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Assisting Medical Lab Techs Using a Modified OSATS Tool to Test Content Validity on Microtomy Procedure

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Abstract

Title: Assisting medical lab techs using a modified OSATS tool to test content validity on microtomy procedure.

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Background: Microtomy is a process that medical lab techs use to cut tissues for microscopic examination. A microtome is a tool that uses a sharp knife to cut the wax blocks for tissue samples. Large classes, not enough equipment or lab time present an issue with student learning methods. Current literature doesn't depict a tool that defines the most essential steps of the microtomy procedure. Thus, The Objective Structured Assessment of Technical Skills (OSATS) is a valid tool for analyzing technical skills and assessing the microtomy procedure.

Objectives: The aim of this project is to a) develop the step wise procedure, b) provide evidence of content and construct validity of the microtomy procedure. This allows for content validity regarding the microtomy procedure, which will enable MLSc faculty members to present this information to students and the significance of each step.

Methods: Survey methodology will be used from 15 participants of MLSc teaching faculty at Ontario Tech University. Phase 1, "Development of the instrument", will use the OSATS tool to validate the content of the 10 steps of microtomy completion. Data collection will be obtained by the content experts providing feedback on the steps and suggest 2 experts to do the same. Phase 2, "Assessment of content validity", will require the MLSc content experts to complete a questionnaire regarding the OSATS tool and comment on each of the dimensions. There will also be an online safety module that will assess students to ensure understanding of all safety features and protocols of the microtomy procedure.

Results: Data collection has not yet been obtained to pending of ethics approval. There are no results at this time.

Conclusion: So far, it is known that that incorrect use of the device can be dangerous and will result in a bad sample. To make sure it is used correctly, there needs to be a consensus of the steps, and supply evidence of validity of the steps and ensure that the content is correct.

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