

**An exploration of the use of 3D printed foot models and simulated foot lesions to supplement scalpel skill training in undergraduate podiatry students: A multiple method study, Banwell et. al., PLoS ONE, 2021.**

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**Level of Evidence: 4**

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Scalpel blades, a regular tool utilized by podiatrists, is an important everyday tool used for corn/callus removal, biopsies, excision of lesions and debridement of foot ulcers. Scalpel skills are a vital part of podiatric training. Due to recent times, like the pandemic, the need to create techniques that maintain the standards of face-to-face practice has been necessary. This method study highlights the importance of implementing 3D printed foot models for podiatry students. Doing so would fill the gap when clinical teaching is interrupted, thus, decreasing anxiety and increasing student confidence.

The experiment was conducted with two student groups: 24 second year podiatry students and 15 experienced fourth year students. According to the results of this study, 3D printed foot models did in fact increase self-confidence and self-efficacy amongst the podiatry student participants. Overall, when comparing traditional teaching methods versus 3D printed models, students reported a decrease in anxiety and an increase in confidence using 3D models. Interestingly, this study proved Bandura's self-efficacy theory which stated that successful experiences with tasks in controlled situations improved task-specific confidence.

In conclusion, this study strongly recommends that Podiatric Medical schools implement 3D printed foot models in order to improve students' confidence when using scalpels. Furthermore, students recommend that the 3D printed models' authenticity be enhanced and the importance of implementing this model early in their podiatric student doctor career.

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