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Trainers' perceptions of the direct observation of practical skills assessment in histopathology training: a qualitative pilot study

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ABSTRACT

Aims This pilot study of the direct observation of practical skills (DOPS) assessment of histopathology trainees is needed in the absence of existing information on histopathology in the UK. The aim of the study was to explore the experiences and perceptions of trainers in using the DOPS tool with histopathology trainees.

Methods A qualitative approach was taken using paper-based questionnaires to consultants in a single teaching hospital histopathology department.

Results DOPS was perceived by all trainers as a valid form of assessment. There was a spread of opinion regarding its feasibility, with some respondents raising concern about its impact on time. 28% of respondents were doubtful about the formative nature of DOPS. All stated the assessment was fair.

Conclusions Themes that have emerged include concerns about impact on trainer time, whether DOPS is used in a formative manner and concerns about the amount of guidance provided to trainers. Further research is required to expand on these points.

Workplace-based assessment is undertaken by trainees in chemical pathology, medical microbiology, virology and histopathology. The aim of these assessments is to assess trainee competency in their day-to-day work and to establish whether they have made satisfactory progress during training.[1] Workplace-based assessments have been mandatory for all trainees appointed since August 2007.[1] Multiple assessments are completed each year and are collated in a portfolio of experience for presentation at the annual review of competence progression. The assessment tools take different forms; multisource feedback; case-based discussion; direct observation of practical skills (DOPS), and evaluation of clinical events. In addition, trainees in chemical pathology also undertake mini-clinical evaluation exercises.[1]

In histopathology, a minimum of six of each of these assessments is undertaken each year, a proportion of which is directed. That is to say, trainers stipulate the subject matter to be assessed. These assessments are used in a summative fashion when collated in a portfolio and presented at the annual review of competence progression. However, the Royal College of Pathologists also notes that they are a potentially compelling source of information that could be used to determine the future learning needs of the trainee.[2] In other words, they can be used as a form of formative assessment.

DOPS is a predominantly observational form of assessment that looks at practical procedures in the workplace. Subject matter to be assessed can vary from the dissection of a surgical specimen in the laboratory to the performance of an autopsy.[2] Immediate feedback is provided by the assessor and is documented on a standard proforma.[3] There are nine broad items for assessment by DOPS, which are used for all procedures assessed and are: (1) understands principles of procedure; (2) demonstrates appropriate preparation pre-procedure; (3) ensures patient safety; (4) complies with health and safety requirements; (5) technical ability and correct use of equipment; (6) communication skills; (7) consideration of patient focus and professional issues; (8) seeks help when appropriate; (9) overall ability to perform procedure.

This pilot research project seeks to describe the experiences and perceptions of trainers in using the DOPS tool with histopathology trainees in a single teaching hospital in the UK.

A number of educational studies have looked at the experiences of surgical and medical trainees using workplace-based assessment.[4–7] The need for this study arises from the paucity of literature available about the experiences and perceptions of those using these assessments in histopathology.

METHODS

The research question was 'What are the perceptions and experiences of trainers carrying out DOPS assessments in a histopathology setting?' Questionnaires were distributed by post to 15 departmental consultant trainers at a large teaching hospital with 12 histopathology trainees. The questionnaire contained three statements about DOPS with a Likert scale of five ordered responses: strongly disagree, disagree, neutral, agree and strongly agree. The statements were 'I think that DOPS is an accurate way of determining whether a trainee can perform a procedure to a standard expected for their level of experience' (figure 1); 'I think that this method of assessment is easy and cost effective' (figure 2); and 'I think that this form of assessment helps me to direct teaching of practical skills' (figure 3). In addition, free-text areas were supplied for responses to the questions 'What do you think of DOPS as a form of assessment?', 'Is it a fair assessment and why?' and 'How could this assessment be improved?' An additional space for 'Any further comments?' was provided on the form. Questionnaires were returned anonymously by post to the author.

The completed forms were collated and analysed by hand with the aid of a spreadsheet. Free-text elements were transferred to a text document and

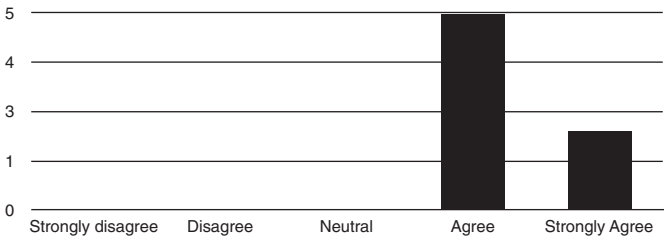

Figure 1 'I think that DOPS is an accurate way of determining whether a trainee can perform a procedure to a standard expected for their level of experience.' DOPS, direct observation of practical skills.

divided into positive and negative comments. Themes were then identified within these areas. Data are reiterated in this paper verbatim except for author insertions in square brackets.

RESULTS

Seven completed questionnaires were returned giving a response rate of 46%. All respondents agreed, 28% agreed strongly, that DOPS was able to assess accurately whether trainees could perform a procedure to a standard expected for their level of experience.

There was a greater spread of opinion about the ease and cost effectiveness of DOPS, with 28% of respondents disagreeing with the statement that DOPS was considered feasible. One person did not respond to this question directly by the Likert scale but gave the following comments:

> '[I have] no idea if it is cost effective' and '[It is] not necessarily easy.'

There was a wide spread of thought regarding whether DOPS could help direct the teaching of practical skills, with 28% of respondents disagreeing with this statement. One respondent made the comment:

> 'I teach what I think the trainee needs to know.'

Additional information about whether DOPS can help trainees to identify their own learning needs was documented in the further comments section. The following respondents felt that DOPS did help trainees identify learning needs:

> 'I am sure that WPBA [workplace-based assessments] inform the educational needs of trainees. They must formalise impressions that trainees gain as to how they are perceived to be progressing by trainers.'

Others were less sure about DOPS' usefulness in this regard:

> 'WPBA may help identify learning needs but it depends on the trainee (and I suppose the trainer!) having insight and reflecting on the activities, not just ticking boxes and completing a portfolio.'

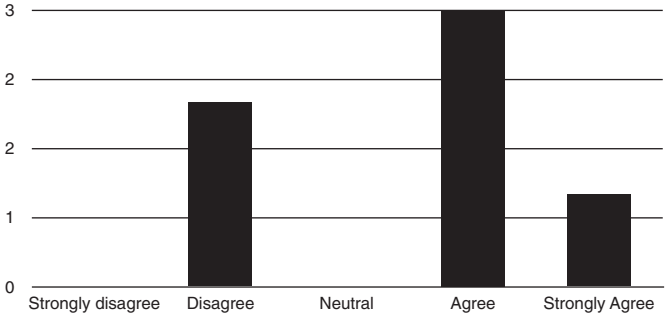

Figure 2 'I think that this method of assessment is easy and cost effective.'

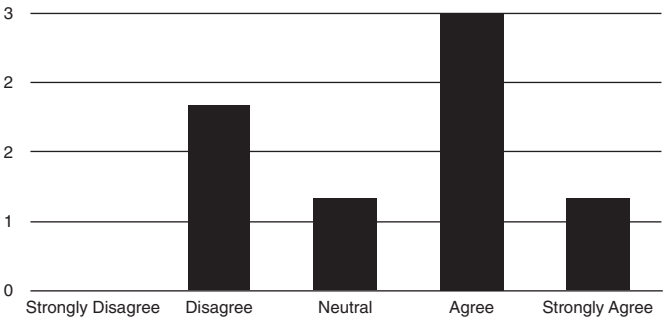

Figure 3 'I think DOPS helps me direct my teaching of practical skills.' DOPS, direct observation of practical skills.

In contrast there were some who believed that DOPS was about something other than generating formative feedback:

> 'They [DOPS] are a way of assessing progress. They are often done as a box ticking exercise. There is the potential to weed out failing trainees if they are done well and this is probably their only use.'

Answers to the question 'What do you think of DOPS as a form of assessment?' were almost all (86%) positive about its usefulness. One respondent said:

> 'I can think of no better way to assess competence of performance.'

Three respondents raised the idea that DOPS was merely a box-ticking exercise. One respondent commented:

> '…continuous assessment with ticking off individual items is flawed, through variable trainer expectation and inability of a trainee to maintain consistency'.

Everyone thought that the DOPS assessment was fair. One individual qualified this by saying:

> '[It is] only [fair] if the trainee is exposed to training delivered at all levels by those whose competence and ability matches that of the assessor.'

There were many suggestions as to how DOPS could be improved. Several respondents felt that consultants needed sufficient time allocated to carrying out DOPS factored into their job plan if they were to do them to a high standard.

Two people felt there was insufficient guidance available on how to facilitate a DOPS effectively. One such comment read:

> 'Not aware of available advice for the trainers—presumably there is something on the College website…… To be frank, trainers get a feel for whether a trainee is up to the job by their general attitude and by the quality of their work.'

Further suggestions for improvement included not allowing the trainee to choose their assessor and that specific steps involved in a particular procedure should be made explicit as this:

> 'would allow the opportunity to audit/evidence the process'.

The further comments section of the questionnaire generated some useful comments. For example, two respondents were concerned with the inability of DOPS to pick up failing trainees. One detailed comment read as follows:

> '[DOPS] does not assist in identifying those trainees who "are not up to scratch". That is evident from one's experience of teaching them over a period of time, bearing in mind that different people develop different skills in different ways. The main issues that need to be identified are a lack of commitment, poor interpersonal skills and failure to learn from mistakes.'

DISCUSSION

Much of the data generated by this study are qualitative in nature. While findings from qualitative data cannot be generalised across larger populations they do serve a valuable function in identifying themes to expand upon in future studies and can serve as a basis for change and improvement.[8]

The evidence from this study supports the view that DOPS is a valid approach to practical skills assessment for histopathology trainees. Other authors agree with this point of view.[8 9] Memon *et al*[9] went as far as stating that observation is the only appropriate assessment method available for assessing practical skills.

Morris *et al*[4] illustrated the concept of DOPS as a type of formative assessment. Formative assessment means using information from assessment to inform future development.[10] Constructive feedback is mandatory if DOPS is to be successfully used as a form of formative assessment.[4 10 11] Nicol and Macfarlane-Dick[12] provided excellent advice on how assessors can give useful feedback. They stated that for feedback to be most useful it should be immediate, specific and behaviour based.[12] The provision of detailed procedural steps on the proforma would make giving quality feedback easier, particular for those with little training in how to perform DOPS. The detail required and the breadth of possible procedures, however, would make this type of task analysis very time consuming to do. Some authors argue that retrospective analysis of the outcome of a procedure is a more valid form of observational assessment when the end product is more important than the process. Gronlund[13] suggested that this view is applicable in the histopathological cut-up of specimens and could be applied to more senior trainees. Product analysis would also acknowledge that in some cases there are many ways of performing a procedure, all of which may be equally valid.

It may not be appreciated by assessors that DOPS is a type of formative assessment to be initiated by the trainee to address their own learning needs. Improved guidance and information about conducting DOPS might be required to counter this stance.[11] Ryland *et al*[5] showed that appropriate guidance of assessors was essential for successful workplace-based assessment. It is suggested that DOPS as part of portfolio-based learning can potentially be used by trainees to take control of their own learning needs, and this could have the added benefit of enhancing and maintaining learner motivation.[14]

Opinions regarding cost effectiveness and ease of administration serve as a measure of the feasibility of DOPS. However, time, a component of assessment feasibility was raised by three respondents in free-text areas as a factor they were concerned about. An extensive survey of British surgery trainees highlighted the negative impact that the administrative burden of workplace-based assessments can also have on trainees.[6] Wilkinson *et al*[7] estimated that the time taken to supervise a DOPS assessment should be the time taken to do the procedure plus a third for providing feedback. They concluded that DOPS was feasible, but in practice in a busy histopathology department DOPS appears not to be perceived as such. Providing financial incentives for assessors and giving them dedicated time to teach are potential ways of improving DOPS feasibility.[11]

This research detected the perceived concern among some trainers that DOPS may not be able to identify histopathologists in difficulty. However, it has been shown that if the recommended number of assessments was undertaken and that a range of assessors was used workplace-based assessment is reliable.[7]

Take-home messages

There is little information in the literature about the perception of the use of workplace-based assessments in pathological disciplines. DOPS is perceived as being a valid form of assessment for practical skills in histopathology. There is an impression that DOPS may be unfeasible in terms of the impact on consultant trainer time. It emerged that some trainers believe that more guidance is required to supervise DOPS. Further research is required to explore these issues with larger numbers of people in a variety of centres.

CONCLUSIONS

This is the first study of its kind in histopathology to highlight the experiences and perceptions of trainers in supervising DOPS assessment in the UK. Themes that have emerged include concerns about impact on trainer time, whether they are used in a formative manner and concerns about the amount of guidance provided to trainers. Further research is required to expand on the points raised in this study.

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