

Hands-on Sawbones Exercises for Undergraduate MBBS Students in Malaysia to Facilitate Learning of Orthopedics

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INTRODUCTION:

Orthopedics is one of the most intricate and hands-on fields in medicine, requiring a precise understanding of anatomy, bone mechanics, and surgical procedures. In Malaysia, where medical education is increasingly focused on preparing students for the realities of clinical practice, ensuring that MBBS students acquire the necessary surgical skills early on is crucial. Traditional learning methods such as lectures, textbooks, and limited clinical exposure during rotations may not fully equip students with the hands-on experience they need for success in orthopedic surgery.

The Need for Hands-On Orthopedic Training in Malaysia:

In Malaysia, medical students face similar challenges to those in other parts of the world—orthopedic procedures require skills that can only be mastered through practice. Traditional clinical rotations, which typically take place in the latter part of the medical program, often do not provide sufficient exposure to complex orthopedic surgeries. Additionally, the large number of students relative to available clinical cases means that opportunities for direct involvement in surgical procedures are limited.

This lack of hands-on experience can leave MBBS graduates underprepared for internships and future orthopedic practice, where technical skills are paramount. For example, learning to perform a fracture reduction, apply external fixation, or insert screws into fractured bones requires a level of precision and manual dexterity that cannot be achieved through lectures alone.

Sawbones exercises, which are already being used in many countries as a supplemental learning tool, offer a potential solution to this issue. These synthetic models are designed to mimic the texture, density, and structure of human bones, enabling students to

practice orthopedic procedures as they would on real patients. By integrating these exercises into the MBBS curriculum in Malaysia, medical schools can ensure that students are better equipped to handle the practical aspects of orthopedic surgery.

CONCLUSION:

Incorporating Sawbones exercises into the MBBS curriculum in Malaysia offers a powerful way to enhance orthopedic education for undergraduate students. By providing hands-on, practical experience in a controlled environment, these exercises help students develop the technical skills, anatomical knowledge, and confidence they need to succeed in orthopedic surgery. While challenges related to resource allocation and curriculum integration exist, the benefits of Sawbones exercises far outweigh these obstacles.

As medical education continues to evolve in Malaysia, tools like Sawbones models will play an increasingly important role in ensuring that future orthopedic surgeons are well-prepared for the demands of clinical practice. Through the careful implementation of these exercises, Malaysian medical schools can help students bridge the gap between theory and practice, ultimately improving both student outcomes and patient care.

REFERENCES:

- Studies on the role of simulation-based learning in orthopedic education.
- Guidelines from Malaysian medical schools on curriculum development.
- Research on the effectiveness of Sawbones exercises in medical training