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The Competitive Mind: Impact of Competitiveness on Mental Health

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ABSTRACT

The impact of competitiveness on the mental health of Pakistani male and female adolescents is an important area of study, as the pressures from academic, social, and familial expectations significantly influence the psychological well-being of adolescents. This

research aims to examine the relationship between gender differences in competitiveness and mental health outcomes, particularly depression, anxiety, and stress, among adolescent males and females. A cross-sectional design was employed involving a sample of 387 adolescents (227 boys and 160 girls) aged 14 to 19, recruited through a convenience sampling method. Quantitative data were obtained on the Revised Competitiveness Index (RC1; Housten et al., 2023) and the DASS-21 (Lovibond & Lovibond, 1995). The study employed two-way and mixed factorial ANOVA to examine gender differences in competitiveness and mental health outcomes. The results demonstrated that adolescent boys displayed markedly greater levels of competitiveness than their female peers. Furthermore, girls reported elevated levels of depression, anxiety, and stress compared to boys. The findings indicate that the rise in competitiveness correlates with an increase in depression, anxiety, and stress, especially in female adolescents. The study highlights the importance of recognizing gender differences in developing mental health interventions for adolescents, suggesting that tailored approaches may be necessary to address the distinct needs of boys and girls.
Keywords: Competitiveness, Mental Health, Depression, Anxiety, Stress, Adolescents

INTRODUCTION

Adolescence represents a crucial developmental stage marked by substantial biological, cognitive, and emotional transformations. In this phase, adolescents are especially susceptible to the influence of their social environment, with external pressures like academic achievement, extracurricular activities, and social expectations frequently playing a crucial role in their identity development (Zhao & Zhao, 2022). Competitiveness is a significant factor influencing adolescent experiences, characterized by the desire to excel over peers in areas such as academics, sports, and social interactions. It can serve as a motivating factor, encouraging adolescents to pursue success and personal development (Matusof, 2024). However, excessive or unhealthy competitiveness is associated with various mental health problems, including depression, anxiety, and stress. The influence of competitiveness on adolescent mental health outcomes is multifaceted, yielding both beneficial and detrimental effects (Chan & Cheung, 2022). Moderate levels of competitiveness have been shown to enhance motivation, self-efficacy, and achievement (Schunk & Dibenedetto, 2022).

Competitiveness and Mental Health

Recent research has focused on the impact of competitiveness on mental health outcomes, especially among adolescents. Although numerous studies have been undertaken in Western contexts (Posselt, 2021; Schels, 2023), a significant research gap exists regarding the impact of competitiveness on adolescent mental health in Pakistan, a nation characterized by unique cultural, social, and educational dynamics. The gap is particularly concerning because Pakistani adolescents encounter distinct pressures associated with academic achievement, family expectations, and societal norms.

The Impact of Competitiveness on Mental Health (Depression, Anxiety, and Stress)

Depression, anxiety, and stress rank among the most common mental health issues in adolescents, with increasing evidence indicating that competitiveness may worsen these conditions. Failure to meet self-imposed or external expectations may lead to negative self-evaluations, contributing to feelings of sadness, hopelessness, and diminished self-worth (Edwards, 2021; Xie et al., 2024). Adolescents in competitive academic environments frequently experience increased anxiety stemming from persistent pressure to succeed and the apprehension of disappointing their families or peers (Edwards, 2021). They also experience heightened stress while attempting to meet elevated expectations, resulting in feelings of overwhelm and burnout (Watson et al., 2021; Kuokkanen, 2022).

Moreover, gendered expectations impose additional stressors, establishing distinct standards and pressures for boys and girls. Boys may experience heightened pressure to succeed in competitive academic and athletic contexts, whereas girls may face social and familial obstacles in reconciling their academic endeavors with domestic duties (Hussain, 2021). Despite advancements in understanding the relationship between competitiveness and mental health among adolescents, a notable research gap exists concerning Pakistani adolescents. Limited research has been witnessed how these dynamics manifest among Pakistani youth. In Pakistan, academic success is greatly esteemed, frequently regarded as a pathway to social mobility and a source of familial honor (Saeed, 2022). The lack of understanding regarding these dynamics in Pakistani adolescents indicates a pressing requirement for additional research.

Hypotheses

- **HI:** The level of competitiveness would be higher in adolescent boys than adolescent girls.
- **H2:** The levels of depression, anxiety, and stress would be higher in adolescent girls than adolescent boys.
- **H3:** The level of competitiveness would significantly influence the mental health (depression, anxiety, and anxiety) of male and female adolescents.

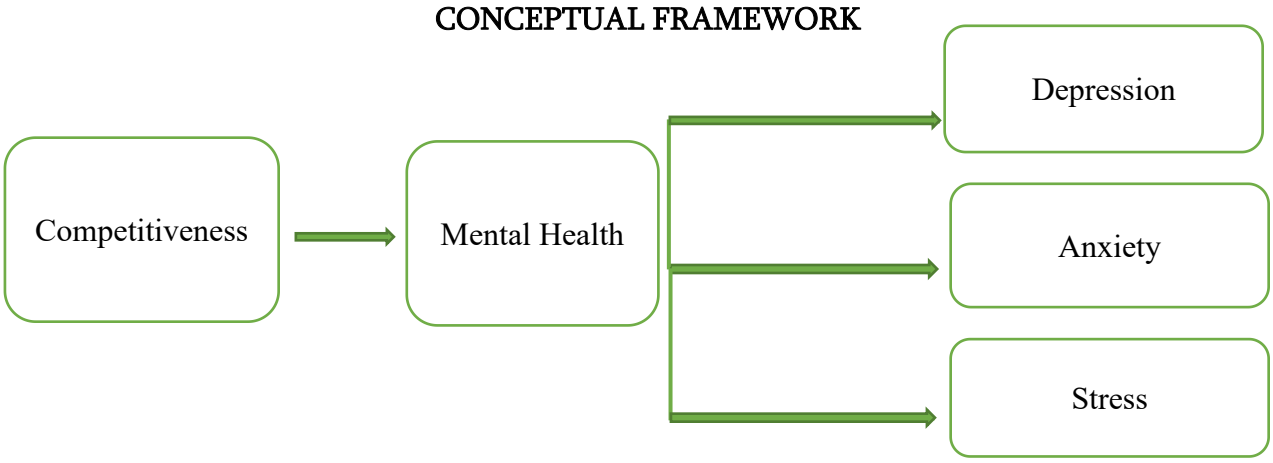


Figure 1: *Integrated Framework of Competitiveness on Mental Health*

METHODOLOGY

The study follows a cross-sectional design to explore the differences in aforementioned hypotheses via convenient sampling. It includes 387 participants ranging in age from 14-19, from various private schools and colleges. The sample size was calculated by using G-Power. The participant's consent was taken, and it was insured that they understand English to response on questionnaire i.e., Revised Competitiveness Index (RCI; Housten et al, 2023), and DASS-21 (Lovibond & Lovibond, 1995). The demographic information is age, gender, education, academic grades, and Socio-economic status (SES). RCI is composed of 14 items based on 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree) including nine reverse-scored items. RCI was highly consistent and correlated with 1992 competitiveness index scale (Housten et al, 2023). The DASS-21 is a collection of three self-report subscales that are used to assess depression, anxiety, and stress (Lovibond & Lovibond, 1995), based on a four-point scale ranging from 0 (doesn't apply to me at all) to 3 (applicable most of time). Data analysis used two-way mixed factorial ANOVA.

RESULTS

Table 1: ***Demographic Frequency Distribution (N = 387).***

Characteristics of the participants	Categories	*f*	%
Age	14-16	140	36.2
	17-19	247	63.8
Gender	Male	227	58.66
	Female	160	41.34
Education	Secondary	53	13.7
	Matric	89	23
	F.Sc.	159	41.1
	Undergraduate student	86	22.2
Socio-economic status (SES)	Lower	55	14.2
	Middle	154	39.8
	Upper middle	145	37.5
	Upper	33	8.5

Note: f = Frequency, *%*= Percentage

Table 1 shows the frequency distribution of demographic variables. It shows that 36.2% of participants lied in the 14-15 age group and 63.8% of participants lied in the 16-19 age group. Additionally, 58.66% were males and 41.34% were females. Moreover, 13.7% participants were secondary, 23% were matric, 41.1% were F.Sc, and 22.2% were

undergraduate students. Furthermore, 14.2%, 39.8%, 37.5% and 8.5% were from lower SES, middle, upper middle, and upper class, respectively.

Table 2

Two-way (2x2) ANOVA for the Assessment of Competitiveness, Depression, Anxiety, and Stress across Male and Female participants (N =387).

Variables	*Male (N=227)*		*Female (N= 160)*				
	M	*SD*	*M*	*SD*	*F(1,385)*	*P*	η^2
RCI	43.75	10.01	41.08	10.94	5.998	.015	.015
DASS	-	-	-	-	-	-	-
D	8.33	3.87	9.24	3.84	4.943	.027	.013
A	8.19	3.50	9.08	3.37	5.926	.015	.015
S	10.00	3.64	10.92	3.60	5.734	.017	.015

Note. M = mean, SD = Standard Deviation, η^2 = eta square

Table 2 result shows that the level of competitiveness among males are significantly higher than females, with a small effect size (η^2 = .015). The comparison of male and female adolescents on competitiveness was significant with F (1, 385) = 5.998, p = .015, suggesting the gender differences in competitiveness were statistically meaningful with a small effect size (See figure 2). Moreover, males reported lower levels of depression, anxiety, and stress than females and the differences were significant with [depression: F (1, 385) = 4.943, p = .027], [anxiety: F (1, 385) = 5.926, p = .015], and [stress: F (1, 385) = 5.734, p = .027], along with small effect sizes (D: η^2 = .013; A: η^2 = .015; S: η^2 = .015). This suggests that females exhibit slightly higher levels of depression, anxiety, and stress than males. These findings conclude that higher competitiveness in males is not associated with higher depression, anxiety, or stress levels. In contrast, females with slightly lower competitiveness may be more prone to experiencing the symptoms of depression, anxiety, and stress (See figure 2A).

Figure 2:

Mean Differences of Competitiveness across Male and Female Participants.

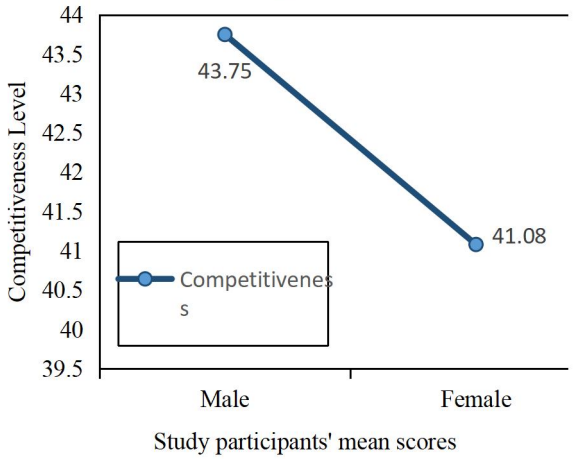
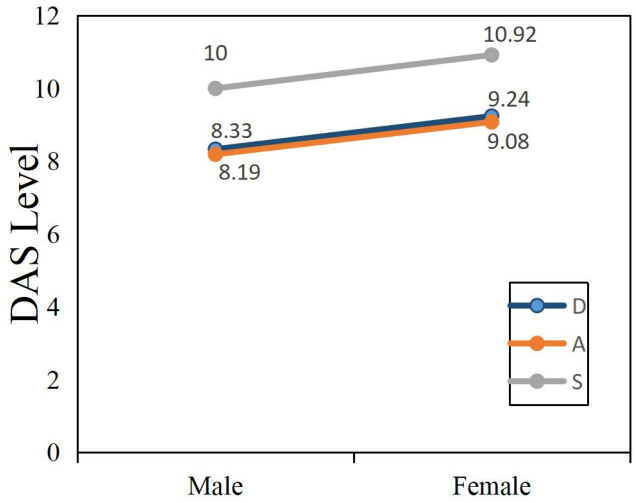


Figure 2A:

Mean Differences of Depression, Anxiety, and Stress across Male and Female Participants.



Study participants' mean scores

Table 3

Mixed Factorial (2x2x2) ANOVA for the Assessment of Depression, Anxiety, and Stress among Male and Female Participants of 3 groups i.e., below average competitiveness (A1), average competitiveness (A2), and above average competitiveness (A3) (N = 387).

	A1 (N = 65)		A2 (N = 211)		A3 (N = 111)										
Variables	Male (N = 30)		Female (N = 35)		Male (N =125)		Female (N = 86)		Male (N = 72)		Female (N = 39)				
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	*F(2,384)*	*p*	η^2
D	4.70	2.45	7.70	4.24	8.40	3.71	9.60	3.33	9.71	3.75	10.00	4.30	17.359	.001	.083
A	4.73	2.38	7.80	3.37	8.40	3.42	9.58	3.32	9.22	3.18	9.24	3.20	16.496	.001	.079
S	6.47	2.08	9.31	3.61	10.30	3.49	11.31	3.25	10.89	3.61	11.76	4.02	18.203	.001	.087

Note. M = mean, SD = Standard Deviation, η^2= eta square

The results of mixed factorial ANOVA illustrated that there is a significant *main effect* of depression, anxiety, and depression across male and female participants of groups (A1, A2, & A3). Males reported lower levels of depression, anxiety, and stress than females and the differences were significant with [depression*: F (2,384) = 17.359, p = .001], [*anxiety: *F (2,384) = 16.496, p = .001],* and [stress: *F (2,384) = 18.203, p = .001]* along with medium effect sizes (D: η^2 = .083; A: η^2 = .079; S: η^2 = .087). This suggests that depression, anxiety, and stress are influenced by the level of competitiveness. The findings concluded that as level of competitiveness increases, depression, anxiety, and stress also increases, specifically in female adolescents (See figure 3, 3A, & 3B).

Figure 3: *Mean Differences of Depression across Male & Female Participants of A1, A2, and A3.*

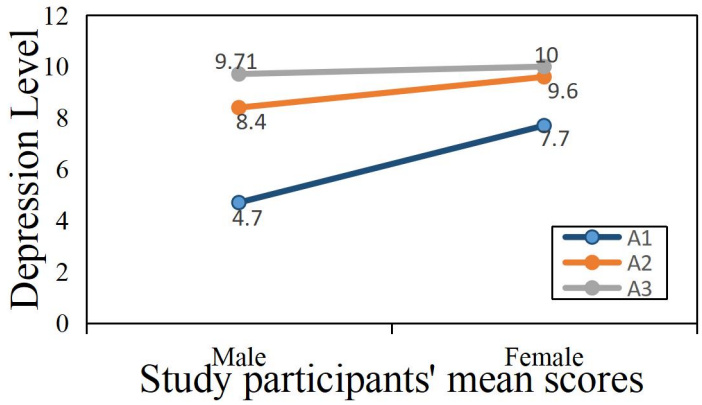


Figure 3A: *Mean Differences of Anxiety across Male and Female Participants of A1, A2, and A3.*

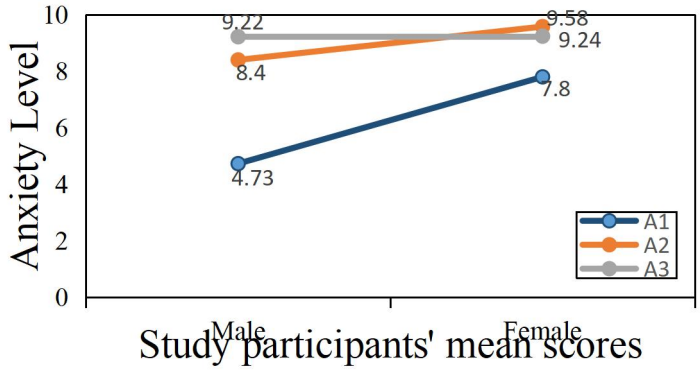
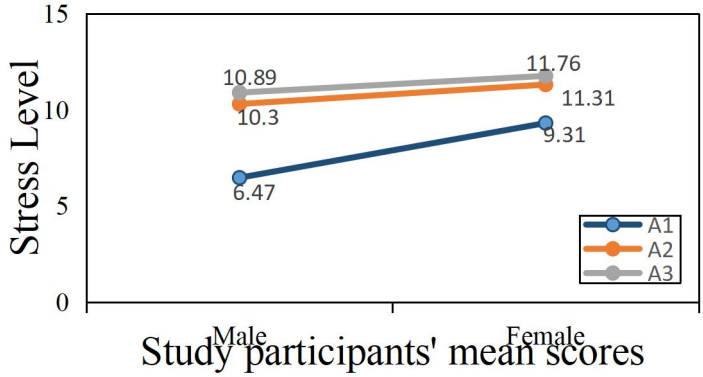


Figure 3B: *Mean Differences of Stress across Male and Female Participants of A1, A2, and A3.*



DISCUSSION

This study assessed the gender-based differences in competitiveness and mental health outcomes, associated with competitive behavior. Two hypotheses were formulated to assess the competitiveness and mental health (depression, anxiety, & stress) of Pakistani adolescents. The first hypothesis posits that there will be a significant difference in competitiveness scores between male and female adolescents, with males reporting higher competitiveness than females. Findings of

the study indicated that males had higher competitiveness scores (M = 43.75) compared to females (M = 41.08), suggesting that gender differences are evident in competitiveness levels of Pakistani adolescents.

Gender roles significantly influence competitive behaviors. In cultures that socialize males to prioritize independence, dominance, and individual success, demonstrate increased competitiveness. Male adolescents score higher on measures of competitiveness, which aligns with societal expectations for males to exhibit greater achievement orientation (Lehnert et al., 2020). Whereas, comparable patterns indicate that males frequently exhibit more competitive behaviors than females (Reyes-Gonzalez et al., 2021). Cultural and societal expectations in Pakistan heavily influence their competitive behaviors (Fakhar et al., 2024). Pakistani males are mostly driven to excel more than females in academics and sports, prioritizing individual achievement (Altaf et al., 2023; Khan, 2021).

Next hypothesis posits that there will be a significant difference in depression, anxiety, and stress scores between male and female adolescents, with females reporting higher scores on depression, anxiety, and stress than males. Findings of the study revealed that females had higher depression (M = 9.24), anxiety (M = 9.08), and stress (M = 10.92) than males [depression (M = 8.38), anxiety (M = 8.19), and stress (M = 10.00)], suggesting that gender differences are evident in mental health outcomes considering competitive behavior of Pakistani adolescents. The findings are supported by the existing literature signifying that female adolescents are more disposed to depression, anxiety, and stress than males, especially during and after puberty (Lei et al., 2021; Burani & Nelson, 2020). Female face higher academic and social stress than males (Prowse et al., 2021) and more pressure related to body image, academic achievement, and relationships (Zhang et al., 2024) as compared to males (Wanger et al., 2023). In Pakistan, females face deepened societal and family expectations regarding academic success and traditional roles, further intensifying their stress and emotional burden (Saeed, 2022).

Lastly, findings show that females report higher depression, anxiety, and stress than males across all competitiveness levels. High competitiveness can result in depressive symptoms, particularly when disappointments happen or expectations are unmet (Gilbert et al., 2024). Adolescents focused on outperforming others tend to create heightened anxiety under pressure, with females vulnerable (Sanader et al., 2021; Tazini, 2023; Stentiford et al., 2023). Males often manage stress through physical and social activities; it helps in managing anxiety. In contrast, females tend to internalize stress, increasing their susceptibility to depression and anxiety (Sun et al., 2022).

CONCLUSION

Overall, negative relationship is found between competitiveness and mental health in females due (Tazini, 2023). Females face more pressure to meet high standards in competitive academic environment, results in high stress, Males, while generally lessen stress (Stentiford et al., 2023). Therefore, this study recommends

that educational reforms should balance academic and extracurricular competition with mental well-being. The education regulatory bodies should integrate mental health education, counseling services, and peer support programs.

Significance of the study

This research examines the intersection of competitiveness, mental health, and gender among Pakistani adolescents, a group notably affected by substantial academic and social pressures. This study empirically examined the effects of competitiveness on depression, anxiety, and stress, highlighting the gendered nature of these impacts. In Pakistan, male and female adolescents encounter different societal pressures: males frequently face competition in traditional areas like sports or academic success, whereas females often deal with heightened expectations from family and social conformity. Comprehending these gender differences is essential for creating targeted mental health interventions that meet the distinct needs of each group.

Additionally, this study paves the way for enhancing mental health awareness in Pakistan by examining the relationship between competitiveness and mental health outcomes such as depression, anxiety, and stress. The findings can assist mental health professionals, educators, and policymakers in developing effective support systems and prevention strategies, enabling adolescents to manage competitive attitude without jeopardizing their well-being. This research enhances understanding of the intersection between cultural factors in Pakistan and individual psychological outcomes, thereby contributing to the global discourse on adolescent mental health. Furthermore, it addresses the research gap concerning Pakistani adolescents and the effects of competitiveness, establishing a foundation for future research and policy reforms to enhance balanced development and emotional resilience among youth.

Implementation

The study supports educational reforms that combine academic and extracurricular competitiveness, emphasizing the importance of mental well-being. Educational institutions should implement programs that educate adolescents on mental health, stress management, and self-compassion, emphasizing the importance of well-being alongside academic achievement. Focusing on gender-sensitive teaching methods is crucial, as it acknowledges the unique experiences and responses of males and females to competitive pressures.

Educational institutions should implement mental health support systems, such as counseling services and peer support programs, targeting adolescents facing increased stress from competitiveness. These systems should be designed to establish secure environments for students to confront their challenges and receive assistance. Integrating gender-specific workshops or sessions that focus on the psychological impacts of competitiveness into school curricula is crucial.

In short, his study emphasizes the importance of addressing mental health issues associated with competitiveness among adolescents, particularly in relation to gender differences in the Pakistani context. The findings indicate that gender-

sensitive interventions, educational reforms, and societal awareness campaigns can promote a healthier and more balanced approach to competitiveness, allowing adolescents to excel academically and emotionally.

Limitations and recommendations

The study uses a cross-sectional design, limiting the ability to determine causal relationships between competitiveness and mental health outcomes. It employs self-reported measures of competitiveness and mental health, which may be affected by social desirability bias and response distortion. The study sample includes Pakistani adolescents, which may restrict the generalizability of the findings to other cultural or socio-economic contexts. Cultural factors specific to Pakistan, such as family expectations and educational pressures, may influence the relationship between competitiveness and mental health in ways that differ from other countries. This study analyzes academic competitiveness, but additional research on social and athletic competitiveness is required.

Future research may explore gender dynamics to improve comprehension of their impact on mental health disparities. Future research should examine the cultural and societal factors contributing to increased competitiveness and psychological distress in Pakistani adolescents. Researchers must investigate the relationship among family expectations, societal norms, and educational systems and their impact on adolescent mental health, particularly regarding gender considerations. Longitudinal studies can examine the lasting effects of competitiveness on mental health and identify critical interventions to promote sustainable well-being.

REFERENCES

Ali, W., Muhammad, S., Khan, M. M., & Khan, N. A. (2020). Financial satisfaction of international students in Malaysia. *Sarhad Journal of Management Sciences*, *6*(1), 49-68.

Aurangzeb, M., Uddin, S. S., Farooq, A., & Ali, R. A. (2025). Offensive Realism and the Pacific Ocean: Understanding Geopolitical Rivalries through Mearsheimer's Lens. *Policy Journal of Social Science Review*, *3*(1), 268-278.

Burani, K., & Nelson, B. D. (2020). Gender differences in anxiety: The mediating role of sensitivity to unpredictable threat. *International Journal of Psychophysiology*, *153*, 127-134.

Chan, C. Y., & Cheung, K. L. (2022). Exploring the gender difference in relationships between narcissism, competitiveness, and mental health problems among college students. *Journal of American college health*, *70*(4), 1169-1178.

Edwards, C. D. (2021). Depression assessment: challenges and treatment strategies in the athlete. *Psychiatric Clinics*, *44*(3), 381-392.

FAKHAR, M. S., MUNIR, M. I., ZIA, M. F., & RASHEED, M. S. (2024). Transformative power of education: unraveling gender roles in pakistan through a comprehensive literature review. *Jahan-e-Tahqeeq*, *7*(1), 667-675.

Gilbert, W., Eltanoukhi, R., Morin, A. J., & Salmela-Aro, K. (2024). Achievement goals as mediators of the links between self-esteem and depressive symptoms from mid-adolescence to early adulthood. *Journal of youth and adolescence*, 1-18.

Haq, E. U., & Khan, S. (2024). The influence of broken homes on students' academic performance in schools. *Journal of Political Stability Archive*, *2*(4), 339-361.

Houston, J.M., Harris, P.B., Patrick, S. (2023). Revised Competitiveness Index (CI-R). In: Krägeloh, C.U., Alyami, M., Medvedev, O.N. (eds) *International Handbook of Behavioral Health Assessment.* Springer, Cham. https://doi.org/10.1007/978-3-030-89738-3_30-1

Hussain, A. (2021). *The Further Education Experiences of Young Males of Pakistani-Origin: A Case Study* (Doctoral dissertation, University of Huddersfield).

Iqbal, T., Shah, S. M. A., & Abid, F. (2025). The Impact of Organizational Commitment and Supervisory Support on Employee Retention: Job Satisfaction as a Mediator in Pakistan's Pharmaceutical Sector. *Journal of Political Stability Archive*, *3*(2), 287-305.

Kanwal, M., & Tasleem, S. (2025). Advancements in Nutraceuticals and Peptide Therapeutics: A Comprehensive Review. *Multidisciplinary Surgical Research Annals*, *3*(3), 1208-1221.

Khan, A. N. (2021). *Gender norms of employability; a case study of females' technical and vocational education in Multan and Bahawalpur, South Punjab, Pakistan* (Master's thesis, OsloMet-Storbyuniversitetet).

Kuokkanen, J. (2022). Combining School and Sport in Finnish Lower Secondary School: The Interplay Among Engagement, Burnout and Experiences in Student Athletes' Dual Career Adjustment.

Lehnert, M., Croix, M. D. S., Svoboda, Z., Elfmark, M., Sikora, O., & Stastny, P. (2020). Gender and age related differences in leg stiffness and reactive strength in adolescent team sports players. *Journal of human kinetics*, *74*, 119.

Lei, R., Sun, Y., Liao, J., Yuan, Y., Sun, L., Liu, Y., ... & Yu, Z. (2021). Sex hormone levels in females of different ages suffering from depression. *BMC Women's health*, *21*(1), 215.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour research and therapy*, *33*(3), 335-343.

Masih, S., Raju, V., & Saher, S. (2022). Integrated approach of self-focused humor styles at workplace: The role of trust in leader. *Journal of Positive School Psychology*, *6*(2).

Matusof, P. (2024). Academic Competition in the School System: At What Cost?.

Mir, I. A., Rana, A. M., & Waqas, R. M. (2021). Information Verification Motivation and its Influence on Users' Social Media Advertising Evaluation and Outcome Behaviors. *Pakistan Social Sciences Review, 5 (3)*, 503-514.

Posselt, J. (2021). Discrimination, competitiveness, and support in US graduate student mental health. *Studies in Graduate and Postdoctoral Education*, *12*(1), 89-112.

Reyes-González, J. M., De Felipe, F., Morera-Pujol, V., Soriano-Redondo, A., Navarro-Herrero, L., Zango, L., ... & González-Solís, J. (2021). Sexual segregation in the foraging behaviour of a slightly dimorphic seabird: Influence of the environment and fishery activity. *Journal of Animal Ecology*, *90*(5), 1109-1121.

Saeed, A. (2022). *Education, Aspiration and Upward Social Mobility: Working Class British Women*. Springer Nature.

Sanader, A. A., Petrović, J. R., Bačanac, L., Ivković, I., Petrović, I. B., & Knežević, O. (2021). Competitive trait anxiety and general self-esteem of athletes according to the sport type and gender. *Primenjena psihologija*, *41*(3), 277-307.

Schels, D. R. (2023). *Competition and Its Relationship to Student Performance and Wellness* (Doctoral dissertation, Fordham University).

Schunk, D. H., & DiBenedetto, M. K. (2022). Self-efficacy and engaged learners. In *Handbook of research on student engagement* (pp. 155-170). Cham: Springer International Publishing.

Shaukat, U., & Rehman, A. (2021). Pairs Trading and Stock Returns: An Evidence from Pakistan Stock Exchange. *City University Research Journal (CURJ)*, *11*(2).

Stentiford, L., Koutsouris, G., & Allan, A. (2023). Girls, mental health and academic achievement: A qualitative systematic review. *Educational Review*, *75*(6), 1224-1254.

Sun, J., Jiang, Y., Wang, X., Zilioli, S., Chi, P., Chen, L., ... & Lin, D. (2022). Cortisol reactivity as a mediator of peer victimization on child internalizing and externalizing problems: The role of gender differences. *Research on Child and Adolescent Psychopathology*, *50*(3), 283-294.

Tazzini, G. (2023). *An exploration of the role of competitiveness and mental health outcomes in Trainee Clinical Psychologists* (Doctoral dissertation, University of East Anglia).

Thu, L. N. N., Van Hoang, L., Doan, Q. M., & Huynh, N. T. (2024). The performance model of logistic distribution centers: Quality function deployment based on the Best-Worst Method. *PloS one*, *19*(10), e0305202.

un Nisa, S. (2025). THE NEW WORLD ORDER: BRICS AND THE PERSPECTIVE OF PAKISTAN. *Policy Journal of Social Science Review*, *3*(6), 107-113.

Urooj, R., Bibi, S., & Khan, M. L. (2025). Self-Efficacy, Mindfulness, and Burnout among Phd Students. *Research Journal of Psychology*, *3*(2), 542-558.

Wagner, G., Karwautz, A., Philipp, J., Truttmann, S., Dür, W., Waldherr, K., ... & Zeiler, M. (2023). Mental health and health-related quality of life in Austrian adolescents with chronic physical health conditions: results from the MHAT study. *Journal of Clinical Medicine*, *12*(5), 1927.

Watson, P. W. S. J., Sotardi, V. A., Park, J. J., & Roy, D. (2021). Gender self-confidence, scholastic stress, life satisfaction, and perceived academic achievement for adolescent New Zealanders. *Journal of Adolescence*, *88*, 120-133.

Xie, C., Li, L., & Li, Y. (2024). "Wheels stuck in the mud": A qualitative study of experiences of academic burnout in graduate nursing students. *Nurse Education Today*, 106287.

Zhang, J., Peng, C., & Chen, C. (2024). Mental health and academic performance of college students: Knowledge in the field of mental health, self-control, and learning in college. *Acta Psychologica*, *248*, 104351.

Zhao, L., & Zhao, W. (2022). Impacts of family environment on adolescents' academic achievement: The role of peer interaction quality and educational expectation gap. *Frontiers in Psychology*, *13*, 911959.