Surgical Autonomy Program

https://info.surgicalautonomy.org/

A platform to assess competency, provide feedback and visualize progress for surgical trainees in the OR setting.

The characteristics of quality feedback from the neurosurgery resident's perspective are not fully elucidated. The Surgical Autonomy Program is an intraoperative assessment tool based on Vygotsky's Zone of Proximal Development (ZPD). SAP facilitates the assessment of a resident's operative performance accompanied by written feedback.

The goal of this study was twofold: to identify themes from the written feedback of SAP operative assessments and to examine if these themes influenced the neurosurgery residents' perception of feedback quality.

In 2021, SAP data from 2019-2021 at two neurosurgery programs were reviewed. Feedback quality from the SAP was determined by the resident at the time of their assessment. Using a constant comparative technique, the feedback was coded using a thematic analysis. The quality of feedback within each code was analyzed.

There were 2968 SAP entries evaluated. When the ZPD concept was fully used, residents reported high-quality feedback 91.4% of the time compared to 58.6% when ZPD was not used ($p < 0.001$). Qualitative analysis of the written feedback revealed five themes: Non-Specific, Specific General Observations, Key Points, Next Steps, and Independent Practice. Feedback in the Specific General Observations, Key Points, and Independent Practice categories were associated with higher level feedback than leaving the space blank ($p < 0.001$) or writing Non-Specific comments ($p < 0.001$).

Providing comments that discuss the resident's specific performance in the case, key learning points, or their progress toward independence, results in high-quality feedback. Utilizing a theory-based tool such as the SAP can provide meaningful feedback to neurosurgical residents [1].

[1]
Neal CJ, Durning SJ, Dharmapurikar R, McDaniel KE, Lad SP, Haglund MM. From Their Eyes: What Constitutes Quality Formative Written Feedback for Neurosurgery Residents. J Surg Educ. 2022 Oct 21:S1931-7204(22)00258-6. doi: 10.1016/j.jsurg.2022.10.003. Epub ahead of print. PMID: 36280588.