Peer review of teaching in UK dental schools. Is it happening? How successful is it?

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IN BRIEF

- Outlines the benefits and challenges of implementing peer review of teaching (PRT) within dental education.
- Reveals, for the first time, the national profile for PRT operation across UK dental schools.
- Using evidence from the educational literature, stresses the importance of developing supportive, collaborative PRT schemes for all dental educators.

EDUCATION

Aim The aim of this study was to investigate the utilisation of peer review of teaching (PRT) within UK dental schools.
Method A structured questionnaire was emailed to all sixteen UK dental schools seeking information on existing PRT schemes, level of staff engagement, and the success of schemes in relation to extent of operation and perceived benefit.
Results A 100% response rate was achieved. Fourteen schools (88%) operate PRT schemes. For most, the expected frequency of staff engagement is annually, although there was a wide range between schools (minimum = once every five years, maximum = three times per year). Nine schools (64%) consider their schemes to be fully operational. Twelve schools (86%) feel their staff are either mostly or fully engaged. Reasons for sub-optimal operation and/or engagement include: newly introduced schemes, problems with compliance for off-campus staff, and loss of momentum. Thirteen schools (93%) consider that PRT benefits their teaching staff. Ten schools (71%) stated that changes are required to their schemes.
Conclusion PRT is operating within the majority of U.K dental schools but the format and success of schemes varies. Schemes will benefit from ongoing development but changes should take into account evidence from the literature, particularly recognised models of PRT.

INTRODUCTION

Peer review of teaching (PRT) is a process whereby teacher colleagues give and receive feedback on their teaching practices. Peer observation of teaching is a popular form of PRT whereby colleagues mutually observe each other in the act of teaching.[1] However, PRT in its fullest sense encompasses the review of any educational practice that aids the learning process, such as: curriculum or module design, learning materials, assessment processes and course evaluation.[2] Although the ultimate aim of PRT is to enhance student learning, it is a powerful tool for teacher development through its ability to encourage reflection, provide support, disseminate good teaching practice and foster communities of educational practice.[3–5] The process should be non-judgemental, with details remaining confidential between peers. PRT can also usefully contribute towards quality control and enhancement of educational curricula.[6] PRT is required and expected within UK higher education institutions, and the UK Higher Education Academy's 'Professional standards framework for teaching and supporting learning in higher education' includes the requirement for professional educators to engage with peer reviewed teaching.[7]

Despite its value and necessity, there are a number of reasons why PRT may not be established practice within dental schools. In faculties of education, teachers participate in PRT during and after their training, whereas the vast majority of dental educators do not have a formal teaching background; they are health professionals who later take on teaching commitments in addition to clinical and/or research responsibilities. Dental educators may be familiar with the concept of peer review in a clinical context, but less aware of peer review of teaching. It has been suggested that, if academics consider specialism within their subject to be their primary role (rather than the provision of teaching), they are less likely to engage with PRT.[8] However, even those who consider teaching to be their main role can be wary of the process.[9] They may assume that 'peer review' means that teaching performance will be judged and measured against required standards to assess their teaching capability. Finally, teaching is not the only agenda in dental schools. There is often as much, and periodically greater, emphasis on clinical and research activities. For all these reasons, dental teachers may not embrace PRT within their working practice. However, dental schools without PRT schemes, or with schemes of questionable utility, will need to address this valuable and necessary facet of dental education.

Although PRT within healthcare professions such as medicine and nursing has been reported,[10–12] the literature relating to PRT within dental education is scarce. Dental practice provides a wealth of opportunity for PRT aside from traditional lectures/tutorials, such as practical skills teaching, chairside clinical teaching and case-based learning. A recent article from Glasgow described the implementation of a PRT pilot scheme for a group of community dental service clinical teachers.[13] This informative paper showed

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that PRT can be successfully implemented and valued by dental teachers. However, there is no published information regarding the wider picture across U.K. dental schools, such as: how many schools currently operate PRT schemes, and how successful are they? The aim of this study was to investigate the current utilisation of PRT in UK dental schools.

METHOD

Review and approval of the study protocol was received from the Dental School Research Ethics Committee, Cardiff (DSREC Ref No. 15/12). In March 2015, a structured questionnaire consisting of 12 open and closed questions was emailed to the deans of all 16 UK dental schools using a web-based survey platform (Bristol Online Survey). The deans were invited to forward the questionnaire to the person with responsibility for PRT within their school. All responders were provided with written study information and advised that schools would not be identified in published results. Follow-up emails were sent at four and six weeks.

The questionnaire sought information including:

- the number of UK dental schools that operate PRT schemes
- the frequency of staff engagement expected by schools
- the success of existing schemes, as determined by extent of operation, level of staff engagement and perceived benefit to teaching staff.

RESULTS

There was a 100% response rate with replies from all 16 schools. The majority of responders (ten) were leads for learning and teaching (or equivalent), three were identified PRT leads, and three dental school deans. Fourteen schools (88%) stated that they operate a PRT scheme. PRT is a requirement of each school's affiliated university in all but one case. For the two schools without a scheme, one has a new scheme under consultation, and one has replaced PRT with an overarching 'Teaching Enhancement Scheme' (no details provided).

Ten schools (71%) define a minimum expected frequency of engagement with PRT, the most prevalent being that teaching staff engage annually (Table 1). However, there is a considerable range in expected frequency of engagement and, for some schools, this is influenced by staff profile. For example, some schools require part-time staff to participate less frequently, but staff on probation more frequently.

Nine of the schools operating PRT schemes (64%) stated that their schemes were fully

Table 1 Frequency of staff engagement expected by schools

Defined frequency of engagement	Number of schools	Comments
3 times a year	1	For all teaching staff
2 times a year	1	For university funded staff
Annually	5	For all teaching staff – apart from 2 schools where frequency is less for part-time
Once every 2 years (biennially)	2	But annually for staff on probation in 1 school
Every 5 years	1	More frequently for staff on probation, or if concerns at previous review

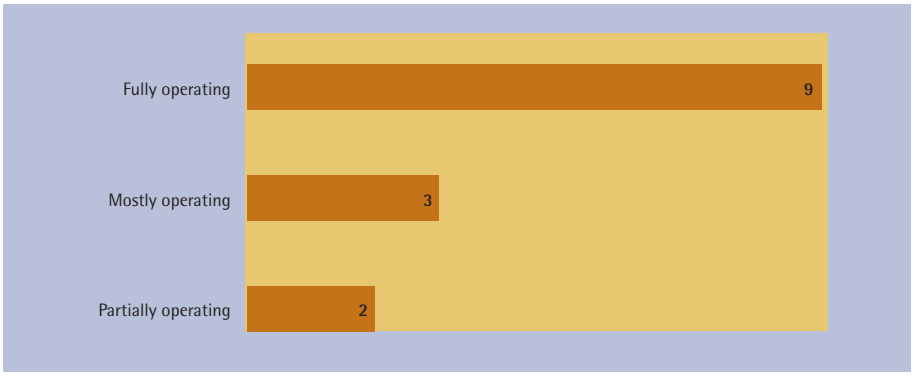

Fig. 1 'How would you define the extent of operation of your scheme at the present time?' N = 14

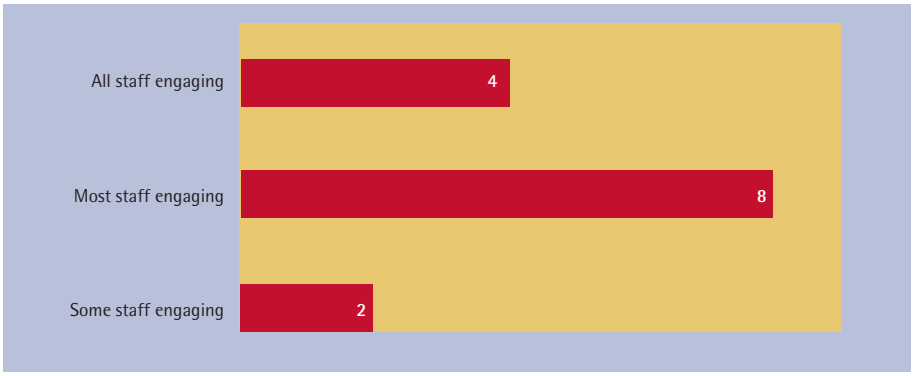

Fig. 2 'How would you describe current staff engagement with PRT?' N = 14

Table 2 Reasons given for sub-optimal PRT schemes

Reasons	Underlying issue
'Recently started scheme'	PRT not fully bedded or accepted
'Some staff engaging but interest is growing'	
'Lost momentum somewhat'	
'Some are cynical about the process'	
'Researchers not keen'	
'Some staff teaching at off-campus sites find it difficult to comply'	Restricted staff involvement
'Peer review for clinical teachers not funded through the university is problematic'	
'Only formal for those undertaking PGCertEd course'	
'It could be more structured and isn't always as constructive as it should be'	Practicality
'Our scheme involves a limited number of peer observations by a senior executive team. This has been difficult to comply with due to limited time availability by these staff.'	

operating (Fig. 1). With respect to level of staff engagement, eight schools (57%) selected that 'most staff' are engaging, with four (29%) selecting 'all staff' (Fig. 2). Reasons that were given for sub-optimal operation and/or engagement are summarised in Table 2 and include: newly introduced schemes; problems with compliance for off-campus staff; and loss of momentum.

Thirteen responders (93%) considered PRT to be either of 'some benefit' or 'great benefit' for their school's teachers, with only one selecting 'minimum benefit' (Fig. 3). Stated benefits were the sharing of good practice and fostering staff collegiality.

Ten schools (71%) considered that changes were required to their schemes, although most defined these as minor changes (Fig. 4). The changes that responders suggested are shown in Table 3 and include: better clarification of process, pre-allocation of partners (rather than informal 'buddies'), and increased support for teacher reflection.

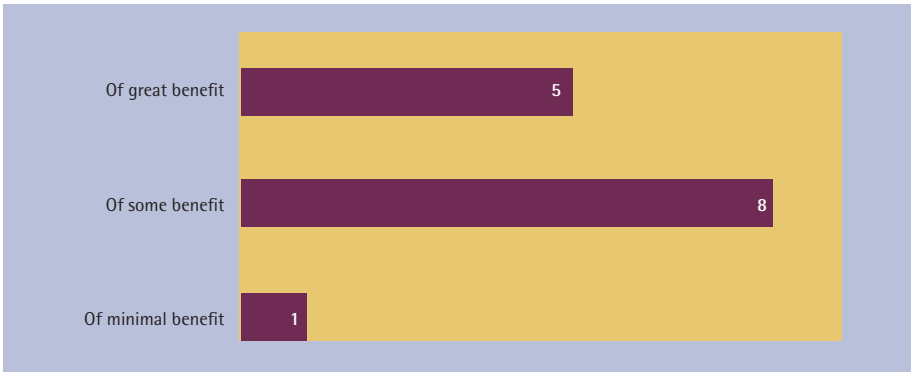

Fig. 3 'How would you define the extent that PRT benefits teaching staff in your school?' N = 14

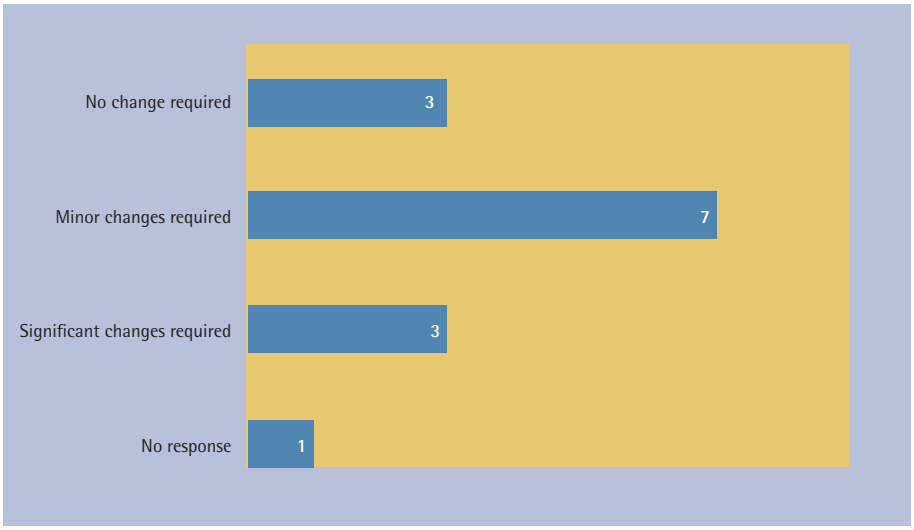

Fig. 4 'In your opinion, does the existing scheme require changes in order for it to be of greater benefit to teaching staff?' N = 14

DISCUSSION

It is pleasing that every UK dental school responded to this first nationwide survey of PRT, and heartening that, despite the potential barriers to PRT in dental education that have been highlighted, the majority of schools are operating schemes.

Expected frequency of staff engagement

It is common practice to define an expected frequency of engagement with PRT, and this is the case for all but one dental school. Annual engagement proved to be most popular, although there is a surprisingly wide range – from three times per year to once every five years (Table 1). It is imperative that sufficient time is spent on PRT for the process to be beneficial, but the time pressures facing busy teaching staff must also be appreciated. Annual engagement would seem to be a useful and realistic frequency for dental schools. Factors that should be considered when defining frequency of engagement include: the intended aim of PRT (for example, is it to inform periodic staff performance review, or to encourage ongoing teacher development?), the institution's overarching PRT policy, and practical considerations.[14] It is important to remember that, if PRT is used for staff performance review, the outcome measure should be that the staff member has engaged fully with the process, rather than disclosure of the naturally confidential comments shared between peers. Table 1 also shows that some schools require more frequent engagement from full-time rather than part-time staff. Although this may initially appear sensible, it should be remembered that those part-time staff who are less established teachers have been shown to gain much from undertaking regular PRT,[15] and are often keen to engage with it.[16] Two schools in our survey appear to make provision for new teachers by

Table 3 Suggestions for changes to PRT schemes

Suggested change	Rationale for change
'Clarification of the process and the amount of engagement needs to be defined'	Practical considerations
'Use a larger pool of reviewers - time issues for current pool of 5 reviewers'	
'Introduce peer review for clinical teachers'	Widening access
'Expand scheme from just those on PGCertEd course'	
'Peer review in more than one setting'	
'PRT to be part of the Key Performance Indicators'	
'We currrently use a buddy system, but may move to more formal/independent pairings of staff'	Moving to an Evaluative PRT model
'PRT to have a role in performance review process'	
'More experienced/trained staff to carry out peer review'	
'Anonymising the process'	
'The observee asks the observer to look for specific aspects of the teaching'	Moving to a Developmental/ Collaborative PRT model
'Requires plans to support reflection and professional development'	
'More reflective practice by those being reviewed and a plan of how to incorporate changes into their teaching'	

requiring increased engagement from those on probation. One school stated that PRT is only required for university-funded teachers, implying that PRT is not a requirement for NHS staff such as consultants or sub-consultant grades who may have significant clinical teaching responsibilities.

Although the frequency of engagement with PRT may be pre-defined by affiliated institutions (and this should be respected), or restricted by funding streams (which may be difficult to change), given the current wide variation across UK dentals schools, it may be worthwhile considering a national dental school expected frequency of PRT engagement for dental teachers.

Extent of operation and staff engagement

It is noteworthy that 64% of schools with PRT schemes consider them to be fully operational (Fig. 1). However, the findings may be influenced by the nature of the survey respondents; deans, learning and teaching leads and PRT leads may choose to highlight the positive aspects of a scheme, rather than any difficulties or limitations. Therefore, in addition to the findings from this study, it would be useful to explore the opinions of teaching staff 'on the ground' in future work.

Although the majority of schemes appear to be successfully engaging the teaching staff, only four schools stated that all staff are engaging (Fig. 2). The challenge of engaging staff based at teaching sites peripheral to the main campus was raised by this study. As is the case for many educational initiatives, engaging staff across many busy clinical teaching areas, be it in the base dental school or in any number of outreach centres, especially with significant numbers of visiting part-time teachers, can be problematic. However, the Glasgow group effectively showed that involving clinical outreach teachers in PRT can be powerful for encouraging self-reflection and developing their teaching practices.[13]

Reasons given by schools for sub-optimal PRT schemes (whether extent of operation or staff engagement) are shown in Table 2 and are categorised into three main areas:

- PRT is not fully embedded or accepted
- Restricted staff involvement
- Practicality.

Implementing PRT is challenging and new schemes take time to embed successfully. How long each school's scheme has been operating was not specifically asked, but survey responses overall suggested that PRT is relatively new and under development within four schools. Although it would have been useful to know the history of schemes, it is important to appreciate that a longstanding scheme may not necessarily be well embedded. Factors key to embedding PRT include effective leadership, careful planning, staff inclusivity, a strong teaching culture, simplicity, practicality, and on-going evaluation.[1,17] It has been shown that, with time, PRT schemes can suffer from loss of momentum[2] and this was identified as a cause of sub-optimal operation in our survey. Reasons for momentum loss include: new teachers entering a scheme who are unclear about its purpose and process, practical difficulties not being addressed, and staff structures becoming 'stale'. It is important that schools with established schemes do not become complacent with respect to their efficacy. They should review them regularly and develop ways to maintain staff interest and momentum, such as identifying and agreeing worthwhile department-wide topics for PRT.[2]

Perceived benefit

It is reassuring that all but one school considered their scheme to be at least of some benefit to teachers (Fig. 3). However, as discussed above, it is important to recognise that the responders were PRT or educational leads, rather than teaching staff on the ground. This study did not aim to define 'benefit' or explore in detail the potential benefits of undertaking PRT. Therefore, only two relevant response comments were received: 'fostering staff collegiality' and 'sharing good practice'. However, both of these are well recognised within the literature. Wenger is credited for appreciating the value of staff collegiality within a 'community of practice' in educational settings.[18] PRT has been shown to enhance such communities by fostering dialogue and links between teachers.[19] Sharing and experiencing others' good teaching practices is greatly appreciated by teachers undertaking PRT and explains why the reviewer role is considered valuable in its own right.[13,16,20]

Suggested changes to PRT schemes

Although the majority of UK dental school PRT schemes are perceived to be beneficial, it is interesting that 71% of schools stated that changes to their respective schemes are required (Fig. 4). A wide range of change suggestions were generated by this study (Table 3). These are categorised into four themes, based on the rationale for the suggested change. The first theme relates to practical considerations, such as clarifying the process and expected level of engagement; it is fundamental that a scheme's structure is clearly articulated to all stakeholders.[1] The second theme relates to widening PRT access to other teacher groups (such as outreach and non-university funded staff) and has been discussed earlier. The remaining suggested changes displayed in Table 3 have been usefully separated to show how they reflect different approaches to PRT. Gosling has defined three specific models of PRT which are well established in the literature: the Evaluative, Developmental and Collaborative models.[4,21] Features of the Evaluative model include a direct link to staff performance review, rating teachers against quality assurance benchmarks, the use of 'accredited' reviewers and the use of checklists and formal reports.[14] In contrast, both Gosling's Developmental and Collaborative models focus on supporting and developing teachers and encouraging collegiality. The Collaborative model is particularly characterised by mutuality/equality between teachers, engagement in discussion and reflection, and non-judgemental, constructive feedback. It is also the model that has been adopted by many higher education institutions.[22] It is therefore interesting that some changes suggested by responders in our study, such as the formal allocation of peers and including PRT within performance review, would move dental schools towards an evaluative model of PRT, while other suggested changes, such as teachers self-selecting their PRT topic, better support for staff reflection, and teacher development plans, clearly favour a Collaborative model. Most of the educational literature argues for a non-evaluative approach to PRT: it is better accepted by teachers and more likely to engender change and facilitate teacher development.[2,4,21] It is therefore the approach that we would recommend for dental schools.

CONCLUSION

PRT is a valuable process for teachers and an expected requirement of higher education institutions, but potentially challenging to implement within dental education. This survey reveals for the first time that PRT is operating within the majority of UK dental schools, albeit with variation in scheme format, maturity, extent of operation and staff engagement. Most schools require all teaching staff to carry out PRT annually, although there is a wide range of expected frequency, with some schools differentiating between full and part-time staff. There are advantages of widening access across all dental teacher groups, including those in outreach centres. It would be useful to define a national dental school policy for minimum expected engagement for teachers, although the requirements of local universities would need to be considered. This survey suggests that the majority of UK dental schools consider that their schemes benefit

teaching staff, but that changes to schemes are required. Before being implemented, any proposed change should be carefully considered in relation to evidence from the PRT literature, particularly the benefits and limitations of recognised models of PRT.

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1. Bell M, Cooper P. Implementing departmental peer observation of teaching in universities. *In* Sachs J, Parsell M (eds) *Peer review of learning and teaching in higher education. International perspectives.* first edition. pp 151–164. Dordrecht: Springer, 2014.
3. Kell C & Annetts S. Peer review of teaching. Embedded practice or policy-holding complacency? *Innov Ed Teach Int* 2009; **46:** 61–70.
4. Sullivan P B, Buckle A, Nicky G, Atkinson S H. Peer observation of teaching as a faculty development tool. *BMC Med Ed* 2012. http://www.biomedcentral.com/1472-6920/12/26 (accessed November 2015).
5. Braskamp L A. Towards a more holistic approach to assessing faculty as teachers. *New Direct Teach Learning* 2000; **83:** 19–33.
6. Kinchin I M. Evolving diversity within a model of peer observation at a U K. university. British Educational Research Association Annual Conference. Sept 2005. Available at http://www.leeds.ac.uk/educol/documents/153411.doc (accessed November 2015).
8. Kilfoil W R. Peer review as quality assurance. *In* Sachs J, Parsell M (eds) *Peer review of learning and teaching in higher education. International perspectives.* First ed. pp 183–201.
9. Higher Education Academy. Professional Standards Framework. 2011. Available online at https://www.heacademy.ac.uk/recognition-accreditation/uk-professional-standards-framework-ukpsf (accessed November 2015).
10. Hatzipanagos S, Lygo-Baker S. Teaching observations: a meeting of minds? Int J Teach Learn High Edu 2006; **17:** 97–105.
12. Martin G.A, Double J M. Developing higher education teaching skills through peer observation and collaborative reflection. *Innov Teach Train Int* 1998; **35:** 161–170.
13. Costello J, Pateman B, Pusey H, Longshaw K. Peer review of teaching: an interim report. *Nurse Edu Today* 2001; **21:** 444–454.
14. Murphy Tighe S, Bradshaw C. Peer-supported review of teaching: making the grade in midwifery and nursing education. *Nurse Edu Today* 2013; **33:** 1347–1351.
15. Steinert Y. Faculty development: from workshops to communities of practice. *Med Teach* 2010; **32:** 425–428.
16. Cairns A M, Bissell V, Bovill C. Evaluation of a pilot peer observation of teaching scheme for chair-side tutors at Glasow University Dental School. *Br Dent J* 2013; **214:** 573–576.
17. Chism N V N. *Peer review of teaching. A sourcebook.* Second edition. Bolton, Massachusetts: Anker Publishing Company, Inc., 2007.
18. Donnelly R. Perceived impact of peer observation of teaching in higher education. *Int J Teach Learn High Edu* 2007; **19:** 117–129.
20. Blackmore J A. A critical evaluation of peer review via teaching observation within higher education. *Int J Edu Manage* 2005; **19:** 218–232.
22. Spencer D. Was Moses peer observed? The ten commandments of peer observation of teaching. *In* Sachs J, Parsell M (eds) *Peer review of learning and teaching in higher education. International perspectives.* First edition. pp 183–199.
23. Wenger E. *Communities of practice: learning, meaning and identity.* Cambridge: Cambridge University Press, 1999.
24. Ludwick R, Dieckman B C, Herdtner S, Dugan M, Roche M. Documenting the scholarship of clinical teaching through peer review. *Nurse Educator* 1998; **23:** 17–20.
25. Weller S. What does 'peer' mean in teaching observation for the professional development of higher education lecturers? *Int J Teach Learn High Edu* 2009; **21:** 25–35.
26. Gosling D. Models of Peer Observation of Teaching. 2000. Available online at http://dera.ioe.ac.uk/13069/ (accessed November 2015).
28. Cardiff University. *Peer review of learning and teaching. Policy Framework.* 2006. Available online at http://learning.cf.ac.uk/peerreview/ (accessed November 2015).