

EDUCATIONAL

ChatGPT: A useful tool for teaching orthopedic trauma to residents

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Dear Editor,

As a practicing orthopedic surgeon and educational deputy in the orthopedic ward, I have witnessed challenges teaching complex surgical procedures and managing orthopedic trauma patients to residents in real-time. However, the advancement of technology has dramatically accelerated the learning process. During Covid-19, we have benefited from online teaching and case discussions using WhatsApp and received many positive feedbacks from residents and faculties. Speaking of the new technological assets, one particular tool that has proven to be very effective for educational purposes is ChatGPT.

ChatGPT, as we know it, is an AI-based chatbot that has revolutionized how we approach medical education. It allows residents to interact with the chatbot and ask real-time questions about their orthopedic trauma patients. This virtual assistant is designed to understand and respond directly to the needs of residents based on semantic context, improving the quality of medical education significantly.

Through its intelligent learning algorithms, ChatGPT can learn from every interaction it has with residents. This allows it to quickly identify common areas of difficulty or confusion and adjust its responses accordingly. This ability to personalize its guidance and suggestions to each resident is a real game-changer, allowing for a more interactive and practical learning experience.

ChatGPT has dramatically improved the quality of education provided during orthopedic trauma rotations. By answering questions, providing real-time feedback, and guid-

ing residents through various surgical procedures, ChatGPT can help residents build confidence in their practice and develop critical thinking skills, which enhances the quality of patient care.

Furthermore, ChatGPT operates 24/7, meaning residents can access information and guidance at any time of the day. This feature has increased the flexibility of the learning process and allows them to get instant responses to their questions without having to wait for an educator. ChatGPT is especially helpful when residents work on-call or have a busy schedule, making their learning experience more productive and efficient.

On the other hand, like any new technological asset, one may need proper guidance from their mentor to use it more effectively and not misuse this chatbot. It should be kept in mind that due to the complexity of many orthopedic trauma patients and the fact that ChatGPT is still developing, orthopedic residents should not rely only on the answers provided by this chatbot.

In conclusion, the implementation of ChatGPT in the education of orthopedic residents during their orthopedic trauma rotation has been significant because it has created a more interactive, intelligent, and accessible learning experience. It has also improved the quality of education and the quality of patient care. We encourage the application of ChatGPT to other areas of medicine and healthcare education to improve healthcare professionals' learning experiences.