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Attention span among first-year undergraduates at the University of Jaffna: Associations with demographic factors, academic streams, and Z-scores

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Background and objective: Attention span, a key component of cognitive functioning, is crucial for academic success. While widely studied globally, little is known about the attentional capacities of undergraduates in Sri Lanka. This study aimed to assess the attention span among first-year undergraduates at the University of Jaffna and to identify its association with selected demographic factors, Advanced Level streams, and Z scores.

Methods: An institutional-based, descriptive cross-sectional study was conducted among 427 first year undergraduates selected via stratified random sampling from seven faculties at the University of Jaffna. Data were collected using a self-administered questionnaire developed for the study, which captured socio-demographic details and Z scores. Four dimensions of attention (sustained, alternating, divided, and selective) were measured using a 20-item, five-point Likert scale, with higher total scores indicating a greater attention span. Data were analyzed using SPSS 21 with descriptive statistics, chi-square tests, and independent t-tests; statistical significance was set at $p \leq 0.05$.

Results: The sample included students from the faculties of Agriculture (n=46), Allied Health Sciences (n=20), Hindu Studies (n=18), Management (n=100), Medicine (n=58), Science (n=117), and Technology (n=68). Attention span was significantly associated with several factors: Males demonstrated higher attention scores than females ($p < 0.001$). Higher parental education (maternal: $p = 0.012$; paternal: $p < 0.001$), greater family income ($p = 0.010$), and living at home versus a hostel ($p < 0.001$) were correlated with higher scores. Significant differences were observed across faculties ($p < 0.001$), with Science and Management students scoring higher than the reference mean of 59. Biology and Commerce A-level streams outperformed Arts and Technology streams ($p = 0.044$). Higher Z scores were significantly associated with higher total ($p = 0.016$), sustained ($p < 0.001$), and selective attention ($p < 0.001$).

Conclusion: Significant variability in attention exists among first year undergraduates, influenced by socio-demographic background, faculty, and prior academic achievement. These findings suggest a need for targeted interventions, such as faculty specific cognitive support workshops and initiatives to mitigate socio-economic and environmental disadvantages, particularly for hostel residents and students from lower income backgrounds.

Keywords: attention span, first year undergraduates, University of Jaffna, Advanced-Level Z score, cognitive performance