

The Surgical Trainee Perception of the Operating Room Educational Environment

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Abstract : Background: A surgical trainee has limited learning opportunities in the operating room in order to gain an ever-increasing standard of surgical skill, competency, and proficiency. These opportunities continue to decline due to numerous factors such as the European Working Time Directive and increasing requirement for service provision. It is therefore imperative to obtain the highest educational value from each educational opportunity. A measure that has yet to be validated in England on surgical trainees called the Operating Room Educational Environment Measure (OREEM) has been developed to identify and evaluate each component of the educational environment with a view to steer future change in optimising educational events in theatre. Aims: The aims of the study are to assess the reliability of the OREEM within England and to evaluate the surgical trainee's objective perspective of the current operating room educational environment within one region within England. Methods: Using a quantitative study approach, data was collected over one month from surgical trainees within Health Education Thames Valley (Oxford) using an online questionnaire consisting of demographic data, the OREEM, a global satisfaction score. Results: 140 surgical trainees were invited to the study, with an online response of 54 participants (response rate = 38.6%). The OREEM was shown to have good internal consistency ($\alpha = 0.906$, variables = 40) and unidimensionality, along with all four of its subgroups. The mean OREEM score was 79.16%. The areas highlighted for improvement predominantly focused on improving learning opportunities (average subscale score = 72.9%) and conducting pre- and post-operative teaching (average score = 70.4%). The trainee perception is most satisfactory for the level of supervision and workload (average subscale score = 82.87%). There was no differences found between gender ($U = 191.5$, $p = 0.535$) or type of hospital ($U = 258.0$, $p = 0.099$), but the learning environment was favoured towards senior trainees ($U = 223.5$, $p = 0.017$). There was strong correlation between OREEM and the global satisfaction score ($r = 0.755$, $p < 0.001$). Conclusions: The OREEM was shown to be reliable in measuring the educational environment in the operating room. This can be used to identify potentially modifiable components for improvement and as an audit tool to ensure high standards are being met. The current perception of the education environment in Health Education Thames Valley is satisfactory, and modifiable internal and external factors such as reducing service provision requirements, empowering trainees to plan lists, creating a team-working ethic between all personnel, and using tools that maximise learning from each operation have been identified to improve learning in the future. There is a favourable attitude to use of such improvement tools, especially for those currently dissatisfied.

Keywords : education environment, surgery, post-graduate education, OREEM

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