THE EFFECTS OF A COMPUTER-BASED LEARNING MODULE ON STUDENTS’ KNOWLEDGE OF THE ANATOMY AND CLINICAL EXAMINATION OF THE DORSAL COLUMN MEDIAL LEMNISCAL SYSTEM (DCML)

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SUBJECTS:
Thirty one entry-level physical therapy students from a west coast university, who were matriculated in an introductory neurotherapeutics course, served as subjects for this study.

METHODS AND MATERIALS:
Before and after reviewing a computer-based learning module student took a paper and pencil test about the anatomy and clinical examination of the DCML system. The learning module stood alone and was not adjunct to lecture on the same material.

ANALYSES:
Independent t-tests were used to determine changes in student knowledge after viewing the learning module. Knowledge of anatomy and clinical examination was evaluated separately.

RESULTS:
After viewing the learning module, independent t-tests revealed significant improvement in student knowledge about the anatomy (p<.001) and clinical examination (p<.001) of the DCML system.

DISCUSSION:
The results of this study extend the literature supporting the efficacy of computer-based instruction to include introductory neuroscience education for entry-level physical therapy students. Without being coupled with traditional lecture on the same content, this learning module demonstrated the ability to significantly increase student knowledge about the anatomy and clinical examination of the DCML system.

SUMMARY:
The results of this study indicate that a computer-based instruction module was capable of significantly improving the knowledge of entry-level physical therapy students about the anatomy and clinical examination of the dorsal column-medial lemniscal system. The learning module was used independent of lecture on the same material.