ABSTRACT

Introduction: Well-conducted Peer Observation of Teaching (POT) programs are effective in enhancing teaching quality and teacher development in higher education including healthcare teaching. This study evaluated POT's use in dental education and involved predominantly clinical dental educators working in a United Kingdom (UK) Dental School and Hospital. It aimed to (i) audit their engagement with POT, (ii) review the design(s) of POT in use, (iii) assess participant's perceived value of POT and (iv) explore ways that the existing program could be enhanced to maximize its utility.

Method: Dental educator's teaching role and experience, current engagement and experience of POT were explored using an anonymous mixed methodology questionnaire survey which was administered during 2016. Free-text responses were subjected to thematic analysis to identify emerging themes.

Results: Of sixty-five surveys distributed, fifty-seven (88%) completed surveys were returned. The majority of respondents reported that POT was a useful process which resulted in self-perceived enhanced teaching quality. Choice of observer emerged as fundamental to POT's success. Despite recognizing its utility only 46% of the academic teaching faculty underwent POT during a twelve month period. Utilization of a reciprocal, 'critical friends' approach was infrequent. A number of barriers to its regular and effective use emerged.

Conclusions: POT is an effective method for dental educator development through feedback and self-reflection. Strategies to enhance the Dental Institute's POT program are suggested. The quality of the POT process rather than its frequency is an important factor to consider. POT may be an effective developmental intervention for part-time teachers.

Word count: 250

Key words: Peer observation of teaching – Dental education – Faculty development

INTRODUCTION

Peer Observation of Teaching (POT) is a well-established method for evaluating and enhancing teaching quality in higher education (1) and is an important component of overall peer review of teaching (PRT) (2,3). Whilst PRT involves teaching colleagues giving and receiving feedback on any aspect of their teaching practices that facilitates the learning process (2, 3), POT specifically involves one teaching colleague directly observing another's teaching in order to provide feedback which is ideally supportive and constructive and improves the quality of the teaching (2, 4, 5). In healthcare teaching, including medicine (5), nursing (6) and pharmacy (7), there is sound evidence that well-designed and conducted POT programs are effective in enhancing teaching quality and teacher development. The feedback generated in well-conducted POT sessions promotes observee self-reflection and development (8). In contrast, there is relatively limited evidence supporting its value in undergraduate dental teaching which is potentially more multifaceted than teaching in other healthcare disciplines. Undergraduate dental education may be more complex than other health professions' education programs because dental students are expected to not only assimilate biomedical knowledge and medical competencies such as history taking, physical examination and clinical reasoning, but also must develop competency in a wide range of complex restorative and surgical procedures. Acquisition of these skills leads to the active delivery of patient treatment, where the student, rather than the clinical instructor, functions as the lead provider. This potentially represents a more complex educational environment and poses different teaching and learning challenges, than that of many other health professions where students are primarily observers and assistants during undergraduate training.

In spite of the paucity of evidence, a recent survey reported that fourteen of the sixteen UK dental schools (88%) currently operate POT schemes for their teaching staff (2). Of these, representatives from twelve schools (86%) reported that faculty were either 'mostly' or 'fully' engaged with this process. Within Barts and The London School of Medicine and Dentistry (BLSMD)

of Queen Mary University of London, POT is linked to yearly appraisal to incentivize engagement with it.

BLSMD guidance on POT for teaching faculty stresses that its fundamental purpose is to enhance teaching quality. The guidance encourages colleagues, who may or may not be from the same department, to self-select a peer colleague, pair-up and observe one of each other's teaching sessions. The observed teaching session is preceded by an orientating premeeting, which involves the observee and observer only, and then followed by a timely, structured feedback session which should be constructive and two-way . The POT episode is documented using a structured BLSMD POT proforma with contains free text boxes which allow a brief description of the teaching episode and identification of areas of good practice as well as suggestions for development as identified by the observer. A section is completed by the observee to encourage personal reflection and teaching development. The overall time outlay is envisaged as being no more than two hours. Other than for confirmation that the POT episode has taken place, details should remain confidential between peers. The completed POT proforma is retained by the observee with their appraisal documents.

In contrast to the implied enthusiasm for the POT process in other UK Dental Schools (2) and an apparent recognition of its benefits, prior to this study informal feedback from BLSMD dental faculty suggested relatively limited enthusiasm and engagement with the process. Potential reasons why dental educators might be wary of engaging with POT are numerous (3). Historically, some, particularly part-time educators, may not have received formal training in teaching and learning and may be unfamiliar with POT's benefits. Additionally, concerns about possible criticism, scrutiny and judgement (2, 9), the necessary time commitment (7), as well as the clinical and logistical challenges (9) involved may further detract from engagement. Despite these challenges, the evidence from healthcare teaching suggests that well-designed POT is worthwhile (5, 6 7, 10). Not only can it enhance course content and delivery (11), but it also supports and develops teaching faculty (1, 3) and permits sharing of good teaching practice (11, 12) and enhances the professional development

climate of the teaching institution (3). This evaluative study was, therefore, undertaken with the aims of (i) auditing the engagement of dental educators in the SMD with POT, (ii) reviewing the design(s) of POT in use, (iii) assessing participant's perceived value of POT and (iv) exploring ways that participants felt the existing POT program could be enhanced to maximize its utility.

Three different POT models are generally described in the literature (4, 5, 13): (i) an evaluation model which involves assessment by a senior member of staff with the outcome being used for appraisal, promotion and quality assurance, (ii) a developmental model which involves an educationally-trained observer with the aim of enhancing the observee's teaching practice, and (iii) a peer-review or 'collaborative' model which involves two teaching colleagues of equivalent experience and standing reviewing each other's teaching sessions and providing reciprocal, formative feedback (5, 10). The first two models described do not strictly involve 'peers' and indeed precisely who constitutes the most effective 'peer' colleague in the collaborative model is open to debate. However, peer choice is recognized to be critical to the effectiveness of the process (4, 13).

Peer-review or collaborative POT is exemplified by Dahlgren et al's 'Critical Friend' model (12) and has educational advantages which make it appropriate for experienced educators. In this model, both participants jointly experience teaching quality enhancement through enhanced personal reflection and discussion (10). The observer and, indirectly, the teaching faculty may benefit through the exchange and dissemination of sound and potentially novel teaching practice. This model integrates both learners into a professional community facilitating knowledge transfer and acquisition of competencies very much in the manner that Lave and Wenger (14) envisaged in their 'Communities of Practice' (COP) learning theory. Experiential learning (15) is fundamental to the process of collaborative POT and the generated feedback in well-conducted POT sessions should promote observee self-reflection and development (8) provided that the observer's feedback is not inhibited by an unequal power relationship to the observee (4, 13). Frequently, the observer finds the experience to be of greater benefit in the development of their own teaching than that of the

observee (16, 17). During a clinical teaching episode this may relate to the observer being able to concentrate fully on the teaching taking place without being distracted by clinical issues or teaching (17).

METHODS

On consulting University College London (UCL) research ethics committee (REC) website guidance (18), the design of this study was considered to meet the definition of an internal quality assurance 'evaluation' or 'audit'. Under UCL research ethics guidelines, investigators are able to review posted guidelines for subject risk level classification, and self-determine if a protocol meets the criteria for non-research and thus does not need to be submitted to the UCLResearch Ethics Committee for formal consideration. The research design involved non-sensitive questionnaire surveys and participants were not considered to be 'vulnerable'. Participation was not anticipated to be likely to cause either psychological stress or anxiety and no detrimental impact on either learners or patients was foreseen. As such it was considered to be exempt from formal UCL REC approval. Nevertheless its design and undertaking was discussed with and approved by senior members of the BLSMD Dental Institute's Education team (whose dental educators participated in the study) and the Education Department of the Royal College of Physicians/ University College London Medical School.

A preliminary survey questionnaire was designed based on themes which had emerged from a critical review of the literature relating to the use of POT in healthcare-related teaching. A mixed methodology survey was designed to generate both quantitative and qualitative data and involved two sections: Section A gathered quantitative data on the respondents' teaching role and experience whilst Section B assessed their current engagement, experience with and the design of POT used. Responses were compared with BLSMD's expected standard which stipulates that 'normally all teachers of its students will be observed at least once in each academic session' and the key elements of an effective POT program as suggested by the preceding literature review of POT used

in healthcare-related teaching. A modified visual analogue scale was included for respondents to rate their experience of POT ranging from no value (0%) to highly valuable (100%).

Within Section B,, separate free-text boxes were included to permit participants to provide comments to two separate questions relating to (i) the participant's own experience of POT and anything that might have enhanced or detracted from this and (ii) ways that peer observation could be enhanced in the Dental Institute and Hospital.

The questionnaire was piloted with two respondents and developed in light of their responses. The revised questionnaire (Appendix) was then predominantly hand-distributed opportunistically by one of the researchers (JAGB) to members of the dental teaching faculty during April, 2016. An explanation of the study was given at this time.   In five instances where teaching staff were based outside the Dental Institute or difficult to locate, the survey was administered electronically. No formal follow-up was undertaken.

Both University-employed and Trust-employed (ie non-academic clinicians employed by Bart's Health National Health Service Trust) staff were targeted. Whilst the academic study population was composed predominantly of clinical educators, a number of nonclinical educators also participated. Trust-employed staff were included in the survey owing to their significant role in teaching undergraduates, junior dental staff and specialist trainees and POT's potential role as an effective tool for enhancing their teaching competencies.

Owing to BLSMD's expectation that all its teachers should undertake POT on a yearly basis, one of the author's (JAGB) role in quality assurance within the Dental Institute and in order to encourage candour, the anonymous nature of the survey was highlighted and completed responses were returned to a member of the administrative staff (LL).

Respondents were divided into six groups depending on their primary employer (Academic [A] or Trust [T]) and their implied level [L] of *teaching* seniority as Junior i.e. JLA/T (Lecturer,

Specialty Doctor, Clinical Teacher), Middle i.e. MLA/T (Senior Lecturer or Consultant) and Senior

(Reader or Professor, Clinical Supervisor or Educational Supervisor) i.e. SLA/T.

Data from the free-text responses was transcribed manually and subjected to thematic

analysis in order to identify emerging themes. An inductive, data-driven approach was undertaken.

Following the method outlined by Braun and Clarke (19) repeated active reading of the data was

undertaken before initial coding was undertaken manually. Identification of potential emerging

themes followed with ongoing review and theme refinement. Thematic analysis commenced with

the JLA group's qualitative data and in this group a second analyst (AR) was employed to calibrate

the lead analyst's theme identification. This confirmed the reliability of the lead analyst's coding and

theme identification and the remainder of the data was analysed by the lead analyst alone.

RESULTS

A total of sixty five surveys were distributed and fifty seven (88%) completed surveys were

returned. With regards to the overall potential study population, at the time of the study there

were 104 academics within the Dental Institute. 82 were clinical and 22 non-clinical. 49 of the clinical

academics were employed part-time (PT). 22 full (FT) and PT Trust clinicians were employed in the

hospital at this time. Table 1 summarizes the quantitative results generated by the survey. Surveys

did not differentiate between PT and FT educators. Of the respondents, the majority (77%) were

academic educators, the remainder being Trust-employed clinicians with an involvement in dental

teaching. Within the academic group the majority of completed surveys (86%) were provided by

junior or middle level educators. Figure 1 illustrates the self-reported timing and career experience

of POT for the different respondent groups within the teaching faculty. Figure 2 displays the survey

respondents' average ratings, using a visual analogue scale, of the value of the POT experience..

Qualitative results:

The completed surveys generated a significant amount of free text responses. The emergent themes are summarized below:

A) **POT EXPERIENCE**

53 of the 57 respondents wrote one or more written comment about their POT experience. Eight major shared overlapping themes relating to respondents' experience of POT emerged to varying extents from analysis of the respondents' comments. Globally determined comparative emphasis of these themes in the different teacher groups is summarized in Table 2.

Usefulness

Teachers in each of the groups perceived that a peer-based teaching observational process was useful. Its potential benefits emerged particularly from the MLA group.

'…*if done constructively it could be a very productive procedure*.'

JLA and SLA groups suggested that POT is most valuable in the early years of teaching:

'…*especially useful in my early years as a teacher*.'

However, an MLT teacher noted:

'*More useful now as I have done more teaching*…..'

Organizational issues

Both JLA and MLA groups identified organizational and timing issues as important themes.

'*Took a lot of organizing* …'

Observer characteristics

Both MLA and SLA groups identified the observer's status, training, expertise and the possibility of bias as being important.

'…*Educationist identified issues that I would not have thought about*.'

'*Possible bias – i.e. a friend perhaps less likely to offer critical feedback*.'

This was less evident in the JLA group. Nevertheless observer choice was acknowledged to be fundamental to POT's success. The possibility of positive bias was identified.

'…*any substantial criticism was mean …it would have been logged on my record. ……so there is a positive bias when acting as an observer.*'

Value of feedback

The JLA group appreciated 'useful' and 'structured' feedback. Its absence devalued POT:

'…*no feedback so it had very little value*'

Enhanced reflection

JLA group appreciated the potential for reflection and insight:

'…*gave me fresh perspective….. I started doing things differently*.'

Enhanced quality of teaching

Both JLA and SLA groups highlighted the ensuing enhanced teaching quality:

'…*enhanced my teaching. Gained insight into strengths and weaknesses*'

This was less appreciated by the MLA group:

'*To be honest some of the more casual observation I have taken part in is more of a paper exercise*'

Worth

In the JLA group teachers valued the 'reassurance' provided by POT that they were teaching well.

'I picked up on things I was doing well which increases confidence ….'

Complying with BLSMD expectations

For the MLA and SLA groups SMD expectations incentivized teachers to engage with POT.

'…… reactive to the requirements of annual appraisal.'

B) FACTORS DETRACTING FROM POT EXPERIENCE

Lack of belief in POT's efficacy

'Is there any way to show that peer observation improves teaching? At the moment it just seems to make you feel like you're doing it better after going through the process.'

Lack of meaningful feedback

An absence of feedback or its lack of structure was identified as detracting from the value of POT:

'…no feedback so it had very little value.'

'Felt like it was a tick box exercise that had to be completed.'

Observer characteristics and confidentiality

Concerns about the observer's objectivity ('*Knowing the person makes it difficult to be objective.*') and educational knowledge and experience were highlighted ('*Depended on who did the observation'*). Concerns about the confidentiality of the process were also identified *('…any substantial criticism was mean because it would have been logged on my record.'*)

Organizational issues

Logistical difficulties in arranging POT episodes were frequently highlighted in responses:

'…main issue is time. It needs to be formally built into the timetable.'

'Many colleagues unavailable to observe teaching due to other commitments- very difficult for part-

time clinical supervisors to organize…'

C) <u>ENHANCEMENT SUGGESTIONS</u>

Three inter-related themes emerged:

Non-threatening, supportive and formative culture

– with senior academics leading and recognizing POT's value.

 '….observer colleague ameliorates the experience….'

Improved organization

– i.e. meaningful, protected time allocation facilitated by an administrator with an academic POT

lead.

'*….a dedicated hour or so to observe… more protected time needed*'

'*Provision of more time to digest the outcomes'*

POT design

Provision of written, meaningful, structured feedback containing improvement suggestions in a

collaborative model was identified as being fundamental:

'Feedback from the observer should be constructive…and followed up.'

'…use standard forms…'

Observer's training and role was recognized as pivotal to the success of POT by a number of respondents:

'The session you do peer observation you should be supernumerary. The whole session is for your teaching development and learning.'

'Trained assessors'

'…educationalist observing because colleagues too close!!'

Incorporation of learner feedback was also suggested to provide triangulation:

'Systematic feedback from learners analysed by professionals might be used to recognize weaknesses and strengths.'

The importance of recurring POT cycles was also suggested presumably to allow observees to incorporate received feedback into their teaching practice:

'More regular experience, not a single event….'

DISCUSSION

The reported questionnaire-based study had a high completion rate of 88%. This may in part have been due to initial piloting of the survey which contributed to a clear and concise questionnaire design which was rapid to complete (20). Additionally, academic faculty are likely to have perceived this topic to be important owing to the recognised role of POT in teacher development, SMD policies relating to POT and fortuitous all faculty e-mails from BLSMD encouraging teaching staff to consider the most effective way to evaluate their teaching which immediately preceded distribution of the

survey. Participants clearly felt themselves to be stakeholders in the survey and strong opinions about POT and strategies to enhance the existing POT program emerged (summarized in Table 3).

Although the described study predominantly used only one data analyst, a second analyst was employed to jointly analyse the JLA group and address 'inter-rater reliability' (21). This exercise confirmed the consistency and reliability of the thematic analysis undertaken by the principal analyst who subsequently completed the analysis alone. Confirmation of the validity of the study's findings might be confirmed in a future study through 'triangulation' using focus group interviews and respondent validation.

Like many of the other dental schools in the UK (2), BLSMD expects that all teaching staff should undergo POT at least once a year. In the MLA and SLA groups, this expectation was identified as an incentivizing factor for undertaking POT. Despite this, only 46% of all academic staff (i.e. 20 of the 44 academic respondents who returned completed surveys) achieved this target over a twelve month period from April 2015 to April 2016. This may compare less favourably to other UK dental schools where a recent survey suggested that in 12 of the 16 UK dental schools all or most staff were engaging with the local POT programme (2). Only 15% of Trust staff (who are valuable members of the teaching faculty often with significant teaching commitments) reported undergoing POT during this same period (i.e. 2 of the 13 Trust respondents who returned completed surveys). It is likely that this reflects a lack of awareness of POT's worth and logistical or timing challenges in undertaking POT in the Trust group as well as an absence of incentivization. In both groups a pragmatic approach aimed at the quality of the POT experience with a focus on teacher development rather than its frequency would be advantageous. As reported by Cunningham and Lynch (2), some dental schools take a sensibly measured approach and vary expected frequency of staff engagement with POT according to individual staff profile and teaching experience, with PT staff being required to participate less frequently than inexperienced educators.

This study's results suggest that this apparent lack of engagement does not relate to any perceived lack of utility of POT. In agreement with the findings of Cunningham and Lynch (2) all groups perceived POT to be valuable for teaching development through high quality feedback and subsequent reflection. Its value in making space to discuss teaching and providing a sense of 'connectedness' (10) and avoiding 'pedagogical isolation' (6) was implied but not explicitly stated. A potential role for high quality POT in instilling a sense of 'collegiality' through dissemination of good teaching practice (10) was more difficult to discern but would be an important objective to aim for in the program. Mirroring the increase in confidence in their teaching skills and confirmation of good practice reported by paediatric dentistry tutors involved in a pilot POT scheme (17), junior staff found their POT experience reassured them about the standard of their teaching skills. Across the academic groups, the mean positive perceptions of the value of POT ranged between 64-73% on a 0 (no value) to a 100% (great value) scale. This mirrors the findings of other studies (11) and communicating this positive perception of POT to all members of the dental teaching faculty, including both full- and part-time academic and clinical colleagues within the Trust system, would seem to be a sensible initial step in re-energizing the POT program,

Among UK General Medical Practitioner teachers (9), organizational and timing constraints emerged as significant barriers to engagement with POT. Given the multiple commitments of the respondents (22) and the high proportion of part-time teachers in the faculty, this is not surprising. Siddiqui, Jonas-Dwyer and Carr (4) estimated that effective POT requires both pre- and post-observation sessions of between 45-60 minutes each. Trujillo et al (7), on the basis of their own experience and reported literature, estimated that the total time commitment for POT was four to eight hours and emphasized the critical importance of pre- and post-observation meetings to the effectiveness of POT. The former reduced any feelings of anxiety and allowed tailoring of the observation to the observee's specific needs whilst the latter was fundamental for feedback, discussion and reflection. The current survey's results suggest that pre-observation sessions only rarely occur and post-observation sessions typically only last from 14-23 minutes. This is not

surprising, given BLSMD guidance, which suggests that a complete POT episode should be completed within two hours. Respondents recognized the importance of structured, high quality feedback. The latter is a fundamental component of peer review POT but is challenging to deliver in such a limited time. Undoubtedly, effective POT requires time and commitment (11). Suggestions to improve organization included a dedicated POT administrator and academic lead, adequate time provision and formal incorporation of POT into job plans.

A number of factors have been reported in the literature which may impair the POT process (7, 11) and detract from POT's intended developmental objectives of inculcating 'confidence, enthusiasm and a sense of professional worth' in the participants (23). Using an evaluation POT model or blending different models with the inclusion of summative, evaluative or quality assurance aspects risks an adverse effect on the observee's reflection and development (11). De-motivating feedback may result in reduced teamwork, innovation or initiative (8). In agreement with Siddiqui, Jonas-Dwyer and Carr's recommendations for effective POT (4) choice of observer appears to be critical to the POT process. In other POT studies such as Truilljo et al (7), observer status, training, and possible negative or positive bias emerged as potential influences on POT effectiveness. Gosling argues that an unequal relationship between observee and observer impacts negatively on the formative nature of POT presumably through reducing the quality of the feedback (13). What seems to be important is that the POT process is a collaborative undertaking which nurtures trust and respect between the involved peers (4). Mirroring Adshead, White and Stephenson's (9) findings in a General Medical Practitioner teacher faculty, concerns about criticism and scrutiny emerged as potential barriers to POT with some survey participants, whilst in others a recognition that close colleagues were less likely to give critical feedback emerged. The latter is a valid criticism of the peer review or 'Critical Friends' approach (12). Provision of non-threatening feedback, support, suggestions for improvement and provision of sufficient time to discuss teaching in a safe, supportive and confidential environment (10) are reported to be fundamental factors in promoting observee reflection during the POT process and contribute to its success.

Survey respondents valued feedback from trained educationalists but aside from inexperienced staff undergoing formal teaching training this may not be regularly sustainable for all members of the teaching faculty. Additionally trained educationalists may not be able to comment on some elements of clinical dental teaching (17). Educational input is essential when designing an effective POT program (7) and would be important to train observers (11). The importance of training and calibration of observers also emerged from analysis of the survey's responses. The observer's formative (as opposed to evaluative) role contributes directly to a nonthreatening and supportive culture conducive to POT (7, 10, 11, 12). In contrast to Cairns, Bissel and Bovill's findings (17), an appreciation of the value of POT to observers' own teaching development did not emerge from the responses but this may reflect an apparent tendency towards a lack of reciprocity in the POT program under discussion.

In terms of limitations of this study, during survey administration despite an overall good response rate, it became evident that relatively few part-time (PT) teachers and Trust clinicians were being surveyed. This, in part, reflects the use of geographically distant outreach teaching clinics where the staff are predominantly PT and which were more difficult to access for the researchers. Additionally, recruiting PT educators was physically more difficult to achieve since many work only one or two days each week. Respondents were not formally asked about their PT/FT status in the survey tool, so realisation of this study limitation emerged late on into survey distribution.

The BLSMD Dental Institute, like other UK dental schools (24), employs a significant number of experienced part-time (PT) dental staff to provide a pragmatic approach to clinical dentistry and support permanent academic staff in teaching undergraduate students (25). Research from medical education suggests that experienced clinical teachers develop their teaching most effectively through reflecting on their teaching and discussing it with colleagues rather than attending didactic courses (26). An efficiently organized, high quality POT program may, therefore, be particularly suited to teaching development and, indirectly, enhancing teaching quality in the PT group. This is

supported by verbal feedback from PT teachers which suggested some disenfranchisement in this group relating to difficulties in attending formal teaching development activities owing to time limitations, time tabling and perceived lack of senior support. These themes did not fully emerge from the data possibly due to reticence, lack of incentives or because PT staff were not fully sampled. The researchers propose to explore the utility of POT in PT dental clinical teachers in a subsequent paper. The limited response from Trust clinicians may reflect a less extensive formal developmental training in teaching and learning, less recognition of its importance and less incentive to develop their teaching competencies than their academic colleagues.

Potential strategies to enhance the effectiveness of the current POT program in the BLSMD Dental Institute as suggested by the study data are summarized in Table 3. These support a recently published guide on implementing peer review of teaching in dentistry (3) particularly with respect to having dedicated administrative and organizational support for a collaborative POT scheme, which incorporates adequate protected time and educational leadership. Fundamental to the success of any POT program must be a recognition by faculty of its effectiveness in educator development leading to enhanced overall quality of student and trainee learning. It is reassuring that BLSMD dental faculty recognize the usefulness of POT and this bodes well for the success of a reinvigorated POT programme.

CONCLUSIONS

The study's findings demonstrate teaching faculty's appreciation of POT's potential to enhance teaching quality through enhanced reflection. Key factors contributing to this included efficient organization, observer characteristics, confidentiality and the provision of high quality feedback in a non-threatening, supportive and formative culture. However, within the Dental Institute there appeared to be a level of uncertainty relating to the reasoning underlying the current POT system and its currently semi-structured format has resulted in a wide variation in the POT experience from one educator to the next. POT seems to have been used sub-optimally by some

members of faculty with a lack of reciprocity and insufficient time allocated to pre- and post-meetings so potentially impairing feedback and reflection. Educating faculty about POT will be a key aspect of re-energizing the program. A pragmatic focus on quality, rather than frequency of POT episodes, may be indicated. Appropriately tailoring the models of POT used to different stages of a teacher's development is important. A developmental approach early on in the clinical teacher's career seems most appropriate whilst a reciprocal peer approach is more suited to experienced teachers and should facilitate the sharing of good teaching practice.

Word count: 4,711

REFERENCES

1. Hammersley-Fletcher L. and Orsmond P. Evaluating our peers: is peer observation a meaningful process? Studies in Higher Education 2004; 29:4, 489-503.

2. Cunningham I.M., Lynch C.D. Peer review of teaching in UK dental schools? How successful is it? British Dental Journal 2016; 220: 645-649.

3. Cunningham, I.M., Johnson, I. and Lynch, C.D. Implementing peer review of teaching: a guide for dental educators. British Dental Journal. 2017; 222: 535-541.

4. Siddiqui Z.S., Jonas-Dwyer D. and Carr S.E. Twelve tips for peer observation of teaching. Medical Teacher; 2007; 29: 297-300.

5. Finn K., Chiappa V., Puig A., and Hunt D.P. How to become a better clinical teacher: A collaborative peer observation process. Medical Teacher. 2011; 33:151-155.

6. Martsolf, D.S., Dieckman, B.C., Cartechine, K.A., Starr, P.J., Wolf, L.E. and Anaya, E.R. (1999) Peer review of teaching: instituting a program in a college of nursing. Journal of Nursing Education; 38:7:326-332.

7. Trujillo, J.M., DiVall, M.V., Barr, J., Gonyeau, M., Van Amburgh, J.A., Mathews, S.J. and Qualters, D. Development of a Peer Teaching-Assessment Program and a Peer Observation and Evaluation Tool. Am J Pharm Ed 2008; 72(6): 1-9.

8. Shortland, S. Observing teaching in HE: A case study of classroom observation within peer observation. 2004; Int J Educ Manag, 4 (2): 3-15.

9. Adshead, L., White, P.T. and Stephenson, A. Introducing peer observation of teaching to GP teachers: a questionnaire study. Medical Teacher. 2006; 28:2, e68-e73.

10. O'Keefe, M., Lecouteur, A., Miller, J. and McGowan, U. The Colleague Development Program: a multidisciplinary program of peer observation partnerships. Med Teacher: 2009; 31: 1060-1065.

11. Sullivan, P.B., Buckle, A., Nicky, G. and Atkinson, S.H. Peer observation of teaching as a faculty development tool. BMC Med Educ. 2012; 4;12:26. doi: 10.1186/1472-6920-12-26.

12. Dahlgren L.O., Eriksson B.E, Gyllenhammar H., Korkeila M., Saaf-Rothoff A., Wernerson A. , Seeberger A. To be and to have a critical friend in medical teaching. Medical Education 2006: 40:72-78.

13. Gosling D. Models of Peer Observation of Teaching. 2002; www.researchgate.net/publications/267687499

14. Lave J. and Wenger E. Situated Learning: Legitimate Peripheral Participation. Cambridge, UK. Cambridge University Press, 1991.

15. Kolb, D.A. Experiential Learning. Englewood Cliffs, NJ: Prentice Hall, 1984.

16. Kohut, G.F., Burnap, C. , Yon, M.G. Peer Observation of Teaching: Perceptions of the Observer and the Observed. College Teaching. 2007; 55(1): 19-25.

17. Cairns, A.M., Bissel, V., Bovill C. Evaluation of a pilot peer observation of teaching scheme for chairs-side tutors at Glasgow Dental School. British Dental Journal. 2013; 214: 11573-576.

18. UCL Research Ethics Committee: Exemptions. Available from: https://ethics.grad.ucl.ac.uk/exemptions.php [Accessed 3rd March, 2018]

19. Braun, V. and Clarke, V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006; 3(2): 77-101.

20. Boynton, P.M. Hands-on guide to questionnaire research. Administering, analysing, and reporting your questionnaire. BMJ; 2004:328: 1372-1375.

21. Pope, C., Zieband, M and Mays, P. (2000).Qualitative research in health care. Analysing qualitative data. BMJ; 320: 114-116.

22. Harden, R.M. and Crosby, J. AMEE Guide No 20: The good teacher is more than a lecturer-the twelve roles of the teacher. Medical Teacher; 2000: 22(4): 334-347.

23. Cosh, J. Peer observation in Higher Education – A reflective approach. Innov Educ Teach Int 1998; 35(2): 171-176.

24. Puryer, J., McNally, L. and OʹSullivan, D. The views of part-time clinical teachers regarding their role in undergraduate education at the University of Bristol Dental School. BDJ; 2015; 218: 79-83.

25. Radford, D.R, Hellyer, P., Meakin, N. and Jones, K.A. Idenifying and preparing the next generation of part-time clinical teachers from dental practice. BDJ; 2015; 219: 319-322.

26. MacDougall J. and Drummond M.J. The development of medical teachers: an enquiry into the learning histories of 10 experienced medical teachers. Medical Education. 2005; 39:1213-1220.

TABLES

Table 1: Summary of quantitative results

GROUP*	Completed surveys returned	Number undergone POT during career	Number undergone POT within last year	Time since last POT if not within last year	Mean duration of post-observation meeting (minutes, with range)	Number of observers who have undergone POT training	Mean rating and range of perceived value of POT
JLA	19	17	9	16 m – 'years'	20 (0-90)	12	69% (23-100)
MLA	19	18	8	12-48 m	18 (0-45)	7	73% (44-100)
SLA	6	6	3	12-36 m	14	4	64% (31-100)
JLT	4	2	2	0-12 m	23	1	100%
MLT	4	4	0	24-36 m	18	3	62% (50-97)
SLT	5	3	0	18-60 m	23	1	50%

*Respondents groups reflected their primary employer (Academic [A] or Trust [T]) and their implied level [L] of *teaching* seniority as Junior i.e. JLA/T (Lecturer, Specialty Doctor, Clinical Teacher), Middle i.e. MLA/T (Senior Lecturer or Consultant) and Senior (Reader or Professor, Clinical Supervisor or Educational Supervisor) i.e. SLA/T.

Table 2: Importance of POT-Related Issues (Themes) to Teachers in Each Group

THEME	JLA	MLA	SLA	TRUST
Usefulness	+++	+++	+++	+++
Organizational issues	+++	+++	+	+
Observer characteristics	++	+++	+++	++
Enhanced reflection and insight	+++	+++	++	+
Value of feedback	+++	++	+	+++
Enhanced quality of teaching	+++	++	+++	+++
Confirmation of worth	+++	-	-	+
Complying with SMD regulations	-	+++	+	-

KEY:

A.

+++ Strong emphasis

++ Some emphasis

+ Slight emphasis

- No emphasis

B.

JLA: Junior lecturer academic

MLA: Middle grade lecturer academic (ie Senior Lecturer)

SLA: Senior grade lecturer academic (ie Reader or Professor)

TRUST: All clinical grades combined

Table 3: Potential strategies to enhance the effectiveness of POT as suggested by study data

Overall Strategy	Foundations	Comments
Non-threatening, supportive and formative culture	**Strict confidentiality** **High quality feedback** **Appropriate choice of observer**	-Participants must be comfortable during the process to foster a positive learning environment which encourages reflection and learning. -Supportive, noncritical, formative feedback supported by evidence. -The observee-observer relationship needs to be one of mutual respect and trust: an unequal power relationship threatens the learning environment. The choice will depend on the relative teaching experience of the observee: If inexperienced an educationalist observer might be a more appropriate choice than a peer.
Improved organization	**Dedicated administrator for the POT program and academic lead** **Programming of POT into job plans** **Adequate time provision** **Observer to focus solely on teaching session**	-To facilitate planning of POT episodes. -Essential to facilitate feedback, self- reflection, discussion and learning -Allows observer to focus on teaching without being distracted by clinical matters
POT design	**Use of developmental and collaborative POT models** **Incorporation of learner feedback** **Recurring cycles**	-An evaluative approach is likely to detract from the observee's learning. -May provide additional feedback from the learner's perspective. -To demonstrate development and incorporation of ideas discussed at the preceding PoT episode

Survey of Peer Observation of Teaching of Clinical Staff involved in teaching within the Dental Hospital and Institute

Peer Observation of Teaching may be an effective method of enhancing personal development as a teacher as well as the overall quality of teaching in Higher Education. It would be very helpful if you could take a few minutes to complete the following survey which explores your personal experience of Peer Observation of Teaching.

The survey is anonymous but it would be helpful to collect some information about your current teaching roles and previous training in teaching and learning.

SECTION A – About your current role in clinical teaching

Q1. Who are you mainly employed by? : University ☐ NHS/Trust ☐

Q2. What role do you play in the Dental Hospital and Institute?

Clinical Teacher ☐   Non-clinical teacher ☐

Lecturer ☐   Senior Lecturer ☐   Reader ☐   Professor ☐

Non-consultant grade ☐ Consultant ☐ Educational Supervisor ☐ Clinical supervisor ☐

Q3. In your current teaching role what types of learners do you teach?

Undergraduates ☐   Postgraduates ☐   Dental Core Trainees / SHOs ☐   Specialist trainees ☐

Q4. What has your own training in teaching and learning involved?

No formal training ☐   Deanery or Trust-run course ☐ University-run course ☐

Certificate, diploma or degree in Education   ☐

Recognition by Higher Education Authority (eg FHEA)   ☐

Please provide further details:

SECTION B – About your own experience of Peer Observation of Teaching

Q1. Have you experienced Peer Observation of your teaching?   Yes ☐   No ☐

Q2. If you have experienced Peer Observation of Teaching how recently did this take place?

Within the past 12 months ☐   Other ☐ (Please specify _____ months)   Not ☐

Q3. If you have undergone peer observation what type of teaching was observed?

Small group teaching ☐   Practical teaching ☐   Chairside/bedside teaching ☐

Large group teaching (Lectures) ☐   Other ☐

Q4. Who observed your teaching?

Educationalist ☐   Friend ☐   Trusted Colleague ☐   Senior Colleague ☐   Other ☐

Q5. To your knowledge had your observer received any specific training for this role?

Yes ☐   No☐

Q6. (a) Briefly outline how you and your observer organized the peer observation session.

_____

   b) If the session included pre- and post-observation meetings, what was the length of these meetings? ___:___ minutes.

Q7. In terms of your own development as a teacher overall how would you rate your experience of peer observation? Please estimate your response by marking the line below:

| No value | Some value | Highly valuable |
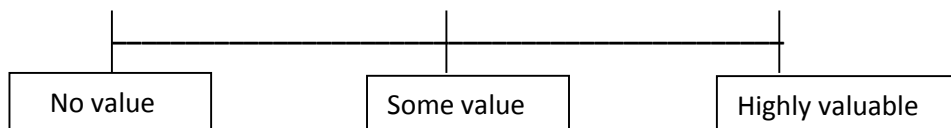
Q8. How would you describe your personal experience of Peer Observation of Teaching? Was there anything that particularly enhanced or detracted from the experience?

_____

Q9. On the basis of your own experience are there any ways in which you feel that peer observation could be enhanced in the Dental Institute and Hospital?

_____

Thank you for taking the time to complete this survey. Please return the completed form to Office 5 on Floor 5 of the Dental Institute.