

Artificial intelligence

AI-assisted Boolean search

Sir, we read the recent article on ChatGPT in conducting research with great interest.¹ We wish to add another application related to the possibilities of using ChatGPT, an advanced language model specifically in the context of generating Boolean search queries for systematic reviews (SR). One of the fundamental aspects of conducting SR is the comprehensive literature search, which often involves constructing complex Boolean search queries to identify relevant studies.

Traditional approaches to constructing Boolean search queries can be challenging, particularly when dealing with a vast and ever-expanding pool of dental research literature. Moreover, young researchers find generating such searches for systematic reviews as a steep learning curve. Herein lies an opportunity for ChatGPT to be helpful in the field.

Upon instruction to generate a Boolean search in PubMed for rehabilitation of the severely resorbed maxilla by using quad zygomatic implant-supported prostheses, ChatGPT was able to generate Boolean search results.

Although still at a primitive stage, the search results at present are very basic and need further improvements in order to be useful for high evidence-generating SR. Ensuring the accuracy of generated Boolean search queries is of paramount importance, as researchers rely on precise and reliable results to form evidence-based conclusions. By leveraging this technology, researchers can engage in a conversational interface with ChatGPT, articulating their information needs in plain language without the need to master complex Boolean operators. Existing evidence has found the use of automation to be useful in SR but human validation still appears required at this stage in implementing AI methods.^{2,3} While there are numerous software options with various degrees of development in the automation of SR, AI-assisted Boolean search is a new avenue and at present needs human

validation and guidance to make data search more accurate.⁴

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Paediatric dentistry

Positive reinforcement for the dentally anxious child

Sir, as a community dentist, I found the recent ‘top tips’ article on managing dentally anxious patients¹ to be a great

summary of advice. Another behavioural management technique worth mentioning is positive reinforcement. I have found that gift-giving works wonders for anxious children. Stickers are an excellent reward, but my glove balloon animals (Fig. 1) have always helped to calm an anxious child, enabling them to enjoy the dental visit and work towards overcoming their phobia. The British Society of Paediatric Dentistry (BSPD) has published guidance for non-pharmacological behavioural management and cites a study that concluded children who received prizes regularly reported less dental fear.²

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Fig. 1 Various glove balloon animals and characters