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# 30,000 hours a necessity or a misquote?

A difficult reality to face is that training may not be what it was. The majority of surgeons are graduates of the school of caffeine infused night shifts, staying up the next day and coping your way through an operation with minimal supervision. This 'wholesome' rite of passage for residents and registrars is disappearing – with vanishing hours, worker's rights and the difficulties of explaining to patients how many hours the surgeon had worked before starting an operation that didn't go that well. The feeling amongst most surgeons is still that without the hours how will trainee doctors match their forefathers for surgical skill and exposure. More and more commonly a figure of 30,000 hours of practice to make consultant is being bandied about theatre coffee rooms and committee meetings.

Changes in training are certainly better for junior doctors but how exactly are craft specialities like orthopaedic surgery doing? How will we better prepare our surgeons of the future in fewer hours? This is a challenge being faced across the globe and one that is highlighted in this month's feature. The old adage of 'it takes 30,000 hours of practice to be a surgeon' comes from studies of junior doctors working practices prior to the change in working time practices.<sup>1</sup> This has been a little confused with other studies on motor skills (originating as miss-quotes originating with musical instrument practice) where 10 000 hours of motor practice which themselves have now been questioned.<sup>2</sup> Most trainers and trainees (even politicians who started this mess with limitations on working hours) would agree that one hour is not equivalent to another. A single hour spent with an experienced trainer pushing oneself to achieve a difficult operation, or deal with an on-table complication is clearly more useful than 10 hours spent doing unsupervised operative work to a

poor quality. So if we can't have the time what do we need to do?

Surgery is not simply a manually dexterous task; true, a poor technical surgeon cannot be a good surgeon, but a great surgeon has more than simply 'good hands'. Strategies to teach 'non-technical skills' and human factors are starting to emerge in curricula<sup>3</sup> and the 'Shape of Training' report ([www.shapeoftraining.co.uk](http://www.shapeoftraining.co.uk)) highlights one potential solution emphasising the importance of making 'every opportunity count'.

Surgical exposure, supplemented with simulation, proper teaching in theatre followed by critical evaluation<sup>4</sup> has been shown to improve patient outcomes and reduce complications. Many training programmes already include formalised case-based discussions and observation of procedural skills, and even the appstore is being used to try and produce more innovative ways of teaching hand-to-eye co-ordination and appropriate decision making with website such 'Touch Surgery' ([www.touchsurgery.com](http://www.touchsurgery.com)).

Knowledge, however, is more important than practice. The preface of a well-known general surgical textbook starts with the quote: 'The eye cannot see what the mind does not know'. This is a truer reflection now than ever before. New formats for improved information delivery (such as the 360 App and websites – soon to be relaunched) and the Bone and Joint Portal ([www.boneandjoint.org.uk](http://www.boneandjoint.org.uk)) are starting to become the preferred route of many readers and learners alike. New information formats such as 360 itself with digest and comments can help plug the gap of clinical exposure in our trainees. The recent adoption of 360 as a membership benefit by the BOA and the NZOA is recognition of the usefulness of such a different way of presenting information. Time-pressed members of both organisations whether they surgeons or trainees needing to place new developments within the

experience of their senior peers, will be able to benefit. 360 will of course offer a refund of outstanding issues for surgeons who are members of those organisations and hold a personal subscription. We thank you for your support.

Highlights for me from this edition of 360 include an innovative self-controlled study from Japan<sup>5</sup> where instead of randomising a patient as a whole to an intervention, the investigators performed bilateral procedures and randomised a side to an intervention. This methodology has never really gained the traction it perhaps should have but has produced some elegant papers establishing the wear patterns of knee replacements and in this study at least provided a surprising insight into the potential role of closed suction drains in improving the peri-operative period with reduced inflammation and pain levels.

This edition will reach you during the festive season, so Merry Christmas, Happy New Year and my best wishes to you all.

## REFERENCES

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