

Participation in extracurricular activities and associated factors among Jaffna medical students

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Abstract

Extracurricular activities (ECA) help to nurture the core competencies of a doctor. This study assessed participation in ECA, barriers and attitudes towards participation, and associated sociodemographic and academic factors among medical students of the University of Jaffna.

This descriptive cross-sectional study was carried out at the Jaffna Medical Faculty. Stratified random sampling was used ensuring proportionate representation from each batch. Data were collected with a self-administered questionnaire. Frequencies, proportions, and the Chi squared test were used in the analysis with SPSS (v21).

In total, 332 students participated (response rate 96.5%); 65.1% reported participating in ECA. Among them 44.9% participated in sports, while 47.2% were involved in cultural/ faith-based activities. The majority participated in ECA on less than 3 days per week (68.1%), and for less than 2 hours per day (61%). Lack of time (27.5%) and transport (24.6%) were key barriers to participation. Many agreed that ECA enabled new friendships (63.2%) and enhanced social skills (60.2%). Ethnicity ($p=0.03$) and household income ($p=0.045$) were significantly associated with the level of participation; Sinhala and Muslim students and those with lower income participated at a lower level. Although female students reported lower participation, there was no evidence of an association between gender and ECA participation ($p>0.05$). Programme phase ($p<0.001$) and first examination results ($p=0.019$) were significantly associated with level of participation; students in the para-clinical phase and those who achieved class hon-

ours reported a lower level of participation.

Over a third of students do not participate in any type of ECA at the Jaffna Medical Faculty. Targeted interventions are needed to improve participation with consideration to the barriers and groups who are less likely to participate in ECA.

Key words: Extracurricular activities, barriers, medical students, Jaffna

Introduction

Extra-curricular activities (ECA) are defined as academic or non-academic activities that occur outside classroom time and are not part of the formal curriculum; these activities are usually not given a grade or academic credit (1). Studies show that students participating in ECA tend to perform better academically compared to non-participants and that they have better communication skills and more self-confidence (2,3,4).

The field of medicine is one of the most competitive and challenging fields. Owing to the heavy workload and tight academic schedule, medical students tend to participate less in ECA (5). Yet, research has established that participating in ECA helps to reduce stress among medical students supports personality development and is associated with greater clinical competence (6,7, 8).

Medical students' participation in ECA is shaped by factors operating at multiple levels. Academic factors include heavy academic workload, lack of appropriate infrastructure to engage in sports/physical activity and lack of time (5, 9). Sociodemographic factors like age, sex, and parental educational level and occupation (10),

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relationship status as well as personal factors like intrinsic motivation, and positive/negative mood states are known to be associated with ECA participation. That ECA is perceived by medical students to distract from studies is cited as a major reason for non-involvement (11,12,13).

In Sri Lanka, medicine is a highly competitive field with only 6% of students qualifying for university entrance entering medical faculties (14). With lectures, dissections and practical classes for first- and second-year students, and clinical rotations commencing from the third year, as well as examinations in the second, fourth and final year, the academic programme at the Jaffna Medical Faculty is perceived to be stressful (15). Although many opportunities exist for students to participate in ECA, most tend to stay away from them. No prior research has examined the extent to which Jaffna medical students participate in ECA. This study describes participation in ECA, barriers and attitudes towards participation, and associated sociodemographic and academic factors among medical students of the University of Jaffna.

Methods

This was a descriptive cross-sectional study. The study population was 721 registered medical students of the Faculty of Medicine, University of Jaffna from the junior most batch to the final year (42nd, 40th, 39th, 38th, and 37th batches). The 41st batch (second years) was excluded as they were on study leave during the data collection period (October to November 2020).

A pre-tested self-administered questionnaire composed of four sections was developed by the research team. Section A and B focused on sociodemographic and academic factors associated with student participation in ECA. Section C assessed student participation in ECA and Section D addressed perceived barriers and attitudes towards participation. Face and content validation were carried out by two experts in medical education and public health.

The required sample size was 344. Proportionate stratified random sampling was carried out using the attendance register and a random number generator. Stratification by batch ensured proportionate representation from all participating batches.

Data were collected following the commencement of the academic programme during the COVID-19 pandemic. The researchers obtained the contact details of students with the assistance of batch representatives. The researchers then phoned the selected students to arrange a convenient time for data collection in the faculty or at their hostel. An information sheet and consent form were provided with each questionnaire. COVID-19 precautions were adhered to during data collection.

Data were analysed with SPSS (v21). We categorized ECA participation into non-participation (0 days per week), lower level of participation (1 to 2 days per week) and higher level of participation (>2 days per week). Frequencies and percentages were used to describe participation in ECA. Chi-square test was used to describe associations between ECA participation and sociodemographic and academic factors.

Ethics approval was obtained from the Ethics Review Committee, Faculty of Medicine, University of Jaffna.

Results

In total, 332 medical students participated in the study, giving a response rate of 96.5%. The majority of the sample was female (57.2%), identified as Tamil (54.2%) and were from outside the Jaffna district (79.2%). Representation from each batch was more or less equal as proportionate stratified sampling was used (Table 1).

Table 1 Characteristics of study participants (n=332)

| | | n (%) |
|--------|--------------------------------------|------------|
| Gender | Male | 142 (42.8) |
| | Female | 190 (57.2) |
| Batch | 37 th batch (Final year) | 60 (18.1) |
| | 38 th batch (Final year) | 71 (21.4) |
| | 39 th batch (Fourth year) | 65 (19.6) |

| | | |
|-----------|-------------------------------------|------------|
| | 40 th batch (Third year) | 66 (19.9) |
| | 42 nd batch (first year) | 70 (21.1) |
| Ethnicity | Tamil | 180 (54.2) |
| | Sinhala | 87 (26.2) |
| | Muslim | 65 (19.6) |
| District | Jaffna district | 69 (20.8) |
| | Non-Jaffna district | 263 (79.2) |
| Total | | 332 (100) |

Participation in ECA

Among 332 students, 216 (65.1%) reported participating in ECA. The majority reported participating in ECA on less than 3 days per week (68.1%), and for less than 2 hours per day (61%). Almost three-quarters (73.1%) participated in ECA at the faculty level, about 10% at the university level, and a small minority (2.3%) at national level. The highest proportion participated in culture/faith clubs (47.2%) followed by sports (44.9%) (Figure 1).

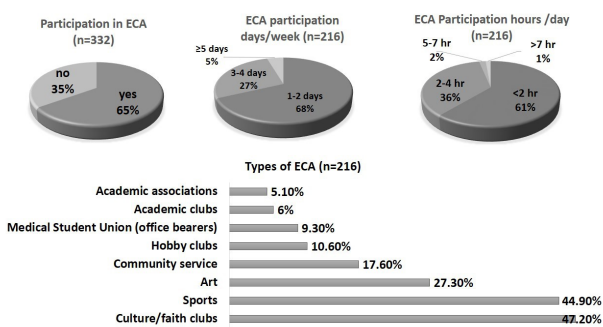


Figure 1 Pattern of ECA Participation

Barriers to participating in extracurricular activities

Lack of time and lack of transport were key barriers for participating in ECA where 27.5% (n=91) and 24.6% (n=80) agreed that they served as barriers to their participation. On the other hand, parental support and chronic illness/ disability were apparently not significant concerns with 68% (n=225) and 74% (n=244) students disagreeing that they were barriers to participation, respectively (Figure 2).

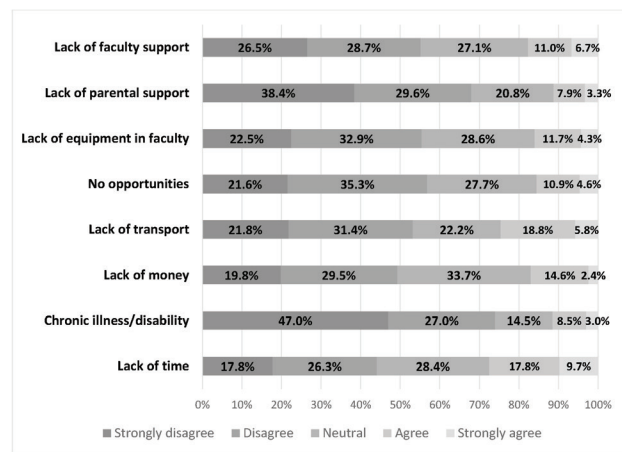


Figure 2 Barriers to participate in ECA (n=332)

Attitudes towards participating in extracurricular activities.

As shown in Figure 2, making new friends and improving personal and social skills were key positive attitudes towards participating in ECA with over half the sample agreeing that ECA improved their personal and social skills (60.2%, n=200) or facilitated making new friends (63.2%, n=210). Notably, a third or more students responded “neutral” to the following statements: “Takes too much time” (38.5%, n=125), “Affects the academic performance” (35%, n=116) and “No time for community services” (31.4%, n=104) (Figure 3).

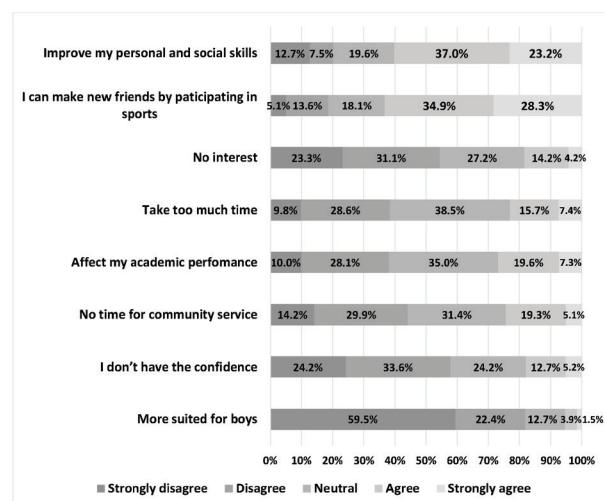


Figure 3 Attitudes regarding ECA participation (n=332)

Factors associated with participation in extracurricular activities

Ethnicity (p=0.030) and monthly household income (p=0.045) showed a significant association with partici-

pation in ECA, where Sinhala and Muslim students and those with lower household income were more likely to report a lower level of participation. However, there was no significant association between gender, religion, district and place of residence. ($p>0.05$) (Table 2).

Phase of the medical programme ($p<0.001$) and first examination results ($p=0.019$) showed a significant as-

sociation with the level of participation where students in the para-clinical phase and those who achieved first class or second upper/lower division were more likely to report a lower level of participation. However, there was no significant association between hours of lectures attended per week or self-study study hours per week ($p>0.05$). (Table 2).

Table 2 Sociodemographic & academic factors and ECA participation

| | | Participation status ^a | | | X ² | df | p value |
|--|--|-----------------------------------|------------------------------|-------------------------------|----------------|----|----------|
| | | Non ^a (%) | Lower level ^a (%) | Higher level ^a (%) | | | |
| Gender | Male | 42 (29.6) | 68 (47.9) | 32 (22.5) | 3.14 | 2 | 0.208 |
| | Female | 74 (38.9) | 79 (41.6) | 37 (19.5) | | | |
| Ethnicity | Tamil | 52 (28.9) | 90 (50.0) | 38 (21.1) | 10.73 | 4 | 0.030** |
| | Muslim | 25 (38.5) | 22 (33.8) | 18 (27.7) | | | |
| | Sinhala | 39 (44.8) | 35 (40.2) | 13 (14.9) | | | |
| Religion | Hindu | 47 (29.6) | 80 (50.3) | 32 (20.1) | 11.33 | 6 | 0.079 |
| | Christianity | 8 (32.0) | 10 (40.0) | 7 (28.0) | | | |
| | Islam | 25 (38.5) | 22 (33.8) | 18 (27.7) | | | |
| | Buddhism | 36 (45.6) | 32 (40.5) | 11 (13.9) | | | |
| District | Jaffna | 24 (34.8) | 32 (46.4) | 13 (18.8) | 0.25 | 2 | 0.884 |
| | Not from Jaffna | 92 (35.0) | 115 (43.7) | 56 (21.3) | | | |
| Place of residence | Home | 22 (36.7) | 26 (43.3) | 12 (20.0) | 6.35 | 4 | 0.175 |
| | Hostel | 41 (27.9) | 73 (49.7) | 33 (22.4) | | | |
| | Boarding place | 52 (42.3) | 47 (38.2) | 24 (19.5) | | | |
| Monthly household income (Rs.) | <20,000 | 20 (50.0) | 9 (22.5) | 11 (27.5) | 9.72 | 4 | 0.045** |
| | 20,000-50,000 | 47 (30.9) | 70 (46.1) | 35 (23.0) | | | |
| | >50,000 | 42 (34.1) | 59 (48.0) | 22 (17.9) | | | |
| Phase of medical programme ^b | Pre-clinical ^b | 20 (28.6) | 34 (48.6) | 16 (22.9) | 24.16 | 4 | <0.001** |
| | Para-clinical ^b | 66 (50.4) | 47 (35.9) | 18 (13.7) | | | |
| | Final ^b | 30 (22.9) | 66 (50.4) | 35 (26.7) | | | |
| Lecture attendance (hours/week) | <11 | 27 (44.3) | 20 (32.8) | 14 (23.0) | 8.51 | 4 | 0.075 |
| | 11-15 | 34 (37.4) | 35 (38.5) | 22 (24.2) | | | |
| | >15 | 54 (30.2) | 92 (51.4) | 33 (18.4) | | | |
| Self-study (hours/week) | <8 | 20 (35.1) | 28 (49.1) | 9 (15.8) | 6.56 | 4 | 0.161 |
| | 8-14 | 35 (28.7) | 54 (44.3) | 33 (27.0) | | | |
| | >14 | 61 (39.9) | 65 (42.5) | 27 (17.6) | | | |
| Results at the 1st Examination for Medical Degrees | First Class or Second Class-Upper division | 16 (50.0) | 9 (28.1) | 7 (21.9) | 11.74 | 4 | 0.019** |
| | Second class-Lower division | 17 (53.1) | 7 (21.9) | 8 (25.0) | | | |
| | Pass | 63 (32.6) | 94 (48.7) | 36 (18.7) | | | |

^aECA participation was categorised as non-participation (0 days per week), lower level (1-2 days per week), and higher level (>2 days per week) based on the number of days per week spent on ECA.

^bPhase of the medical programme was categorised as Preclinical (42nd batch), Para clinical (39th & 40th batches) and Final (37th & 38th batches).

** Significant at the 0.05 level

Discussion

Over a third of Jaffna medical students (35%) did not participate in any form of ECA. Studies carried out among medical students in other parts of the world show both similar and different results. Meanwhile, a University of Colombo study reported higher participation in ECA (74.5%), perhaps explained by the student body of the latter comprising more students from the Western Province where opportunities to participate in ECA are likely to be more at school level and thereafter (6, 16, 17, 18, 19).

Among those who did participate in ECA, nearly half (47.2%) participated in cultural/faith clubs. The faculty promotes student involvement in various cultural programmes such as Thaipongal, Vesak, Eid and Christmas. However, these are annual events and it cannot be assumed that these students participate in ECA on an ongoing basis. Sports activities (44.9%) were the second-highest reported ECA. This proportion also includes students who participate in the Faculty's Medicos' Week programme, which consists of several inter-batch sports competitions and lasts for about four weeks. The intermittent nature of participation may explain the high proportions reporting lower levels of ECA participation assessed by the number of days of ECA participation per week (68.1%) and hours per day (61.1%).

Lack of time (27.5%) and transport (24.6%) were common barriers to participation in Jaffna. Studies from other countries also indicate that lack of time and transport are important impediments for medical students (17, 20). In Jaffna, public transport is not widely available and gender norms place limits on women travelling alone at night. It should be noted that these barriers are beyond the control of students and need to be addressed by other authorities. Even so, over a quarter (26.9%) felt that ECA may affect academic performance and a small proportion (5.4%) believed ECA were more suited for boys, indicating room for attitudinal improvement.

When categorising those who participated at any level of ECA together, males (70.4%) were more likely to

participate in ECA than females (61.1%). But there was no significant association between gender and ECA participation ($p=0.208$). Likewise, a study carried out among Sri Lankan Kelaniya undergraduates (not limited to medical students) showed that there was no significant association between involvement in ECA by gender (11). Research undertaken on preclinical medical students in Saudi Arabia showed that male students were more likely to participate in ECA, although studies carried out in other countries like Korea and Kuwait showed that females were more likely to do so (16, 17, 21).

A higher proportion of Tamil students engaged at any level of ECA than Sinhala and Muslim students. The association between ethnicity and ECA participation was significant ($p=0.030$). The University of Kelaniya showed no significant association between ethnicity and ECA participation (11). While language barriers may impede participation of Sinhala-speaking students in Jaffna, it remains unclear as to why the same would not apply to Tamil-speaking students in the South.

Students who reported a lower monthly household income (<Rs. 20,000) were less likely to participate in ECA and the association was significant at the 0.05 level ($p=0.045$). The University of Kelaniya study also did not yield a significant association between family income and ECA. In Jaffna, students from low-income households may not have opportunities to engage in ECA at school level. Moreover, the lack of public transport may disproportionately affect them. Religion, district and place of residence, were not statistically associated with ECA participation, consistent with the Kelaniya study (11).

The majority (50.4%) of students who entered the para-clinical period did not participate in ECA, compared with 28.6% of non-participants in the preclinical phase. We observed a significant association between the phase of medical programme and the extent of ECA participation ($p<0.001$). The commencement of the para-clinical course is a critical point as it is followed by a marked increment in the workload. This transition may be the reason for the reduction in ECA participation. How-

ever, participation in ECA among final year students was 77.1%, suggesting that they may have adapted to managing their time more effectively by then.

Students who achieved class honours in the first examination (first class, second upper and lower divisions) were *less* likely to participate in ECA. We observed a significant association between the results at the First Examination for Medical Degrees and ECA participation ($p=0.019$). However, prior research reveals that participation in ECA is associated with higher academic performance, including among pre-clinical students (3, 17). Notably, a University of Colombo study showed a significant association between ECA participation and examination results ($p=0.224$), perhaps influenced by differences in study population and/or the curriculum (19)

As with any study, our study has some limitations. We designed our study before the COVID-19 pandemic; by the time we started data collection, the students had been at home for a lengthy period due to lockdowns and closure of the Faculty. Therefore, recall bias is a concern. We did not use a validated tool to measure ECA participation and our definition of ECA was broad. As well, we did not differentiate between regular and one-off ECA at the Faculty.

Conclusion

Although two-thirds of Jaffna medical students participate in ECA, the level of participation is low. Lack of time and transport are key barriers to participation. Ethnicity, household income, phase of the medical programme and results at the first examination showed significant associations with ECA participation where Sinhala and Muslim students, those from low-income households, para-clinical students and those who performed better at the first examination were less likely to participate. As specific groups of students are less likely to participate, targeted measures are needed to encourage their participation.

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