

Extracurricular activities and its relationship to academic performance in medical students

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Introduction

While most evidence in the literature proves that extracurricular activities (ECA) improve academic performances, we couldn't find any study that done focusing on medical students in Sri Lanka. Furthermore, the impact of extracurricular activities on academic performance is an endless topic of debate. So results of this may help to break any fallacies regarding this relationship between academic performance and extracurricular activities.

Objectives

To describe the extracurricular activities and its relationship to academic performance in medical students of Faculty of Medicine Ragama, University of Kelaniya.

Method

Study design: Analytical cross-sectional study
Study setting: Faculty of Medicine, Ragama, University of Kelaniya.

Study period: 15.11.2019 to 31.01.2020

Study population: Students from 26th, 27th & 28th batches who have faced 2nd MBBS examination were included.

Sample size: Calculated sample size was 384. But considering non responding rate as 20%, all students were invited according to our inclusion and exclusion criteria.

Study instruments: A self-administered questionnaire consisting demographic and questions to assess academic performance and extracurricular activities.

Data collection: A self-administered questionnaire was distributed among medical students meeting inclusion criteria and the completed once were collected.

Data analysis: Data was described using percentages. (SPSS application version 20.0) Significant relationship was determined using chi square test and $p < 0.05$.

Results

There was 41.3% participation in ECA among medical students (table 1).

Participation in extracurricular activities		
	Frequency	Percentage
Not participate	219	58.7
Participate	154	41.3
Total	373	100.0

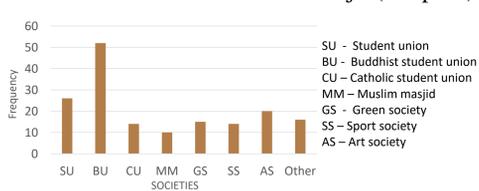
Table 1

85.5% passed the second MBBS examination out of the students who participated (table 2).

Pass or Fail in second MBBS examination		
	Frequency	Percentage
Fail	54	14.5
Pass	319	85.5
Total	373	100.0

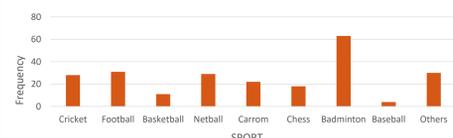
Table 2

Most number of students were engaging in Buddhist society while student's union having the second most involvement. Least involvement is with Muslim masjid (Graph 1)



Graph 1 number of students engaging in different societies

Shows badminton was the most involved sport among medical students while baseball having the least involvement (Graph 2).



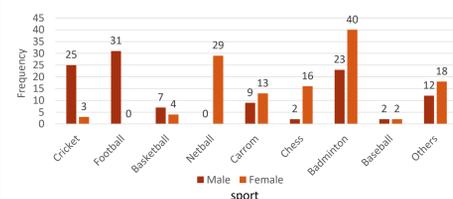
Graph 2 number of students engaging in different sports

There is a statistically significant association between sex and participation in ECA (table 3).

	No participation in ECA		Participation in ECA	
	Frequency	Percentage	Frequency	Percentage
Male	51	41.5%	72	58.5%
Female	168	67.2%	82	32.8%
Total	219		154	

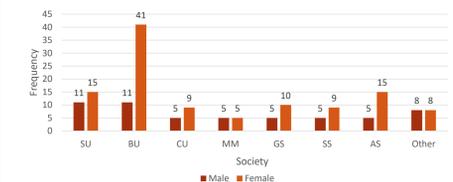
Table 3 ($\chi^2 = 22.526$, $df = 1$, $P = 0.000002$)

Football is the most involved sport among male sex while badminton among females (Graph 3).



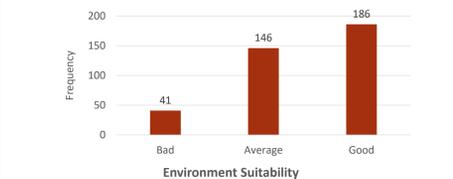
Graph 3 comparison of sports among males and females

Females involve mostly in Buddhist union compared to other societies (Graph 4).



Graph 4 comparison of societies among males and females

Most students have responded that faculty environment is good for ECA (Graph 5).



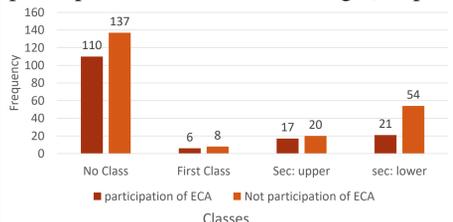
Graph 5 Faculty environment suitability

Total of 293 students engage happily in their ECA that is 78.6% of total participants. There is no statistically significant association between happy engagement in ECA and academic performance (table 4).

	Fail		Pass	
	Frequency	Percentage	Frequency	Percentage
Not happily engaged	13	16.3%	67	83.8%
Happily engaged	41	14%	252	86%
Total	54		319	

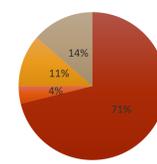
Table 4 ($\chi^2 = 0.259$, $df = 1$, $P = 0.611$)

Irrespective of classes students achieved at second MBBS examination number of non-participants in ECA remained high (Graph 6).



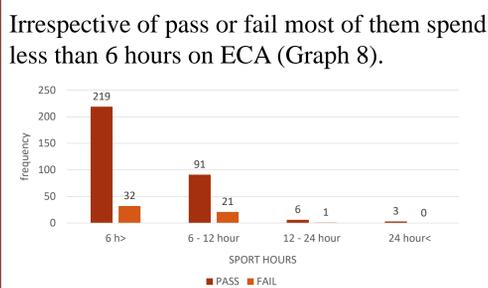
Graph 6 comparison of ECA participation among classes

Students with no classes have higher participation when comparing their percentages (Graph 7).



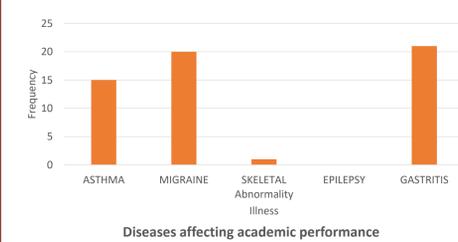
Graph 7 percentage of participation among classes

Irrespective of pass or fail most of them spend less than 6 hours on ECA (Graph 8).

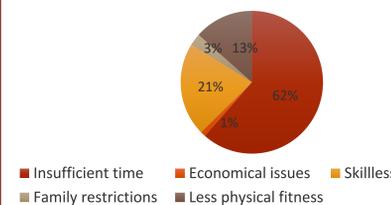


Graph 8 comparison of sports hours with pass or fail

Most of the students are affected by gastritis and migraine (Graph 9).



Graph 9 diseases affecting academic performance



Graph 10 Reasons for not involving in ECA

There is no statistically significant association between ECA participation and academic performance (table 5).

	No participation in ECA		Participation in ECA	
	Frequency	Percentage	Frequency	Percentage
Fail	27	50%	27	50%
Pass	192	60.2%	127	39.8%
Total	219		154	

Table 5 ($\chi^2 = 1.977$, $df = 1$, $P = 0.160$)

There is a statistically significant association between sex and academic performance (table 6).

	Fail		Pass	
	Frequency	Percentage	Frequency	Percentage
Male	25	20.3%	98	79.7%
Female	29	11.6%	221	88.4%
Total	54		319	

Table 6 ($\chi^2 = 5.069$, $df = 1$, $P = 0.024$)

There is no statistically significant association between mode of accommodation and academic performance (table 7).

	Other		Hostel	
	Frequency	Percentage	Frequency	Percentage
Fail	15	28.3%	38	71.7%
Pass	67	21.3%	248	78.7%
Total	82		286	

Table 7 ($\chi^2 = 1.295$, $df = 1$, $P = 0.255$)
5 participants not responded (missing value = 5).

There is a significant association between transport hours and academic performance (table 8).

	Less than 15 minutes		More than 15 minutes	
	Frequency	Percentage	Frequency	Percentage
Fail	39	73.6%	14	26.4%
Pass	267	85%	47	15%
Total	306		61	

Table 8 ($\chi^2 = 4.287$, $df = 1$, $P = 0.038$)
6 participants not responded (missing value = 6).

Academic performance have no association with the A/L results (table 9).

	AAA		Others	
	Frequency	Percentage	Frequency	Percentage
Fail	10	18.9%	43	81.1%
Pass	71	23.1%	237	76.9%
Total	81		280	

Table 9 ($\chi^2 = 0.455$, $df = 1$, $P = 0.500$)

There is a statistically significant association between study hours and academic performance (table 10).

	Less than 4 hours		More than 4 hours	
	Frequency	Percentage	Frequency	Percentage
Fail	28	52.8%	25	47.2%
Pass	89	28.6%	222	71.4%
Total	117		247	

Table 10 ($\chi^2 = 12.172$, $df = 1$, $P = 0.000485$)
9 participants not responded (missing value = 9).

Conclusion and Recommendations

1. Extracurricular participation among medical students were 41.3%. 85.5% passed the 2nd MBBS examination. But majority of students who passed do not participate in ECA.
2. Most of students were involved in Buddhist society while student's union having the second most involvement. Badminton is the mostly involved sport while baseball having the least.
3. There is no statistically significant association between ECA and Academic performance.
4. There is a statistically significant association between sex and academic performance.
5. Generalization of the results to other universities should be viewed with caution.

References

- [1] 윤혜원, & CHOIMINSIK. (2017). the effect of extracurricular activities on social preferences. Journal of Research in Curriculum Instruction, 17(2), 569-593. <https://doi.org/10.24231/rici.2013.17.2.569>
- [2] Cadwallader, T., Garza, N., and Wagner, M. (2002). Participation In Extracurricular Activities.

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