

[P01.015] Structured Didactic Teaching Sessions Improve Neurology Clerkship Test Scores: A Pilot Study

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OBJECTIVE: To determine the effectiveness of didactic case-based instruction methodology to improve medical student comprehension of neurological diagnoses encountered in primary care practice. **BACKGROUND:** There is no agreement on how to prepare medical students to recognize and treat common neurological diagnoses a primary care setting. This study assessed the effectiveness of biweekly didactic instruction sessions as measured on a written examination specifically designed to test clinical reasoning abilities. **DESIGN/METHODS:** 415 third and fourth year medical students were retrospectively analyzed for the one year before and the one year after the didactic teaching sessions were instituted. All students were given one hour to complete a 50 item "one best answer" test that assessed clinical reasoning skills. The first group of students was not given any formal, standardized didactic instruction. In contrast, the subsequent year's students were required to attend standardized formal didactic teaching sessions lasting 90 minutes on a biweekly basis for four consecutive weeks. The students were asked to localize the lesion in the nervous system, discuss the pathophysiology, and understand basic diagnostic testing and treatment concepts. The students were also given access to a PowerPoint presentation that reviewed these principles as well as a list of neurological emergencies and their evaluation. **RESULTS:** The only statistically significant differences between the two groups were that the interventional group had both fewer students and a smaller proportion of fourth year medical students. The average percentage of correct responses was 74% before the intervention and 76% after the intervention ($p < 0.001$). Sub-group analysis revealed that this difference was attributable to an improvement in the third-year medical students' scores. **CONCLUSIONS/RELEVANCE:** Didactic teaching sessions have a significant positive impact on neurology student clerkship test score performance and perception of their educational experience. Confirmation of these results across multiple specialties in a multi-center trial is warranted.