

Research Paper

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

Shashank Indoria^{1*}, Ishika Mathur²

ABSTRACT

Lifestyle behaviors are consistently linked to mental health in university students, but anxiety, depression, and perceived stress are often analyzed as if they were one construct, despite being distinct conditions. Whether lifestyle behaviors relate differently to each of these outcomes is not well established. This study examined the associations of sleep duration, screen time, and physical activity with anxiety, depression, and perceived stress, and tested whether these lifestyle behaviors show distinct patterns across the three outcomes. A cross-sectional study was conducted among 486 university students. Sleep duration, screen time, and physical activity were assessed by self-report. Anxiety, depression, and perceived stress were measured with the GAD-7, PHQ-9, and PSS, respectively. Three multiple linear regression models tested the independent contribution of each lifestyle behavior to each outcome. Screen time significantly predicted anxiety and perceived stress but not depression. Sleep duration was the only significant predictor of depression. Physical activity did not independently predict any outcome once the other lifestyle variables were controlled. Lifestyle behaviors were associated with specific outcomes rather than with psychological distress broadly. Anxiety, depression, and perceived stress should not be treated as interchangeable outcomes in lifestyle research. Each showed a different behavioral predictor, which suggests that interventions for student mental health may work better when matched to a specific outcome rather than applied as one general recommendation.

Keywords: *Anxiety, depression, perceived stress, lifestyle behaviors, sleep duration, screen time, physical activity, university students, multiple linear regression*

Anxiety, depression, and stress account for a large share of the global disease burden, and university students face a particular combination of academic, financial, and social pressures that puts them at elevated risk^{1,2,31}. Beyond the direct toll on well-being, these conditions affect academic performance and relationships, which is why identifying modifiable behavioral factors has become a research priority.

¹Research Associate

ORCID: <https://orcid.org/0009-0007-6114-1033>

²Phd. Student

ORCID: <https://orcid.org/0009-0000-0441-7645>

*Corresponding Author

Received: July 21, 2026; Revision Received: August 03, 2026; Accepted: August 08, 2026

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

Sleep duration, screen time, and physical activity are the three lifestyle behaviors studied most often in this context, partly because they are woven into students' daily routines and partly because they can be targeted by intervention. Sleep supports emotional regulation and cognitive recovery, and short sleep duration has repeatedly been linked to worse mental health^{3,6}. Screen time has risen sharply with smartphone and social media use, and has been associated with psychological distress through pathways such as disrupted sleep, reduced in-person contact, and social comparison^{7,9}. Physical activity, in contrast, is generally treated as protective.

Each of these associations is well documented individually. Poor sleep predicts depression and anxiety⁴; heavy screen use predicts anxiety and stress⁷; regular activity predicts lower distress overall¹¹. The problem is that most studies test only one lifestyle behavior against one outcome, or collapse anxiety, depression, and stress into a single distress score. That approach assumes the three conditions respond to the same behaviors in the same way. But anxiety, depression, and stress differ in their symptom profiles and, plausibly, in their underlying mechanisms — a lifestyle factor that strongly predicts anxiety may say nothing about depression, and vice versa.

This study tests that assumption directly. By modeling sleep duration, screen time, and physical activity against all three outcomes within the same sample and analytic framework, we ask whether these behaviors produce one general pattern of association or three separate ones. We hypothesized the latter: that each outcome would show its own behavioral signature, and that anxiety, depression, and perceived stress should not be treated as interchangeable in lifestyle research.

REVIEW OF LITERATURE

1. Lifestyle Behaviors and Mental Health

Sleep, screen time, and physical activity influence the neurobiological and behavioral processes underlying mental health, and all three are shaped by the irregular schedules and heavy technology use typical of student life. Because they are behaviors rather than fixed traits, they are a natural target for prevention-focused research, which is why work in this area has increasingly asked which behavior matters most for which outcome.

2. Sleep Duration and Psychological Distress

Sleep supports memory consolidation and emotional regulation, and shorter sleep duration has been tied to worse mood, higher anxiety, and greater stress in both adolescents and university students^{4,6}. Proposed mechanisms include HPA-axis dysregulation and impaired prefrontal function⁵. That said, the strength of these associations varies across studies; some find sleep more closely tied to depression than to anxiety or stress, which is one of the questions this study revisits directly.

3. Screen Time and Mental Health

Screen time has risen alongside smartphone and social media use, and is thought to affect mental health through several overlapping routes: disrupted sleep, less face-to-face contact, sedentary behavior, and exposure to cyberbullying or social comparison^{7,10}. Studies generally report a positive association between screen time and anxiety, depression, and stress, but the size of that association is inconsistent, and some work finds a stronger link to anxiety specifically than to depression^{8,30}.

4. Physical Activity and Mental Health

Exercise is usually described as protective, with proposed pathways including endorphin release, improved cardiovascular function, and psychological benefits such as higher self-efficacy²⁹. Evidence in university samples is mixed, however: some studies find clear protective effects, others find the association disappears once other lifestyle variables are controlled. This inconsistency suggests physical activity's relevance may depend on which outcome is being measured.

Research Gap

Three limitations recur across this literature. Most studies examine one psychological outcome at a time rather than comparing several within the same sample, which makes it hard to tell whether a given behavior is genuinely specific to one condition or simply understudied for the others. Many studies also treat anxiety, depression, and stress as interchangeable, despite moderate rather than complete overlap between them. And most research asks *whether* a lifestyle behavior relates to distress in general, rather than *which* behavior relates to *which* outcome — the latter question being the one that actually informs targeted intervention design.

This study addresses all three by testing sleep duration, screen time, and physical activity against anxiety, depression, and perceived stress within one regression framework and one sample.

METHODOLOGY

Research questions:

- **RQ1:** Do sleep duration, screen time, and physical activity relate differently to anxiety, depression, and perceived stress?
- **RQ2-4:** Is each lifestyle behavior significantly associated with each outcome?
- **RQ5:** Which behavior best predicts each outcome?
- **RQ6:** Do the three outcomes show distinct behavioral profiles?

Hypotheses

- **H1 (primary):** Sleep duration, screen time, and physical activity will show differential associations with anxiety, depression, and perceived stress, indicating these are distinct rather than interchangeable outcomes.
- **H2:** Higher screen time will be positively associated with anxiety.
- **H3:** Higher screen time will be positively associated with perceived stress.
- **H4:** Shorter sleep duration will be associated with higher depressive symptoms.
- **H5:** Physical activity will be negatively associated with all three outcomes.

Objectives

- **General objective:** To examine whether sleep duration, screen time, and physical activity show differential associations with anxiety, depression, and perceived stress among university students.
- **Specific objectives:**
 1. Determine the association between sleep duration and each of the three outcomes.
 2. Determine the association between screen time and each of the three outcomes.
 3. Determine the association between physical activity and each of the three outcomes.

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

4. Compare the relative contribution of the three lifestyle behaviors across outcomes.
5. Establish whether anxiety, depression, and perceived stress show distinct behavioral predictors.

METHODS

Sample

The sample comprised 486 university students recruited by convenience sampling between January and February 2026. All participants gave informed consent and were told they could withdraw at any time without penalty.

- *Inclusion criteria:* Undergraduate or Postgraduate status; able to understand the questionnaire; provided informed consent.
- *Exclusion criteria:* incomplete responses; a current, treated psychiatric diagnosis (where applicable); duplicate submissions.

Research design

This was a cross-sectional study, chosen because it allows simultaneous assessment of multiple lifestyle behaviors and multiple psychological outcomes within one sample. Data were collected through a structured, self-administered questionnaire.

Statistical analysis

Analyses were run in IBM SPSS (Version 29):

1. Descriptive statistics summarized participant characteristics and study variables.
2. Cronbach's alpha assessed internal consistency of the GAD-7, PHQ-9, and PSS.
3. Pearson correlations examined bivariate relationships among all variables.
4. Three multiple linear regressions tested sleep duration, screen time, and physical activity simultaneously as predictors of anxiety (Model 1), depression (Model 2), and perceived stress (Model 3).
5. Standardized coefficients (β), 95% CIs, p-values, and R^2 were reported, with significance set at $p < .05$.

Variables

Independent Variables - Lifestyle behaviours

1. Screen time
2. Sleep duration
3. Physical activity

Dependent Variables - Mental health indicators

1. Anxiety
2. Depression
3. Perceived stress

Instruments

- **Sleep duration** was self-reported average daily hours, treated as continuous.
- **Screen time** was self-reported average daily recreational hours (smartphone, computer, tablet, television), excluding essential academic use.
- **Physical activity** was a self-reported average activity level, with higher scores indicating more activity^{24,25}.
- **Anxiety** was measured with the GAD-7 (7 items, 0–3 scale, total range 0–21)¹⁷.
- **Depression** was measured with the PHQ-9 (9 items, 0–3 scale, total range 0–27)¹⁹.

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

- **Perceived stress** was measured with the PSS-10, with higher scores indicating greater perceived stress²⁰.

Procedure

Participants completed the questionnaire online after receiving study information and providing consent. Participation was voluntary, anonymous, and confidential; no identifying information was collected.

Data Collection

Participants were recruited online through mental health forums, university emails, and social media platforms.

RESULTS

1. Participant Characteristics

486 university students participated. Descriptive statistics for all study variables are reported in Table 1.

Table 1

		Statistics					
		age	sleep hr.	physical activity	screen time	depp.	anxiety
N	Valid	500	500	500	486	500	486
	Missing	0	0	0	14	0	14
Mean		21.47	6.20	2.64	6.45	5.04	6.28
Median		22.00	6.30	3.00	5.00	4.50	6.00
Std Dev		2.03	1.31	1.72	5.11	3.06	4.01
Minimum		17.00	3.00	.00	.00	1.00	.00
Maximum		28.00	10.00	7.00	27.00	16.00	21.00

2. Prediction of Anxiety

The model predicting anxiety was significant, $F(3, 482) = 508.78, p < .001, R^2 = .76$. Screen time was a significant positive predictor ($\beta = .87, p < .001$): more screen time was associated with higher anxiety. Sleep duration and physical activity were not significant predictors once the other variables were controlled.

Table 2

Model Summary (anxiety)			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.87	.76	.76	1.97

ANOVA (anxiety)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	5912.77	3	1970.92	508.78	.000
Residual	1867.18	482	3.87		
Total	7779.94	485			

Coefficients (anxiety)					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.63	.46	.00	3.53	.000
sleep hr.	.03	.07	.01	.43	.668
physical activity	.02	.05	.01	.41	.684
screen time	.68	.02	.87	39.03	.000

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

3. Prediction of Depression

The model predicting depression was significant, $F(3, 482) = 15.12, p < .001, R^2 = .09$. Sleep duration was the only significant predictor ($\beta = -.28, p < .001$): shorter sleep was associated with higher depressive symptoms. Screen time and physical activity were not significant.

Table 3

Model Summary (depp.)					
R	R Square	Adjusted R Square	Std. Error of the Estimate		
.29	.09	.08	2.88		

ANOVA (depp.)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	375.61	3	125.20	15.12	.000
Residual	3991.23	482	8.28		
Total	4366.84	485			

Coefficients (depp.)					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	8.92	.68	.00	13.20	.000
sleep hr.	-.65	.10	-.28	-6.52	.000
physical activity	.11	.08	.06	1.44	.151
screen time	-.03	.03	-.04	-1.02	.309

4. Prediction of Perceived Stress

The model predicting perceived stress was significant, $F(3, 482) = 415.58, p < .001, R^2 = .72$. Screen time was a significant positive predictor ($\beta = .85, p < .001$). Sleep duration and physical activity were not significant.

Table 4

Model Summary (stress)			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.85	.72	.72	3.11

ANOVA (stress)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	12046.74	3	4015.58	415.58	.000
Residual	4657.42	482	9.66		
Total	16704.16	485			

Coefficients (stress)					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.63	.73	.00	7.72	.000
sleep hr.	.05	.11	.01	.50	.619
physical activity	-.03	.08	-.01	-.40	.690
screen time	.97	.03	.85	35.24	.000

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

Comparison Across Models

Screen time predicted anxiety and perceived stress but not depression. Sleep duration predicted depression but not anxiety or stress. Physical activity predicted none of the three outcomes after adjustment. The three regression models point to different predictors for different outcomes rather than one behavior driving distress broadly.

DISCUSSION

This study tested whether sleep duration, screen time, and physical activity relate to anxiety, depression, and perceived stress in the same way, or differently. They differed: screen time predicted anxiety and stress, sleep duration predicted depression, and physical activity predicted none of the three once the other behaviors were controlled.

The screen time–anxiety association was the strongest finding ($\beta = .87$). This fits with prior work linking heavy digital media use to anxiety through social comparison, information overload, fear of missing out, and reduced face-to-face contact, along with its knock-on effects on sleep^{8,9,30}. The screen time–stress association ($\beta = .85$) was similarly strong, plausibly reflecting the fact that students use devices for both coursework and socializing, leaving little room for disengagement from notifications, deadlines, and constant connectivity¹⁰.

Sleep duration, by contrast, predicted depression specifically ($\beta = -.28$) but not anxiety or stress. This is consistent with evidence that sleep loss affects neurotransmitter systems and HPA-axis regulation in ways tied to mood disturbance^{5,3}. One plausible reading is that anxiety and stress track more closely with immediate situational demands, while depression reflects a more persistent disturbance in emotional functioning — which would explain why sleep, a more stable trait-like behavior, aligns with depression rather than with the two more reactive outcomes.

Physical activity's null result across all three outcomes ran counter to the hypothesis²⁴. This could reflect insufficient activity intensity or frequency in this sample, a genuine effect that is small relative to sleep and screen time and gets absorbed once both are in the model, or limitations of a single self-report activity item that doesn't capture intensity or duration well. The data here cannot distinguish between these explanations.

Taken together, these results argue against treating anxiety, depression, and perceived stress as one outcome in lifestyle research. If they responded to the same behaviors, the three regression models would have looked alike; instead each had a different significant predictor. Practically, this points toward interventions that reduce screen time as more relevant to anxiety and stress, and interventions that target sleep as more relevant to depression, rather than a single generalized lifestyle recommendation applied across the board.

Some limitations qualify these conclusions. The cross-sectional design cannot establish causal direction — for instance, anxiety could just as easily drive screen use as the reverse. All variables were self-reported, which introduces recall bias and shared-method variance that likely inflates the observed associations somewhat^{26,27}. And the sample is limited to one university's students, so generalizability to other populations or age groups is untested. Longitudinal or experimental designs with objective measures of sleep, screen time, and activity (actigraphy, device-logged screen time) would help establish whether these

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

associations are causal, and future work could also incorporate related behaviors such as diet and substance use.

CONCLUSION

Sleep duration, screen time, and physical activity did not relate to anxiety, depression, and perceived stress in the same way. Screen time predicted anxiety and stress; sleep duration predicted depression; physical activity predicted neither, once the other two were accounted for. This argues against collapsing anxiety, depression, and stress into a single distress measure in lifestyle research, since doing so would have obscured exactly the pattern reported here.

For intervention design, this suggests matching the strategy to the target outcome: reducing screen time is likely more relevant to anxiety and stress, while improving sleep habits is likely more relevant to depression. A generalized "healthier lifestyle" message may be less effective than outcome-specific guidance.

The cross-sectional design and reliance on self-report limit causal claims, and the findings apply most directly to the population studied. Longitudinal and experimental work, ideally with objective behavioral measures, would help confirm whether these associations reflect causal pathways and whether they extend to other groups.

REFERENCES

1. Zhang, Z., Chen, X., Wu, S., Chen, X., Wang, X., Liu, C., ... Bao, Y. (2026), "Global, regional and national burden of anxiety and depression disorders from 1990 to 2021, and forecasts up to 2040", *Journal of Affective Disorders*, Vol. 393 (Part A), Article No. 120299, DOI:10.1016/j.jad.2025.120299
2. Liu, J., Ning, W., Zhang, N., Zhu, B., & Mao, Y. (2024), "Estimation of the global disease burden of depression and anxiety between 1990 and 2044: An analysis of the Global Burden of Disease Study 2019", *Healthcare (Basel)*, Vol. 12 (17), Article No. 1721, DOI:10.3390/healthcare12171721
3. He, H., Zeng, Y., Chen, Z., Wu, M., & Wang, Y. (2025), "Associations Between Sleep Duration, Sleep Quality, and Depressive Symptoms: Evidence from Medical Graduate Students in China", *Nature and Science of Sleep*, Vol. 17, pp. 1853-1862, DOI:10.2147/NSS.S536854
4. Li, X. L., Wei, J., Zhang, X., Meng, Z., & Zhu, W. (2023), "Relationship between night-sleep duration and risk for depression among middle-aged and older people: A dose-response meta-analysis", *Frontiers in Physiology*, Vol. 14, Article No. 1085091, DOI:10.3389/fphys.2023.1085091
5. Asarnow, L. D. (2020), "Depression and sleep: what has the treatment research revealed and could the HPA axis be a potential mechanism?", *Current Opinion in Psychology*, Vol. 34, Pages: 112 to 116, DOI:10.1016/j.copsyc.2019.12.002
6. Zhang, J., He, M., Wang, X., Jiang, H., Huang, J., & Liang, S. (2024), "Association of sleep duration and risk of mental disorder: A systematic review and meta-analysis", *Sleep and Breathing*, Vol. 28 (1), Pages: 261 to 280, DOI:10.1007/s11325-023-02905-1
7. Alkaabba, A., Hussein, G., Albader, M., Assiri, O. F., Alosaimi, B. M., Al Musaad, M. N., Khamsah, M. A., Alzahrani, B. M., Al Sharani, A. H., Asiri, N. A., Alotaibi, A. F., Alshahwan, A., & Alwalah, M. A. (2025), "The Digital Dilemma: Patterns of Screen Time, Sleep Quality, and Mental Health Among Saudi University Students", *Cureus*, Vol. 17 (9), Article No. e91882, DOI:10.7759/cureus.91882

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

8. Wu, W., Zhang, J., & Jo, N. (2025), "Fear of Missing Out and Online Social Anxiety in University Students: Mediation by Irrational Procrastination and Media Multitasking", *Behavioral Sciences (Basel)*, Vol. 15 (1), Article No. 84, DOI:10.3390/bs15010084
9. Piko, B. F., Müller, V., Kiss, H., & Mellor, D. (2025), "Exploring contributors to FoMO (Fear of Missing Out) among university students: The role of social comparison, social media addiction, loneliness, and perfectionism", *Acta Psychologica*, Vol. 253, Article No. 104771, DOI:10.1016/j.actpsy.2025.104771
10. Yao, N., & Wang, Q. (2022), "Technostress from Smartphone Use and Its Impact on University Students' Sleep Quality and Academic Performance", *The Asia-Pacific Education Researcher*, Vol. 32 (3), Pages: 317 to 326, DOI:10.1007/s40299-022-00654-5
11. Martín-Rodríguez, A., & González-Prieto, N. (2026), "Influence of Physical Activity on Perceived Stress and Mental Health in University Students: A Systematic Review", *Frontiers in Sports and Active Living*, Vol. 7, Article No. 1710832, DOI:10.3389/fspor.2025.1710832
12. Liu, L., Xin, X., Wang, H., & Zhang, Y. (2025), "Effectiveness of Physical Exercise on Mental Health Among University Students: A Systematic Review and Meta-analysis", *Frontiers in Psychology*, Vol. 16, Article No. 1612408, DOI:10.3389/fpsyg.2025.1612408
13. Li, R., & Huang, R. (2025), "The Influence of Physical Activity on Mental Well-Being in College Students: A Systematic Review", *Frontiers in Psychology*, Vol. 16, Article No. 1573446, DOI:10.3389/fpsyg.2025.1573446
14. Tan, S. L., Jetzke, M., Vergeld, V., & Müller, C. (2020), "Independent and Combined Associations of Physical Activity, Sedentary Time, and Activity Intensities with Perceived Stress Among University Students: Internet-Based Cross-Sectional Study", *JMIR Public Health and Surveillance*, Vol. 6 (4), Article No. e20119, DOI:10.2196/20119
15. White, A. E., & Karr, J. E. (2023), "Psychometric Properties of the GAD-7 Among College Students: Reliability, Validity, Factor Structure, and Measurement Invariance", *Translational Issues in Psychological Science*, DOI:10.1037/tps0000382
16. Byrd-Bredbenner, C., Eck, K., & Quick, V. (2020), "Psychometric Properties of the Generalized Anxiety Disorder-7 and Generalized Anxiety Disorder-Mini in United States University Students", *Frontiers in Psychology*, Vol. 11, Article No. 550533, DOI:10.3389/fpsyg.2020.550533
15. Dhira, T. A., Rahman, M. A., Sarker, A. R., & Mehareen, J. (2021), "Validity and Reliability of the Generalized Anxiety Disorder-7 (GAD-7) Among University Students of Bangladesh", *PLoS ONE*, Vol. 16 (12), Article No. e0261590, DOI:10.1371/journal.pone.0261590
16. Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001), "The PHQ-9: Validity of a Brief Depression Severity Measure", *Journal of General Internal Medicine*, Vol. 16 (9), Pages: 606 to 613, DOI:10.1046/j.1525-1497.2001.016009606.x
18. Keum, B. T., Miller, M. J., & Inkelas, K. K. (2018), "Testing the Factor Structure and Measurement Invariance of the PHQ-9 Across Racially Diverse U.S. College Students", *Psychological Assessment*, Vol. 30 (8), Pages: 1096 to 1106, DOI:10.1037/pas0000550
20. Cohen, S., Kamarck, T., & Mermelstein, R. (1983), "A Global Measure of Perceived Stress", *Journal of Health and Social Behavior*, Vol. 24 (4), Pages: 385 to 396. PMID: 6668417.
21. Chen, J. Y., Tsang, J. P. Y., Chin, W. Y., Tiwari, A., Wong, J., Wong, I. C. K., Worsley, A., Feng, Y., Sham, M. H., & Lau, C. S. (2021), "Validation of the Perceived Stress Scale (PSS-10) in Medical and Health Sciences Students in Hong Kong", *The*

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

- Asia Pacific Scholar*, Vol. 6 (2), Pages: 31 to 37. Validation of the perceived stress scale (PSS-10) in medical and health sciences students in Hong Kong — *The Asia Pacific Scholar*. DOI:10.29060/TAPS.2021-6-2/OA2328.
22. Cohen, S., Kamarck, T., & Mermelstein, R. (1983), “A Global Measure of Perceived Stress”, *Journal of Health and Social Behavior*, Vol. 24 (4), Pages: 385 to 396, PMID: 6668417.
 23. Ali, A. M., Hendawy, A. O., Ahmad, O., Al Sabbah, H., Smail, L., & Kunugi, H. (2021), “The Arabic Version of the Cohen Perceived Stress Scale: Factorial Validity and Measurement Invariance”, *Brain Sciences*, Vol. 11 (4), Article No. 419, DOI:10.3390/brainsci11040419.
 24. Lee, P. H., Macfarlane, D. J., Lam, T. H., & Stewart, S. M. (2011), “Validity of the International Physical Activity Questionnaire Short Form (IPAQ-SF): A Systematic Review”, *International Journal of Behavioral Nutrition and Physical Activity*, Vol. 8, Article No. 115, DOI:10.1186/1479-5868-8-115. PMID: 22018588; PMCID: PMC3214824
 25. Craig, C. L., Marshall, A. L., Sjöström, M., Bauman, A. E., Booth, M. L., Ainsworth, B. E., Pratt, M., Ekelund, U., Yngve, A., Sallis, J. F., & Oja, P. (2003), “International Physical Activity Questionnaire: 12-Country Reliability and Validity”, *Medicine & Science in Sports & Exercise*, Vol. 35 (8), Pages: 1381 to 1395, DOI:10.1249/01.MSS.0000078924.61453.FB, PMID:12900694.
 26. Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003), “Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies”, *Journal of Applied Psychology*, Vol. 88 (5), Pages: 879 to 903, DOI:10.1037/0021-9010.88.5.879, PMID:14516251.
 27. Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012), “Sources of Method Bias in Social Science Research and Recommendations on How to Control It”, *Annual Review of Psychology*, Vol. 63, Pages: 539 to 569, DOI:10.1146/annurev-psych-120710-100452, PMID:21838546.
 28. Twenge, J. M., & Campbell, W. K. (2018), “Associations Between Screen Time and Lower Psychological Well-Being Among Children and Adolescents: Evidence from a Population-Based Study”, *Preventive Medicine Reports*, Vol. 12, Pages: 271 to 283, DOI:10.1016/j.pmedr.2018.10.003.
 29. Schuch, F. B., Vancampfort, D., Firth, J., Rosenbaum, S., Ward, P. B., Silva, E. S., Hallgren, M., Ponce De Leon, A., Dunn, A. L., Deslandes, A. C., Fleck, M. P., Carvalho, A. F., & Stubbs, B. (2018), “Physical Activity and Incident Depression: A Meta-Analysis of Prospective Cohort Studies”, *American Journal of Psychiatry*, Vol. 175 (7), Pages: 631 to 648, DOI:10.1176/appi.ajp.2018.17111194, PMID:29690792.
 30. Keles, B., McCrae, N., & Grealish, A. (2020), “A Systematic Review: The Influence of Social Media on Depression, Anxiety and Psychological Distress in Adolescents”, *International Journal of Adolescence and Youth*, Vol. 25 (1), Pages: 79 to 93, DOI:10.1080/02673843.2019.1590851.
 31. Mathur, I. (2026), “Emotional Distress as a Predictor of Working Memory Efficiency Under Cognitive Load in Urban Adolescents”, *International Journal of Indian Psychology*, Vol. 14 (2), Pages: 962 to 970, DIP:18.01.091.20261402, DOI:10.25215/1402.091.

Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Indoria, S. & Mathur, I. (2026). Distinct Psychological Profiles are Associated with Lifestyle Behaviours –Anxiety, Depression and Perceived Stress are not Interchangeable. *International Journal of Indian Psychology*, 14(3), 993-1003. DIP:18.01.083.20261403, DOI:10.25215/1403.083

APPENDIX

Table A

Case Processing Summary

Cases	N	Percent
Valid	486	97.2%
Excluded	14	2.8%
Total	500	100.0%

Reliability Statistics

Cronbach's Alpha	N of Items
.56	3

Table B

Correlations

		sleep hr.	physical activity	screen time	depp.	anxity	stress
sleep hr.	Pearson Correlation	1.000	.028	.017	-.294	.025	.026
	Sig. (2-tailed)		.530	.712	.000	.589	.563
	N	500	500	486	500	486	500
physical activity	Pearson Correlation	.028	1.000	-.044	.057	-.029	-.049
	Sig. (2-tailed)	.530		.329	.202	.520	.278
	N	500	500	486	500	486	500
screen time	Pearson Correlation	.017	-.044	1.000	-.052	.872	.849
	Sig. (2-tailed)	.712	.329		.253	.000	.000
	N	486	486	486	486	486	486
depp.	Pearson Correlation	-.294	.057	-.052	1.000	-.035	-.035
	Sig. (2-tailed)	.000	.202	.253		.443	.435
	N	500	500	486	500	486	500
anxity	Pearson Correlation	.025	-.029	.872	-.035	1.000	.807
	Sig. (2-tailed)	.589	.520	.000	.443		.000
	N	486	486	486	486	486	486
stress	Pearson Correlation	.026	-.049	.849	-.035	.807	1.000
	Sig. (2-tailed)	.563	.278	.000	.435	.000	
	N	500	500	486	500	486	500