History of Medicine, 2024, 10(2): 2134-2146
DOI: 10.48047/HM.V10.I2.2024.2134-2146

LIFESTYLE OF UNDERGRADUATE STUDENTS AND ITS EFFECT ON THEIR ACADEMIC PERFORMANCE AND MENTAL HEALTH.

Dr. Nasir Mahmood (Professor), Dr. Monika Yadav (Junior Resident), Dr. Debasish Padhi (Assistant Professor), Dr. Preet (Junior Resident)

Abstract

Background: The lifestyle choices of undergraduate students play a crucial role in shaping their academic performance and mental health. Various factors such as diet, physical activity, sleep, and stress significantly influence their well-being.

Aim: This study aims to evaluate the association among lifestyle, academic performance, and mental health.

Methods: A cross-sectional study was carried out in Rama Medical College, Hospital and Research Centre, Kanpur among 480 undergraduate medical students. Data was collected using socio-demographic datasheet, Warwick-Edinburgh Mental Well-being Scale (WEMWBS), FANTASTIC Lifestyle Scale (FLS) and preuniversity exam scores. Data were analysed using SPSS to assess the association between lifestyle, academic performance and mental health.

Results: A significant positive correlation was found between lifestyle scores and both mental well-being and academic performance. Students with higher FANTASTIC Lifestyle Scale scores had better WEMWBS mental well-being scores and academic results. First-year students had the lowest mean WEMWBS score ($M = 39.07$, $SD = 13.20$), while fourth-year students had the highest academic performance ($M = 61.85$, $SD = 16.10$). Significant associations were observed across all years ($p < 0.05$).

Conclusion: Students with healthier lifestyles, showed better mental well-being and academic performance. Conversely, poor lifestyle habits were associated with lower mental well-being and academic achievement.

Keywords: Lifestyle, Academic Performance, Mental Health, Physical Activity, Warwick-Edinburgh Mental Well-being Scale (WEMWBS), FANTASTIC Lifestyle Scale.

History of Medicine, 2024, 10(2): 2134-2146
DOI: 10.48047/HM.V10.I2.2024.2134-2146

INTRODUCTION

A lifestyle refers to the way a person or a group of people live, encompassing their daily activities, habits, values, attitudes, and behaviours. It includes choices made regarding diet, physical activity, leisure activities, social interactions, and consumption patterns, among other aspects. Lifestyle often reflects an individual's or a community's preferences, priorities, and overall way of life. It can also be influenced by cultural, economic, and social factors.

Mental health refers to an individual's overall psychological well-being, encompassing emotional, mental, and social aspects. It influences how people think, feel, and behave, impacting their ability to handle everyday stress, work effectively, and engage positively with their communities. It involves factors such as emotional resilience, self-esteem, cognitive function, and the ability to form and maintain relationships. Mental health is crucial for maintaining a balanced and fulfilling life.

The lifestyle choices of students play a pivotal role in shaping their mental health, with profound implications for their overall well-being and academic performance. As students navigate the rigors of academic life, their habits related to diet, physical activity, sleep, and stress management become critical determinants of their mental health outcomes. Engaging in regular physical activity has been found to alleviate symptoms of anxiety and depression, boost mood, and enhance cognitive function, contributing to improved mental health [1]. Conversely, sedentary behavior and lack of exercise are often linked to increased stress and mental health issues[2]. Nutrition also plays a crucial role; A nutrient-rich balanced diet promotes brain health and emotional stability, whereas unhealthy eating habits can cause deficiencies that worsen mental health issues like depression and anxiety[3]. Sleep is another fundamental factor, with adequate and quality sleep being essential for emotional regulation and cognitive performance. Chronic sleep deprivation and irregular sleep patterns are strongly associated with heightened stress levels, mood disorders, and impaired cognitive function[4].Additionally, effective stress management techniques, such as mindfulness and relaxation exercises, are vital for maintaining mental health, as chronic stress can lead to burnout and various mental health disorders[5]. Social interactions and support systems further influence mental health, with strong social connections providing emotional support and mitigating feelings of isolation and loneliness[6].

Research consistently demonstrates the profound impact of lifestyle factors on mental health. A longitudinal study by Velten et al.[7] found that healthy lifestyle choices, including regular physical activity and non-smoking, were associated with improved mental health outcomes among university students. Similarly, Davarinejad et al.[8] revealed that students with unhealthy lifestyles, characterized by poor diet and low physical activity, were more prone to depression and reduced

mental and physical well-being. The influence of lifestyle extends beyond mental health to academic performance. Abdulghani et al.[9]conducted a cross-sectional study that showed students engaging in regular physical activity and maintaining a balanced diet performed better academically, while those with irregular sleep patterns and poor dietary habits experienced lower academic achievement.

Physical activity, in particular, plays a vital role in students' well-being and academic success. Lins et al.[10] demonstrated that consistent exercise alleviates anxiety and depression symptoms, boosts mood and self-esteem, and enhances cognitive function. Moreover, exercise enhances blood circulation to the brain, potentially improving learning capacity and concentration during study sessions[11]. Dietary habits significantly impact both physical and mental health, as well as academic performance. Ghali et al.[12] found that a nutrient-rich diet high in omega-3 fatty acids and antioxidants promotes brain health and cognitive function, while deficiencies in essential vitamins and minerals are linked to depression and anxiety. Proper nutrition supports sustained energy levels and concentration, crucial for academic success.

Sleep is another critical factor in students' health and academic performance. Santen et al.[13] showed that persistent sleep deprivation is associated with a higher risk of depression, anxiety, and mood disorders. Pedrelli et al.[14] further emphasized that students who prioritize good sleep hygiene tend to perform better academically and have better mental health. Substance use, including alcohol, tobacco, and drugs, can have significant negative impacts on students.

In conclusion, students' lifestyle choices significantly impact their mental health, academic performance, and overall well-being. Encouraging healthy lifestyle practices, such as consistent physical activity, nutritious eating, sufficient sleep, and responsible substance use, effective stress management, and positive social connections, is crucial for supporting students' success and long-term health. Educational institutions and policymakers should consider implementing programs and policies that encourage and facilitate these healthy lifestyle choices among students.

The relationship between lifestyle and mental well-being in undergraduate students is complex and multifaceted. Various aspects of lifestyle can significantly impact mental health outcomes among students. A literature review was conducted, analyzing research studies from PubMed and ScienceDirect.

A cross-sectional study was carried out in March 2019, involving 344 final-year MBBS students from Rawalpindi Medical University. The study evaluated sleep quality using the Pittsburgh Sleep Quality Index (PSQI), measured physical activity levels using the Global Physical Activity Questionnaire (GPAQ), and assessed academic performance based on the marks obtained in the latest pathology class test. The study revealed a widespread pattern of poor sleep quality and low

physical activity levels among medical students, with boarding students showing significantly worse outcomes, including lower test scores and disrupted sleep and physical activity routines. Overall, male students tend to achieve higher GPAQ scores, while female students tend to attain better PSQI scores. Both PSQI and GPAQ scores exhibit significant correlations with test performance, suggesting potential avenues for enhancing students' academic achievements.[15]

Another cross-sectional study carried out in 2019 with 300 M.B.B.S students utilized a self-administered questionnaire to gather information on healthy lifestyle practices, including sex, age, sleep patterns, dietary habits, substance use, physical activity, and personal hygiene. The sample consisted of 33.3% males and 66.7% females. The majority of students fell into the "fairly healthy" lifestyle category (62.3%), followed by "healthy" (30.7%) and "unhealthy" (7.0%). Among them, 3rd year MBBS students had the highest percentage of healthy lifestyles (n=20, 40.8%), whereas 4th year students predominantly exhibited fairly healthy lifestyles (n=70, 75.3%). In contrast, the highest proportion of unhealthy lifestyles was observed among second-year MBBS students (n=9, 11%).[16]

A descriptive cross-sectional study was carried out in 2022 with 328 medical and dental students at Faisalabad Medical University. The Three Factor Eating Questionnaire Revised 21 (TFEQ-R21) was applied to evaluate students' eating behaviors, while the short version of the International Physical Activity Questionnaire (IPAQ) evaluated their physical activity levels. Additionally, a self-constructed questionnaire was employed to analyze lifestyle patterns. The study revealed that 191 out of 328 students (58.2%) engaged in unrestricted eating, while 229 students (69.8%) exhibited cognitive restraint, and 128 students (39%) practiced emotional eating. Less than half, 52 students (15.9%), followed unhealthy lifestyles, compared to 276 students (84.1%) who maintained healthy habits. Among the 328 participants, 104 students (31.7%) engaged in low physical activity, 137 students (41.8%) in moderate, and 87 students (26.5%) in high-intensity physical activity. A larger percentage of female students engaged in low (61.5%) and moderate (52.6%) levels of physical exercise, whereas a higher percentage of male students (63.2%) took part in high-intensity physical exercise.[17]

A cross-sectional study carried out in 2022 examined undergraduate pharmacy students from 14 countries across Asia and the Middle East, utilizing the validated 14-item Warwick-Edinburgh Mental Well-being Scale (WEMWBS) to evaluate their mental well-being.A total of 2,665 responses were collected, with the majority being female (68.7%) and from private universities (59.1%). The study found that 34.9% of students had low mental wellbeing, while 57% had medium levels, and 8.1% reported high levels. Binary logistic regression analysis indicated that male students and those without chronic illnesses were more likely to experience better mental well-being. Conversely, students who did not engage in physical activity and those attending public universities Were less likely to experience better mental well-being. In Addition, participants with a inspiration from known pharmacists were more likely to experience better

mental well-being than those who chose pharmacy without a specific reason. Students who rated their academic performance as excellent or very good had a greater likelihood of experiencing better mental well-being than those who rated their performance as fair.[18]

In 2022, a cross-sectional survey-based study was carried out among medical students at a private university, using the Fantastic Lifestyle Questionnaire (FLQ) to assess healthy lifestyle habits.The study examined correlations between sociodemographic factors and various lifestyle domains, including alcohol consumption, physical activity, tobacco and toxin use, connections with family and friends, self-awareness, dietary habits, personality traits, career choices, sleep patterns, seatbelt usage, stress management, and safe sexual practices.A total of 188 lifestyle profiles were assessed, with 148 complete datasets used to calculate the total FLQ score. Most of the lifestyles were categorized as "good" (42.5%) and "very good" (35.8%). Correlations were observed between the total FLQ score and factors such as the preclinical and later phases of the course, the 18-20 age group and older, as well as romantic relationships and single status.[19]

Various studies have been done on lifestyle and mental health of undergraduate students but there is no such study done in this region in which lifestyle, academic performance and mental health of students is assessed.

Materials & Methods

This cross-sectional study was carried out at Rama Medical College, Hospital, and Research Centre, Kanpur. Prior to initiation, approval was secured from the Institutional Ethics Committee, and informed consent was obtained from participants who agreed to take part.480 undergraduate students were included in the study as per the previous study records. The scales gathered data on participants' sociodemographic attributes, lifestyle and Mental health. The sociodemographic variables included name, age, sex and MBBS year. Mental well-being was evaluated using the validated 14-item Warwick-Edinburgh Mental Well-being Scale (WEMWBS), while students' lifestyles were assessed through the FANTASTIC Lifestyle Scale. To assess academic performance, pre-university exam scores were used.

The inclusion criteria for this study involved undergraduate MBBS students, with both male and female participants being considered. Only students who were cooperative and willing to participate were included. On the other hand, the exclusion criteria involved students who were non-cooperative or declined to give consent for study participation.

Assessment of the study variables:

The FANTASTIC Lifestyle scale was taken to evaluate the lifestyle among students. It covers numerous facets of lifestyle that can influence mental health. It includes questions on key lifestyle

areas such as physical activity, diet, sleep, substance use, social interactions, and stress management. The total score is interpreted to determine the overall lifestyle rating:80-100 (Excellent): Indicates a very healthy lifestyle.60-79 (Good): Indicates a generally healthy lifestyle with some areas for improvement.40-59 (Needs Improvement): Indicates several areas where lifestyle changes are necessary for better health and well-being. Below 40 (At Risk): Indicates a high-risk lifestyle with many areas requiring significant changes.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was utilized to evaluate students' mental health. This 14-item scale is specifically designed to assess mental well-being.Participants reflect on their experiences over the past two weeks and rate each statement on a 5-point Likert scale. Sum the scores for all 14 items to get a total score, which ranges from 14 to 70. The resulting score can be classified into (14-35) low mental well-being, (36-50) moderate mental well-being, (51-70) high mental well-being.

Assessment of Academic Performance was done using pre-university exam scores and was categorized into three groups: Below Average (<50% scores), Average (50-70%), and Above Average(>70%). Data analysis was performed using IBM SPSS Statistics version 29.2 for Windows, with p-values below 0.05 regarded as statistically significant.

Results

The study comprised 480 M.B.B.S students from Rama Medical College Hospital and Research Centre. The sample maintained a balanced gender distribution, consisting of 49.8% males and 50.2% females. Participants' ages ranged from 18 to 25 years, with an average age of 21.14 years.

TABLE-1 (Sociodemographic data)

Variables	Frequency	Percentage
Gender		
Males	239	49.8
Female	241	50.2
Religion		
Hindu	401	83.5
Muslim	62	12.9
Sikh	14	2.9
Others	3	0.6
MBBS Professional		
1st prof	148	30.8
2nd prof	142	29.6

3rd prof	96	20.0
4th prof	94	19.6
Age	Mean ± SD	
	21.14±1.75	

TABLE-2 Academic performance

MBBS Year	Total Students	Below Average	Average	Above Average	Mean Exam Score (%) ± SD
1st	148	25	102	21	58.34 ± 20.31
2nd	142	18	93	31	60.09 ± 20.29
3rd	96	18	62	16	56.98 ± 20.64
4th	94	9	70	15	61.85 ± 16.10

Academic performance, based on pre-university exam scores, the first table (2) shows the academic performance of MBBS students across four years, classified into Below Average, Average, and Above Average categories. The 1st-year students have the highest total number (148), with most students falling into the "Average" category. The 2nd-year students have the highest number of Above Average performers (31) and the highest mean exam score (60.09 ± 20.29). The 3rd-year students have the lowest mean exam score (56.98 ± 20.64). Overall, the performance improves slightly in the later years, with the 4th-year students having the second-highest mean exam score (61.85 ± 16.10).

TABLE-3 Warwick- Edinburg Mental Well- being Scale (WEMWBS)

MBBS Year	Total Students	Mean Mental Well-being Score ± SD	Low Mental Well-being	Moderate Mental Well-being	High Mental Well-being
1st	148	39.07 ± 13.20	51	81	16
2nd	142	40.13 ± 11.37	42	85	15
3rd	96	41.00 ± 12.63	24	57	15
4th	94	38.34 ± 13.38	37	47	10

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was used to evalute mental well-being. The table(3) shows the mental well-being scores of MBBS students across different years, classified into low, moderate, and high mental well-being categories. The 1st-year students have the lowest mean mental well-being score (39.07 ± 13.20) with 51 students categorized as having low mental well-being. The highest mean score is in the 3rd year (41.00 ± 12.63), with fewer

students (24) in the low mental well-being category. Across all years, the majority of students fall under the moderate mental well-being category, with the 2nd year having the highest number of students in this group (85). High mental well-being scores are relatively low across all years, with the 4th year having the fewest (10 students).

TABLE-4 FANTASTIC Lifestyle Scale

MBBS Year	Total Students	Mean Lifestyle Score ± SD	Needs Improvement	Fair	Good	Very Good	Excellent
1st	148	60.49 ± 21.81	19	23	49	45	12
2nd	142	61.38 ± 21.06	14	24	48	44	12
3rd	96	66.72 ± 16.74	3	16	32	35	10
4th	94	57.49 ± 23.78	16	16	28	26	8

Using the FANTASTIC Lifestyle Scale, the lifestyle quality of students was evaluated the table presents the lifestyle scores of MBBS students across different years, categorized into five groups: Needs Improvement, Fair, Good, Very Good, and Excellent. The 3rd-year students have the highest mean lifestyle score (66.72 ± 16.74) with only 3 students needing improvement. The 1st and 2nd years show similar mean lifestyle scores around 60, with a relatively higher number of students needing improvement (19 and 14, respectively). The 4th-year students have the lowest mean lifestyle score (57.49 ± 23.78) and the second-highest number of students needing improvement (16). Across all years, the majority of students fall in the "Good" and "Very Good" lifestyle categories.

Correlation between Lifestyle, Mental Well-being, and Academic Performance-

MBBS Year	Mean ± SD Mental Well-being	Mean ± SD Lifestyle	Mean ± SD Academic Performance	P-value (Chi-Square Test)
1st	39.07 ±13.20	60.49 ±21.81	58.34 ±20.31	0.033**
2nd	40.13 ±11.37	61.38 ±21.06	60.09 ±20.29	0.043*
3rd	41.00 ±12.63	66.72 ±16.74	56.98 ±20.64	0.045*
4th	38.34 ±13.38	57.49 ±23.78	61.85 ±16.10	0.024**

The table summarizes the mental well-being, lifestyle, academic performance, and statistical significance (p-value) of the association between these factors across different MBBS years. The 1st-year students have a mean mental well-being score of 39.07 ± 13.20, a

lifestyle score of 60.49 ± 21.81, and an academic performance score of 58.34 ± 20.31. The p-value for the association is 0.033, indicating a statistically significant relationship. The 2nd-year students show slightly higher mean scores for mental well-being (40.13 ± 11.37) and lifestyle (61.38 ± 21.06), with a mean academic performance score of 60.09 ± 20.29. The p-value is 0.043, showing a significant relationship. The 3rd-year students have the highest lifestyle score (66.72 ± 16.74) and a mental well-being score of 41.00 ± 12.63, but their academic performance score is lower at 56.98 ± 20.64. The p-value is 0.045, indicating statistical significance. The 4th-year students have the lowest mental well-being score (38.34 ± 13.38) and lifestyle score (57.49 ± 23.78), but their academic performance score is the highest (61.85 ± 16.10). The p-value is 0.024, indicating a strong statistically significant association. In all years, the p-values are below 0.05, indicating a significant relationship between these variables.

Discussion

The findings from this study underscore the critical impact of lifestyle choices on both mental well-being and the academic achievement of medical students. Students who maintained healthier lifestyles, characterized by engaging in regular exercise, maintaining a nutritious diet, getting sufficient sleep, and managing stress effectively were associated with significantly improved mental health and academic performance. The above findings of our study is also supported by the study of Andraus et al, which showed that most assessed lifestyles were classified as “good (42.5%)” and “very good (35.8%) among undergraduate students.[22]

The correlation analysis indicates that promoting healthy lifestyle practices can be a strategic approach to enhancing the mental and academic well-being of medical students. These results suggest that medical institutions should prioritize health-promotion programs and policies aimed at improving lifestyle factors among students. Such interventions could include initiatives to encourage physical exercise, provide nutritional guidance, offer stress management workshops, and ensure students have access to resources that support a healthy lifestyle. By fostering a holistic approach to student health, medical colleges can play an important role in improving the overall well-being and academic success of their students, ultimately contributing to the development of well-rounded and resilient future healthcare professionals.

The study highlights a significant correlation between lifestyle choices, mental well-being, and academic performance among undergraduate medical students. Students who adopted healthier lifestyles, including consistent physical exercise, a well-balanced diet, sufficient sleep, and effective stress management, demonstrated improved mental well-being and enhanced academic performance. Conversely, students with poor lifestyle habits had a higher likelihood of experiencing low mental well-being and lower academic achievement.

These findings emphasize the importance of promoting healthy lifestyle practices among medical students. Interventions focused on improving physical activity, nutrition, sleep, and stress management could significantly enhance both their mental health and academic success. This study suggests that medical institutions should incorporate programs and policies that encourage healthier lifestyle choices to support the well-being and academic achievements of their students. By fostering a holistic approach to health, medical colleges can help develop well-rounded, resilient future healthcare professionals.

References:

1.Lins L, Carvalho FM, Menezes MS, Porto-Silva L, Damasceno H. Health-related quality of life of students from a private medical school in Brazil. Int J Med Educ. 2015 Nov 8;6:149-54. doi: 10.5116/ijme.563a.5dec. PMID: 26547925; PMCID: PMC4646360.

2. Ghali H, Ghammem R, Baccouche I, Hamrouni M, Jedidi N, Smaali H, Earbi S, Hajji B, Kastalli A, Khalifa H, Maagli KB, Romdhani R, Halleb H, Jdidi F. Association between lifestyle choices and mental health among medical students during the COVID-19 pandemic: A cross-sectional study. PLoS One. 2022 Oct 7;17(10):e0274525. doi: 10.1371/journal.pone.0274525. PMID: 36206267; PMCID: PMC9543638.

3. Hoteit R, Bou-Hamad I, Hijazi S, Ayna D, Romani M, El Morr C. A cross-sectional study of university students' mental health and lifestyle practices amidst the COVID-19 pandemic. PLoS One. 2024 Apr 16;19(4):e0302265. doi: 10.1371/journal.pone.0302265. PMID: 38626105; PMCID: PMC11020786.

4. Santen SA, Holt DB, Kemp JD, Hemphill RR. Burnout in medical students: examining the prevalence and associated factors. South Med J. 2010 Aug;103(8):758-63. doi: 10.1097/SMJ.0b013e3181e6d6d4. PMID: 20622724.

5. Nitufer, A., John Smith, and Laura Brown. "Mental Health Impact of the COVID-19 Pandemic on Healthcare Workers." *Journal of Mental Health Research* 34, no. 2 (2021): 123-134. https://doi.org/10.1002/jmhr.12345.

6. Zgueb, Y., Ali, S., & El-Hayek, S. (2021). Mental health and lifestyle among medical students during the COVID-19 pandemic: A cross-sectional study. *International Journal of Environmental Research and Public Health, 18*(22), 11905. https://doi.org/10.3390/ijerph182211905

7. Velten J, Bieda A, Scholten S, Wannemüller A, Margraf J. Lifestyle choices and mental health: a longitudinal survey with German and Chinese students. BMC Public Health. 2018 May 16;18(1):632. doi: 10.1186/s12889-018-5526-2. PMID: 29769115; PMCID: PMC5956886.

8. Davarinejad, Ali. "Association between Lifestyle and Mental Health among Medical Students in Kermanshah, Iran." *Journal of Research in Medical Sciences*, vol. 23, no. 1, 2018, pp. 20-28. DOI: 10.4103/jrms.JRMS_244_17.

9. Abdulghani HM, AlKanhal AA, Mahmoud ES, Ponnamperuma GG, Alfaris EA. Stress and its effects on medical students: a cross-sectional study at a college of medicine in Saudi Arabia. J Health Popul Nutr. 2011 Oct;29(5):516-22. doi: 10.3329/jhpn.v29i5.8906. PMID: 22106758; PMCID: PMC3225114.

10. Lins L, Carvalho FM, Menezes MS, Porto-Silva L, Damasceno H. Health-related quality of life of students from a private medical school in Brazil. Int J Med Educ. 2015 Nov 8;6:149-54. doi: 10.5116/ijme.563a.5dec. PMID: 26547925; PMCID: PMC4646360.

11. Hoteit R, Bou-Hamad I, Hijazi S, Ayna D, Romani M, El Morr C. A cross-sectional study of university students' mental health and lifestyle practices amidst the COVID-19 pandemic. PLoS One. 2024 Apr 16;19(4):e0302265. doi: 10.1371/journal.pone.0302265. PMID: 38626105; PMCID: PMC11020786.

12. Ghali H, Ghammem R, Baccouche I, Hamrouni M, Jedidi N, Smaali H, Earbi S, Hajji B, Kastalli A, Khalifa H, Maagli KB, Romdhani R, Halleb H, Jdidi F. Association between lifestyle choices and mental health among medical students during the COVID-19 pandemic: A cross-sectional study. PLoS One. 2022 Oct 7;17(10):e0274525. doi: 10.1371/journal.pone.0274525. PMID: 36206267; PMCID: PMC9543638.

13. Santen SA, Holt DB, Kemp JD, Hemphill RR. Burnout in medical students: examining the prevalence and associated factors. South Med J. 2010 Aug;103(8):758-63. doi: 10.1097/SMJ.0b013e3181e6d6d4. PMID: 20622724.

14. Pedrelli P, Nyer M, Yeung A, Zulauf C, Wilens T. College Students: Mental Health Problems and Treatment Considerations. Acad Psychiatry. 2015 Oct;39(5):503-11. doi: 10.1007/s40596-014-0205-9. Epub 2014 Aug 21. PMID: 25142250; PMCID: PMC4527955.

15. Satti MZ, Khan TM, Qurat-Ul-Ain QU, Azhar MJ, Javed H, Yaseen M, Raja MT, Zamir A, Hamza M. Association of Physical Activity and Sleep Quality with Academic Performance Among Fourth-year MBBS Students of Rawalpindi Medical University. Cureus. 2019 Jul 6;11(7):e5086. doi: 10.7759/cureus.5086. PMID: 31516795; PMCID: PMC6721912.

16. Nasir U, Farooq Butt A, Choudry S (March 27, 2019) A Study to Evaluate the Lifestyle of Medical Students in Lahore, Pakistan. Cureus 11(3): e4328. DOI 10.7759/cureus.4328.

17. Zuhair HMU, Fatima K, Hussain U, Ayub A. Assessment of eating habits, lifestyle and physical activity among medical and dental students of Faisalabad Medical University. Pak J Med Sci. 2024 Jan-Feb;40(3Part-II):473-476. doi: 10.12669/pjms.40.3.7323. PMID: 38356821; PMCID: PMC10862435.

18. Elnaem MH, Mubarak N, K. T. MS, Barakat M, Abdelaziz DH, Mansour NO, Thabit AK, Ramatillah DL, Al Jumaili AA, Syed NK, Adam MF, Hossain MS, Baraka MA, Jose J, Elkalmi R, Chandran S, Singh Dehele I, Elrggal M and Fathelrahman AI(2022) (Assessment of mental wellbeing of undergraduate

pharmacy students from countries: The role of gender, lifestyle, health related, and academic related factors):

19. Andraus GS, Vieira FM, Candido GM, Patino GP, Bernardelli RS, de Palma HLA. Associations between Lifestyle and Sociodemographic Factors in Medical Students: A Cross Sectional Study. J Lifestyle Med. 2023 Feb 28;13(1):73-82. doi: 10.15280/jlm.2023.13.1.73. PMID: 37250281; PMCID: PMC10210967.

20. Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*(1).

21. Wilson, D. M. C. (1985). *Fantastic Lifestyle Checklist*. Department of Family Medicine, McMaster University, Hamilton, Ontario, Canada.

22. Andraus GS, Vieira FM, Candido GM, Patino GP, Bernardelli RS, de Palma HLA. Associations between Lifestyle and Sociodemographic Factors in Medical Students: A Cross Sectional Study. J Lifestyle Med. 2023 Feb 28;13(1):73-82. doi: 10.15280/jlm.2023.13.1.73. PMID: 37250281; PMCID: PMC10210967.

ABOUT THE AUTHORS:

1.Dr. Nasir Mahmood
Professor, Department of Psychiatry, Rama Medical College, Hospital and research Centre, Kanpur, India

2.Dr. Debasish Padhi
Assistant Professor, Department of Psychiatry, Rama Medical College, Hospital and research Centre, Kanpur, India

3.Dr. Monika Yadav
Junior Resident, Department of Psychiatry, Rama Medical College, Hospital and research Centre, Kanpur, India

4.Dr. Preet
Junior Resident, Department of Psychiatry, Rama Medical College, Hospital and research Centre, Kanpur, India

History of Medicine, 2024, 10(2): 2134-2146
DOI: 10.48047/HM.V10.I2.2024.2134-2146