

Effects of Medical Study on Sports Activities of Medical Students in Azad Kashmir

1. Malik Asrar Ahmed 2. Amir Ahmed

1. Asstt. Prof. of Surgery, 2. Asstt. Prof. of Orthopedic Surgery, Poonch Medical College, Rawlakot, AJ&K

ABSTRACT

Objective: To determine the effects of medical study on sports activities of medical students.

Study Duration: cross sectional study

Place and Duration of Study: This study was conducted at PMC in Rawlakot AJ&K from March 2013 to March 2015.

Materials and Methods: This study obtained data (88 persons) in a purposive sample from the entire second year class using a structured self-administered questionnaire, with 88% response rate.

Results: Out of total 88 respondents, 63 girls (72%) and 25 boys (28%) with a mean age of 19 participated. More than 80% respondents had many friends, 81% girls and 36% boys didn't have time to meet them ((p<.000). Around 89% girls and 68% boys didn't have time to play ((p.029), 40% hostelite and non-hostelite could play (p<.991), and 76% boys and 65% girls perceived burdensome medical study which deprived them from regularly meeting their friends and participating in these activities.

Conclusion: Findings of this study have broader implications for furnishing academic environment in medical institutions of Pakistan more conducive, supportive and effective. Medical institutions should review their curriculum and teaching/learning schedules and try to redesign their educational programs keeping a balance between study load and sports activities of a medical student. Students should also be encouraged to set their priorities and try to ensure this balance.

Key Words: Medical Study, Sports Activities, Medical Students

Citation of article: Ahmed MA, Ahmed A. Effects of Medical Study on Sports Activities of Medical Students in Azad Kashmir Med Forum 2015;26(10):11-15.

INTRODUCTION

Medical studies are generally highly demanding, depriving a student from enjoying sports. Such activities need friends, time to meet them and play. Academic environment in medical college is stressful which promotes competition. Availability of social and emotional support by friends during tough situations and decreased workload¹ (Sankar P et al., 2012) have been realized as important components of the social environment of an institution.² (Wish A, 2010). Sports are essential ingredient of a medical student's life. Social support, in terms of sustained connection with friends enhances self-esteem of a student. It entails that friends would provide quality assistance during the difficult times³ (Khodarahimi S, 2012). Though anecdotal with lack of scientific evidence, it is generally perceived that highly demanding medical studies socially isolate the students⁴ (Blakey H et al., 2008). The effect of stress on medical students' development into competent professionals is of great concern (Sidhu J K, 2007)⁵. There is a need to further explore the relationship between the availability of

social support system and the highly demanding medical education in order to identify factors which can help strengthen this relationship in a positive direction. This is very important to reduce undue stresses among the medical students by providing opportunities for interactions with friends and peers which in turn can enhance their learning motivation, competency and the future performance.

There is a dearth of literature on this topic, particularly in this part of the world, and for areas similar to AJ&K. Keeping the need and importance of social support system, we conducted this study for assessing how second year medical students at Poonch Medical College (PMC) perceived the effects of studying in a medical college on their sports activities. The purpose of this study was to draw lessons for suggesting appropriate strategies to concerned authorities in Azad Jammu & Kashmir (AJ&K) so that a balance could be ensured between academic lives and participation in sports activities of undergraduate medical students.

MATERIALS AND METHODS

This study was conducted from March 2013 to March 2015 with the first batch of students at PMC in Rawlakot AJ&K.

Ethical consideration: The study was conducted after approval by ethical committee.

Correspondence: Malik Asrar Ahmed
Asstt. Prof. of Surgery,
Poonch Medical College, Rawlakot, AJ&K
contact No.: 0323-4004413
E-mail: ajkdrasrar@yahoo.com

Study Population and Design: A cross-sectional descriptive study was conducted with the second year undergraduate medical students at PMC.

Sampling and sample size: Using Purposeful Sampling, we invited the entire second year class of 100 students (70 girls, 30 boys) to participate in the study.

Data Management: A self-administered structured questionnaire was used to obtain the data. Overall response rate was 88%. Each questionnaire took around 40 minutes for completion. The key study variables were age, sex, status of studentship (Hostelite, non-hostelite), number of friends, frequency of visits, time spent with friends before and after the admission in the medical college, time spent on sports and factors (if any) which prevent them from spending desirable time with friends .

Data Analysis: Collected data was reviewed and cleaned manually, and entered into SPSS 19. Simple frequencies and proportions were generated. Cross tabulations for key study variables were draw statistically significant relationship. We also applied Pearson’s Chi-square test on cross-tabulation to determine the p-value.

undergraduate medical students of which 63 (72%) were female and 25 (28%) were male. Mean age of study population was 19.4. Twelve boys (48%) and 30 (48%) girls lived in hostels(**Table.1**).

Table No. 1: Demographic characteristics of study participants by gender

Characteristics	Variables	Male		Female	
		Number	%age	Number	%age
Age	<18	3	12	4	6
	19	11	44	34	54
	20	8	32	22	35
	21 or >	3	12	3	5
Status of studentship	Living with parents	8	32	31	49
	Living with relatives	1	12	1	2
	Living with friends	2	8	1	2
	Hostelite	12	48	30	48

RESULTS

General and Demographic Information: We collected data from 88 (88% of total enrolled)

Table No.2: Social behaviors and characteristics of study participants by gender

*Characteristics	Variables	Male		Female		P-value
		Number	Percentage	Number	Percentage	
Number of friends	Many	21	84	51	81	.417
	Few/None	4	16	12	19	
Frequency of visit to a friend in a week	12 hours or less	14	56	12	19	.000*
	More than 12 hours	2	8	0	0	
	Don't visit at all	9	36	51	81	
Perceived effect on frequency of visits to friends due to admission in the medical college	Visited friends more before admission in the medical college	15	60	36	57	.807
Average time spent on sports activities in a week after admission in the medical college	12 hours or less	6	24	6	10	.029*
	More than 12 hours	2	8	1	2	
	Don't have time to play at all	17	68	56	89	
Perceived factors which affected time spending with family or friends	Hectic study schedule	19	76	41	65	.685
	Living in hostel hence away from friends	4	16	15	24	
	I don't want to play	2	8	7	11	

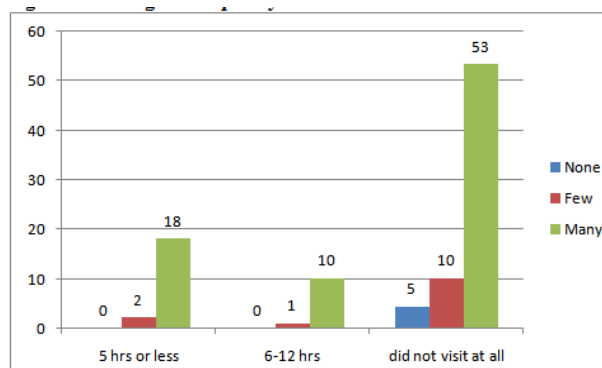
* 0.05 significance level

Perceived Effects of Medical Studies on Sports Activities: Cross-tabulations of various variables by gender pertaining to sports activities were done. There was no statistically significant difference (p<.417) among boys and girls regarding the number of friends. However, the difference in gender-based response regarding the frequency of visit to friends was strongly statistically significant (p <.000). Similarly the gender difference for the amount of time spent on sports

activity was also highly statistical significant (p <.029)(**Table 2**). However, 40% boys and 33% girls confessed that they didn't like social gathering. Further analysis of data revealed that 53% students who reported to have many friends, did not find any time to visit them, though difference between those who had many friends and those who had few/none was not statistically significant (p <.884) (**Fig. 1**). The difference between hostelite and non-hostelite

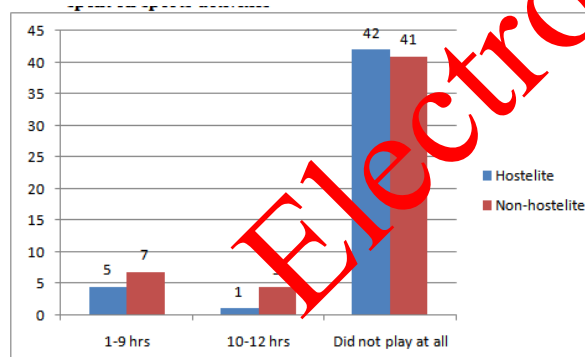
respondents regarding the amount of time spent on sports activity was also not statistically significant. More than 40% hostelite and non-hostelite participants informed that they didn't have time to spend on any sports activity ($p < .991$) (Fig. 2)

Perceived factors which affected students' sports activities: Around 60% study participants were not satisfied with their level of interaction with friends after the admission in medical college. Among various factors which reportedly affected their visits to friends, 76% boys and 65% girls mentioned hectic study schedule as the main factor, a very important finding but not statistically significant ($p < .685$). Around 24% girls and 16% boys attributed decreased frequency of visits to friends to their hostelite status (Table 2).



N=88 (boys=25, girls=63), P=.884

Figure No.1: Percentage of frequency of visits to friends relation to the number of friends



N=88 (boys=25, girls=63), P=.991

Figure No.2: Percentage of hostelite and non-hostelite students in relation to the time they spent on sports activities

DISCUSSION

Undergraduate medical education is a lengthy and stressful process. The aim of this hardship is production of knowledgeable, skillful and professional health care providers. Complicated medical educational process requires sustained personality among the students, which is generally determined by the academic environment and sports activities. Our study aimed to

explore perceived effects of studying in medical college on sports activities among the second year medical students of Poonch Medical College Rawlakot.

Our study primarily focused on determining the level of sports exclusion among our study population. We used amount of interaction with friends and the time spent on sports activities as the main variables. Most of our study participants who had many friends couldn't visit them which they attributed it to studying in medical college. The perception and attitude of new medical students towards medical education in relation to their sports activities is alarming and should be looked into the broader context of wellbeing. Six separate studies in Sri Lanka, UK, Iran, India, Malaysia and Bangladesh using the same instrument assessed students' perceptions of the educational environment⁶⁻¹¹ (Palmgren P J., Chandratilake M, 2011, Lee J, Graham AV, 2001, Aghamolaei T, Fazel I, 2010, Unnikrishnan B, 2012, Lai NM, 2009, Nahar N, 2010). The instrument used "availability of friends" as one of the determinants of good educational environment. Another cross-sectional study regarding students' perception of medical school stress (Lee J, Graham AV, 2001) considered "talking and interacting with friends" as an important coping mechanism for decreasing stress. Mane Atalay B et al. (2011) in a cross-sectional study on perceived factors of stress among medical students found "talking to friends" as perceived coping mechanisms by the responding students¹². In another study regarding factors associated with stress among nursing students (Sharma S, Kaur A, 2011), 49% respondents mentioned "lack of close and intimate friend" as an important stress factor¹³. A study in UK compared effect of graduate studies on level of social exclusion among medical and economic students⁴ (Blakey H et al., 2008). Medical students were found having significantly decreased interaction with their close friends than economics students, and felt separated from the rest of university life. Besides sustained interaction with friends, the value of positive interaction in relation to learning from peers, clinicians and patients can also increase students' sense of accomplishment and their quality of life¹⁴ (Marcus H et al., 2010)

A significant finding of our study was the lack of participation of majority of study students in sports activities which they also attributed to studying in the medical college. Literature on relationship between participating in sports activities and academic performance of medical students was not found. A cross-sectional study involving eight thousand schoolchildren found that academic ratings were significantly correlated with the level of physical activity¹⁵ (Dwyer T et al, 2001). In a review of 43 articles, positive associations were found between physical activity and academic achievement, academic

behavior, and cognitive skills and attitudes¹⁶ (Centers for Disease Control and Prevention, 2010)

Among various perceived factors which prevented our study students from meeting their friends and participating in sports activity, the most striking was the hectic study schedule (referred as 'heavy workload' in this study). The heavy workload and examinations have been reported in several studies as the most significant causes of stress among medical students. The strongest predictor of well-being was academic stress mainly comprising of large workload, and the academically stressful and competitive environment of medical school. These results show that students who appraise their workload as stressful also report lower levels of well-being¹⁷. (Rogers ME (2012)

A study in Saudi Arabia (Abdulrahman K B A, 2007) found that around 90% responding students of a medical school mentioned heavy workload (high number of lectures) as the major factor of reduced academic achievement¹⁸. Heavy workload, besides affecting academic performance has been reported to lead to very serious consequences even suicidal tendencies. A renowned medical institution in Pakistan has experienced a series of suicides by undergraduate medical students in last two decades. Four medical students committed suicides since 1991. Heavy study load have been reported as underlying reasons¹⁹ (The Express Tribune, 2010).

There are limitations to this study, which are inherent in the methods used. Besides high influence of subjectivity of collected data due to perceived responses, there is an issue of generalizability as our study participants were selected from one medical college. In order to increase external validity (Generalizability), inclusion of other medical colleges is needed.

CONCLUSION

A large proportion of study participants correlated studying in medical institution with the reduction in their sports activities. The findings may not add to existing knowledge but provide an important aspect of attitude of newly enrolled medical students, which may affect their future professionalism. Findings of this study have broader implications for Pakistan where mushrooming of new medical institutions across the country is notable. Our findings suggest that medical institutions, particularly the newly established ones in Pakistan should review their situation with their faculty and students to assess the design and content of curriculum, teaching/learning strategies, and the overall schedule in order to render these adequately flexible and more facilitating of an effective and motivating teaching/learning environment. Medical institutions should be aware of the issues explored in our study while planning their curricula and educational programs. Prospective medical students should also be

informed what social consequences they can face while studying in the medical college/university. On the other hand, medical colleges/universities should encourage their students to try to achieve a balance between study work and their sports activities and find feasible options for healthy coping strategies.

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Solanky P, Desai B, Kavishwar A, Kantharia S. Study of Psychological Stress among Undergraduate Medical Students of Government Medical College, Surat. *Int J Med Sci and Public Health* 2012; 1(2): 38-42.
2. Welsh A. Considering the Student Perspective: Factors that Undergraduates Perceive as Influential to their Academic Performance in Science. *Carl Wieman Science Education Initiative* October 2010. Accessed at www.cwsei.ubc.ca.
3. Khodarahimi S, Hashim HM, Mohd-Zaharim N. Perceived Stress, Positive-Negative Emotions, Personal Values and Perceived Social Support in Malaysian Undergraduate Students. *Int J Psychol and Behavioral Sci* 2012; 2(1): 1-8.
4. Blakey H, Blanshard E, Cole H, Leslie F, Sen R. Are medical students socially exclusive? A comparison with economics students. *Med Educ*. 2008 Nov;42(11):1088-91.
5. Sidhu JK. Effect of Stress on Medical Students. *International e-journal of Science, Medicine and Edu* 2007; 1 (1): 52-53
6. Palmgren PJ, Chandratilake M. Perception of Educational Environment Among Undergraduate Students in a Chiropractic Training Institution. *J Chiropractic Edu* 2011; 25(2): 151-163.
7. Lee J, Graham AV. Students' perception of medical school stress and their evaluation of a wellness elective. *Med Educ* 2001 Jul;35(7):652-9.
8. Aghamolaei T, Fazel I. Medical students' perceptions of the educational environment at an Iranian Medical Sciences University. *BMC Medical Education* 2010, 10:87, accessed at <http://www.biomedcentral.com/1472-6920/10/87>
9. Unnikrishnan B, Rekha, P, Mithra P, Kumar N, Reshmi B. Perceptions of Medical Students about their Educational Environment in Community Medicine in a Medical College of Coastal Karnataka. *Ind J Comm Med* 2012;37(2):130-132.
10. Lai NM, Nalliah S, Jutti RC, Hla YY, Lim VKE. The Educational Environment and Selfperceived Clinical Competence of Senior Medical Students in a Malaysian Medical School. *Education for Health* 2009; 22 (2): 1-15.
11. Nahar N, Talukder H K, Khan M T H, Mohammad S, Nargis T. Students' Perception of Educational

- Environment of Medical Colleges in Bangladesh. BSMMU J 2010; 3(2): 97-102.
12. Mane Abhay B, Krishnakumar MK, Niranjan Paul C, Hiremath Shashidhar G. Differences In Perceived Stress and Its Correlates Among Students In Professional Courses. J Clin and Diagnostic Res 2011 (Suppl-1):-5(6): 1228-1233.
 13. Sharma S, Kaur A. Factors associated with stress among nursing students. Nursing and Midwifery Research J 2011; 7(1): 12-21.
 14. Marcus H, Christian, Susan H, Yipin Z, Iain D. Quality of life and motivation to learn: A study of medical students. Issues in Educational Research 2010; 20(3): 244-256.
 15. Dwyer T, Sallis J F, Blizzard L, Lazarus R, Dean K. Relation of academic performance to physical activity and fitness in children. Pediatric Exercise Sci 2001; 13: 225-237.
 16. Centers for Disease Control and Prevention. The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance. Centers for Disease Control and Prevention. U.S. Department of Health and Human Services, Atlanta, GA: U.S. Department of Health and Human Services, July 2010. Accessed at www.cdc.gov/healthyouth/health_and_academics/.../pa-pe_paper.pdf
 17. Rogers ME, Creed PA, Searle J. Person and environmental factors associated with well-being in medical students. Personality and individual differences 2012; 52(4): 472-477.
 18. Abdulrahman KAB. Factors influencing academic achievement of medical students in the basic medical sciences at a conventional College of Medicine, College of Medicine. King Saud University, Riyadh. Kingdom of Saudi Arabia, 2007:. Accessed at [http:// faculty.ksu.edu.sa/11489/Documents/ Download%2014.pdf](http://faculty.ksu.edu.sa/11489/Documents/Download%2014.pdf)
 19. The Express Tribune. He was meant to save lives, but took his own. April 17, 2010. Accessed at [http://tribune.com.pk/story/7339/ he-was-meant-to-save-lives-but-took-his-own/](http://tribune.com.pk/story/7339/he-was-meant-to-save-lives-but-took-his-own/)

Electronic Copy