Aim and objectives

Direct, constructive feedback is essential for workplace-based learning. However, for feedback to be effective, it must be understood and applied by the learner. Research shows that well-integrated feedback leads to better long-term outcomes. Traditional single-event, high-stakes assessments often fail to provide meaningful feedback and even if feedback is provided it is largely ignored by learners, particularly at the end of training. Instead, workplace-based and programmatic assessment-for-learning models have been proposed. While promising, challenges such as feasibility, time constraints, and resource allocation hinder their successful implementation. Additionally, both learners and supervisors hold strong beliefs about education, making behavioural change difficult when new technologies are introduced.

This project aimed to evaluate how an AI-assisted feedback tool can be embedded into busy general practice settings. It sought to critically assess how the tool was used, understand its effectiveness, and optimise it to reduce the burden of workplace-based assessment feedback.

Method

A total of 10 trainee medical officers and 6 supervisors from private general practices in the Riverland region of South Australia participated. Initially, they attended a 2-hour workshop covering feedback delivery, integration with student learning outcomes, and app functionality. The nano-feedback tool, either as a phone or tablet application, converted verbal feedback into written text, which was then sent to the trainee for documentation and review. The technology was implemented over three months. Following this period, 3 group discussions (one with supervisors and two with trainees) were conducted employing a combination of nominal group and focus group methodology. Themes and insights from these discussions were analysed using NVivo software. Analysis employed ecological psychology and systems theory as a framework. The aim was to gain a better understanding on the enablers and barriers for the provision and uptake of feedback in order to refine the tool and develop improved training resources.

Results

The integration of the speech-to-text feedback tool in general practice settings offered both benefits and shortcomings. Participants appreciated the tool's ability to convert verbal feedback into written text, which saved supervisors time on documentation and allowed them to focus more on providing meaningful feedback. However, trainees and supervisors emphasised that personal interaction was essential for effective feedback and that technology should supplement, not replace, face-to-face engagement.

Using the tool was found to be difficult. Feedback often happens spontaneously, but the use of the tool requires deliberateness. Some supervisor and students, therefore, used the tool rather to record the feedback during a debriefing session than spontaneously.

Time constraints were also a significant barrier. Some supervisors and trainees found it difficult to adopt the tool, highlighting the need for tailored training and ongoing support. Additionally, the tool lacked features to encourage proactive feedback (like a trigger), with supervisors occasionally forgetting to use it and trainees not always engaging with feedback in a timely manner.

The research also underscored the importance of who owns the feedback, whose responsibility it is to give or receive feedback. While ensuring that recorded feedback accurately reflects what

supervisors provide is essential for assessment, allowing students to document feedback themselves could enhance understanding and integration. This approach may also be more feasible and less disruptive to clinical practice but requires students to take an active role in seeking feedback. Balancing these perspectives is crucial for effective implementation.

Discussion

This study examined the use of a speech-to-text feedback tool to improve efficiency in general practice settings. While the tool streamlined documentation and was timesaving, it could not replace the human interactions crucial for effective feedback. Both trainees and supervisors agreed that face-to-face communication was essential for understanding learner progress and fostering a meaningful dialogue.

The tool's limitations were also evident with respect to its ease of use in the busy clinical context but also in the lack of it being able to generate proactive prompts for feedback. These factors lead to inconsistent use. Time constraints, therefore, remained a barrier, reflecting broader challenges in clinical education, where busy schedules hinder timely and consistent feedback. The findings underscore the need for policies that prioritise dedicated time for feedback, regardless of technological support. So, while the tool's affordances (what it can and cannot do) can easily be optimised, the user effectivities (what they are able and not able to do with the tool) are more difficult to address. Some of the most important issues are at the system level and they concern busyness and time constraint but also related to the nature of the process of feedback often being mainly a spontaneous activity.

Implications

This study suggests that speech-to-text technology could enhance efficiency in feedback processes, but it must complement rather than replace interpersonal interactions. Successful implementation requires further optimization, adequate training, and proactive features like reminders to encourage consistent use. Training institutions should support trainees in engaging with feedback and integrating such tools into broader assessment models. Importantly, any new technology—including AI—must be seamlessly incorporated into existing systems, with users well-trained in its appropriate educational and assessment applications.

Future Research

Future studies should focus on improving tool integration within feedback processes, particularly through proactive prompts and reminders. Research should also explore adaptability across different practice settings, organizational cultures, and user comfort levels to inform the introduction of other educational technologies. Additionally, investigating how the tool fits into workplace-based assessment programs could enhance its impact on learning. Understanding logistical challenges, including time constraints and workflow integration, will be key to optimizing adoption in clinical training.