

DAFTAR PUSTAKA

- Abdullah, S., Rahim, H., Febriana, H., and Syam, R. (2024). *Perilaku dan Aktualisasi Mahasiswa di Era Digital dan Media Sosial*. Makassar: Unhas Press.
- Abeele, M. M. P. Vanden, and Nguyen, M. H. (2022). Digital well-being in an age of mobile connectivity : An introduction to the Special Issue. *Mob. Media Commun.* 10, 174–189. doi: 10.1177/20501579221080899
- Abuhamdah, S. M. A., and Naser, A. (2023). Smart phone addiction and its mental health risks among university students in Jordan: a cross-sectional study. *BMC Psychiatry*, 1–9. doi: 10.1186/s12888-023-05322-6
- Acoba, E. F. (2024). Social support and mental health: the mediating role of perceived stress. *Front. Psychol.* 15, 1–12. doi: 10.3389/fpsyg.2024.1330720
- Adellia, R., and Varadhila, S. (2023). Dinamika permasalahan psikososial masa Quarter Life Crisis pada Mahasiswa. *Psikosains* 18, 29–41.
- Adilla, W. S., and Prataiwi, R. (2025). Pengaruh Dukungan Sosial Terhadap Tingkat Stres Akademik Mahasiswa Tingkat Akhir Pasca Pandemi Covid-19 di Universitas Muhammadiyah Kalimantan Timur., in *Prosiding Simposium Penelitian Sarjana Vol3*.
- Adu, P., Popoola, T., Iqbal, N., Medvedev, O. N., and Simpson, C. R. (2025). Validating the depression anxiety stress scales (DASS-21) across Germany, Ghana, India, and New Zealand using Rasch methodology. *J. Affect. Disord.* 383, 363–373. doi: 10.1016/j.jad.2025.04.099
- Afif, M. H., and Suryanto, S. (2025). Transformasi Pola Komunikasi Interpersonal di Era Digital : Studi Literatur Tentang Pergeseran Interaksi Sosial dalam Masyarakat Kontemporer. *JIMU J. Ilm. Multi Disiplin* 04, 1359–1373.
- Agung, B. (2024). *Pemanfaatan smartphone dalam pendidikan*. Guepedia.
- Agyapong-opoku, N., Agyapong-opoku, F., and Greenshaw, A. J. (2025). Effects of Social Media Use on Youth and Adolescent Mental Health : A Scoping Review of Reviews. *Behav. Sci. (Basel)*. 15, 1–22. doi: 10.3390/bs15050574
- Ahamed, A. J., and Limbu, Y. B. (2024). Financial anxiety : a systematic review. *Int. J. Bank Mark.* 42. doi: 10.1108/IJBM-08-2023-0462
- Aisyah, A., Aini, D. K., and Azaria, U. N. (2025). Dibalik Kecanduan Media Sosial pada Remaja : Pengaruh Stres Akademik dan Kecemasan Sosial dengan Regulasi Emosi sebagai Mediator. *Pers. J. Ilmu Psikol.* 16, 77–95. doi: 10.21107/personifikasi.v16i2.28423
- Aksoy, E., and Allahverdi, F. (2025). Social Media Use Motives Explained by Uses and Gratifications Theory. *Cult. Commun.* 55. doi: 10.18691/kulturveiletisim.1596623
- Alavi, S. S., Ferdosi, M., Jannatifard, F., Eslami, M., Alaghemandan, H., and Setare, M. (2012). Behavioral Addiction versus Substance Addiction : Correspondence of Psychiatric and Psychological Views. *Int. J. Prev. Med.* 3.
- Alfidyah, M. (2025). Hubungan Dukungan Sosial Dengan Stres Akademik. *J. Psikol. Sos.* 1, 15–21.
- Ali, I., Musafaah, M., and Rosadi, D. (2026). *Paparan Media Digital dan Kecemasan Generasi Z: Teori, Riset, dan Implikasi*. Uwais Inspirasi Indonesia.
- Alkal, A. (2025). The role of psychological flexibility and emotion regulation in the relationship between smartphone addiction and psychological wellbeing in adolescents : three - wave longitudinal serial mediation study. *Health Qual. Life Outcomes* 23. doi: 10.1186/s12955-025-02405-8
- Alvaridzi, R. A. D., and Ardelia, V. (2025). Dilema Mahasiswa di Era Digital : Korelasi

- antara FoMO dan Cyberslacking. *Character J. Penelit. Psikol.* 12, 601–610.
- American College Health Association (2025a). American College Health Association-National College Health Assessment III: Undergraduate Student Reference Group Data Report Fall 2024. Silver Spring, Maryland.
- American College Health Association (2025b). National College Health Assessment SPRING 2025. Silver Spring, Maryland. Available at: chrome-extension://efaidnbmninnibpcajpcgclclefindmkaj/https://www.acha.org/wp-content/uploads/NCHA-IIIb_SPRING_2025_REFERENCE_GROUP_INSTITUTIONAL_EXECUTIVE_SUMMARY.pdf
- American Psychological Association (2017). Ethical Principles of Psychologists and Code of Conduct with the 2010 and 2016 Amendments. Washington, DC. Available at: <https://www.apa.org/ethics/code>
- Amir, L. A. (2024). Perspektif Global Kesehatan Mental Kaum Pemuda (Remaja, Adolesen, dan Dewasa Awal) di Amerika Serikat, Eropa, Negara Persemakmuran, dan Asia Tenggara Tahun 2024: Sebuah Tinjauan Sistematis. *J. Ilmu Kesehat. Karya Bunda Husada* 10, 34–60.
- Amiruddin, A. M., Syahrudin, S., and Menungsa, A. S. (2024). Analisis Faktor-Faktor Penyebab Perilaku Phone Snubbing (Phubbing) dalam Kkomunikasi Interpersonal Mahasiswa. *J. Ilm. Ilmu Sos. dan Pendidik.* 2, 160–164.
- Andikaputra, A., and Ardelia, V. (2026). Pengaruh Problematic Internet Use Terhadap Academic Procrastination Pada Mahasiswa. *Character J. Penelit. Psikol.* 13, 158–170.
- Andzani, D., and Irwansyah, I. (2023). Dinamika Komunikasi Digital: Tren, Tantangan, dan Prospek Masa Depan. *J. Syntax Admiration* 4, 1964–1976. doi: [10.46799/jsa.v4i7.671](https://doi.org/10.46799/jsa.v4i7.671)
- APJII (2024). Jumlah Pengguna Internet Indonesia Tembus 221 Juta Orang. *APJII*.
- Arfandi, M. A., Rahman, R. A., Gah, R. L., Asma, N., Mahendra, A. Z., and Rosandini, A. N. (2025). Gambaran kondisi kesehatan mental mahasiswa. *J. Ment. Heal. Concern* 4, 102–111.
- Arianto, B., and Handayani, B. (2024). *Pengantar Studi Fenomenologi*. Balikpapan: Borneo Novelty Publishing.
- Ariawan, W. E., Williardari, K. A., and Gunawan, I. M. A. O. (2025). Pengaruh Penggunaan Smartphone terhadap Kesehatan dan Performa Akademik Siswa. *J. Artif. Intell. Digit. Bus.* 4, 7232–7239.
- Arumugam, N., Selvanayagam, S., and Sathiyasenan, S. T. (2020). The Effects of Smartphone Usage on University Students The Effects of Smartphone Usage on University Students. *Int. J. Acad. Res. Progress. Educ. Dev.* 9, 170–183. doi: [10.6007/IJARPED/v9-i3/7960](https://doi.org/10.6007/IJARPED/v9-i3/7960)
- Ashilah, A. A., Dewi, G. A., and Syam, R. R. (2025). Regulasi Emosi dan Nomofobia pada Mahasiswa: Tinjauan Literatur. *J. Empati* 14, 581–594.
- Astuti, A. D., Sunawan, S., and Mahfud, A. (2026). Uncovering the impact of smartphone addiction on adolescent emotion regulation: A systematic literature review for intervention strategies. *G-Couns J. Bimbing. dan Konseling* 10, 1819–1841. doi: [10.31316/g-couns.v10i02.7873](https://doi.org/10.31316/g-couns.v10i02.7873)
- Astuti, S. W. (2022). Penggunaan Media Sosial Terhadap Kesehatan Mental Mahasiswa Pasca Pandemi Covid Post-Covid. *PROMEDIA (Public Relat. dan Media Komunikasi)* 8, 220–240.
- Attar, F. K. (2024). 10 Universitas Terbaik di Makassar Berdasarkan Survey! *Inilah.com*.

- Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., et al. (2018). The WHO World Mental Health Surveys International College Student Project: Prevalence and Distribution of Mental Disorders on behalf of the WHO WMH-ICS Collaborators HHS Public Access. *J Abnorm Psychol* 127, 623–638. doi: 10.1037/abn0000362.The
- Augner, C., Vlasak, T., Aichhorn, W., and Barth, A. (2023). The association between problematic smartphone use and symptoms of anxiety and depression — a meta-analysis. *J. Public Health (Bangkok)*. 45, 193–201. doi: 10.1093/pubmed/fdab350
- Ayuanda, L. N., Kusuma, N. I., Arifiana, R., and Kristiyanti, R. (2025). Analisa Penggunaan Media Sosial Dan Kesehatan Mental Remaja : Tinjauan Terhadap Pengaruh Konsumsi Dan Interaksi Online. *J. Ilm. Kesehat.* 18, 12–21.
- Babakhani, D., Shojaei, A., Zad, E. P., Kazemi, M., and Foroughi, A. A. (2025). From nighttime and daytime smartphone use to negative emotions in adults: The pathway through sleep indicators and event importance. *Comput. Hum. Behav. Reports* 20. doi: 10.1016/j.chbr.2025.100826
- Badan Pusat Statistik Indonesia (2025a). Persentase Penduduk yang Memiliki/Menguasai Telepon Seluler Menurut Provinsi dan Klasifikasi Daerah, 2024. Available at: <https://www.bps.go.id/id/statistics-table/2/Mzk1Izl%3D/persentase-penduduk-yang-memiliki-menguasai-telepon-seluler-menurut-provinsi-dan-klasifikasi-daerah.html>
- Badan Pusat Statistik Indonesia (2025b). Statistik Telekomunikasi Indonesia 2024. Available at: <https://www.bps.go.id/id/publication/2025/08/29/beaa2be400eda6ce6c636ef8/statistik-telekomunikasi-indonesia-2024.html>
- Badan Pusat Statistik Kota Makassar (2025a). Kota Makassar dalam Angka 2025. Makassar.
- Badan Pusat Statistik Kota Makassar (2025b). Statistik Kesejahteraan Rakyat Kota Makassar 2025. Makassar. Available at: <https://makassarkota.bps.go.id/id/publication/2025/11/28/330db59015c63d077b36f94b/statistik-kesejahteraan-rakyat-kota-makassar-2025.html>
- Badan Pusat Statistik Provinsi Sulawesi Selatan (2024). Jumlah Penduduk Menurut Kabupaten/Kota (Ribuan Jiwa), 2024. Available at: <https://sulsel.bps.go.id/id/statistics-table/2/ODMjMg%3D%3D/jumlah-penduduk--2024.html>
- Badan Pusat Statistik Provinsi Sulawesi Selatan (2025). Statistik kesejahteraan rakyat Provinsi Sulawesi Selatan 2025 (Vol. 10). Available at: <https://sulsel.bps.go.id>
- Basit, A., Purwanto, E., Kristian, A., Pratiwi, D. I., Krismira, K., Mardiana, I., et al. (2022). Teknologi komunikasi smartphone pada interaksi sosial. *Lontar J. Ilmu Komun.* 10, 1–10. doi: 10.30656/lontar.v10i1.3254
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., et al. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *J. Affect. Disord.* 173, 90–96. doi: 10.1016/j.jad.2014.10.054
- Belal, M., Luong, N., Aledavood, T., and Kulshrestha, J. (2026). Examining the Association Between Internet Use and Perceived Stress in Adults : Longitudinal Observational Study Combining Web Tracking Data With Questionnaires. *J. Med. Internet Res.* 28. doi: 10.2196/78775
- Benner, M., Grant, J., and O'Kane, M. (2022). *Crisis Response in Higher Education:*

- How the Pandemic Challenged University Operations and Organisation*. Palgrave Macmillan.
- Bettis, A., Burke, T., and Liu, R. (2021). Digital Technologies for Emotion-Regulation Assessment and Intervention: A Conceptual Review. *Clin. Psychol. Sci.* doi: 10.1177/2167702621101198
- Bhatiasevi, V. (2024). The uses and gratifications of social media and their impact on social relationships and psychological well-being. *Front. Psychiatry*, 1–13. doi: 10.3389/fpsyt.2024.1260565
- Biggs, A., and Brough, P. (2025). "Stress and Coping Theory. In: Liamputtong, P. (eds)," in *Handbook of Concepts in Health, Health Behavior and Environmental Health*, (Springer).
- Biggs, A., Brough, P., and Drummond, S. (2017). "Lazarus and Folkman's psychological stress and coping theory," in *The handbook of stress and health: A guide to research and practice*, (Wiley Blackwell). doi: 10.1002/9781118993811.ch21
- Blunden, H., and Brodsky, A. (2024). A Review of Virtual Impression Management Behaviors and Outcomes. *J. Manage.* 50, 2197–2236. doi: 10.1177/01492063231225160
- Bonsaksen, T., and Kleppang, A. L. (2025). Social Media and Mental Health: Lessons Learned from the Psychology Research and Behavior Management Article Collection. *Psychol. Res. Behav. Manag.* 18. doi: 10.2147/PRBM.S549588
- Boscardin, C. K., Sewell, J. L., Tolsgaard, M. G., and Pusic, M. V (2024). How to Use and Report on p -values. *Perspect. Med. Educ.* 13, 250–254. doi: 10.5334/pme.1324
- Boyer, B. P., Aguas, A. B., Klinginsmith, M. G., and Nelson, J. A. (2025). Examining social support and belonging as mental health protective factors for undergraduates with adverse childhood experiences. *J. Am. Coll. Heal.* 73, 3752–3756. doi: 10.1080/07448481.2025.2456610
- Bratina, T. (2023). Digital Devices and Interpersonal Communication Over Time. *J. Elem. Educ.* 16, 425–439. doi: 10.18690/rei.2958
- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. doi: 10.1191/1478088706qp063oa
- Braun, V., and Clarke, V. (2023). Toward good practice in thematic analysis: Avoiding common problems and be (com)ing a knowing researcher. *Int. J. Transgender Heal.* 24, 1–6. doi: 10.1080/26895269.2022.2129597
- Brooks, R., Gupta, A., Jayadeva, S., Lainio, A., and Lažetić, P. (2022). *Constructing the Higher Education Student: Perspectives from across Europe*. Bristol University Press.
- Burleson, B. R., MacGeorge, E. L. (2002). "Supportive Communication," in *Handbook of Interpersonal Communication*, (Sage Publications).
- Busch, F., Lallo, J., and Tage, J. (2025). Navigating digital repertoires : translingual practices in smartphone communication across platforms. *Discourse, Context Media* 68. doi: 10.1016/j.dcm.2025.100949
- Busch, P. A., and McCarthy, S. (2021). Antecedents and consequences of problematic smartphone use : A systematic literature review of an emerging research area. *Comput. Human Behav.* 114. doi: 10.1016/j.chb.2020.106414
- Campbell, S. W. (2020). Cutting the Cord: Social and Scholarly Revolutions as CMC Goes Mobile. *J. Comput. Commun.* 25, 101–110. doi: 10.1093/jcmc/zmz021
- Canale, N., Marino, C., Lenzi, M., Vieno, A., Griffiths, M. D., Gaboardi, M., et al.

- (2022). How Communication Technology Fosters Individual and Social Wellbeing During the Covid - 19 Pandemic : Preliminary Support For a Digital Interaction Model. *J. Happiness Stud.* 23, 727–745. doi: 10.1007/s10902-021-00421-1
- Candussi, C. J., Kabir, R., and Sivasubramanian, M. (2023). Problematic smartphone usage, prevalence and patterns among university students: A systematic review. *J. Affect. Disord. Reports* 14, 1–12. doi: 10.1016/j.jadr.2023.100643
- Cao, M., Yang, H., and Chen, D. (2023). Relationship between Anxiety and Problematic Smartphone Use in First-Year Junio High School Students: Moderated Mediation Effects of Physical Activity and School Adjustment. *Behav. Sci. (Basel)*.
- Cerit, M., Lee, A. Y., Hancock, J., Miner, A., Cho, M., Muise, D., et al. (2025). Person-Specific Analyses of Smartphone Use and Mental Health: Intensive Longitudinal Study. *JMIR Form. Res.* 9, 1–16. doi: 10.2196/59875
- Chemnad, K., Aziz, M., Belhaouari, S. B., and Ali, R. (2023). The interplay between social media use and problematic internet usage : Four behavioral patterns. *Heliyon* 9, e15745. doi: 10.1016/j.heliyon.2023.e15745
- Chen, L., Gao, S., and Pan, Y. (2025a). Mediation and Moderation Effects of Mindfulness Between Improper Use of the Mobile Phone and Anxiety in University Students in the Post-Coronavirus Disease 2019 Pandemic Era. *Sage Open*, 1–10. doi: 10.1177/21582440251386637
- Chen, X., Zhu, Y., and Shi, X. (2025b). Loneliness, smartphone addiction, and social anxiety in college students: Direct and indirect associations among developmental trajectories. *Pers. Individ. Dif.* 247. doi: 10.1016/j.paid.2025.113442
- Cheng, Q., Zhou, Y., Zhu, H., Wang, Q., and Peng, W. (2024). Relationships between daily emotional experiences and smartphone addiction among college students : moderated mediating role of gender and mental health problems. *Front. Psychol.*, 1–14. doi: 10.3389/fpsyg.2024.1490338
- Cheung, S. F., Pesigan, I. J., and Vong, W. N. (2023). DIY bootstrapping : Getting the nonparametric bootstrap confidence interval in SPSS for any statistics or function of statistics (when this bootstrapping is appropriate). *Behav. Res. Methods* 55, 474–490. doi: 10.3758/s13428-022-01808-5
- Chu, T. H., Sun, M., and Jiang, L. C. (2023). Self-disclosure in social media and psychological well-being : A meta-analysis. *J. Soc. Pers. Relat.* 40, 576–599. doi: 10.1177/02654075221119429
- Clark, L. A., and Watson, D. (1991). Tripartite Model of Anxiety and Depression : Psychometric Evidence and Taxonomic Implications. *J. Abnorm. Psychol.* 100, 316–336.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences.*, Second. doi: 10.4324/9780203771587
- Cohen, S., and Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychol. Bull.* 98, 310–357. doi: 10.1037/0033-2909.98.2.310
- Conkey-Morrison, C., Zarate, D., March, E., Hunt, B., and Stavropoulos, V. (2025). Stress-coping mechanisms and problematic social media use: A network analysis and differences across men and women. *Comput. Hum. Behav. Reports* 20, 100848. doi: 10.1016/j.chbr.2025.100848
- Córdova Olivera, P., Gasser Gordillo, P., Naranjo Mejía, H., La Fuente Taborga, I., Grajeda Chacón, A., and Sanjinés Unzueta, A. (2023). Academic stress as a predictor of mental health in university students. *Cogent Educ.* 10. doi:

10.1080/2331186X.2023.2232686

- Council for International Organizations of Medical Sciences (CIOMS), and World Health Organization (WHO) (2016). *International Ethical Guidelines for Health-related Research Involving Humans*. Geneva: the Council for International Organizations of Medical Sciences (CIOMS). Available at: <https://cioms.ch/wp-content/uploads/2017/01/WEB-CIOMS-EthicalGuidelines.pdf>
- Creswell, J. W., and Clark, V. L. P. (2018). *Designing and Conducting MIXED METHODS.*, Third Edit. Sage Publications.
- Creswell, J. W., and Creswell, J. D. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.*, Six Editio. Sage Publications.
- Cronbach, L. . (1951). Coefficient alpha and the internal structure of tests. *Psychometrika* 16, 297–334.
- Cutrona, C. E. (1990). STRESS AND SOCIAL SUPPORT- IN SEARCH OF OPTIMAL MATCHING. *J. Soc. Clin. Psychol.* 9, 3–14. doi: 10.1521/jscp.1990.9.1.3 Abstract PDF
- Cutrona, C. E., and Russell, D. W. (1987). *The provisions of social relationships and adaptation to stress*. Greenwich, Connecticut, USA: JAI Press Inc.
- Daeng, I. T., Mewengkang, N. ., and Kalesaran, E. R. (2017). Penggunaan Smartphone Dalam Menunjang Aktivitas Perkuliahan Oleh Mahasiswa Fispol Unsrat Manado. *Acta Diurna* VI, 1–15.
- Dahri, N. W., Tjahjono, H. K., Shaikh, M., Aqil, M., and Syam, M. (2025). When Phones Take Over: How Self-Management Bridges the Gap to Communication. *JBTI J. Bisnis Teor. dan Implementasi* 16, 34–54. doi: 10.18196/jbti.v16i1.25413
- Darukaswamy, D. (2017). The Role of Nonlinear dynamics in Understanding Complex Systems. *Int. J. Res. Anal. Rev.* 4, 304–310.
- Davis, N. (2024). Teenagers displaying ‘problematic phone use’ more likely to be depressed. *Guardian*. Available at: <https://www.theguardian.com/money/article/2024/aug/01/teenagers-displaying-problematic-phone-use-more-likely-to-be-depressed?>
- Defilippis, E., Impink, S. M., Singell, M., Polzer, J., and Sadun, R. (2022). The impact of COVID-19 on digital communication pattern. *Humanit. Soc. Sci. Commun.* 9, 1–11. doi: 10.1057/s41599-022-01190-9
- DeFleur, M. L., and DeFleur, M. H. (2022). *Mass Communication Theories: Explaining Origins, Processes, and Effects*. Routledge.
- Dekawaty, A. (2024). Hubungan adiksi smartphone dengan kesehatan mental Mahasiswa. *J. Masker Med.* 12, 332–339.
- Dekker, C. A., Baumgartner, S. E., Sumter, S. R., and Ohme, J. (2024). Beyond the Buzz: Investigating the Effects of a Notification-Disabling Intervention on Smartphone Behavior and Digital Well-Being. *Media Psychol.* doi: 10.1080/15213269.2024.2334025
- DeVellis, R. F. (2016). *Scale Development: Theory and Applications*. Sage.
- DeVellis, R. F., and Thorpe, C. T. (2022). *Scale Development: Theory and Applications.*, Fifth Edit. Sage Publications.
- Deviany, N. F., and Syakurah, R. A. (2025). Analisis persepsi dan kebutuhan pelayanan kesehatan mental pada mahasiswa di lingkungan kampus. *Nutrix* 9, 22–37.
- Devito, J. A. (2019). *The Interpersonal Communication Book.*, Fifteenth. Pearson.
- Dewi, A. A., Setianingsih, A., and Wahyuni, D. (2025). The Relationship Between Smartphone Addiction, Anxiety, and Stress and Insomnia in Undergraduate

- Students of Public Health, Mh Thamrin. *J. Ris. Ilmu Kesehat.* 1, 247–255.
- Dianah, H. S., Sukaesih, N. S., and Sejati, A. (2024). The Impact of Screen Time on Sleep in Adolescents: A Scoping Review. *J. Keperawatan Florence Nightingale* 7, 180–190. doi: 10.52774/jkfn.v7i1.166
- Dou, X., Lu, J., Yu, Y., Yi, Y., and Zhou, L. (2024). The impact of depression and anxiety on mobile phone addiction and the mediating effect of self - esteem. *Sci. Rep.* 14, 1–11. doi: 10.1038/s41598-024-71947-6
- Ee, G. T., Lau, P. L., Erford, B. T., Sombuling, A., Kamu, A. Bin, and Matter, D. S. (2026). Perceived Social Support and Subjective Happiness Among Undergraduate Counseling Students in Malaysia : Does Self-Esteem Matter ? *Couns. Outcome Res. Eval.* 17, 32–47. doi: 10.1080/21501378.2025.2601913
- Efron, B., and Tibshirani, R. J. (1994). *An Introduction to the Bootstrap*. Chapman & Hall/CRC.
- Elamin, N. O., Almasaad, J. M., Busaeed, R. B., Aljafari, D. A., and Khan, M. A. (2024). Smartphone addiction , stress , and depression among university students. *Clin. Epidemiol. Glob. Heal.* 25, 101487. doi: 10.1016/j.cegh.2023.101487
- Elhai, J. D., Dvorak, R. D., Levine, J. C., and Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *J. Affect. Disord.* 207, 251–259. doi: 10.1016/j.jad.2016.08.030
- Elhai, J. D., Yang, H., McKay, D., and Asmundson, G. J. G. (2020). COVID-19 anxiety symptoms associated with problematic smartphone use severity in Chinese adults. *J. Affect. Disord.* 274, 576–582. doi: 10.1016/j.jad.2020.05.080
- Elhai, J. D., Yang, H., and Montag, C. (2021). Fear of missing out (Fomo): Overview, theoretical underpinnings, and literature review on relations with severity of negative affectivity and problematic technology use. *Brazilian J. Psychiatry* 43, 203–209. doi: 10.1590/1516-4446-2020-0870
- Elkin, N., Kütük, H., Soydan, A. M., and Tanriver, S. C. (2025). Mediating factors in the relationship between smartphone addiction and sleep quality : depression, stress, and anxiety. *Psychol. Mediat. sleep phone use*, 1–6. doi: 10.1590/1806-9282.20242069
- Etikan, I., Musa, S. A., and Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *Am. J. Theor. applied Stat.* 5, 1–4. doi: 10.11648/j.ajtas.20160501.11
- Evgin, D., Karabulut, R., Deniz, S., and Kaçmaz, C. (2025). Digital Addiction and Stress : The Impact of Problematic Internet Use Among University Students. *e-Kafkas J. Educ. Res.* 12, 381–399. doi: 10.30900/kafkasegt.1614958
- Fabio, R. A., and Stracuzzi, A. (2022). Theories on Addiction of Smartphone and Internet. *Encyclopedia*, 1–6. Available at: <https://encyclopedia.pub/entry/24392>
- Fabio, R. A., Stracuzzi, A., and Faro, R. Lo (2022). Problematic Smartphone Use Leads to Behavioral and Cognitive Self-Control Deficits. *Int. J. Environ. Res. Public Health* 19. doi: 10.3390/ijerph19127445 Academic
- Faisol, F., and Astuti, P. (2024). Analisis Implementasi Sistem Manajemen Pembelajaran Berbasis Teknologi : Peran Tingkat Keterampilan Teknologi Mahasiswa dalam Peningkatan Keterlibatan dalam Pembelajaran di Perguruan Tinggi. *Efektor* 11, 66–83.
- Falgoust, G., Winterlind, E., Moon, P., Parker, A., Zinzow, H., and Madathil, K. (2022). Applying the uses and gratifications theory to identify motivational factors behind young adult's participation in viral social media challenges on TikTok.

- Hum. Factors Healthc.* 2. doi: 10.1016/j.hfh.2022.100014
- Fam, J. Y., and Männikkö, N. (2025). Loneliness and Problematic Media Use : Meta-Analysis of Longitudinal Studies. *J. Med. Internet Res.* 27, 1–17. doi: 10.2196/60410
- Fan, Y., Li, J., Zhao, X., and Lei, X. (2025). The association between dormitory interpersonal relationships and non-suicidal self-injury in Chinese university students : a moderated mediation model. *Int. J. Adolesc. Youth* 30. doi: 10.1080/02673843.2025.2507116
- Fasha, Y. Z., and Alfurqan, A. (2024). Hubungan Intensitas Penggunaan Media Sosial dengan Kesehatan Mental Mahasiswa PAI. *ALSYS J. Keislaman dan Ilmu Pendidik.* 5, 635–648. doi: 10.58578/alsys.v4i5.3648
- Fauziah, S., and Ardiansyah, H. (2025). Peran Dukungan Sosial dalam Kesehatan Mental Mahasiswa Pendidikan Ekonomi UPI. *J. Pendidik. Tambusai* 9, 14613–14618.
- Fazril, R. A., Ulfa, F., and Widiningsih, Y. (2024). Peran Kecanduan Smartphone dan Stres Akademik terhadap Kualitas Tidur Pada Mahasiswa. *Al-Hikmah J. Agama dan Ilmu Pengetah.* 21, 228–237.
- Feng, G., Xu, X., and Lei, J. (2023). Tracking perceived stress , anxiety, and depression in daily life: a double-downward spiral process. *Front. Psychol.* 14, 1–10. doi: 10.3389/fpsyg.2023.1114332
- Fetters, M. D., Curry, L. A., and Creswell, J. W. (2013). Achieving Integration in Mixed Methods Designs — Principles and Practices. *Health Serv. Res.* 48, 2134–2156. doi: 10.1111/1475-6773.12117
- Field, A. (2024). *Discovering Statistics Using IBM SPSS Statistics.*, Sixth Edit. Sage Publications.
- Fitri, N., Hanum, F. J., and Reza, M. (2020). Hubungan Penggunaan Smartphone pada Malam Hari Terhadap Kualitas Tidur Mahasiswa Program Studi Pendidikan Dokter Fakultas Kedokteran Universitas Andalas. *JIKESI J. Ilmu Kesehat. Indones.* 1, 379–385. doi: 10.25077/jikesi.v1i3.78
- Fitriasari, A., Septianingrum, Y., Hatmanti, N. M., Purwanti, N., and Umamah, F. (2021). Smartphone addiction dengan depresi, kecemasan dan stres pada mahasiswa. *J. Keperawatan Jiwa* 9, 947–954.
- FKIK UIN Alauddin (2025). Gambaran Kejadian Nomophobia pada Mahasiswa Kesehatan Masyarakat UIN Alauddin Masyarakat. *FKIK UIN Alauddin Makassar*. Available at: <https://ksm.fkik.uin-alauddin.ac.id/artikel-3874-gambaran-kejadian-nomophobia-pada-mahasiswa-kesehatan-masyarakat-uin-alauddin-makassar>
- Fournier, H., Fournel, A., Osiurak, F., Koenig, O., Pâris, F., Gaujoux, V., et al. (2026). Attention hijacked : How social media notifications disrupt cognitive processing. *Comput. Human Behav.* 179, 108926. doi: 10.1016/j.chb.2026.108926
- Fransiska, E. A., Putri, T. H., and Ligita, T. (2023). Hubungan smartphone addiction dengan tingkat kecemasan akademik pada mahasiswa fakultas kedokteran universitas tanjungpura. *J. Keperawatan Jiwa* 11, 529–536.
- Fuady, I., Wibowo, K. A., and Sutarjo, M. A. (2024). Nomophobia and smartphone addiction among college students. *Int. J. Polit. Sociol. Res.* 12, 103–110.
- Galderisi, S. (2024). The need for a consensual definition of mental health. *World Psychiatry* 23, 52–53. doi: 10.1002/wps.21150
- Galugu, N. S., Hajeni, H., Marhani, M., Pajarianto, H., Elihami, E., and Hikmawati, H. (2025). The Moderating Role of Social Support on the Effect of Academic Stress on Students ' Engagement. *Al-Hayat J. Islam. Educ.* 9. doi:

10.35723/ajie.v9i2.174

- Gebremariam, H. T., Dea, P., and Gonta, M. (2024). Digital socialization: Insights into interpersonal communication motives for socialization in social networks among undergraduate students. *Heliyon* 10, e39507. doi: 10.1016/j.heliyon.2024.e39507
- Ghasemi, A., and Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *Int. J. Endocrinol. Metab.* 10, 486–489. doi: 10.5812/ijem.3505
- Ghazali, S. E., Al-shahrani, H. F., Rajikan, R., Wahab, N. A., Saad, Q., and Wahab, S. (2025). Smartphone Addiction, Anxiety, Depression , and Academic Performance in University Students : A Cross-Sectional Study. *Res. Sq.*, 1–20. doi: 10.21203/rs.3.rs-6252874/v1 License:
- Giray, L., Nemeño, J., Braganaza, J., Lucero, S. M., and Bacarra, R. (2024). A survey on digital device engagement, digital stress, and coping strategies among college students in the Philippines. *Int. J. Adolesc. Youth* 29. doi: 10.1080/02673843.2024.2371413
- Gisela, E. S., Kinkie, E. A., Sabbilla, A., and Subroto, U. (2025). Pengaruh Stres Akademik terhadap Kesejahteraan Psikologis Mahasiswa Semester Akhir yang Terlambat Lulus. *Akad. J. Mhs. Humanis* 5, 331–341.
- Godard, R., and Holtzman, S. (2024). Are active and passive social media use related to mental health, wellbeing, and social support outcomes? A meta-analysis of 141 studies. *J. Comput. Commun.* 29. doi: 10.1093/jcmc/zmad055
- Goffman, E. (2023). "The Presentation of Self in Everyday Life," in *Social Theory Re-Wired*, (Routledge).
- Goggin, G., and Hjorth, L. (2026). *The Routledge Companion to Mobile Media.*, Second. Routledge.
- Grant, J. E., Potenza, M. N., Weinstein, A., and Gorelick, D. A. (2011). Introduction to Behavioral Addictions. *Am J Drug Alcohol Abus.* 36, 233–241. doi: 10.3109/00952990.2010.491884.Introduction
- Griffiths, M. (1996). Behavioural addiction : an issue for everybody ? *Empl. Couns. Today J. Work. Learn.* 8, 19–25.
- Griffiths, M. (2005). A ' components ' model of addiction within a biopsychosocial framework. *J. Subst. Use* 10, 191–197. doi: 10.1080/14659890500114359
- Gritti, E. S., Bornstein, R. F., and Barbot, B. (2023). The smartphone as a " significant other ": interpersonal dependency and attachment in maladaptive smartphone and social networks use. *BMC Psychol.* 11, 1–17. doi: /10.1186/s40359-023-01339-4
- Gu, X., and Mao, E. Z. (2023). The impacts of academic stress on college students ' problematic smartphone use and Internet gaming disorder under the background of neijuan : Hierarchical regressions with mediational analysis on escape and coping motives. *Front. Psychiatry.*
- Gul, M., Fitria, L., and Rauf, H. (2025). INVESTIGATING THE ROLE OF COPING STRATEGIES IN MODERATING THE RELATIONSHIP BETWEEN ELECTRONIC. *J. Kesehat. Tambusai* 6, 8987–8995.
- Gunawan, N. A., Berhimpong, M., and Manoppo, J. (2024). Hubungan Faktor-Faktor Psikososial dengan Tingkat Stres pada Masa Penyusunan Skripsi Mahasiswa Prodi Ilmu Kesehatan Masyarakat Universitas Negeri Manado Tahun 2024. *J. Lentera Sehat Indones.* 3, 18–25.
- Guo, Z., Qiu, R., Yang, T., Gong, Y., Li, Y., and Zhu, X. (2026). Problematic smartphone use is related to depression and anxiety : A transdiagnostic and

- three-sample network analysis. *Addict. Behav.* 172. doi: 10.1016/j.addbeh.2025.108498
- Guo, Z., Yang, T., Qiu, R., Qiu, H., Ren, L., Liu, X., et al. (2023). Network analysis of the relationships between problematic smartphone use and anxiety , and depression in a sample of Chinese college students. *Front. Psychiatry*.
- Gustiadi, A., and Lazuardi, L. (2025). Gambaran Kesehatan Mental Pada Mahasiswa POLTEKKES Tasikmalaya. *Intan Husada J. Ilm. Keperawatan* 13, 76–85. doi: 10.52236/ih.v13i1.685
- Hajdarmataj, F., and Paksoy, A. (2022). “Uses and Gratifications Theory in Social Media Applications: Today’s Active Users, Characteristics and Obtained Gratifications,” in *Current Studies in Communication Sciences-1*, eds. E. Yuksel, A. Paksoy, C. C. Cingi, and S. S. Durul (Literaturk, Academia), 24–32.
- Hakim, M. A., and Aristawati, N. V. (2023). Mengukur Depresi, Kecemasan, dan Stres Pada Kelompok Dewasa Awal di Indonesia: Uji Validitas dan Reliabilitas Konstruk DASS-21. *J. Psikol. Ulayat* 10, 232–250. doi: 10.24854/jpu553
- Hall, J. A., and Baym, N. K. (2011). Calling and texting (too much) : Mobile maintenance expectations , (over) dependence , entrapment , and friendship satisfaction. *New Media Soc.* 14. doi: 10.1177/1461444811415047
- Harahap, N. H., Azzura, P. R., Yasmin, R., Ikram, R., and Alfari, R. (2025). Analisis Isi Pesan Komunikasi Interpersonal dalam Percakapan Digital Melalui Aplikasi WhatsApp Sebagai Bentuk Interaksi Sosial Modern. *Fatih J. Contemp. Res.* 02, 433–444.
- Hartmann, M. (2023). *The Routledge Handbook of Media and Technology Domestication*. Routledge.
- Hayes, A. F. (2022). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach.*, Third Edit. Guilford Press.
- Hayes, J. A. (2024). *College Student Mental Health and Wellness: Coping on Campus*. Emerald Publishing.
- Herring, S. C., Androutsopoulos, J. (2015). “Computer-mediated discourse,” in *The handbook of discourse analysis*, (Wiley Blackwell).
- Hidalgo-fuentes, S., Martínez-álvarez, I., Llamas-salguero, F., Pineda-Zelaya, I. S., Merino-Soto, C., and Chans, G. M. (2025). Psychometric properties of the smartphone addiction scale-short version (SAS-SV) in Honduran university students. *PLoS One* 20, 1–18. doi: 10.1371/journal.pone.0327226
- Hidayati, Y., and Nasution, M. I. (2025). Fenomena FOMO (Fear of Missing Out) di Era Digital : Studi tentang Dampaknya pada Gen Z. *Innov. J. Soc. Sci. Res.* 5, 1218–1228.
- Hidayatullah, M. S., Rusnawati, R., Belaroz, G., Nabiyina, B. A., and Laksana, A. (2025). Peran Digital dalam Membentuk Pola Interaksi Komunikasi Interpersonal Generasi Z. *Saber J. Tek. Inform. Sains dan Ilmu Komun.* 3. doi: 10.59841/saber.v3i1.1987
- Hill, A., Hartmann, M., and Andersson, M. (2021). *The Routledge Handbook of Mobile Socialities*. Routledge.
- Holdaway, T. (2024). “Fundamentals of Addictive Behaviors,” in *Fundamentals of Addictive Behaviors*, (Pressbooks).
- Holt-lunstad, J. (2022). Social Connection as a Public Health Issue : The Evidence and a Systemic Framework for Prioritizing the “ Social ” in Social Determinants of Health. *Annu. Rev. Public Health* 43, 193–213.
- Holzmann, A. (2025). The Relationship Between Problematic Smartphone Use and Mental Health in Adolescents.

- Horwood, S., and Anglim, J. (2021). Emotion Regulation Difficulties, Personality, and Problematic Smartphone Use. *Cyberpsychol Behav Soc Netw* 24, 275–281. doi: 10.1089/cyber.2020.0328
- Hostinar, C., and Gunnar, M. (2016). Social Support Can Buffer Against Stress and Shape Brain. *AJOB Neurosci.* 6, 34–42. doi: 10.1080/21507740.2015.1047054.Social
- Hsieh, C. (2025). The impact of smartphone usage frequency on university students' academic performance : A meta-analysis of moderating factors. *Acta Psychol. (Amst)*. 259, 105374. doi: 10.1016/j.actpsy.2025.105374
- Hu, H., and Huang, M. (2024). How stress influences short video addiction in China : an extended compensatory internet use model. *Front. Psychol.*, 1–15. doi: 10.3389/fpsyg.2024.1470111
- Huang, L., and Zhang, T. (2022). Perceived Social Support , Psychological Capital , and Subjective Well-Being among College Students in the Context of Online Learning during the COVID-19 Pandemic. *Asia-Pacific Educ. Res.* 31, 563–574. doi: 10.1007/s40299-021-00608-3
- Huang, S., Lai, X., Ke, L., Qin, X., Yan, J. J., Xie, Y., et al. (2022). Smartphone Stress: Concept, Structure, and Development of Measurement Among Adolescents. *J. Psychosoc. Res. Cybersp.* 16. doi: 10.5817/CP2022-5-1
- Humer, E., Zeldovich, M., Probst, T., and Pieh, C. (2025). Problematic smartphone usage in the Austrian general population : a comparative study of 2022 and 2024 , mental health correlates and sociodemographic risk factors. *Front. Public Heal.* doi: 10.3389/fpubh.2025.1535074
- Hunter, M. K., Russel, A. J., Maldonado, G., and Burstyn, I. (2026). Exploring the proper use of p -values and confidence intervals in leading epidemiology journals. *Glob. Epidemiol.* 11. doi: 10.1016/j.gloepi.2026.100247
- Hutapea, S. P., Purwasetiawatik, T. F., and Hayati, S. (2024). Tingkat Kecenderungan Nomophobia Pada Mahasiswa di Kota Makassar. *J. Psikol. Karakter* 4, 651–658. doi: 10.56326/jpk.v4i2.3744
- IBM Corporation (2021). IBM SPSS Bootstrapping 28. Available at: https://www.ibm.com/docs/SSLVMB_28.0.0/pdf/IBM_SPSS_Bootstrapping.pdf
- Ildil, I., Syahputra, Y., Fadli, R. P., Zola, N., Putri, Y. E., Amalianita, B., et al. (2020). The depression anxiety stress scales (DASS-21): An Indonesian validation measure of the depression anxiety stress. *COUNS-EDU Int. J. Couns. Educ.* 5, 205–215. doi: 10.23916/0020200536840
- Insani, F., Lestari, R. R., and Riani, R. (2025). Hubungan Penggunaan Smartphone dengan Kualitas Tidur pada Mahasiswa S1 Keperawatan Universitas Pahlawan Tuanku Tambusai. *J. Integr. Knowl. Innov.* 1, 51–57.
- Irham, S. S., Fakhri, N., and Ridfah, A. (2022). Hubungan Antara Kesepian dan Nomophobia Pada Mahasiswa Perantau Universitas Negeri Makassar. *J-CEKI J. Cendekia Ilm.* 1, 318–332.
- Iskandar, Suryani, Y., and Mulyati, S. (2025). *METODE PENELITIAN EKSPLANATORI SURVEI*. Cirebon: PT Arr Rad Pratama.
- Islam, M. R., Ahmed, O., Naher, L., and Islam, M. N. (2025). The association between problematic smartphone use and subjective well-being in Bangladeshi youths : Mediating role of sleep quality. *Addict. Behav. Reports* 21. doi: 10.1016/j.abrep.2025.100599
- Izquierdo-condoy, J. S., Paz, C., Gollini-mihalopoulos, R., Caicedo, J. F., Loaizaguevara, V., Camila, D., et al. (2025). Impact of Mobile Phone Usage on Sleep Quality Among Medical Students Across Latin America : Multicenter Cross-

- Sectional Study. *J. Med. Internet Res.* 27, 1–13. doi: 10.2196/60630
- Jadhakhan, F., Blake, H., Hett, D., and Marwaha, S. (2022). Efficacy of digital technologies aimed at enhancing emotion regulation skills : Literature review. *Front. Psychiatry*. doi: 10.3389/fpsyt.2022.809332
- Jain, A. M., and Jha, M. (2022). Social support as a protective factor against depressive symptoms: A review. *J. Ravishankar Univ.* 28. doi: 10.52228/JRUA.2022-28-1-11
- Jo, H., and Shin, Do. (2024). Influence of social and psychological factors on smartphone usage during the COVID-19 pandemic. *Digit. Heal.* 10, 1–14. doi: 10.1177/20552076241298482
- Jubaedah, S. (2025). Makna Intensitas Penggunaan Smartphone dalam Proses Komunikasi Mahasiswa untuk Meraih Prestasi Akademik. *HUMANUS* 3, 103–111.
- Kajitani, K., Higashijima, I., Kaneko, K., Tomoko, M., Fukumori, H., and Kim, D. (2020). Short-term effect of a smartphone application on the mental health of university students : A pilot study using a user-centered design self- monitoring application for mental health. *PLoS One* 16, 1–18. doi: 10.1371/journal.pone.0239592
- Kardefelt-winter, D. (2014). A conceptual and methodological critique of internet addiction research: Towards a model of compensatory internet use. *Comput. Human Behav.* 31, 351–354.
- Karyati, E., and Julisawati, E. A. (2025). Kesehatan Mental Mahasiswa di Era Digital: Tinjauan Literatur Psikologi Klinis dan Sosial. *JiSoH J. Ilmu Sos. dan Hum.* 1, 442–451. doi: 10.63822/pmx2a928
- Katz, E., Blumler, J. G., and Gurevitch, M. (1973). Uses and gratifications research. *Public Opin. Q.* 37, 509–523. doi: 10.1086/268109
- Kementerian Kesehatan Republik Indonesia (2023). Survei Kesehatan Indonesia (SKI) 2023. Jakarta.
- Kemp, S. (2024). Digital 2024: Indonesia. *Data Reportal*. Available at: <https://datareportal.com/reports/digital-2024-indonesia>
- Khoirinnisa, K., Iftayani, I., and Karsiyati, K. (2025). Gambaran Perilaku Adiksi Internet , Faktor yang Memfasilitasi serta Dampaknya pada Mahasiswa. *J. Psychosociopreneur* 4, 170–179.
- Khoirunnisa, A., and Rosiana, D. (2023). Pengaruh Perceived Social Support terhadap Psychological Well-Being Mahasiswa yang sedang Menyusun Skripsi. *Humanitas (Monterey. N. L.)* 7, 319–332. doi: 10.28932/humanitas.v7i3.7637
- Kumar, P. S. (2024). TECHNOSTRESS : A comprehensive literature review on dimensions, impacts, and management strategies. *Comput. Hum. Behav. Reports* 16. doi: 10.1016/j.chbr.2024.100475
- Kvam, P. H., and Vidakovic, B. (2007). *Nonparametric Statistics with Applications to Science and Engineering*. John Wiley & Sons.
- Kwon, M., Kim, D. J., Cho, H., and Yang, S. (2013a). The smartphone addiction scale: Development and validation of a short version for adolescents. *PLoS One* 8, 1–7. doi: 10.1371/journal.pone.0083558
- Kwon, M., Lee, J. Y., Won, W. Y., Park, J. W., Min, J. A., Hahn, C., et al. (2013b). Development and Validation of a Smartphone Addiction Scale (SAS). *PLoS One* 8. doi: 10.1371/journal.pone.0056936
- Lakey, B., and Cohen, S. (2000). "Social support theory and measurement. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.)," in *Social support measurement and intervention*, (Oxford University Press), 29–52.

- Laranjeira, C., Querido, A., Sousa, P., and Dixe, M. A. (2023). Assessment and Psychometric Properties of the 21-Item Depression Anxiety Stress Scale (DASS-21) among Portuguese Higher Education Students during the COVID-19 Pandemic. *Eur. J. Investig. Heal. Psychol. Educ.* 13, 2546–2560.
- Lazarus, R. S., and Folkman, S. (1984). *Stress, Appraisal, and Coping*. New Y: Springer Publishing Company.
- Le, D. T. H., Chan, R. C. ., Hao, J., and Wilkinson, R. B. (2025). The mental health of Australian , Chinese and Vietnamese University Students : A cross-cultural comparison of the DASS-21. *Int. J. Psychol.*, 1–9. doi: 10.1002/ijop.70057
- Lee, Y. K., Chang, C. T., Lin, Y., and Cheng, Z. H. (2014). The dark side of smartphone usage: Psychological traits, compulsive behavior and technostress. *Comput. Human Behav.* 31, 373–383. doi: 10.1016/j.chb.2013.10.047
- Li, K., Jiang, S., Yan, X., and Li, J. (2024a). Mechanism study of social media overload on health self-efficacy and anxiety. *Heliyon* 10. doi: 10.1016/j.heliyon.2023.e23326
- Li, M., Han, X., and Li, J. (2025a). The relationship between perceived stress and mobile phone addiction in adolescents : a meta-analysis. *BMC Psychol.* 13. doi: 10.1186/s40359-025-03702-z
- Li, P., Chen, J., Duan, Z., Xu, W., and Feng, Y. (2024b). Relationship Between Problematic Smartphone Use and Graduate Students ' Research Self-Efficacy : A Moderated Mediation Model. *Behav. Sci. (Basel)*.
- Li, X., Wang, M., Feng, X., He, L., and Du, J. (2025b). The influence of stress perception on mobile phone addiction tendency in nursing undergraduates : the mediating role of self-control and the moderating role of psychological capital. *BMC Nurs.* 24. doi: 10.1186/s12912-025-03753-y
- Lim, M. (2017). Freedom to hate: social media, algorithmic enclaves, and the rise of tribal nationalism in Indonesia. *Crit. Asian Stud.* doi: <https://doi.org/10.1080/14672715.2017.1341188>
- Lincoln, Y. S., and Guba, E. G. (1988). Criteria for Assessing Naturalistic Inquiries as Reports. *Am. Educ. Res. Assoc.*
- Ling, R. (2012). *Taken for Grantedness: The Embedding of Mobile Communication into Society*. The MIT Press. Available at: <https://mitpress.mit.edu/9780262018135/taken-for-grantedness>
- Ling, R., Fortunati, L., Goggin, G., Lim, S. S., and Li, Y. (2020). *The Oxford Handbook of Mobile Communication and Society*. Oxford University Press. doi: 10.1093/oxfordhb/9780190864385.001.0001
- Littlejohn, S. W., and Foss, K. A. (2009). *Encyclopedia of Communication Theory*. Sage Publications.
- Liu, J., Zhang, Y., Zhang, Y., and Wang, Q. (2025a). The relationship between social support and smartphone addiction among Chinese college students : the mediating role of loneliness and the moderating role of meaning in life. *Front. Public Heal.*, 1–11. doi: 10.3389/fpubh.2025.1671800
- Liu, S., Wu, Y., Sun, F., Zhou, Y., and Yin, A. (2025b). The moderating role of social support in the relationship between alexithymia and problematic smartphone use among Chinese depressed adolescents : a cross-sectional study. *Front. Psychiatry*, 1–12. doi: 10.3389/fpsyt.2025.1650290
- Liu, X., and Baharuddin, S. M. (2025). Social Anxiety and Smartphone Addiction in Chinese University Students : A Moderated Mediation Model of Rumination and Gender. *Healthcare* 13. doi: 10.3390/healthcare13080862

- Lovibond, P. F., and Lovibond, S. H. (1995a). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behav. Res. Ther.* 33, 335–343. doi: 10.1016/0005-7967(94)00075-U
- Lovibond, S. H., and Lovibond, P. F. (1995b). Manual for the Depression Anxiety and Stress Scales. Sydney. Available at: <https://maic.qld.gov.au/wp-content/uploads/2016/07/DASS-21.pdf>
- Lubis, M. Z. (2024). Komunikasi Interpersonal di Era Media Sosial : Pengaruh Interaksi Online terhadap Hubungan Personal. *Circ. Arch.* 1, 1–8.
- Ma, W., Zhen, R., Tan, X., He, Y., Zhang, J., and Tang, S. (2026). Self-control and social support in the link between academic pressure anxiety depression and social media addiction in college students. *Sci. Rep.* doi: 10.1038/s41598-026-37112-x ARTICLE
- Maguire, M., and Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *All Irel. J. Teach. Learn. High. Educ.* 8. Available at: <http://ojs.aishe.org/index.php/aishe-j/article/view/335>
- Maharani, W. (2021). Gambaran Tingkat Psychological Distress Mahasiswa Dan Hubungannya Dengan Aksesibilitas Pelayanan Konseling Mahasiswa. *Muqoddima J. Pemikir. dan Ris. Sosiol.* 2, 139–158. doi: 10.47776/MJPRS.002.02.04
- Manzar, M. D., Salahuddin, M., Nureye, D., Kashoo, F. Z., Noohu, M. M., Alotaibi, J. S., et al. (2025). Depression, Anxiety, and Stress Scale-21 (DASS-21): Further psychometric exploration using robust item response theory and classical theory measures among university students. *PLoS One* 20, 1–16. doi: 10.1371/journal.pone.0325238
- Mardalena, F., Khairunisa, Razzaq, A., and Nugraha, M. Y. (2025). Analisis pengalaman, persepsi mahasiswa ilmu komunikasi UIN Raden Fatah Palembang tentang komunikasi interpersonal era smartphone. *IjoEd Indones. J. Educ.* 1, 294–301.
- Marini, L., Hendriani, W., and Wulandari, P. Y. (2025). Validation of the Smartphone Addiction Scale-Short Version (SAS-SV) for Measuring Problematic Smartphone Use in Indonesian Adolescents. *7th Int. Conf. Educ. Soc. Sci. Res. KNE Soc. Sci.*, 255–269. doi: 10.18502/kss.v10i9.18498
- McLeod, S. (2023). What Does Effect Size Tell You? *Simply Psychol.* Available at: <https://www.simplypsychology.org/effect-size.html>
- Mcneish, D. (2022). Limitations of the Sum-and-Alpha Approach to Measurement in Behavioral Research. *Behav. Brain Sci.* 9. doi: 10.1177/23727322221117144
- Meeus, A., and Stevic, A. (2025). Sharing is caring : The positive role of smartphone co-use in social dynamics. *Mob. Media Commun.* 13, 129–150. doi: 10.1177/20501579241269589
- Mehmood, A., Bu, T., Zhao, E., Zelenina, V., Alexander, N., Qiao, Z., et al. (2021). Exploration of Psychological Mechanism of Smartphone Addiction Among International Students of China by Selecting the Framework of the I-PACE Model. *Front. Psychol.* 12, 1–10. doi: 10.3389/fpsyg.2021.758610
- Meier, A., and Reinecke, L. (2020). Computer-Mediated Communication, Social Media, and Mental Health: A Conceptual and Empirical Meta-Review. *Communic. Res.* doi: <https://doi.org/10.1177/009365022095822>
- Meliala, P. A. F. B. S. (2024). Kesehatan mental mahasiswa menghadapi tekanan akademik dan sosial. *Circ. Arch.* 1.

- Menon, D. (2022). Uses and gratifications of photo sharing on Instagram. *Int. J. Hum. - Comput. Stud.* 168. doi: 10.1016/j.ijhcs.2022.102917
- Miller, D., Rabho, L. A., Awondo, P., de Vries, M., Duque, M., Garvey, P., et al. (2021). *The Global Smartphone: Beyond a Youth Technology.*, First. London: UCL Press.
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., and Keshri, A. (2019). Descriptive Statistics and Normality Tests for Statistical Data. *Ann. Card. Anaesth.*, 67–72. doi: 10.4103/aca.ACA
- Mohd Saat, N. Z., Hanawi, S. A., Hanafiah, H., Ahmad, M., Farah, N. M. F., and Rahman, N. A. (2024). Relationship of screen time with anxiety, depression, and sleep quality among adolescents : a cross-sectional study. *Front. Public Heal.* 12, 1–10. doi: 10.3389/fpubh.2024.1459952
- Mostert, N. (2025). Exploring the prevalence of problematic smartphone use and problematic social media use amongst students at a South African University. *Soc. Sci. Humanit. Open* 12. doi: 10.1016/j.ssaho.2025.101778
- Mufidah, A., Rohman, U., and Ismail, S. (2025). Pengaruh Intensitas Penggunaan Media Sosial Terhadap Kesehatan Mental Mahasiswa UIN Sunan Gunung Djati Bandung. *J. Psikol. Insight* 9, 45–56.
- Muhammad, Z. S., Mulyati, Y., and Bachari, N. A. (2026). Implikasi dan Persepsi Deiksis Temporal dalam Komunikasi Digital oleh Mahasiswa Indonesia. *Semantik* 15, 69–80. doi: 10.22460/semantik.v15i1.p69-80
- Mulya, M. D., and Dewi, F. I. (2025). Dukungan Sosial dan Adaptasi Mahasiswa di Lingkungan Kampus. *J. Muara Ilmu Sos. Humaniora, dan Seni* 9, 125–136.
- Munoz-Laboy, M., Severson, N., Perry, A., and Guilamo-Ramos, V. (2014). Differential Impact of Types of Social Support in the Mental Health of incarcerated Latino men. *Am J Mens Heal.* 8, 226–239. doi: 10.1177/1557988313508303.Differential
- Murni, D., Jamna, J., and Handican, R. (2023). Pemanfaatan Smartphone dalam Pembelajaran Matematika : Bagaimana Persepsi Mahasiswa ? 07, 590–603.
- Mutmainnah, A. L., Ramadhanti, E. A., and Milad, M. K. (2025). Tantangan dan Dampak Digitalisasi terhadap Komunikasi Interpersonal. *JlIC J. Intelek Insa. Cendikia* 2, 11497–11503.
- Nadkarni, A., and Hofmann, S. (2012). Why do people use Facebook? *Pers. Individ. Dif.* doi: <https://doi.org/10.1016/j.paid.2011.11.007>
- Nasution, I. S., Puspita, T., Dela, Putri, A., Tamin, T. P. A., Siregar, A. S., and Andini, J. (2025). Analisis Kuantitatif Dampak Penggunaan Gadget Secara Eksesif terhadap Kesehatan Fisik dan Mental Mahasiswa UIN Sumatera Utara. *J. Penelit. Inov.* 5, 1697–1706.
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979). Ethical Principles and Guidelines for the Protection of Human Subjects of Research (The Belmont Report). Available at: <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html>
- Nauvan, M. Z., Zamzami, R., Nafais, M., Azmi, Z., and Afwan, M. (2024). DAMPAK TEKNOLOGI DIGITAL TERHADAP. *Techsi* 15, 87–95.
- Nawaz, S., Bhowmik, J., Linden, T., and Mitchell, M. (2024). Validation of a modified problematic use of mobile phones scale to examine problematic smartphone use and dependence. *Heliyon* 10, e24832. doi: 10.1016/j.heliyon.2024.e24832
- Ndayambaje, E., and Okereke, P. U. (2025). The Psychopathology of Problematic Smartphone Use (PSU): A Narrative Review of Burden , Mediating Factors ,

- and Prevention. *Heal. Sci. Reports*, 1–6. doi: 10.1002/hsr2.70843
- Nesi, J., Choukas-Bradley, S., and Prinstein, M. J. (2019). Transformation of Adolescent Peer Relations in the Social Media Context. *Clin Child Fam Psychol Rev.* 21, 267–294. doi: 10.1007/s10567-018-0261-x. Transformation
- Nguyen, B. T. N., Nguyen, N. P. H., Le, H. D., and Nguyen, L. T. (2025). Smartphone addiction and mental health problems among Vietnamese undergraduate students : the mediating role of sleep quality. *Int. J. Ment. Health* 54, 129–151. doi: 10.1080/00207411.2024.2418621
- Nikolic, A., Bukurov, B., Kocic, I., Vukovic, M., Ladjovic, N., Vrhovac, M., et al. (2023). Smartphone addiction , sleep quality , depression , anxiety , and stress among medical students. *Front. Public Heal.*, 1–10. doi: 10.3389/fpubh.2023.1252371
- Ningtias, M., Rostiana, R., and Gismar, A. M. (2022). Peran self-inadequacy terhadap phubbing dengan distres psikologis sebagai mediator. *J. Muara Ilmu Sos. Humaniora, dan Seni* 6, 401–410. doi: 10.24912/jmishumsen.v6i2.19176
- Nissa, A., and Nisa, A. T. (2025). Hubungan Penggunaan Smartphone Bermasalah dengan Kemampuan Berpikir Kritis pada Remaja Awal. *J. Penelit. Inov.* 5, 1277–1288. doi: 10.54082/jupin.1478
- Norhafizah, N., and Hidayat, T. (2022). Hubungan antara kecanduan smartphone dengan kualitas tidur mahasiswa/i Keperawatan di STIKES Intan Martapura tahun 2022. *J. Ilmu Kesehat. Insa. Sehat* 10, 111–116.
- Norton, R. W. (1978). Foundation of a Communicator Style Construct. *Hum. COmm* 4, 99–112. doi: <https://doi.org/10.1111/j.1468-2958.1978.tb00600.x>
- Nose, M., Muriago, G., Turrini, G., Tedeschi, F., Sartori, R., Badino, M., et al. (2025). Effectiveness of a Self-Guided Digital Intervention for Mental Health and Psychological Well-Being in University Students : Pre- and Postintervention Study. *J. Med. Internet Res.* 27. doi: 10.2196/69031
- Nowell, L. S., Norris, J. M., White, D. E., and Moules, N. J. (2017). Thematic Analysis : Striving to Meet the Trustworthiness Criteria. *Int. J. Qual. Methods* 16, 1–13. doi: 10.1177/1609406917733847
- Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric Theory.*, 3rd Editio. New York: McGraw-Hill.
- Nurmala, I., Nadhiroh, S. R., Pramukti, I., Tyas, L. W., Zari, A. P., Griffiths, M. D., et al. (2022). Reliability and validity study of the Indonesian smartphone application-based addiction scale (SABAS) among college students. *Heliyon* 8, 1–7. doi: 10.1016/j.heliyon.2022.e10403
- Oh, H. J., Ozkaya, E., and Larose, R. (2014). How does online social networking enhance life satisfaction? the relationships among online supportive interaction, affect, perceived social support, sense of community, and life satisfaction. *Comput. Human Behav.* 30, 69–78. doi: 10.1016/j.chb.2013.07.053
- Okutucu, F. T., and Ceyhun, H. A. (2025). The impact of anxiety and depression levels on the Big Five personality traits. *PLoS One* 20, 1–14. doi: 10.1371/journal.pone.0321373
- Olasina, G. (2025). Problematic Smartphone Use Experiences of Students. *African J. Inf. Syst.* 17.
- Ong, R. H. S., Sim, H. S., Bergman, M. M., How, C. H., Png, C. A. L., Lim, C. S., et al. (2024). Prevalence and associations of problematic smartphone use with smartphone activities , psychological well-being , and sleep quality in a household survey of Singapore adults. *PLoS One*, 1–18. doi: 10.1371/journal.pone.0315364
- Orben, A., and Przybylski, A. K. (2019). The association between adolescent well-

- being and digital technology use. *Nat. Hum. Behav.* doi: 10.1038/s41562-018-0506-1
- Otto, L. P., and Kruikemeier, S. (2023). The smartphone as a tool for mobile communication research : Assessing mobile campaign perceptions and effects with experience sampling. *New Media Soc.* 24, 795–815. doi: 10.1177/14614448231158651
- P3MPI (2024). Penelitian Eksplanatori: Mengungkap Hubungan Sebab-Alkitab. *Pus. Penelitian, Pengabd. Kpd. Masy. dan Publ. Int.* Available at: [https://p3mpi.uma.ac.id/2024/09/19/penelitian-eksplanatori-mengungkap-hubungan-sebab-akibat/#:~:text=Penelitian Eksplanatori: Mengungkap Hubungan Sebab-Akibat](https://p3mpi.uma.ac.id/2024/09/19/penelitian-eksplanatori-mengungkap-hubungan-sebab-akibat/#:~:text=Penelitian%20Eksplanatori%3A%20Mengungkap%20Hubungan%20Sebab-Akibat)
- Paiva, U., Cortese, S., Flor, M., Moncada-Parra, A., Lecumberri, A., Eudave, L., et al. (2025). Prevalence of mental disorder symptoms among university students: An umbrella review. *Neurosci. Biobehav. Rev.* 175. doi: 10.1016/j.neubiorev.2025.106244
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., and Hoagwood, K. (2016). Purposeful sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Adm. Policy Ment Heal.* 42. doi: 10.1007/s10488-013-0528-y
- Pan, J., Guo, J., Wu, Y., and Zhao, X. (2025). The Influence of Negative Emotions on Mobile Phone Addiction Among Chinese College Students : The Mediating Role of Negative Coping Styles and the Moderating Role of Gender. *Psychol. Res. Behav. Manag.* 18, 3–13.
- Pang, H., and Wang, Y. (2025). Deciphering dynamic effects of mobile app addiction , privacy concern and cognitive overload on subjective well-being and academic expectancy : The pivotal function of perceived technostress. *Technol. Soc.* 81, 102861. doi: 10.1016/j.techsoc.2025.102861
- Parent, N., Bond, T., Wu, A., and Shapka, J. (2022). Predicting Patterns of Problematic Smartphone Use among University Students : A Latent Class Analysis. *Hum. Behav. Emerg. Technol.* doi: 10.1155/2022/4287600
- Pasaribu, L. G., Sinaga, D. A., Tobing, L. T., Simamora, A., Sihite, P., Ritonga, R. A., et al. (2025). Komunikasi Digital dan Media Sosial Transformasi Interaksi Sosial di Era Digital. *Int. Transform. Educ. Humanit. J.* 1.
- Pearl, J. (2009). *Causality: Models, reasoning, and inference (2nd ed.)*. Cambridge University Press.
- Perdana, M. W., Tetteng, B., and Nurdin, M. N. (2023). Pengaruh Dukungan Sosial terhadap Gegar Budaya (Culture Shock) pada Mahasiswa Perantau di Kota Makassar. *J. Correct. Issues* 6.
- Pervaiz, F., Pasha, S. A., and Riaz, S. (2022). Analyzing The Mobile Phones Usage Among University Students: From The Uses and Gratifications Theory Perspective. *J. Res. Rev. Soc. Sci. Pakistan* 5, 1812–1828.
- Pivetta, E., Harkin, L., Billieux, J., Kanjo, E., and Kuss, D. J. (2019). Problematic smartphone use: An empirically validated model. *Comput. Human Behav.* 100, 105–117. doi: 10.1016/j.chb.2019.06.013
- Pratiwi, D. I., and Hernawati, L. (2025). Hubungan antara Stres Akademik dan Efikasi Diri dengan Kecanduan Smartphone pada Siswa Sekolah Menengah Pertama. *Al Qalam J. Ilm. Keagamaan dan Kemasyarakatan* 19, 973–991. doi: 10.35931/aq.v19i2.4187
- Pratiwi, F. N., Amalia, S. N. R., Hasanah, D., and Khatimah, S. H. (2025). Pengaruh Media Sosial Terhadap Kesehatan Mental Mahasiswa Fakultas Hukum

- Semester 1. *J. Ris. Bhs. dan Pendidik.* 1, 15–29.
- Przybylski, A. K., Murayama, K., Dehaan, C. R., and Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Comput. Human Behav.* 29, 1841–1848. doi: 10.1016/j.chb.2013.02.014
- Pui, A. L., and Kurniawati, M. (2024). Kontribusi Dukungan Sosial terhadap Kesehatan Mental Mahasiswa Rantau. *Khatulistiwa J. Pendidik. dan Sos. Hum.* 4, 596–608. doi: 10.55606/khatulistiwa.v4i4.9814
- Puspitasari, C. A., Alwin, D. A., Kamaludin, M., and Reza, M. (2025). Pengaruh Fenomena Fear Of Missing Out (Fomo) Terhadap Tingkat Kecemasan Dan Kepuasan Hidup Mahasiswa Gen Z Di Media Sosial The Influence Of The Fear Of Missing Out (Fomo) Henomenon On The Levels Of Anxiety And Life Atisfaction Of Gen Z Students On Soc. *JlIC J. Intelek Insa. Cendikia* 2, 1298–1310.
- Puspitasari, M. A., and Hwihanus, H. (2025). Pengaruh Penggunaan Smartphone Terhadap Kinerja Akademik Mahasiswa Universitas 17 Agustus 1945 Surabaya. *Sinergi J. Ilm. Multidisiplin* 1, 2127–2147.
- Putra, E. (2024). Social Presence and Satisfaction in Online Learning between Indonesian and Malaysian Students. *Lect. J. Pendidik.* 15, 133–147. doi: 10.31849/lectura.v15i1.17715 Link:
- Putra, F. R., Hutahaen, E. S., and Muzammil, F. (2025). Hubungan antara kesepian dengan mekanisme koping disfungsi pada orang dewasa di Kabupaten Bekasi. *Lib. J. Psikol. dan Bimbing. Konseling* 14. doi: 10.6734/LIBEROSIS.V2I2.3027 Jurnal
- Putri, S. E., Pinandito, A., and Mursityo, Y. (2023). Pengaruh Social Media Overload terhadap Produktivitas Belajar Mahasiswa. *J. Pengemb. Teknol. Inf. dan Ilmu Komput.* 7, 92–95.
- Qiu, Y., Gong, S., Yang, Y., Wang, J., and Tan, L. (2025). Self-Compassion and Smartphone Addiction Tendency Among College Students: The Chain-Mediating Effect of Self-Concept Clarity and Experiential Avoidance. *Behav. Sci. (Basel)*. 15. doi: 10.3390/bs15040512
- Qiu, Y., Zhao, X., Liu, J., Li, Z., Wu, M., Qiu, L., et al. (2024). Understanding the relationship between smartphone distraction, social withdrawal, digital stress, and depression among college students: A cross-sectional study in Wuhan , China. *Heliyon* 10. doi: 10.1016/j.heliyon.2024.e35465
- Qu, B., Chen, J., Tian, Q., Niu, Q., Sun, J., Xie, M., et al. (2026). The relationships between cognitive emotion regulation strategies and problematic smartphone use: A longitudinal network analysis in Chinese university students. *Comput. Hum. Behav. Reports* 21. doi: 10.1016/j.chbr.2025.100890
- Radja, Y. L., Limbu, R., Bunga, E. Z. H., and Weraman, P. (2024). Analisis hubungan smartphone addiction, kecemasan , dan stres terhadap kejadian insomnia pada Mahasiswa Program Studi Kesehatan Masyarakat Universitas Nusa Cendana Kupang. *Sehatmas (Jurnal Ilm. Kesehat. Masyarakat)* 3, 798–813. doi: 10.55123/sehatmas.v3i4.4169
- Rahma, F. D., Hutahaen, E. S. H., and Muzzamil, F. (2025). Hubungan Regulasi Diri dengan Bedtime Procrastination pada Pengguna yang Mengalami Problematic Smartphone Use. *Lib. J. Psikol. dan Bimbing. Konseling* 14. doi: 10.6734/LIBEROSIS.V2I2.3027 Jurnal
- Ramadhan, R., Rachmasari, C., Sudrajat, Z. K., Mote, E. S., Valencia, A., Heng, P. H., et al. (2025). Hubungan antara Motives dengan Problematic Smartphone Use (PSU): A Systematic Review. *J. Artif. Intell. Digit. Bus.* 4, 3246–3258. doi:

10.31004/riggs.v4i4.4072

- Ramadhani, M., Maritza, A. N. K., Jumriana, J., and Mahyar, D. M. (2024). Fenomena Kecanduan Gadget pada Mahasiswa Farmasi di Lingkungan Universitas Muhammadiyah Makassar. *J. Mhs. Ilmu Farm. dan Kesehat.* 2, 315–325.
- Ramjan, L. M., Salamonson, Y., Batt, S., Kong, A., McGrath, B., Richards, G., et al. (2021). Nurse Education Today The negative impact of smartphone usage on nursing students : An integrative literature review. *Nurse Educ. Today* 102. doi: 10.1016/j.nedt.2021.104909
- Rashid, S., Fayez, O., Ismail, H., and Khan, R. F. (2021). Digital social support for undergraduate students during COVID-19 : *J. Public health Res.* 10, 695–701. doi: 10.4081/jphr.2021.2148
- Rastogi, S., Gupta, S., Deepak, D., Mishra, B. N., Gore, R., and Singh, V. (2025). A Systematic Literature Review on Anxiety Among Undergraduate Students : Causes and Coping Strategies. *Ann. Neurosci.*, 1–16. doi: 10.1177/09727531251366078
- RI, D., and RI, P. (2023). Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 Tentang Kesehatan. Indonesia. Available at: file:///C:/Users/USER/Downloads/UU Nomor 17 Tahun 2023.pdf
- Rimala, E., Kornelius, Y., Adda, W. H., Hasanuddin, B., Dewi, P. C., Akademik, P., et al. (2024). The effect of academic stress and mental health on students' academic achievement. *J. Rev. Pendidik. dan Pengajaran* 7, 12643–12649.
- Rofhi, G., and Putri, I. P. (2025). Membangun Komunikasi Interpersonal Dalam Mengatasi Stres Karena Kesepian : Studi Kasus Pada Mahasiswa Telkom University. *JCOBS J. Commun. Business, Soc. Sci.* 3, 40–43. doi: 10.25124/jcobs.v3i2.6467
- Rohmah, N., Barokah, U., Ziyah, M. A., Syabania, M. Z., and Apriandi, R. M. (2025). Escape in the Scroll : Academic Stress and Cyberloafing Behavior among University Students. *Ainara J.* 6, 412–419.
- Rohmah, N. R., and Mahrus, M. (2024). Mengidentifikasi faktor-faktor penyebab stres akademik pada mahasiswa dan strategi pengelolaannya. *JIEM J. Islam. Manag.* 5, 36–43.
- Roy, S., Biswas, A. K., and Sharma, M. (2025). Stress , Anxiety , and Depression as Psychological Distress Among College and Undergraduate Students : A Scoping Review of Reviews Guided by the Socio-Ecological Model. *Healthcare* 13, 1–20. doi: 10.3390/healthcare13161948
- Rudolf, R., and Kim, N. (2024). Smartphone use , gender , and adolescent mental health : Longitudinal evidence from South Korea. *SSM - Popul. Heal.* 28, 101722. doi: 10.1016/j.ssmph.2024.101722
- Ruihua, L., Hassan, N. C., Qiuxia, Z., Sha, O., and Jingyi, D. (2025). A systematic review on the impact of social support on college students' wellbeing and mental health. *PLoS One* 20, 1–20. doi: 10.1371/journal.pone.0325212
- Saba, F., Bukhari, S. R., and Rashid, A. (2018). Relationship between Emotionality and Psychological Distress in University Students. *Pak. J. Med. Res.* 57, 29–32.
- Salisanasti, A. P., Salsabila, F., Khairunnisa, A., Riyanti, R. R., and Rahayu, W. F. (2025). Stress Digital dan Gangguan Tidur: Tinjauan Literatur. *J. Ilmu Psikol. dan Kesehat.* 2.
- Sánchez-Fernández, M., and Borda-Mas, M. (2023). *Problematic smartphone use and specific problematic internet uses among university students and associated predictive factors: a systematic review.* Springer US. doi:

- 10.1007/s10639-022-11437-2
- Sanjay, M., Manikandan, S., and Kandharaj, M. (2025). Impact of Excessive Mobile Phone Usage on Physical Well-being and Academic Performance Among College Students. *2025 3rd Int. Conf. Artif. Intell. Mach. Learn. Appl. Theme Healthc. Internet Things*, 1–6. doi: 10.1109/AIMLA63829.2025.11040794
- Santos, R. M. S., Oliveria, G. B. de, Fernandes, F. M., Ventura, S. de A., Ramona-Silva, M. A., and Miranda, D. M. (2025). Associations between smartphone use and mental disorders in college students: a systematic review. *Int. J. Res. Med. Sci.* 13, 298–309.
- Sarhan, A. L. (2024a). The relationship of smartphone addiction with depression, anxiety, and stress among medical students. *Open Med.* 12, 1–10. doi: 10.1177/20503121241227367
- Sarhan, A. L. (2024b). The relationship of smartphone addiction with depression , anxiety , and stress among medical students. *SAGE Open Med.* 12, 1–10. doi: 10.1177/20503121241227367
- Sari, A. I., Suryani, N., Rochsantiningsih, D., and Suharno, S. (2020). Digital Learning, Smartphone Usage , and Digital Culture in Indonesia Education. *Integr. Educ.* 24, 20–31. doi: 10.15507/1991-9468.098.024.202001.020-031
- Sari, M., Rachman, H., Astuti, N. J., Afgani, M. W., and Abdullah, S. R. (2023). Explanatory Survey dalam Metode Penelitian Deskriptif Kuantitatif. *J. Pendidik. Sains dan Komput.* 3, 10–16. doi: <https://doi.org/10.47709/jpsk.v3i01.1953>
- Sari, S. J., Saputri, A. D., Anggraini, M., Retina, S., and Sari, A. P. (2024). Pengaruh Intensitas Penggunaan Smartphone Terhadap Regulasi Emosi Pada Mahasiswa. *Educ. J. Educ. Learn.* 2, 35–41. doi: 10.61994/educate.v2i1.347
- Satwika, P. A., Setyowati, R., and Anggawati, F. (2021). Dukungan Emosional Keluarga dan Teman Sebaya terhadap Self-Compassion pada Mahasiswa saat Pandemi Covid-19. *J. Psikol. Teor. dan Terap.* 11, 304–314. doi: 10.26740/jptt.v11n3.p304-314 Dukungan
- Scardera, S., Perret, L. C., Ouellet-morin, I., Gariépy, G., Juster, R., Boivin, M., et al. (2020). Association of Social Support During Adolescence With Depression , Anxiety , and Suicidal Ideation in Young Adults. *JAMA Netw. Open* 3, 1–12. doi: 10.1001/jamanetworkopen.2020.27491
- Schafer, T., and Schwarz, M. A. (2019). The Meaningfulness of Effect Sizes in Psychological Research: Differences Between Sub-Disciplines and the Impact of Potential Biases. *Front. Psychol.* doi: 10.3389/fpsyg.2019.00813
- Schenkel, K., Nussbeck, F. W., Kerkhoff, D., Scholz, U., Keller, J., and Radtke, T. (2025). Digital generation : the association between daily smartphone app use and well-being. *Behav. Inf. Technol.* 44, 2456–2473. doi: 10.1080/0144929X.2024.2406255
- Schimmenti, A. (2023). Beyond Addiction: Rethinking Problematic Internet Use From a Motivational Framework. *Clin. Neuropsychiatry* 20, 471–478.
- Scott, G., and Fullwood, C. (2020). Does recent research evidence support the hyperpersonal model of online impression management? *Curr. Opin. Psychol.* doi: 10.1016/j.copsyc.2020.05.005
- Selian, S. N., Setianingsih, E., and Rahma, L. (2025). Antara Dunia Nyata dan Virtual : Studi Kasus Remaja dengan Gangguan Kesehatan Mental Akibat Kecanduan Gadget. *J. Pengabd. Masy. dan Ris. Pendidik.* 4, 4775–4783.
- Seong, S. J., Hong, J. P., Hahm, B., Chang, S. M., Kim, B., Lee, D., et al. (2025). Problematic Smartphone Use Is Associated With Current and Previous Major Depressive Disorder. *Korean Neuropsychiatric Assoc.*, 813–820.

- Setia, M. S. (2016). Methodology Series Module 3 : Cross-sectional Studies. *Indian J. Dermatol.* 61. doi: 10.4103/0019-5154.182410
- Shabani, Z., Haxhija, E., Pjetri, E., and Guli, A. (2025). Smartphone Addiction among University Students. *Open Public Health J.* 18, 1–11. doi: 10.2174/0118749445414366250828054906
- Shadish, W. ., Cook, T. ., and Campbell, D. . (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin.
- Shawatunnisa, S. M. (2026). Persepsi Mahasiswa dalam Menjaga Kualitas Komunikasi Interpersonal pada Interaksi Akademik Berbasis Digital. *Hum. J. Sosiohumaniora Nusantara*. 3, 168–175.
- Shi, Y., Koval, P., Kostakos, V., Goncalves, J., and Wadley, G. (2023). “Instant Happiness”: Smartphones as tools for everyday emotion regulation. *Int. J. Hum. Comput. Stud.* 170. doi: 10.1016/j.ijhcs.2022.102958
- Sholikha, A., Farhan, M. H., Rohim, A., Utama, P. S., Nurullida, A. S., and Muna, N. R. (2025). Intervensi MBCT dalam Mengatasi Gangguan Kecemasan Akibat Kecanduan Media Sosial pada Generasi Z : Literatur Review. *JKPI J. Konseling dan Psikol. Indones.* 1, 217–229. doi: 10.58472/jkpi.v1i3.88
- Sichach, M. (2023). Uses and Gratifications Theory - Background, History and Limitations. doi: 10.2139/ssrn.4729248
- Simsek, O. M., Kaya, A. B., Cevik, O., and Kocak, O. (2023). How is the problematic smartphone use affected by social support? A research model supported by the mediation of Ikigai. *Curr. Psychol.* doi: 10.1007/s12144-023-04362-1 How
- Sinval, J., Oliveira, P., Novais, F., Almeida, C. M., and Telles-Correia, D. (2025). Exploring the impact of depression, anxiety, stress , academic engagement, and dropout intention on medical students ’ academic performance : A prospective study. *J. Affect. Disord.* 368, 665–673. doi: 10.1016/j.jad.2024.09.116
- Sipaayung, J., and Munawaroh (2025). Peran teknologi smartphone sebagai media pembelajaran interaktif bagi mahasiswa di era digital. *Trending J. Ekon. Akunt. dan Manaj.* 3.
- Siregar, S. W. (2024). Fenomena Phubbing pada Mahasiswa. *ADPIKS Asos. Dosen Peneliti Ilmu Keislaman dan Sos.* 2, 235–247.
- Skinner, E. A., and Zimmer-Gembeck, M. J. (2023). *The Cambridge Handbook of the Development of Coping*. Cambridge University Press.
- Smith, J. A., Flowers, P., and Larkin, M. (2022). *Interpretative Phenomenological Analysis: Theory, Method and Research.*, Second Edi.
- Solehah, R., Utami, M. H., and Ayunita, D. M. (2025). Pengaruh Dukungan Sosial dari Keluarga dan Teman Sebaya terhadap Kesehatan Mental Remaja di Era Digital yang Penuh Tantangan. *PSIKIS J. Ilmu Psikiatri dan Psikol.* 1, 19–27.
- Stockemer, D., and Bordeleau, J. (2023). *Quantitative Methods for the Social Sciences: A Practical Introduction with Examples in R.*, Second Edi. Springer. doi: 10.1007/978-3-031-34583-8
- Sugiyono (2013). *Statistika Untuk Penelitian*. Bandung: Alfabeta.
- Sugiyono (2022). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sulistyowati, M., Maulana, H., and Armeini, A. (2025). The Moderating Effect of Social Support on the Relationship Between Grit and Employee Well-being in Indonesia. *Indones. J. Behav. Stud.* 5, 46–64.
- Sullivan, B. M., and George, A. M. (2023). The Association of Motives with Problematic Smartphone Use : A Systematic Review. *J. Psychosoc. Res.*

- Cybersp.* 17. doi: 10.5817/CP2023-1-2
- Sullivan, B. M., George, A. M., and Rickwood, D. (2025). An exploration of motives that influence problematic smartphone use in young adults. *Behav. Inf. Technol.* 44, 1886–1900. doi: 10.1080/0144929X.2024.2380102
- Sullivan, J. L. (2020). *Media Audiences: Effects, Users, Institutions, and Power.*, Second Edi, eds. L. Norton and S. Wilson. Sage Publications.
- Sultson, H., Murd, C., Havik, M., and Konstabel, K. (2024). Negative affect instability predicts elevated depressive and generalized anxiety disorder symptoms even when negative affect intensity is controlled for : an ecological momentary assessment study. *Front. Psychol.*, 1–12. doi: 10.3389/fpsyg.2024.1371115
- Sundar, S. S., and Limperos, A. M. (2013). Uses and Grats 2.0: New Gratifications for New Media. *J. Broadcast. Electron. Media* 57, 504–525. doi: 10.1080/08838151.2013.845827
- Sunday, O. J., Adesope, O. O., and Maarhuis, P. L. (2021). The effects of smartphone addiction on learning : A meta-analysis. *Comput. Human Behav.* 4, 1–32. doi: 10.1016/j.chbr.2021.100114
- Supeno, S., and Afifah, D. E. (2024). Dinamika Psikologi Komunikasi Digital dalam Membangun Pengendalian Diri Mahasiswa Gen Z : Mengatasi FOMO di Media Sosial. *J-KIS (Jurnal Komun. Islam.* 5, 473–484. doi: 10.53429/j-kis.v5i2.2273
- Suprianto, S., Arifin, A., and Subair, S. (2025). Analisis Minat Pemuda Terhadap Digitalisasi di Kota Makassar. *J. Innov. Creat.* 5, 23670–23680.
- Tafesse, W., Aguilar, M. P., Sayed, S., and Tariq, U. (2024). Digital Overload, Coping Mechanisms, and Student Engagement : An Empirical Investigation Based on the S-O-R Framework. *Sage Open*, 1–14. doi: 10.1177/21582440241236087
- Tami, P. R., and Selian, S. N. (2025). Makna Dukungan Sosial bagi Mahasiswa yang Mengalami Masalah Kesehatan Mental. *Jejak Digit. J. Ilm. Multidisiplin* 1, 4164–4179. doi: 10.63822/g6fw8636
- Tarsidi, D. Z., Suryadi, K., Budimansyah, D., and Rahmat, R. (2023). Social media usage and civic engagement among Indonesian digital natives : An analysis. *J. Civ. Media Kaji. Kewarganegaraan* 20, 257–269. doi: 10.21831/jc.v20i2.60812
- Tavakol, M., and Dennick, R. (2011). Making sense of Cronbach ' s alpha. *Int. J. Med. Educ.* 2, 53–55. doi: 10.5116/ijme.4dfb.8dfd
- Taylor, S. E. (2011). "Social support: A review," in *The Oxford handbook of health psychology*, (Oxford University Press), 189–214.
- Taylor, S. E., and Stanton, A. L. (2007). Coping Resources , Coping Processes , and Mental Health. *Annu. Rev. Clin. Psychol.* 3, 377–403. doi: 10.1146/annurev.clinpsy.3.022806.091520
- Ting-Toomey, S. (1999). *Communicating Across Cultures*. New York: The Guilford Press. doi: 10.5796/electrochemistry.68.361
- Toth, B., Makai, A., Gyuro, M., Komaromy, M., and Csaszar, G. (2024). The validity and reliability of the Hungarian version of smartphone addiction scale – Short version (SAS-SV-HU) among university students. *Comput. Hum. Behav. Reports* 16. doi: 10.1016/j.chbr.2024.100527
- Tsania, K. N., Wardhani, R., and Hanifah, A. I. (2026). Predicting the Impact of Mobile Phone Use on Anxiety and Insomnia Among University of Islam Lamongan Students Through the Naïve Bayes Method. *J. Ilm. Sist. Inf.* 5, 156–165. doi: 10.51903/syn92p96
- Tu, P., Yuan, C. W., and Wang, H. (2018). Do You Think What I Think : Perceptions of Delayed Instant Messages in Computer-Mediated Communication of Romantic Relations. *CHI-Conference Hum. Factors Comput. Syst.* doi:

- 10.1145/3173574.3173675
- Tunney, C., and Rooney, B. (2023). Using Theoretical Models of Problematic Internet Use to Inform Psychological Formulation : A Systematic Scoping Review. *Clin. Child Psychol. Psychiatry* 28, 810–830. doi: 10.1177/13591045221104569
- Valentina, A., Chrissandy, R., Jesslyn, B., and Setyanto, Y. (2022). Komunikasi & Sosialisasi Digital Melalui Media Video Konten Selama Masa Pandemi. *J. Komun.* 14, 494–506. doi: 10.24912/jk.v14i2.17407
- Valkenburg, P. ., and Peter, J. (2011). Online Communication among Adolescents: An Integrated Model of Its Attraction, Opportunities, and Risks. *J. Adolesc. Heal.* 48.
- Valkenburg, P. M. (2022). Social media use and well-being: What we know and what we need to know. *Curr. Opin. Psychol.* 45. doi: <https://doi.org/10.1016/j.copsyc.2021.12.006>
- Valkenburg, P. M., and Peter, J. (2013). Differential Susceptibility to Media Effects Model. *J. Commun.* 63, 221–243.
- Vicary, E., Kapadia, D., Bee, P., Bennion, M., and Brooks, H. (2025). The impact of social support on university students living with mental illness: A systematic review and narrative synthesis. *J. Ment. Heal.* 34, 463–475. doi: 10.1080/09638237.2024.2408237
- Vogel, D. L., and Wade, N. G. (2022). *The Cambridge Book of Stigma and Mental Health*. Cambridge University Press.
- Vorderer, P., Kromer, N., and Schneider, F. M. (2016). Permanently online - Permanently connected: Explorations into university students ' use of social media and mobile smart devices. *Comput. Human Behav.* 63, 694–703. doi: 10.1016/j.chb.2016.05.085
- Walther, J. (1996). CMC - impersonal, interpersonal dan hyperpersonal interaction. *Communic. Res.* 23, 3–43. Available at: <https://doi.org/10.1177/009365096023001001>
- Walther, J. B. (2007). Selective self-presentation in computer-mediated communication : Hyperpersonal dimensions of technology , language , and cognition. *Comput. Human Behav.* 23, 2538–2557. doi: 10.1016/j.chb.2006.05.002
- Walther, J. B. (2011a). "Theories Of Computer- Mediated Communication And Interpersonal Relations," in *The handbook of interpersonal communication*, eds. M. L. Knapp and J. A. Daly (Sage), 443–480.
- Walther, J. B. (2011b). *Theories of Computer-Mediated Communication and interpersonal relations*. Available at: <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Theories+of+Computer+Mediated+Communication+and+Interpersonal+Relations#0>
- Wang, C., Hu, J., Zhou, Y., Jiang, L., Chen, J., Xi, J., et al. (2025). Problematic smartphone usage and inadequate mental health literacy potentially increase the risks of depression, anxiety, and their comorbidity in Chinese college students: A longitudinal study. *J. Affect. Disord. Reports* 20. doi: 10.1016/j.jadr.2025.100907
- Wang, P., Liu, S., Zhao, M., Yang, X., Zhang, G., and Chu, X. (2019). Children and Youth Services Review How is problematic smartphone use related to adolescent depression ? A moderated mediation analysis. *Child. Youth Serv. Rev.* 104, 104384. doi: 10.1016/j.childyouth.2019.104384
- Wang, W., Xu, H., Li, S., Jiang, Z., Sun, Y., and Wan, Y. (2024). The impact of problematic mobile phone use and the number of close friends on depression

- and anxiety symptoms among college students. *Front. Psychiatry* 14, 1–10. doi: 10.3389/fpsy.2023.1281847
- Wang, Y., Matz-costa, C., Miller, J., Carr, D. C., and Kohlbacher, F. (2018). Uses and Gratifications Sought From Mobile Phones and Loneliness Among Japanese Midlife and Older Adults : A Mediation Analysis. *Innov. Aging* XX, 1–13. doi: 10.1093/geroni/igy027
- Wardana, M. N., Rahmawati, P., Realla, S., and Ayunda, B. (2024). STRATEGI MODERN PENGELOLAAN KESEHATAN MENTAL GEN Z DALAM PERSPEKTIF ISLAM. *JIPKM J. Ilm. Psikol. dan Kesehat. Masy.* 1.
- Wati, D. S., and Arifiana, I. Y. (2021). Dapatkah dukungan sosial menjadi prediktor strategi coping berfokus pada masalah pada Mahasiswa?!. *Inn. J. Psychol. Res.* 1, 42–51.
- Weinerova, J., Szucs, D., and Loannidis, J. P. . (2022). Published correlational effect sizes in social and developmental psychology. *R. Soc. Open Sci.* 9. doi: 10.1098/rsos.220311/992152/rsos.220311.pdf
- Weinstein, A., and Siste, K. (2022). Editorial : Excessive and problematic smartphone usage. *Front. Psychiatry*. doi: 10.3389/fpsy.2022.972613
- Whelan, E., and Turel, O. (2024). Personal use of smartphones in the workplace and work – life conflict : a natural quasi-experiment. *Internet Res.* 34, 24–54. doi: 10.1108/INTR-08-2022-0607
- Wicaksono, A., Karrel, C., and Palupi, R. (2025). Dampak Gadget Dalam Kesehatan Mental. *J. Solo Teknol.* 1, 50–53.
- Wickord, L. C., and Quaiser-Pohl, C. M. (2022). Does the Type of Smartphone Usage Behavior Influence Problematic Smartphone Use and the Related Stress Perception? *Behav. Sci. (Basel)*. 12. doi: 10.3390/bs12040099
- Wiebe, S. L. (2024). In-Person Vs Text-Based Support. The University of British Columbia.
- Wiedermann, C. J., Barbieri, V., Piccoliori, G., and Engl, A. (2025). Problematic Internet Use in Adolescents Is Driven by Internal Distress Rather Than Family or Socioeconomic Contexts : Evidence from South Tyrol, Italy. *Behav. Sci. (Basel)*. 15. doi: 10.3390/bs15111534
- Wijayanti, S., and Ahmadi, L. P. (2022). Smartphone menjadi kebutuhan primer mahasiswa dalam aktivitas perkuliahan. *Mizania J. Ekon. dan Akunt.* 2, 190–195.
- Wilhelmina, T. M., and Nugraha, A. D. (2025). Smartphone Addiction and Academic Stress : The Mediating Role of Academic Procrastination. *J. Psikogenes.* 13, 125–137.
- Wong, B. Y., Yeo, K. J., and Lee, S.-H. (2024). How and for Whom Academic Stress Causes Problematic Smartphone Use: The Role of Escapism Motivation and Present Hedonistic Time Perspective. *Sage Open* 14, 1–15. doi: 10.1177/21582440241302169
- World Health Organization (2019). *WHO guideline Recommendation on Digital Interventions for Health Strengthening*. World Health Organization.
- World Health Organization (2022). *World mental health report: Transforming mental health for all.*, ed. World Health Organization. Geneva.
- World Health Organization (2025a). Mental Health. *World Heal. Organ.* Available at: <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- World Health Organization (2025b). Mental Health. *World Heal. Organ.* Available at: https://www.who.int/health-topics/mental-health#tab=tab_1

- World Health Organization (2025c). Mental health of adolescents. *World Heal. Organ.* Available at: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health?>
- World Medical Association (2013). WMA Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects. Ferney-Voltaire, France. Available at: <https://www.wma.net/policies-post/wma-declaration-of-helsinki/>
- Wu, R., Niu, Q., Wang, Y., Dawa, Y., Guang, Z., Song, D., et al. (2024). The Impact of Problematic Smartphone Use on Sleep Quality Among Chinese Young Adults : Investigating Anxiety and Depression as Mediators in a Three-Wave Longitudinal Study. *Psychol. Res. Behav. Manag.* 17, 1775–1786. doi: 10.2147/PRBM.S455955
- Xie, M., and Chao, C.-C. (2024). *Mobile Communication in Asian Society and Culture: Continuity and Changes Across Private, Organizational, and Public Spheres.* Routledge.
- Xie, Z., Gan, K., Li, J., Qin, L., and Wu, Y. (2025). The impact of loneliness on depression among college students : the mediating role of problematic internet use and the moderating role of perceived social support. *BMC Public Health* 25. doi: 10.1186/s12889-025-23759-0
- Xu, P., and Shao, K. (2025). Does body image dissatisfaction exacerbate smartphone addiction among Chinese college students ? *Front. Psychol.* 16. doi: 10.3389/fpsyg.2025.1618979
- Yan, L., Gan, Y., Ding, X., Wu, J., and Duan, H. (2021). The relationship between perceived stress and emotional distress during the COVID-19 outbreak : Effects of boredom proneness and coping style. *J. An* 77. doi: 10.1016/j.janxdis.2020.102328
- Yang, C., Huang, W., Hu, C., Zhang, W., Chen, B., Zhou, C., et al. (2026). Negative life events and problematic smartphone use among university students : the mediating role of self-efficacy and the moderating role of physical activity. *Front. Publ* 13, 1–12. doi: 10.3389/fpubh.2025.1704120
- Yanuarto, W. N., Setyaningsih, E., Sriyanto, S., and Zakaria, M. I. (2024). Smartphone Usage and Communication Skills among Higher Education Students: Structural Model. *J. Pendidik. MIPA* 25, 178–194.
- Yao, N., and Wang, Q. (2023). Technostress from Smartphone Use and Its Impact on University Students ' Sleep Quality and Academic Performance. *Asia-Pacific Educ. Res.* 32, 317–326. doi: 10.1007/s40299-022-00654-5
- Yasin, R. Al, Anjani, R. R. K., Salsabil, S., Rahmayanti, T., and Amalia, R. (2022). PENGARUH SOSIAL MEDIA TERHADAP KESEHATAN MENTAL DAN FISIK REMAJA : A SYSTEMATIC REVIEW. *J. Kesehat. Tambusai* 3, 82–90.
- Yildirim, M., Öztekin, G. G., Alshehri, N. A., and Alkhulayfi, A. (2025). Social emotional distress, psychological adjustment, life satisfaction, and resilience : validation of the Turkish version of the social emotional distress survey – secondary-brief. *BMC Psychol.* 13, 1–9. doi: 10.1186/s40359-025-02639-7
- Yin, J., Tang, X., Liu, Z., Gong, Y., Yang, H., and Zhang, Y. (2025). Associations between both Smartphone Addiction and Objectively Measured Smartphone Use and Sleep Quality and Duration Among University Students: Cross-Sectional Study. *JMIR Ment. Heal.* 12. doi: 10.2196/77796
- Young, K. S. (1998). Internet Addiction : The Emergence of a New Clinical Disorder. *CyberPsychology Behav.* 1.
- Younis, G. O., Alamri, M. H. M., Asiri, S. N., Alshihab, A. Z., Hassan, A. M. A., Alamri, Z. A., et al. (2025). Impact of smartphone addiction on university students '

- performance in Riyadh, Saudi Arabia. *Int. J. Med. Dev. Ctries.* 9, 107–114. doi: 10.24911/IJMDC.51-1736635451
- Yuan, G. F., Liu, C., Shi, W., and Ding, X. (2025). Associations Among Depressive and Anxious Symptoms, Fear of Missing Out, and Problematic Smartphone Use Severity Among Chinese Adolescents: A Three-Wave Random-Intercept Cross-Lagged Panel Analysis. *Psychol. Res. Behav. Manag.* 18, 1347–1358. doi: 10.2147/PRBM.S529993
- Yulia, R., and Adri, H. T. (2025). Analisis Dampak Penggunaan Gadget Terhadap Kesehatan Mental Siswa Kelas V SDN Cicohang. *Didakt. Glob.* 23.
- Yuliyani, A., and Sumiyarini, R. (2022). Kecanduan Smartphone dan Stres Akademik di Masa Pandemi : Sebuah Studi Potong Lintang. *smart Soc. Empower. J.* 2, 57–65.
- Yus, F. (2022). *Smartphone communication: interactions in the app ecosystem*. New York: Routledge.
- Zablotsky, B., Ng, A. E., Black, L. I., Haile, G., Bose, J., Jones, J. R., et al. (2025). Associations Between Screen Time Use and Health Outcomes Among US Teenagers. *Prev. Chronic Dis. Public Heal. Res. Pract. Policy* 22, 1–11.
- Zeyrek, I., Tabara, M. F., and Cakan, M. (2024). Exploring the Relationship of Smartphone Addiction on Attention Deficit , Hyperactivity Symptoms , and Sleep Quality Among University Students : A Cross-Sectional Study. *Brain Behav.* 14, 1–10. doi: 10.1002/brb3.70137
- Zhan, Y., Luo, L., and Hu, X. (2025). Digital stress and problematic social media use among college students: exploring dual emotional pathways and the moderating role of cognitive reappraisal. *BMC Psychol.* 13.
- Zhang, J., and Zeng, Y. (2024). Effect of College Students ' Smartphone Addiction on Academic Achievement : The Mediating Role of Academic Anxiety and Moderating Role of Sense of Academic Control. *Psychol. Res. Behav. Manag.* 17, 933–944. doi: <https://doi.org/10.2147/PRBM.S442924>
- Zhang, Y., Han, M., Lian, S., Cao, X., and Yan, L. (2024). How and when is academic stress associated with mobile phone addiction ? The roles of psychological distress , peer alienation and rumination. *PLoS One* 19, 1–21. doi: 10.1371/journal.pone.0293094
- Zhao, C., Tu, X., Lai, X., Yang, X., Tu, X., Ding, N., et al. (2021). Effects of Online Social Support and Perceived Social Support on the Relationship Between Perceived Stress and Problematic Smartphone Usage Among Chinese Undergraduates. *Psychol. Res. Behav. Manag.* 14, 529–539. doi: 10.2147/PRBM.S302551
- Zhao, P., and Lapierre, M. A. (2020). Stress, Dependency, and Depression : An Examination of the Reinforcement Effects of Problematic Smartphone Use on Perceived Stress and Later Depression. *Cyberpsychology J. Psychosoc. Res. Cybersp.* 14. doi: 10.5817/CP2020-4-3
- Zhao, X., Xu, T., and Liu, X. (2026). Social isolation and social media addiction: the serial mediation roles of social anxiety and FoMO among Chinese university students. *Sci. Rep.* 16, 1–13. doi: 10.1038/s41598-025-33176-3 1
- Zhong, G., Shu, Y., Zhou, Y., Li, H., Zhou, J., and Yang, L. (2025). The relationship between social support and smartphone addiction : the mediating role of negative emotions and self-control. *BMC Psychiatry* 25. doi: 10.1186/s12888-025-06615-8
- Zhou, M., Li, F., Wang, Y., and Chen, S. (2020). Compensatory Social Networking Site Use , Family Support , and Depression Among College Freshman : Three-

- Wave Panel Study. *J. Med. Internet Res.* 22, 1–13. doi: 10.2196/18458
- Zhu, C., Li, S., and Zhang, L. (2025a). The impact of smartphone addiction on mental health and its relationship with life satisfaction in the post-COVID-19 era. *Front. Psychiatry* 16, 1–10. doi: 10.3389/fpsyt.2025.1542040
- Zhu, W., Zhang, Y., Lan, Y., and Song, X. (2025b). Smartphone dependence and its influence on physical and mental health. *Front. Psychiatry* 16, 1–10. doi: 10.3389/fpsyt.2025.1281841
- Zhuo, R. (2024). Examining bedtime procrastination through the lens of academic stressors among undergraduate students: academic stressors including mediators of mobile phone addiction and active procrastination. *Curr. Psychol.* 43, 22426–22435.
- Zulhairil, A. (2024). 736 Mahasiswa di Bandung, 48,6 persennya Bergejala Gangguan Mental. *IDN Times Jawa Barat*.