JOURNAL OF INTERDISCIPLINARY PERSPECTIVES
PRINT ISSN: 2984-8288 | ONLINE ISSN: 2984-8385
https://doi.org/10.69569/jip

TWR Publishing

Research Article

When Academic Stress Meets Anxiety: Evidence from Senior High School Academic Track Students

Alie A. Gani, Gladys Canillo-Borja, Dan August Nanao, Mylene A. Rapsing, Lorraine Rojas, Donn Delfina A. Eusebio, Roselyn H. Cortez, Michelle Marquez-Valeza

Author Information:

Graduate School, University of Perpetual Help System DALTA - Las Piñas Campus, Las Piñas City, Metro Manila, Philippines

Corresponding Author:

Alie A. Gani
Email: alie.gani@perpetual.edu.ph

Article History:

Date received: September 15, 2026
Date revised: October 16, 2026
Date accepted: November 2, 2026

Recommended citation:

Gani, A., Canillo-Borja, G., Nanao, D.A., Rapsing, M., Rojas, L., Eusebio, D.D., Cortez, R., & Valeza, M. (2026). When academic stress meets anxiety: Evidence from senior high school academic track students. *Journal of Interdisciplinary Perspectives, 4*(11), 305-311. https://doi.org/10.69569/jip.2026.469

Abstract. Academic demands may coincide with anxiety during senior high school, yet school-level evidence from provincial Philippine settings remains limited. This cross-sectional study aimed to describe academic stress and anxiety symptoms and determine whether the two were associated among Grade 11 and Grade 12 Academic Track students at a public national high school in Marinduque. Forty-three eligible students participated voluntarily and completed the 16-item Educational Stress Scale for Adolescents (ESSA) and the seven-item Generalized Anxiety Disorder scale (GAD-7). The instruments showed good internal consistency in the present sample (alpha = .88 and .91, respectively). Mean academic stress was 54.86 (SD = 9.67), while mean anxiety was 10.30 (SD = 5.99). Twenty-one respondents (48.8%) obtained GAD-7 scores in the moderate-to-severe screening ranges; these categories indicate self-reported symptom severity and are not clinical diagnoses. Academic stress was positively associated with anxiety symptoms, $r(41) = .67$, $p < .001$, 95% CI [.47, .81], with a similar Spearman sensitivity estimate (rho = .69, $p < .001$). The findings provide a local, sample-specific indication that academic stress and anxiety symptoms covary among the participating students and may inform confidential support and further assessment. Because the study was cross-sectional, involved a small voluntary sample from one school, and used simultaneous self-report measures, it does not establish causation, clinical prevalence, or population-level estimates. Larger multisite and longitudinal studies are recommended.

Keywords: *Academic stress; Anxiety symptoms; Correlational study; Secondary education; Students.*

Senior high school concentrates several demands into a transitional period: students complete advanced coursework, prepare for tertiary education or employment, respond to family and teacher expectations, and make decisions that may be perceived as consequential for their future. Academic demands are not inherently harmful, but they can become stressful when students judge that workload, time pressure, evaluation, or expectations exceed the resources available to manage them. Reviews of secondary and tertiary education show that sustained academic stress can coincide with poorer mental health, reduced motivation, and weaker academic functioning (Pascoe et al., 2020; Steare et al., 2023).

The Transactional Model of Stress and Coping explains this variation through appraisal. Lazarus and Folkman (1984) proposed that stress arises through a transaction between the person and environment. During primary appraisal, a student considers whether an academic demand represents a threat, loss, or challenge. During secondary appraisal, the student evaluates available coping resources. Two students may therefore encounter the

This work is licensed under a Creative Commons Attribution-Noncommercial 4.0 International License (CC BY-NC 4.0)

same deadline or examination but experience different levels of stress because they differ in perceived control, preparation, support, and coping capacity. This framework supports examining perceived academic stress rather than treating the number of assignments or tests as a sufficient measure of strain.

Academic stress and anxiety symptoms are conceptually related but distinct constructs. Academic stress concerns students' appraisal of education-related demands, such as workload, performance expectations, and pressure, whereas anxiety symptoms refer to experiences such as excessive worry, nervousness, restlessness, irritability, and difficulty relaxing that may occur across contexts. The distinction is important for the present study because the Educational Stress Scale for Adolescents (ESSA) includes worry- and distress-related content, while the GAD-7 directly assesses anxiety symptoms. Some conceptual overlap and a broader common distress factor are therefore possible and should be considered when interpreting their correlation. The ESSA operationalizes academic stress through pressure from study, workload, worry about grades, self-expectation, and despondency (Sun et al., 2011). Evidence across student populations links high academic demands and performance pressure with emotional distress. Deb et al. (2015) found that academic stress and parental pressure were associated with anxiety among Indian high school students. More recent work has similarly connected family and academic stress with depression and academic performance (Deng et al., 2022), while a systematic review concluded that academic pressure was consistently associated with adolescent mental health problems across diverse study designs (Steare et al., 2023). Reshu et al. (2025) also documented a positive relationship between academic stress and examination anxiety among upper-secondary students.

Anxiety symptoms are important during adolescence because persistent worry, nervousness, restlessness, irritability, and difficulty relaxing can affect participation and functioning. The Generalized Anxiety Disorder-7 (GAD-7) provides a brief measure of symptom frequency during the previous two weeks (Spitzer et al., 2006). Studies in Finnish, Chinese, and clinical adolescent samples support its use as a symptom-severity measure, although it remains a screening instrument rather than a stand-alone diagnostic procedure (Mossman et al., 2017; Tiirikainen et al., 2019; Sun et al., 2021).

The wider context reinforces the need for careful school-based assessment. International evidence indicates that anxiety symptoms among children and adolescents increased during the disruption associated with the COVID-19 period (Racine et al., 2021; Samji et al., 2022). Although pandemic-specific effects should not be assumed to explain current symptoms, these findings show that youth mental health is sensitive to interacting educational, family, and social conditions. Academic stress also remains salient beyond the pandemic; Barbayannis et al. (2022) found a strong link between academic stress and poorer mental well-being among students, while recent adolescent-focused synthesis identifies academic pressure as a potentially modifiable school-related exposure (Steare et al., 2023).

Philippine evidence likewise indicates that stress and anxiety are salient concerns among students, although findings vary by setting and measure. Quing and Baudin (2021) examined academic stress among senior high school students in Southern Luzon, while Serrano et al. (2023) documented substantial risks for anxiety, depression, and stress among young adult senior high school students in Metro Manila. Other Philippine studies have linked academic burnout with anxiety among senior high school students (Gomez et al., 2022), described depression, anxiety, stress, and coping among senior high school students (Baligod, 2024), and examined academic stress and anxiety-related outcomes among Filipino college and nursing students (Berdida & Grande, 2023; Cleofas et al., 2023). These studies strengthen the local rationale for examining student distress but do not substitute for evidence from provincial public senior high schools. Educational expectations, family roles, school resources, and help-seeking practices can vary across settings. The present study therefore described academic stress and self-reported anxiety symptoms among participating Senior High School Academic Track students at Marinduque National High School and tested whether their ESSA and GAD-7 scores were significantly associated. It was hypothesized that higher academic stress would be related to greater anxiety symptoms.

Methodology

Research Design

The study used a quantitative cross-sectional descriptive-correlational design. This design permitted estimation of the levels and distribution of academic stress and anxiety symptoms and examination of their concurrent association without manipulating academic conditions. Because both variables were measured at one time, the

analysis was interpreted as associational and not causal.

Participants and Sampling Technique

The accessible Grade 11–12 population at the participating school comprised 1,026 Academic Track students: 452 Grade 11 and 574 Grade 12 students. Eligible Senior High School Academic Track students were invited to participate voluntarily. The final analytic sample consisted of 43 students who completed the study requirements and provided parental or guardian consent and student assent, including 22 Grade 11 and 21 Grade 12 students; 30 were female, and 13 were male. Thus, the analytic sample represented approximately 4.2% of the eligible Academic Track population reported by the school. No a priori power analysis was conducted before recruitment, so the achieved sample should not be presented as a statistically predetermined target. For transparent post-study planning, a G*Power-equivalent calculation for a two-tailed Pearson correlation with an expected medium effect ($r = .30$), $\alpha = .05$, and 80% power indicates a required sample of approximately 84–85 participants. Conversely, with $n = 43$, $\alpha = .05$, and 80% power, the study was approximately sensitive to correlations of about $|r| = .42$ or larger. These calculations are provided as planning and sensitivity benchmarks rather than as justification for the sample after the fact. Accordingly, the present sample is small and school-specific, and the precision and generalizability of the findings are limited.

Research Instruments

Academic stress was measured with the 16-item Educational Stress Scale for Adolescents (ESSA; Sun et al., 2011). Items assess pressure from study, workload, worry about grades, self-expectation, and despondency. Responses range from 1 (strongly disagree) to 5 (strongly agree). All items are positively keyed and were summed, producing scores from 16 to 80; higher scores indicate greater perceived educational stress. The original English version was administered as published, without translation or local adaptation. In its original development with Chinese adolescents, the ESSA demonstrated evidence supporting its factor structure, internal consistency, test-retest reliability, and concurrent validity (Sun et al., 2011). These published psychometric findings support the instrument in its original validation context but do not establish construct, criterion, cultural, or linguistic validity for the present Philippine population. No separate Philippine cultural adaptation, expert validation, or local validation study was conducted. Internal consistency in the present sample was good (alpha = .88); this coefficient is interpreted as evidence of reliability within this sample and not as proof of validity.

Anxiety symptoms were measured with the GAD-7 (Spitzer et al., 2006). Respondents rated how often seven symptoms had bothered them during the previous two weeks using options from 0 (not at all) to 3 (nearly every day). Items were summed to yield a score from 0 to 21. Scores of 0-4, 5-9, 10-14, and 15-21 describe minimal, mild, moderate, and severe symptom levels, respectively. These categories are screening interpretations and do not constitute diagnoses. The separate functional-difficulty question was not included in the total. The GAD-7 had good internal consistency in this sample, alpha = .91.

Data Gathering Procedure

Data were collected from August to September 2026 through Google Forms after permission was obtained from the appropriate school authorities. The survey invitation was distributed to eligible Academic Track students, and participation was voluntary. Parents or guardians provided consent and students provided assent before participation. Signed consent and assent records were maintained separately from the online response file. The consent materials explained the study, voluntary participation, confidentiality procedures, possible follow-up, and planned data retention. Completed responses were downloaded, coded, and screened for completeness and valid item values. Responses that did not complete the required screening or study requirements were excluded from the analytic dataset. Official enrollment records were not used to resolve survey responses or outcome data. The final analytic dataset contained 43 eligible, completed records.

Data Analysis Procedure

Frequencies and percentages described sex, grade level, and GAD-7 symptom categories. Means, standard deviations, ranges, and Cronbach's alpha summarized the scale scores. Pearson product-moment correlation tested the association between ESSA and GAD-7 totals at alpha = .05. Shapiro-Wilk tests and visual inspection were used to assess score distributions and the bivariate pattern. ESSA scores did not depart significantly from normality, $W = .97$, $p = .343$, and the GAD-7 result was also nonsignificant, $W = .95$, $p = .053$. Spearman rank correlation was calculated as a sensitivity analysis because the GAD-7 distribution approached the conventional

significance threshold. No demographic or outcome value was statistically imputed. Analyses were conducted on the 43 completed eligible records, and statistical results were independently recalculated from the item-level responses. A post-study sensitivity calculation was used only to contextualize sample-size limitations and future planning; it was not treated as an a priori basis for recruitment.

Ethical Considerations

Participation was voluntary and required parental or guardian consent and student assent. The study was reviewed and approved for conduct by the program chair and research adviser and was implemented in accordance with the university's applicable research and ethics manual. No separate institutional research ethics committee/IRB approval number was issued for this study; accordingly, the academic and institutional approval process is reported here without representing it as formal IRB/REC review. Permission was also obtained from the appropriate school authorities before recruitment and data collection. Students were informed that declining or discontinuing participation would not affect their academic standing. The dataset used for analysis contained participant codes rather than names. Signed consent and assent documents were kept separately from survey responses, and official enrollment records were not used to reconcile survey answers. Access to study files was restricted to the researcher, data were reported only in aggregate, and GAD-7 scores were treated as screening information rather than diagnoses. The consent and assent materials described confidentiality, voluntary participation, possible follow-up, and data retention procedures. Data will be retained for six months after completion of the study and then permanently deleted.

Results and Discussion

Participant Characteristics

Table 1 shows an almost even distribution by grade level, although female students formed the larger sex group. These characteristics describe only the 43 participating students. Because recruitment was voluntary and the sample was small, the proportions should not be interpreted as representative of the entire Academic Track population of the school, students in Marinduque, public-school students, or Philippine senior high school students generally. The study was also not designed or powered to estimate sex- or grade-level differences.

Table 1. *Participant Characteristics*

Characteristic	n	%
Sex		
Female	30	69.8
Male	13	30.2
Grade level		
Grade 11	22	51.2
Grade 12	21	48.8

Note. N = 43.

Academic Stress

The mean ESSA total was 54.86 (SD = 9.67), with observed scores from 29 to 72 (Table 2). The scale showed good internal consistency in this sample (alpha = .88). This reliability estimate indicates consistency among the ESSA items in the participating sample; it does not establish construct, criterion, cultural, or linguistic validity in Filipino senior high school students. The mean response across the 16 items was 3.43, but this value is not labeled as low, moderate, or high stress because the original ESSA does not establish clinical severity cutoffs for the total score. Reporting the score distribution avoids converting agreement categories into unsupported stress classifications.

Table 2. *Descriptive Statistics and Reliability of Study Variables*

Variable	Possible range	Observed range	M	SD	alpha
Academic stress (ESSA)	16-80	29-72	54.86	9.67	.88
Anxiety symptoms (GAD-7)	0-21	0-21	10.30	5.99	.91

Note. N = 43. alpha = Cronbach's alpha.

Item-level responses provide context for the total. The strongest endorsement concerned the importance of grades for the future (M = 3.98, SD = 0.96), followed by stress when personal standards were not met (M = 3.79, SD = 1.06) and concern about disappointing teachers after poor results (M = 3.72, SD = 0.85). Dissatisfaction with grades received the lowest mean (M = 2.72, SD = 0.96). These results suggest that future consequences and evaluative

expectations were more salient than dissatisfaction alone. This pattern is consistent with the ESSA conceptualization of educational stress as involving workload, grade concerns, expectations, and despondency (Sun et al., 2011) and with research emphasizing performance and family pressures in adolescent stress appraisal (Deb et al., 2015; Deng et al., 2022; Reshu et al., 2025).

Table 3. *Item-Level Responses on the Educational Stress Scale for Adolescents*

Item summary	M	SD
Dissatisfied with academic grades	2.72	0.96
Too much schoolwork	3.53	0.88
Too much homework	3.05	0.92
Future education and employment pressure	3.53	1.03
Parental concern about grades creates pressure	3.16	1.02
Pressure in daily studying	3.53	0.94
Too many tests or examinations	3.09	0.87
Grades are important to the future	3.98	0.96
Disappointing parents after poor results	3.67	1.06
Disappointing teachers after poor results	3.72	0.85
Competition among classmates	3.37	1.16
Lack of confidence in academic scores	3.42	1.07
Difficulty concentrating during class	3.07	0.99
Stress when personal standards are unmet	3.79	1.06
Feeling inadequate when expectations are unmet	3.63	1.07
Sleep difficulty due to worry about goals	3.58	1.10

Note. N = 43. Responses ranged from 1 (strongly disagree) to 5 (strongly agree).

Anxiety Symptoms

The mean GAD-7 score was 10.30 (*SD* = 5.99), with the full possible range represented (Table 2). The group mean fell in the moderate symptom band, but a group average does not indicate that every respondent had moderate symptoms or met diagnostic criteria. Table 4 shows that 21 students (48.8%) obtained scores in the moderate-to-severe ranges. This concentration warrants attention as a screening signal while preserving the distinction between symptom severity and clinical diagnosis. Adolescent validation studies support the reliability of the GAD-7 but also emphasize that clinical decisions require further assessment (Mossman et al., 2017; Tiirikainen et al., 2019; Sun et al., 2021).

Table 4. *Distribution of GAD-7 Symptom Severity*

Category	Score range	n	%
Minimal	0-4	7	16.3
Mild	5-9	15	34.9
Moderate	10-14	9	20.9
Severe	15-21	12	27.9
Total		**43**	**100.0**

Note. Categories describe self-reported symptom severity and are not diagnoses.

The distribution was heterogeneous: some respondents reported few symptoms, while others obtained elevated screening scores for which confidential discussion or further assessment may be considered in conjunction with clinical judgment, functional impairment, context, and other relevant information. A GAD-7 score alone does not determine diagnosis or clinical need. Youth anxiety reflects multiple interacting influences, so the observed scores should not be attributed solely to school demands. Philippine research likewise demonstrates that anxiety and stress among senior high school students are associated with multiple sociodemographic and psychosocial factors (Serrano et al., 2023). The present data identify a possible local support need but cannot estimate clinical prevalence because the sample was small, voluntary, and drawn from one school.

Association Between Academic Stress and Anxiety Symptoms

Academic stress was positively associated with anxiety symptoms, $r(41) = .67$, $p < .001$, 95% CI [.47, .81] (Table 5). The squared correlation ($r^2 = .45$) indicates that approximately 45% of the observed variance was shared between the two scores. This is a descriptive effect-size interpretation and should not be read as the proportion of anxiety caused by academic stress. The Spearman sensitivity analysis yielded a similar association (rho = .69, $p < .001$). The agreement across estimators suggests that the observed association was not dependent on Pearson's distributional assumptions.

Table 5. *Correlation between Academic Stress and Anxiety Symptoms*

Variables	1	2
1. Academic stress (ESSA)	-	
2. Anxiety symptoms (GAD-7)	.67***	-

Note. N = 43. Values are Pearson correlations. ***p < .001. Spearman rho = .69, p < .001.

The magnitude and direction align with evidence that perceived academic pressure co-occurs with anxiety and related mental health difficulties (Deb et al., 2015; Deng et al., 2022; Steare et al., 2023; Reshu et al., 2025). The finding is also broadly consistent with Philippine evidence showing that academic stress, burnout, and anxiety-related outcomes can co-occur in student populations (Gomez et al., 2022; Berdida & Grande, 2023; Cleofas et al., 2023). Within the Transactional Model, students who appraise demands as exceeding their coping resources may experience both educational stress and anxiety-related responses. The item pattern supports a cautious version of this interpretation: future consequences, personal standards, and perceived expectations were prominent components of stress in this sample.

Several alternative explanations remain possible. Anxiety may heighten threat appraisal, concentration difficulty, worry about performance, and perceptions of workload. In addition, the ESSA itself includes worry- and distress-related content, while the GAD-7 assesses anxiety symptoms directly. Their association may therefore partly reflect conceptual overlap or a broader distress factor, as well as common-method variance from simultaneous self-report administration. Unmeasured variables such as family expectations, coping skills, academic performance, sleep, social support, financial strain, prior mental health concerns, and school climate could influence both scores. The relationship should therefore be understood as concurrent covariation rather than evidence that academic stress caused anxiety.

The findings suggest several practice considerations that may be explored rather than interventions demonstrated to be effective by this study. Students with elevated or impairing symptoms may be offered confidential opportunities for further assessment and referral based on professional judgment rather than GAD-7 scores alone. At the school level, guidance personnel and academic leaders may consider reviewing workload coordination, assessment schedules, clarity of requirements, communication of expectations, and access to support as hypotheses for local quality improvement. Stress-literacy, planning, emotional-regulation, and help-seeking activities may also be considered, but their effectiveness was not tested here. Any CALM-ED or related school program should therefore be treated as a proposed intervention and evaluated prospectively before claims of benefit are made.

The study has strengths that support cautious interpretation within its setting. It used established measures of academic stress and anxiety symptoms, and both demonstrated good internal consistency in the present sample. The main association was reported with a confidence interval and shared-variance estimate and was checked through Spearman correlation, producing a similar result. Item-level ESSA results also provide descriptive information about salient academic concerns. These strengths improve transparency but do not overcome the small voluntary sample, single-school design, absence of local ESSA validation, possible construct overlap, or limits on generalizability.

Conclusion

This study found a strong positive association between academic stress and anxiety symptoms among the 43 participating Senior High School Academic Track students at one provincial Philippine public school. The finding provides locally relevant, sample-specific evidence that the two self-reported constructs covary, while item-level results suggest that future-oriented grade concerns and performance expectations were salient sources of academic stress. Elevated GAD-7 screening scores among some participants may support confidential opportunities for further assessment, but they should not be interpreted as diagnoses or as evidence of clinical prevalence.

The findings should be interpreted within the study's methodological boundaries. The cross-sectional design cannot establish temporal direction or causation; the small voluntary sample from one school limits generalizability; both measures were administered by self-report at the same time; and the ESSA was not culturally or linguistically validated specifically for this Philippine population. The observed association may also partly

reflect overlapping distress-related content across the measures.

Within these limits, the results may inform local discussion about student support and academic conditions, but the study did not test any intervention, workload policy, screening program, or school-based treatment. Larger multisite studies with prospectively determined sample sizes, stronger sampling designs, local psychometric evaluation, longitudinal follow-up, and intervention testing are needed before broader policy or effectiveness conclusions are drawn.

Contributions of Authors

Not indicated

Funding

Not indicated

Conflict of Interests

Not indicated

Acknowledgment

Not indicated

References

Baligod, R. (2024). The levels of depression, anxiety, and stress among senior high school students and their adaptive coping strategies. AIDE Interdisciplinary Research Journal, 9(1), 95–112. https://doi.org/10.56648/aide-irj.v9i1.135

Barbayannis, G., Bandari, M., Zheng, X., Baquerizo, H., Pecor, K., & Ming, X. (2022). Academic stress and mental well-being in college students: Correlations, affected groups, and COVID-19. Frontiers in Psychology, 13, 886344. https://doi.org/10.3389/fpsyg.2022.886344

Berdida, D.J., & Grande, R.A. (2023). Academic stress, COVID-19 anxiety, and quality of life among nursing students: The mediating role of resilience. International Nursing Review, 70(1), 34–42. https://doi.org/10.1111/inr.12774

Cleofas, J., Rocha, I.C., & Parcon, R. (2023). COVID-19 pandemic anxiety, academic stress, and quality of life among college students in the Philippines: A mediation study. Cakrawala Pendidikan, 42(1), 1–11. https://doi.org/10.21831/cp.v42i1.47590

Deb, S., Strodl, E., & Sun, J. (2015). Academic stress, parental pressure, anxiety and mental health among Indian high school students. International Journal of Psychology and Behavioral Sciences, 5(1), 26–34.

Deng, Y., Cherian, J., Khan, N.U.N., Kumari, K., Sial, M.S., Comite, U., Gavurova, B., & Popp, J. (2022). Family and academic stress and their impact on students' depression level and academic performance. Frontiers in Psychiatry, 13, 869337. https://doi.org/10.3389/fpsyt.2022.869337

Gomez, S.L., Sison, C.J., Gavino, M.C., & Tus, J. (2022). Academic burnout and its relationship on the anxiety of the senior high school students amidst the online learning modality. Psychology and Education: A Multidisciplinary Journal, 2(2).

Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal, and coping. Springer.

Lee, J., Solomon, M., Stead, T., Kwon, B., & Ganti, L. (2021). Impact of COVID-19 on the mental health of US college students. BMC Psychology, 9, 95. https://doi.org/10.1186/s40359-021-00598-3

Mossman, S.A., Luft, M.J., Schroeder, H.K., Varney, S.T., Fleck, D.E., Barzman, D.H., Gilman, R., DelBello, M.P., & Strawn, J.R. (2017). The Generalized Anxiety Disorder 7-item scale in adolescents with generalized anxiety disorder: Signal detection and validation. Annals of Clinical Psychiatry, 29(4), 227-234A. https://pmc.ncbi.nlm.nih.gov/articles/PMC5765270/

Pascoe, M., Hetrick, S., & Parker, A. (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

Quing, K.A., & Baudin, J.S. (2021). The roles of internal locus of control and grit in managing the academic stress of senior high school students in Southern Luzon State University. Journal of Education, Management and Development Studies, 1(1), 1–9. https://doi.org/10.52631/jemds.v1i1.4

Racine, N., McArthur, B.A., Cooke, J., Eirich, R., Zhu, J., & Madigan, S. (2021). Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: A meta-analysis. JAMA Pediatrics, 175(11), 1142-1150. https://doi.org/10.1001/jamapediatrics.2021.2482

Reshu, Kumar, S., & Rathi, A. (2025). Adolescent academic stress and exam anxiety in schools in the wake of the COVID-19 pandemic. Acta Psychologica, 261, 105820. https://doi.org/10.1016/j.actpsy.2025.105820

Samji, H., Wu, J., Ladak, A., Vossen, C., Stewart, E., Dove, N., Long, D., & Snell, G. (2022). Review: Mental health impacts of the COVID-19 pandemic on children and youth - A systematic review. Child and Adolescent Mental Health, 27(2), 173–189. https://doi.org/10.1111/camh.12501

Serrano, I.M.A., Cuyugan, A.M.N., Cruz, K., Mahusay, J.M.A., & Alibudbud, R. (2023). Sociodemographic characteristics, social support, and family history as factors of depression, anxiety, and stress among young adult senior high school students in Metro Manila, Philippines, during the COVID-19 pandemic. Frontiers in Psychiatry, 14, 1225035. https://doi.org/10.3389/fpsyt.2023.1225035

Spitzer, R., Kroenke, K., Williams, J.B.W., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. Archives of Internal Medicine, 166(10), 1092–1097. https://doi.org/10.1001/archinte.166.10.1092

Steare, T., Gutiérrez Muñoz, C., Sullivan, A., & Lewis, G. (2023). The association between academic pressure and adolescent mental health problems: A systematic review. Journal of Affective Disorders, 339, 302–317. https://doi.org/10.1016/j.jad.2023.07.028

Sun, J., Dunne, M., Hou, X., & Xu, A. (2011). Educational stress scale for adolescents: Development, validity, and reliability with Chinese students. Journal of Psychoeducational Assessment, 29(6), 534-546. https://doi.org/10.1177/0734282910394976

Sun, J., Liang, K., Chi, X., & Chen, S. (2021). Psychometric properties of the Generalized Anxiety Disorder Scale-7 item (GAD-7) in a large sample of Chinese adolescents. Healthcare, 9(12), 1709. https://doi.org/10.3390/healthcare9121709

Tiirikainen, K., Haravuori, H., Ranta, K., Kaltiala-Heino, R., & Marttunen, M. (2019). Psychometric properties of the 7-item Generalized Anxiety Disorder Scale (GAD-7) in a large representative sample of Finnish adolescents. Psychiatry Research, 272, 30–35. https://doi.org/10.1016/j.psychres.2018.12.004