treatment standards in the UK had failed to keep pace with advances being made elsewhere in the world and were now viewed by our overseas colleagues as being more appropriate for a developing country. It was only with the introduction of the two-year MSc course in orthodontics of the University of London in the same year, masterminded by Professors Mills and Houston, that things began to slowly change, culminating in the introduction of the three-year MOrthRCS and MDO RCPS programmes in 1988. The provisions of these made it clear that the undertaking of a research component was part of specialty training in orthodontics, as it now is throughout the western world, and many of us sat the new diploma examination voluntarily to show our support for this much-needed raising of UK standards. Finally, following the publication of the Mouatt Report in 1995, which supported the introduction of specialist lists in the UK,¹ an Accord was negotiated by Dame Margaret Seward between the General Dental Council, the Royal Colleges and universities.² This recognised the 'key roles that the faculties, the universities and the specialist societies played in the formulation of curricula and syllabi'.³

While the costs of orthodontic specialty training might now be renegotiated, the present standards and responsibilities must not be compromised.

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Health research

Satisficing and bots

Sir, online recruitment is expanding in health research with sources for possible study volunteers including classified ads, search engine ads, survey panels, crowdsourced online labour markets and social media platforms. Social media recruitment is increasingly popular as most adults use it and rates exceed 60% in practically every sociodemographic category.¹ Secondly, social media sites allow

researchers to tailor adverts to those who are likely to meet study eligibility criteria. Thirdly, the practical and ethical issues of social media recruitment for health research is extensively defined.

However, studies using such recruitment have the same challenges as other online research approaches. Duplicate enrolment, automated enrolment by software applications known as bots, random responses and satisficing all threaten sample validity and data integrity. In a survey, responses can be chosen at random by tapping a random, rather than the appropriate, key. Even a small number of random responses can skew results. Bots (aka automated form fillers) are computer programs that randomly fill up web forms. Satisficing, on the other hand, is a method of reducing cognitive burden by skimming instructions and inquiries. Participants who satisfice choose answers that would seem to fit the question, or respond randomly.

A cross-sectional descriptive study using a web-based survey recruited volunteers via email and Facebook.² Analysis showed that about 60% of completed surveys were fraudulent, underscoring the importance of addressing sample validity and data integrity in social media-based health research.

Open-ended questions are excellent for spotting satisficing, inattention and, most crucially, bots, as is attention to incomprehensible responses or replies made up entirely of random characters. Attention checks are used to assess a participant's comprehension of pre-task instructions. While not confirmation of cheating, failing to read instructions may raise suspicion and prompt a closer look at the participant's data. During the survey, random questions on the survey's objectives may be asked to ensure the participant's comprehension.

Participants finishing a survey in an unusually short period of time may have satisficed or offered random replies, while in a knowledge-based activity, if they have taken longer than expected, they may have studied the answers rather than basing them on their present knowledge. To keep bots out of a study, incorporating a cognitive challenge as a pre-screen condition that must be passed before moving on to the main study may be a good idea. reCAPTCHA is the most widely used way for completing these tasks online.

Combining some of these strategies and techniques may assist to reduce satisficing and random human and bot responses.

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Hospital dentistry

Integration with medicine needed

Sir, in 2015, the Brazilian Federal Council of Dentistry first recognised the practice of hospital dentistry as an official qualification.¹ One of the main intentions of this qualification was the provision of regular hospital dental care on an outpatient basis, to systemically compromised patients, including (for example) patients with cancer or haematological disorders. In addition, work in intensive care units (ICUs) is indicated within the qualification's remit, given the widely accepted evidence of a reduction in cases of hospital-acquired pneumonia in patients supported by dental teams in this environment. During the pandemic, the work of dental teams in ICUs has proven essential for the proper holistic management of severe COVID-19 cases, most pertinently those requiring mechanical ventilation.^{2,3}

However, specialties with specific attributes relevant to this qualification are not routinely offered as part of the undergraduate dental curriculum in Brazil. In addition, there is a worrying lack of knowledge amongst most medically trained professionals about the benefits of the work dentists can and should undertake as part of the multidisciplinary hospital team. Combined, the above currently results in low interaction between doctors and dentists,⁴ leading to less favourable outcomes for patients.

In light of this mismatch, urgent measures to modernise the curriculum of undergraduate dentistry courses are required. The inclusion of an appreciation for, and exposure to, specialties such as