

A Novel Educational Intervention for Hand Anatomy Instruction

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Occupational therapy (OT) students benefit from detailed hand anatomy instruction using cadavers, but three-dimensional models may be as effective (Chytas, et al., 2020; Wilson, Miller, Klein, et al., 2018). A novel educational intervention, the Dell Hand Instructional Module (DHIM), incorporates a three-dimensional, translucent model of the hand and skeleton with video narration. The purpose of this study was to investigate OT students' perceptions of participation in a learning activity using the DHIM. The study used an exploratory research design with a researcher-developed survey and focus group. Twelve participants were recruited from an entry-level doctor of occupational therapy program. In order to be included in the study, participants needed to be enrolled in the first year of the program and have no previous training in hand anatomy. The DHIM intervention included one, four-hour instruction session and one, four-hour assessment session. Quantitative data was analyzed using descriptive statistics. Researchers used thematic analysis to analyze focus group data. Participants (n = 10; 100%) agreed or strongly agreed that the DHIM made learning about hand anatomy interesting and enjoyable, was an effective learning tool, and helped them to understand the spatial relationships between hand structures. Thematic analysis of the focus group responses resulted in five themes related to the educational intervention: instructor impact, learning environment, learning preferences, interaction with the model, and perceptions of the educational intervention. Findings suggest the DHIM supported hand anatomy instruction and was helpful to student engagement in the learning process. There is a potential positive impact on future clinical services, although the small sample size limits generalizability. Future research should investigate the differences in student recall of anatomical structures and function with the DHIM versus traditional anatomy teaching methods.

References

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