# Correlation between medical students approach to learning and performance in physiology examinations

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## ABSTRACT

**Introduction**

Students approach to learning determines the quality and quantity of acquired knowledge and academic performance. Students, adopting a problem based or deep approach are reportedly more successful.The main objective of this study was to assess the correlation between examination performance in physiology and medical students approach to learning.

**Method**

A prospective study was performed on 162 second year medical students at the University of Kelaniya. The Adelaide Diagnostic Learning Inventory for Medical students {ADLIMS) was administered and responses were pooled to highlight three factors. Factor 1: poor study habits, lack of motivation to study and distraction from social activities. Factor 2: related to distress arising from high achievement expectations that were hampered by superficial or disorganized study habits. Factor 3: problem-based approach. These factors were correlated with the continuous assessment (CA) and all components of the $2^{nd}$ MBBS examination [practical (OSPE). oral (viva), theory & overall performance,]

**Results**

Data from 115/162 (71 %), students were analyzed which consisted of 56 (48.7%) males and 59 (51.3%) females. There was a negative correlation between factor 1 and marks obtained for CA ($r$^-0.22, $p=0.017$). Factor 2 showed negative correlation with marks obtained for CA ($r=-0.52$, $pO.OOOl$), OSPE ($r=-0.26$. $p-0.004$), viva ($r=-0.28$, $p=0.002$), theory ($r=-0.39$, $pO.OOOl$) and total Physiology mark ($r=-0.45$, $p<0.0001$). The correlation between factor 3 and examination performance was not significant. There was no sex difference in scores for all three factors.

**Conclusions**

There was a strong negative correlation for all aspects of the $2^{nd}$ MBBS physiology examination with factor 2, which identified distress arising from high achievement expectations that were associated with superficial or disorganized study habits. Factor 1, which related to poor study habits, was negatively correlated only with the performance in physiology continuous assessments .Factor 3, which assess problem based or deep learning approach had no correlation with examination performance in physiology.