

To the Editors

## Physical activity among undergraduates in University of Peradeniya

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Physical Activity (PA) refers to all energy expended by movement and is defined as: “any body movement, produced by skeletal muscles that results in energy expenditure above resting level” [1]. It refers to all movements including leisure time activities, working, travelling and engaging in recreational pursuits. It is stated that both moderate and vigorous intensity physical activity improves health [2]. Regular PA promotes psychological well-being and improvements in functional capacity have been linked to overall well-being. It prevents the development of cardiovascular diseases, heart diseases, causes of some types of cancer/prevention of non-communicable diseases [3].

Physical inactivity has a major negative impact on health all over the world. Prolonged sedentary behaviour is strongly related with poor health outcomes [4]. It has been stated that university students spend most time in sedentary activities, and a global survey among 23 different income countries has shown that between 21.9 to 80.6% university students were physically inactive [5,6]. Recent evidence strongly emphasizes the role of PA in health promotion, disease prevention, treatment, and rehabilitation. However, PA is stated to reduce among University Students.

Considering the importance of Physical activity and that it declines among university students and has further declined due the pandemic, a cross-sectional online survey was conducted among the undergraduates of the University of Peradeniya in Sri Lanka. The study was approved by the Ethics Review Committee of the Faculty of Allied Health Sciences, University of Peradeniya (AHS/ERC/2021/065). The IPAQ short form questionnaire was used to gather information about physical activity.

The study was a descriptive cross sectional online survey. The study population comprised all the Undergraduates studying in the Nine Faculties (Faculty of Arts, Agriculture, Allied Health Sciences, Dental Science, Engineering, Management, Medicine, Science, Faculty of Veterinary Medicine and Animal Science) of University of Peradeniya. Proportionate random sampling was implemented, such that proportionate sample was selected from each Faculty of the University of Peradeniya. Sample size was calculated based on Slovin's Formula. The desired confidence level is 95%, hence, the error tolerance is 5%. Total no. of undergraduates in the University during the data collection period was 11152. Accordingly, the sample size was determined as 387. Students' details were obtained from the Students' Service Branch of University of Peradeniya. The questionnaires were then emailed to all the undergraduates as google forms. Data was automatically recorded in cloud storage and was available to download for the analysis. A total of 596 completed responses were obtained by the end of the data collection period. The completed responses obtained from each faculty were: 54 from Faculty of Agriculture, 45 from Faculty of Allied Health Sciences, 178 from Faculty of Arts, 26 from Faculty of Dental, 83 from Faculty of Engineering, 36 from Faculty of Management, 63 from Faculty of Medicine, 86 from Faculty of Science and 25 from Faculty of Veterinary Medicine. Proportionate random sampling was implemented, such that proportionate sample was selected from each faculty using randomization by SPSS and a total of 387 responses were selected for data analysis. The age of the participants ranged between 20-30 years. Most participants were females (249). Of the 387 responses included in the study, the highest number

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of participants 195(50.4%) were in the Low Physical Activity Level (Physical Activity Level) category whereas, the lowest number of participants 60 (15.5%) were found to be in the high PAL category. There were 132 (34.1%) participants in the moderate PAL category.

Although, there are standard guidelines stating the minimum levels of physical activity for adults, the results of the study showed that the University undergraduates did not reach the minimum required levels. This is an alarming sign. It is essential to encourage and promote PA among university students, it is essential for the physical, psychological, and social aspects of health and for better quality of life now and in later life. This can be achieved by awareness programmes about the minimum requirements of PA, importance of PA and methods of performing PA with a busy schedule within the premises of accommodation.

### Author contributions:

E.Liyange and M.K.I.D. Senarath involved in designing the research and worked on checking, editing, and refining the study design, methods, and data analysis. E. Liyanage wrote the manuscript in consultation with the other members of the team. Fernando W.I.R., Wijayasinghe W.A.D.H.M., Attanayake S.I.S., Maheshika D.N.N., and Sandakelum R.A.P., involved in the implementation of the research, data collection and data analysis.

### Competing interests

All authors declare no conflicts of interest.

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### Ethical approval for original articles

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### Abbreviations

PA: Physical activity

PAL: Physical activity level

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