

The Impact Of Physical Activity On Depression In University Students During Examination

USMAN GHANI FAROOQI^{1*}, FAHAD AHMED KHAN¹, SAHER AKHALQUE¹,
UZMA RAHIM¹, RANJHAN¹, GHULAM RAZA¹

¹ Baqai Institute of Health Management Sciences, Baqai Medical University, Karachi, Pakistan.

* Corresponding Author: Dr. Usman Ghani Farooqi, Baqai Institute of Health Management Sciences, Baqai Medical University, Karachi, Pakistan.

Abstract

To investigate the moderating influence of physical activity (PA) on the relationship between depression and university students. An estimated 25% of the global population suffers from mental health issues. There are several reasons that can contribute to exam anxiety among students. A survey was done online with a sample size of 80 Karachi university students. The sample comprised of 50% females and 50% males between the ages of 17 and 25. 49% of students say that regular physical activity reduces exam-related anxiety. Physical activity may aid in the reduction of exam-related stress, anxiety, and sadness. Physical activity moderates the connection between depression, according to the research. Future studies should include a longitudinal design. Depression intervention methods should consider the health behaviours of individuals.

Keywords: Stress, Mental health, Depression, Anxiety, Examination.

Introduction

Academic and non-academic elements, including environmental, cultural, and psychological characteristics, might contribute to student stress (Brand and Schoonheim-Klein, 2009). Stress levels differ among students based on anxiety symptoms, particularly during examination periods. 10–35% of college students suffer from "functionally impaired levels of test anxiety" (Chapell et al., 2005, Neuderth et al., 2009). It can be bidirectional, since the majority of stressed students exhibit low self-esteem and frequently poor academic performance (Sohail, 2013)

Literature identifies several factors that contribute to stress, anxiety, and depression among students, including family and peer pressure, high parental expectation, sleep deprivation, future worries, longer screen time, academic pressure, workload, size of the academic curriculum, and heavy test loads (Brenneisen Mayer et al., 2016, Abdel Wahed and Hassan,

2017, Saeed et al., 2018). Examinations, time constraints, competition, and the classroom atmosphere are some of the biggest academic stressors for students (Murphy and Archer, 1996).

Examination anxiety and the mental health of students are associated. Exam stress and anxiety, according to Bayram and Bilgel (2008), has negative effects on students' academic progress, physical health & development, and quality of life. Social stigma, where students from a rural background may feel incompetent compared to those who grew up in the city, combined with the fear of not having competitive skills in English, can demotivate students prior to and during exams, leading to anxiety, stress, and frustration.

Material and Method

An online survey was conducted among undergraduate and postgraduate students from tertiary institutions of Karachi, A total of 80 youths aged between 17 and 25 years participated in the survey using google online survey platform. The depression/stress/anxiety coping strategy contained questions about whether the participant had ever sought help for depression/anxiety/stress by engaging in physical activities. Data was analyzed using MS Excel version 2010 and was described using frequencies and percentages.

Results

The 80 students divided into 4 classes each class based on 20 students as well as the class MBA first year there was (159) score of agree, strongly agree (115), disagree (52) and strongly disagree (18) to reduce depression through physical activity. The class of MBA second semester first year there was (234) score of agree, strongly agree (130), disagree (52) and strongly disagree (21) to reduce depression through physical activity. The class of MBA final year score of agree was (159), (115) strongly agree, disagree (29) and strongly disagree (30). The class of BBA there was (234) score of agree, strongly agree (97), disagree (76) and strongly disagree (176) to reduce depression through physical activity.

The data through percentage wise number of observations indicate that there were 49% students agree to reduce depression symptoms through physical activity, 31% students strongly agree to reduce depression symptoms through physical activity, 15% students disagree to reduce depression symptoms through physical activity and 5% students strongly disagree to reduce depression symptoms through physical activity (Figure: 1).

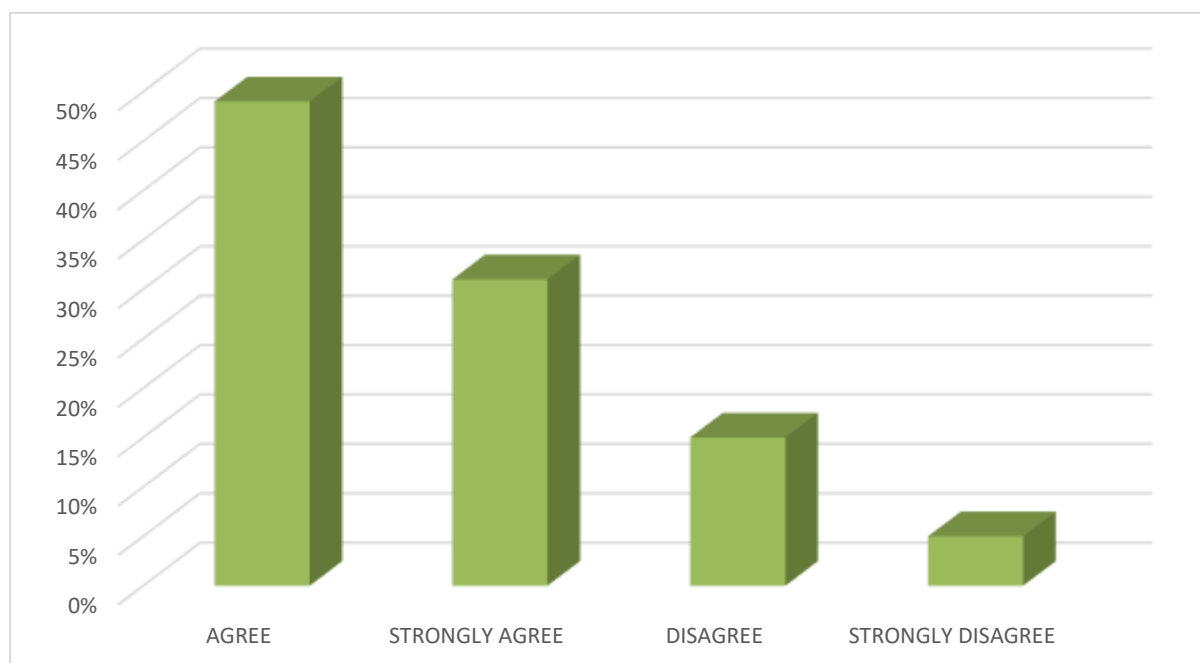


Figure: 1. Physical Activities Reduces Depression During the Exam

Discussion

This study investigated the moderating influence of physical activity levels on the link between depression and university students. Our findings are consistent with those of Ghrouz et al. (2019), who found that 51% of university students have low PA levels and 18% experience depression. Moderate or high PA levels was significantly and inversely related to depression (OR = 0.11 or 0.96; $P < 0.001$) Jonsdottir et al. (2010) revealed that those who engaged in 120 minutes of PA per week had a 63.0% lower risk of future depression than those who were sedentary. Lucas et al. (2011) demonstrated that being physically active for at least 90 minutes per day could reduce the risk of depression by 20% compared to being physically active for less than 10 minutes per day; walking 20 minutes per day or 40 minutes per day could reduce the risk of depression by 6% or 20%, respectively. In conclusion, these findings support the idea that physical activity helps alleviate depression, however the frequency, intensity, and duration are less certain. Additionally, daily activities like as walking tend to be advantageous (Mammen & Faulkner, 2013).

Conclusion

At the end of the study, it was concluded that, mostly students agree to this research they are engage physical activity they all are known about benefits of exercise in their daily life. Because during exams it was the best way to reduce depression through physical activity. Finally, mostly students' thoughts that participation in physical activity is conducive for health and reduce depression symptoms during exams.

Reference

1. Abdel Wahed, W. Y., & Hassan, S. K. (2017). Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. *Alexandria Journal of Medicine*, 53(1), 77–84.
2. Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, 43(8), 667–672.
3. Brand, H. S., & Schoonheim-Klein, M. (2009). Is the OSCE more stressful? Examination anxiety and its consequences in different assessment methods in dental education. *European Journal of Dental Education*, 13(3), 147–153.
4. Brenneisen Mayer, F., et al. (2016). Factors associated to depression and anxiety in medical students: A multicenter study. *BMC Medical Education*. BioMed Central Ltd. 16(1), 1–9.
5. Chapell, M. S., et al. (2005). Test anxiety and academic performance in undergraduate and graduate students. *Journal of Educational Psychology*, 97(2), 268–274.
6. Ghrouz, A. K., Noohu, M. M., Dilshad Manzar, M., Warren Spence, D., BaHamman, A. S., & Pandi-Perumal, S. R. (2019). Physical activity and sleep quality in relation to mental health among college students. *Sleep and Breathing*, 23, 627-634.
7. Jonsdottir, I. H., Rödger, L., Hadzibajramovic, E., Börjesson, M., & Ahlborg Jr, G. (2010). A prospective study of leisure-time physical activity and mental health in Swedish health care workers and social insurance officers. *Preventive medicine*, 51(5), 373-377.
8. Lucas, M., Mekary, R., Pan, A., Mirzaei, F., O'Reilly, É. J., Willett, W. C., & Ascherio, A. (2011). Relation between clinical depression risk and physical activity and time spent watching television in older women: a 10-year prospective follow-up study. *American journal of epidemiology*, 174(9), 1017-1027.
9. Mammen, G., & Faulkner, G. (2013). Physical activity and the prevention of depression: a systematic review of prospective studies. *American journal of preventive medicine*, 45(5), 649-657.
10. Murphy, M. C. and Archer, J. (1996) 'Stressors on the College Campus: A Comparison of 1985 and 1993', *Journal of College Student Development*, 37(1), pp. 20–28.
11. Neuderth, S., Jabs, B., & Schmidtke, A. (2009). Strategies for reducing test anxiety and optimizing exam preparation in German university students: A prevention-oriented pilot project of the University of Würzburg. *Journal of Neural Transmission*, 116(6), 785–790.
12. Saeed, H., et al. (2018). 'Determinants of Anxiety and Depression Among University Students of Lahore', *International Journal of Mental Health and Addiction*. Springer, New York LLC, 16(5), 1283–1298.
13. Sohail N. Stress and academic performance among medical students *Journal of the College of Physicians and Surgeons Pakistan* 2013 01.2013/JCPSP.6771.