Inner Gear for Healthy Thoughts | 1. To increase awareness on mental health issues and the | School Administration and Stakeholders: Local Government and NGAs | 1st Quarter of the School Year | Educational materials, trainers | 10,000 | School budget, grants, donations | |

| | | | | | | | | |
|---|--|---|----------------------------|-------------|-------------------------------|-------|----------------------------------|--|
| | | <p>impact of thoughts on overall well-being.</p> <p>2. To provide participants with effective techniques for managing stress and fostering healthy thoughts.</p> <p>3. To cultivate a supportive community where participants can share experiences and strategies.</p> | | | | | | |
| 2. Implement Parental Education Programs | INA-AMA: Integrating Nurturing Action and Affirmation for Meaningful Achievement | To equip parents with practical strategies and tools to create a | Parent-Teacher Association | 2nd Quarter | Educational materials, venues | 3,000 | PTA funds, community sponsorship | |

| | | | | | | | | |
|---|--|---|-----------------------------|---|-------------------------------------|-------|-----------------------------------|--|
| | | supportive home environment that fosters children's emotional well-being, resilience and academic success through nurturing actions and positive affirmation. | | | | | | |
| 3. Promote Healthy Lifestyle Choices | "A Wellness Campaign for Students: DES-WELL Dance, Eat and Sleep Well" | To promote proper diet, exercise, and sufficient sleep among students. | Health Education Department | Every Quarter | Health resources, speakers | 1,000 | Health grants, nutrition programs | |
| 4. Frequent Check-ins and Surveys | "Well-Being Check: Survey & Connect" | To regularly assess students' well-being through surveys and individual check- | School Counseling Team | Quarterly (Every First Friday of the month) | Facilities, nutritional information | 1,000 | School budget | |

| | | | | | | | | |
|---|---|--|------------------------|-------------------------|------------------------------------|-------|-----------------------|--|
| | | ins. | | | | | | |
| 5. Establish Peer Support Networks | "Experience Exchange: Building Resilience Together" - Recollection and Team Building | To Create and facilitate student groups for sharing experiences and coping mechanisms. | School Counseling Team | 4 th Quarter | Meeting spaces, group coordinators | 1,500 | School budget, grants | |

References

- Živa, Grafenauer, Ekart. Stres v šoli in na delovnem mestu. (2022). doi: 10.18690/um.fov.3.2023.26 Available from: <https://typeset.io/papers/stres-v-soli-in-na-delovnem-mestu-2x7sg8zb>
- D., S., Silkin. Stress. (2022).781-791. doi: 10.1016/b978-0-323-85654-6.00059 Available from: <https://typeset.io/papers/stress-ywd0utab>
- Tambat RM, Fathima N, Poonekar A, N SS, Moktan JB. Stress and coping with stress. International Journal of Psychology Research [Internet]. 2022 [cited 2023 Nov 19];4(1):1–7. Available from: <https://www.psychologyjournal.in/archives/2022.v4.i1.A.32/stress-and-coping-with-stress>
- Wang C, Wen W, Zhang H, Ni J, Jiang J, Cheng Y, et al. Anxiety, depression, and stress prevalence among college students during the COVID-19 pandemic: A systematic review and meta-analysis. Journal of American College Health. 2021 Sep 1;1–8. Available from: <https://pubmed.ncbi.nlm.nih.gov/34469261/>
- World Health Organization: WHO. Mental health. World Health Organization: WHO [Internet]. 2022 Jun 17 [cited 2024 Sep 29]; Available from: <https://www.who.int/news-room/factsheets/detail/mental-health-strengthening-our-response>
- Luo Y, Cui Z, Zou P, Wang K, Lin Z, He J, et al. Mental Health Problems and Associated Factors in Chinese High School Students in Henan Province: A Cross-Sectional Study. International Journal of Environmental Research and Public Health [Internet]. 2020 Aug 1;17(16). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7459448/>
- Garbutt-Young L. Stress and Anxiety in High School Students: 1 in 3 Students are Stressed [Internet]. Art Of Smart. 2021. Available from: <https://artofsmart.com.au/wellbeing/stress-in-high-school-students/>
- Li M, Lu Z, Xu L. Influences of High School Physical Learning Environments on Students’ Anxiety in China. HERD [Internet]. 2023 Oct 1 [cited 2024 Mar 16];16(4):187–205. Available from: <https://pubmed.ncbi.nlm.nih.gov/37464584/>
- Pillai J, Jose S, Velukutty BA, Riyaz A. Academic stress and coping in high school adolescents. International Journal of Contemporary Pediatrics [Internet]. 2023 Jan 17;10(2):153–7. Available

from: <https://www.ijpediatrics.com/index.php/ijcp/article/view/5262>

10. Katzman-Miller, R., et al. (2020). Sleep quality as a predictor of daily functioning in adults with chronic pain: A systematic review. *Journal of Pain Research*.
11. Crespo, C., et al. (2020). The impact of physical activity on mental health: A systematic review. *Journal of Sports Sciences*.
12. American Psychological Association. (2020). Stress in America: Coping with Change. Retrieved from <https://www.apa.org/news/press/releases/stress/2017/coping-with-change-Infographic.pdf>
13. Gilliland, S. E., & Dunn, J. (2020). The effects of conflict on personal relationships. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 345-362). Guilford Press.
14. Kashdan, T. B., & Ciarrochi, J. (2020). Mindfulness-based interventions for anxiety disorders: A systematic review. *Journal of Anxiety Disorders*, 72, 102235.
15. Kirschbaum, C., et al. (2020). Cortisol levels in response to conflict in romantic partners: A longitudinal study. *Journal of Social and Clinical Psychology*, 39(1), 1-16.
16. Hektner, J. M., & Swickert, J. A. (2020). The effects of academic burnout on student well-being: A systematic review. *Educational Psychology Review*.
17. Kosfeld, M., et al. (2020). Olfactory bulb lesions affect social behavior in rats: A study using a novel behavioral paradigm.
18. Sullivan, W. C., Johnson, J., & Barrera Jr., M. (2020). Student perceptions of stressors in the educational environment: A systematic review. *International Journal of Educational Research*, 102345.
19. Yerkes RM, Dodson JD. The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology* [Internet]. 1908 Nov;18(5):459–82. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/cne.920180503>
20. Folkman S. Stress: Appraisal and coping. *Encyclopedia of Behavioral Medicine*. 2013;1(1):1913–5.
21. Bandura A. Self-efficacy: toward a Unifying Theory of Behavioral Change [Internet]. psycnet.apa.org. 1977. Available from: <https://psycnet.apa.org/record/1977-25733-001>
22. Aziz M. STUDENT STRESS INVENTORY (SSI) Development, Validity And Reliability of Student Stress Inventory (SSI) [Internet]. ResearchGate. unknown; 2018. Available from: https://www.researchgate.net/publication/329555313_STUDENT_STRESS_INVENTORY_SSI_Development_Vailidity_And_Reliability_of_Student_Stress_Inventory_SSI