THE EFFECTS OF A COMPUTER-BASED LEARNING MODULE ON STUDENTS’ KNOWLEDGE OF THE ANATOMY AND CLINICAL EXAMINATION OF THE LATERAL SPINOthalamic TRACT

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Introduction

The task for students preparing to work in neurological rehabilitation is to understand neuroscience at both the anatomical and behavioral levels. The task for educators preparing students for clinical practice is to help them acquire and integrate information from the anatomical and behavioral levels and apply that information to clinical problems. Computer-aided instruction (CAI) provides a powerful representational tool to portray neuroscience information in a clinical educational environment. Increasingly, CAI resources are being incorporated into existing curricula for educating health care providers.

The research questions were:
1. Did use of the Learning Module improve students’ knowledge of the structure and function of the spinothalamic tract (LSTT)?
2. Did use of the Learning Module improve students’ knowledge of clinical examination of the spinothalamic tract (LSTT)?

Methods & Materials

Analysis and Results

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 but not clinical examination of the LSTT.

Discussion

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 of the spinothalamic tract. The learning module was used independent of lecture on the same material.