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## **A preliminary study on the perceived mental stress among undergraduates at the University of Ruhuna due to online education during the COVID-19 period**

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E-learning gained immense popularity during the COVID 19 period but had different impacts on the students. This study investigated the mental stress perceived by undergraduates in the faculties of the University of Ruhuna situated in Wellamadama, Matara, Sri Lanka, during online education, applying descriptive and inferential statistical techniques. Data were collected from July to October 2021 using a customized questionnaire in the form of a Google form. The number of students registered in the Faculties of Science, Humanities and Social Sciences, Fisheries and Marine Sciences & Technology, and Management & Finance was 1536, 2169, 363, and 1754, respectively. Taking the level of significance, the maximum size of the proportion, and the margin of error as 0.05, 0.5, and 0.07, respectively, the required sample size was computed to be 196 using the Daniel sample size formula. The proportion sample size of each faculty was found to be 51,73,12, and 59, respectively. The box plots show the stress variation, and most undergraduates agree that they suffer from stress due to online education. One-way ANOVA test results infer that mental stress among students between the faculties is highly statistically significant ( $p=0$ ) and is insignificant on students' family income ( $p = 0.547$ ), gender ( $p = 0.777$ ), and living environment (rural, semi-urban, and urban) ( $p = 0.251$ ). The post hoc comparison using Dunnett's T3 test indicates that the mean scores for the students in the faculties of Science and Humanities and Social Sciences are significantly different from those of the Faculty of Fisheries and Marine Sciences & Technology ( $p = 0.001$ ). According to the student responses, we suggest that possible interactive teaching and learning methods must be used in online education. It is further recommended that the students spend their free time with their families and communicate with loved ones to reduce mental stress.

**Keywords:** Online education, Undergraduates, Mental stress, Daniel sample size formula, Dunnett's T3 test

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