

IN BRIEF

- The educational literature regarding personal learning plans is reviewed.
- A method of designing personal learning plans for two groups of dentists in different locations is discussed.
- Practitioners' preferred methods and times of learning are presented.
- The reasons for practitioners' involvement in CPD are considered.

Personal learning plans for general dental practitioners, a Scottish experience. Part 1

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It has been suggested that postgraduate dental education, tailored to the individual needs of the participant, would result in an improvement in patient care.^{1,2} It is also suggested that greater ownership of an educational programme, coupled with a sense of not working alone, would stimulate and motivate practitioners to a greater extent.³ This paper reports on two pilot projects, undertaken in Scotland, which aimed to provide participating general dental practitioners with personal learning plans for a year. Participant selection, the organisation of the educational events involved and the participants' attitudes to education are discussed.

For many general dental practitioners, continuing dental education primarily involves attending courses at their local postgraduate centre. These courses are normally organised by the local continuing professional development (CPD) tutors, under the direction of the postgraduate dental dean. A calendar of courses is distributed to practitioners, who apply for courses of interest. Places are usually allocated on a 'first-come-first-served' basis, with the more popular courses (particularly hands-on courses,) and speakers rapidly becoming over-subscribed.

In a recent survey of GDPs, Ireland *et al.*⁴ reported that a significant number of respondents would not satisfy GDC recertification requirements.

Long *et al.*⁵ reporting on GDP course attendance in Yorkshire, noted that 9% had not attended a course in the preceding 5 years. Although this report did not break down the number of attendances, the figures quoted indicated that the majority of the respondents would not have satisfied the GDC's requirements. Barriers to attendance at courses exist and the authors reported that more local provision and courses at more convenient times would increase attendance. Mouatt *et al.*⁶ also highlighted both these factors while Walmesley and Frame⁷ stressed the relationship between distance travelled and attendance.

One benefit of attending a 'Section 63' funded course is that participants may claim postgraduate educational allowance, (now continuing professional development allowance) to compensate for ongoing practice expenses and have travel and subsistence expenses refunded. Long *et al.*⁵ reported that the vast majority of respondents in their study considered it essential that practitioners were reimbursed for costs of attendance at courses and any resultant loss of income. Several reports have suggested that loss of income is a disincentive to course attendance,^{6,8-10} Miller *et al.*,⁹ investigating factors relating to the variation in levels of motivation to learn among established medical practitioners, identi-

fied isolation, workload, and financial loss as major factors. It is interesting to note, however, that in a report of perceived sources of occupational stress in general dental practice,¹¹ keeping up to date through CPD and the associated time and financial considerations were not mentioned. Burke and Croucher¹² reported that neither dentists nor patients considered attending postgraduate courses as an essential criterion of good clinical practice. On the other hand, Baldwin *et al.*¹³ suggest that fear of making mistakes and litigation encourages dentists to attend courses and keep up to date.

Davis and Pitts¹⁴ attempted to ascertain the CPD course subjects which most interested Scottish practitioners, but no report was published regarding translation of their findings into practice through targeted or directed course provision. Allen *et al.*¹ showed that participatory courses are more effective in achieving behavioural change.

It has previously been reported that practitioners are not always able to attend courses for which they have identified a need.^{5,6} Holm,¹⁵ however, suggested that medical practitioners do not routinely identify their own weaknesses, and tend to apply for courses they would like to attend, rather than need to attend.

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Miller¹⁶ emphasised that doctors will only learn what they believe they need to know. 'The first step is not to tell them what they need to know, it is to help them want what they require.'

There have been suggestions that a more structured approach to postgraduate education, by the introduction of 'personal learning plans' (PLP) which tailor the educational requirements to areas identified by the practitioners, would be of benefit to GDPs and patients. Beaudry¹⁷ carried out an extensive meta-analysis of reports of CME programmes, and found that significant improvement in educational output resulted when delegates had undertaken a programme planning exercise identifying learning gaps by formal needs assessment. Grant and Stanton¹⁸ in an extremely comprehensive report of continuing education in general medical practice, similarly reported that needs assessment is essential for effective educational outcomes.

The concept of 'personal learning plans' has been referred to for some time in medical and educational literature, although the specific terminology has varied between reports. Parboosingh¹⁹ discussed the idea of personal learning plans under the umbrella of 'learning portfolios', which are a slightly different concept, first posed in the medical field by Pietroni *et al.*²⁰ The 'learning portfolio' documents an individual's learning using different media, identified in the professional personal learning plan. The focus of this, and several other papers, is on recording of the educational experience rather than planning of the programme.

Burrows and Millard³ found that personal learning plans improve educational outcomes because of the sense of ownership and control of the education by the participants.

Towle²¹ suggests that, among other aspects, educational programmes for the twenty-first century should be planned systematically on the basis of needs assessment and prioritization, and should be addressed to promote self-directed learning and problem solving. Grace²² in a *BDJ* editorial poses the question, 'Was it worth it?', asking if mandatory course attendance is really the correct educational style for today, or whether practitioners should select training for themselves based on the individual priorities and objectives of their practices.

In an attempt to address some of these issues, the Scottish Council for Postgraduate Medical and Dental Education (SCP-MDE) funded two distinct one-year personal learning plan pilot programmes, one in a rural area, and one in an urban area around a large conurbation. Hitherto

GDPs in both regions had enrolled in Section 63 courses on an *ad hoc* basis, with no guarantee that their particular perceived needs would be met.

It was hoped that personal learning plans could be fine tuned to meet the specific needs of the projects' participants.

The purpose of this first paper in a series of two is confined to describing the organisation of setting up PLPs and the dentists' responses to an initial questionnaire. It is hoped that this will provide an insight for other educational providers into potential pitfalls when organising PLPs.

The second paper in the series reports on the participants' experiences and the outcomes of the study.

PARTICIPANT SELECTION AND PROJECT PREPARATION

Although there were commonalities between the urban and rural studies, the projects were planned and run separately in accordance with regional needs and available facilities. Each region is therefore reported separately.

URBAN PROJECT

In the urban project, all GDPs in the region (over 900) were sent a leaflet introducing the concept of personal learning plans and inviting interested practitioners to seek further information. Those who replied (91) were circulated with a more comprehensive explanation of the proposed scheme and an invitation to attend an introductory meeting. Forty-seven GDPs responded and this group formed the study cohort. Thus the urban group of dentists were a self selecting group.

Prior to the initial meeting, participants were sent a questionnaire designed to gather evidence about their previous postgraduate activity, preferred learning styles and an assessment of individual learning needs. The practitioners were asked to carry out their own self assessment and subsequently request training in their weakest areas of treatment provision. They were also asked about preferred times of study and participants completed a self assessment of their individual level of expertise for a menu of subjects. These subjects were compiled by the facilitators who attempted to cover all topics which they thought could be relevant to working in the General Dental Services (GDS). The topics are listed in Table 1.

Suggestions for any additional topics were invited under a final heading of 'other (please state)'.
Some of the returned questionnaires were unclear, vague or incomplete, so at the first meeting of the group, some participants were invited to make further choices from a prepared list to clarify outstanding

Table 1 List of topics from which participants were invited to choose those which they wished to study

- Anaesthetics/sedation
- Clinical audit
- Computers/IT
- Cosmetic dentistry
- Crown and bridgework
- Endodontics
- Health and safety
- Oral surgery
- Orthodontics
- Paedodontics
- Periodontics
- Prevention
- Practice management
- Prosthodontics
- Restorative

issues. The available choices had been determined by the answers received from participants who had completed their questionnaires more clearly. Although the participants in this sub-group may have experienced a reduced sense of compiling an individual plan matching exactly their requests, this method of plan construction proved to be less complex and time-consuming for the facilitators. It was again emphasised at this initial meeting that training needs, not wants, should be sought.

After collating the information provided by the participants, appropriate speakers were identified and a programme of courses arranged to satisfy the stated requirements of individuals. This was carried out as far as was possible, taking into account subject matter, preferred learning methods and preferred times of day. An individual learning plan for every participant was produced as a card, incorporating the arranged meetings and courses specific to the participant's needs. It was explained that no reminders would be sent and that the participants should record their own attendances on the card in addition to any comments regarding each meeting. It was also confirmed whether the participant wished to borrow videos, CAL programs, a laptop computer or make use of the offer of free membership of the local dental hospital library for the duration of the project.

The majority of the proposed meetings were held in the local dental postgraduate centre which is the usual venue for postgraduate courses in the region. Each participant also agreed to attend two educational meetings involving all the project participants.

It was explained that participation in the project implied that participants were

agreeing to carry out a minimum of 50 hours of postgraduate education during the forthcoming year.

No funding other than normal Section 63 and PGEA arrangements was made available to participants.

RURAL PROJECT

A geographically discrete population of 31 dentists in one Scottish health board area was invited to take part by direct and individual contact from a facilitator who was a local GDP.

Each practitioner was sent an initial questionnaire similar to that used in the urban project. Once completed, these questionnaires were analysed, and each dentist then had a semi-structured interview with one of the project facilitators.

Information from the questionnaires and interviews was collated, and an individual personal learning plan was prepared for every participant. However, unlike the urban project, no target attendance levels were suggested to participants.

Each dentist was presented with a ring-binder containing their individual PLP, details of all the other Section 63 courses being held during the project's duration, CAL programmes and textbooks available and various other related documents. It was stressed that the PLP could be changed, adapted or improved at any time. All the dentists were then invited to attend an evening meeting with dinner to formally present and launch the programme and to allow opportunity for questions and discussion.

The towns in this area are located some 40 miles from the principal postgraduate dental facility, and as distance had been identified as a barrier to rural practitioners attending postgraduate courses, wherever possible the courses in the PLP study were held in the local district general hospital postgraduate centre.

As an additional incentive, the local health board agreed to fund two additional sessions of postgraduate education allowance per practitioner for one year, thus doubling the available sessions.

ATTENDANCE VERIFICATION

Practitioners in both regions were instructed to record all attendances at educational events, however records were also obtained from course registers held by the local postgraduate centre. A record of an individual's attendance at events outside the PLP programme, for example 'Section 63' or 'PGEA approved' courses, was maintained in the normal way via the national CPD database so that individuals could be informed of the total verifiable hours spent at educational events during the project. Recording of time spent with CAL pro-

grams, videos, journals and textbooks was to be carried out by participants in a manner similar to that for the forthcoming recertification arrangements.

Although the participants in the urban project agreed at the outset to carry out at least 50 hours of postgraduate education in the year, the portion of the 50 hours which was verifiable was left to the individual.

THE FACILITATOR'S ROLE AND MANAGEMENT OF THE PROJECTS

A total of five facilitators were appointed, three for the urban project and two for the rural project. Each was appointed for a period of one year at a session per week. Most had previous experience of organising courses although none had previously been involved with personal learning plans. During the period when personal learning plans were being constructed, the facilitators became increasingly aware that the original idea of providing a truly individually tailored plan, which exactly fulfilled the wishes of each participant, was a practical impossibility. The facilitators therefore produced plans which corresponded as closely as possible to the participants' needs, although some requests had to be denied due to cost or lack of appropriate speakers.

Each participant was assigned a facilitator whose function and responsibilities were discussed and clarified both amongst the facilitators themselves and with the participants.

In the urban project, the facilitators were responsible for a certain number of topics, preferably those with which they felt comfortable. The facilitator was then responsible for setting up the educational events on the allocated topics and ensuring that a venue and speaker were arranged. Budgets were confirmed by the dental director to ensure that funding was sufficient. It was agreed that facilitators would attend each of the meetings he had organised in addition to the whole group meetings. The facilitator could also attend any additional meeting or course of his choice.

In the rural project, both facilitators worked with the whole group. One facilitator was primarily responsible for recruitment and communication with the participants, while the other facilitator contacted the speakers, organised the events and controlled the budget.

The methods of communication with participants and style of facilitation was left to individual facilitators. This resulted in different approaches being adopted. One facilitator, for example, carried out most of the contact with his group by letter while another encouraged greater personal contact by visiting members of his group at their practices.

QUESTIONNAIRES

At the start and on completion of the projects, all participants were asked to complete questionnaires which had been compiled by a research group supporting the project (Working Minds Research, Edinburgh). Seventy-three questionnaires were sent out prior to the commencement of the projects to ascertain the participants' views on finance for postgraduate education, their past educational histories and their interest in personal learning plans. In addition participants were asked about their identified educational needs, how often staff in their practice had attended educational events in the last year, whether they would like to send staff on courses more often, and what prevented them from sending staff to training events. The list of possible responses covered items such as course availability and structure, financial implications and practice staff levels during suitable courses.

Practitioners were also asked to complete an 'attitudes to work' questionnaire. The results of these questionnaires are discussed in the next section of this paper.

PARTICIPANT PROFILES AND QUESTIONNAIRE RESPONSES

This section relates to participants' answers collected prior to the commencement of the projects. Both cohorts are reported together in order to simplify comparison between the regions. However it should be borne in mind that the results are compiled from information which may be influenced by differing factors between the two projects. The recruitment methods, the difference in financial remuneration, the difference in topics and the modes of tuition may all have impacted on reported responses. The following data, therefore, is presented as a point of educational interest as opposed to scientific data.

Initially a total of 80 dentists from the rural and urban regions were invited to join, or expressed a wish to participate in the project. Three declined to join the rural project and four withdrew for different reasons shortly after the start of the urban project. The final group therefore numbered 73, of whom 57 were male and 16 were female. The level of experience within the group differed greatly, from 3 to 34 years qualified at the start of the project. (Fig. 1).

All the participants were in general dental practice, 97.5% of them being full time. The two part-time practitioners, both from the urban project, had a substantial commitment to general practice. The level of commitment to the NHS for each practitioner was not known but all satisfied minimum earnings requirements for access to Section 63 courses.

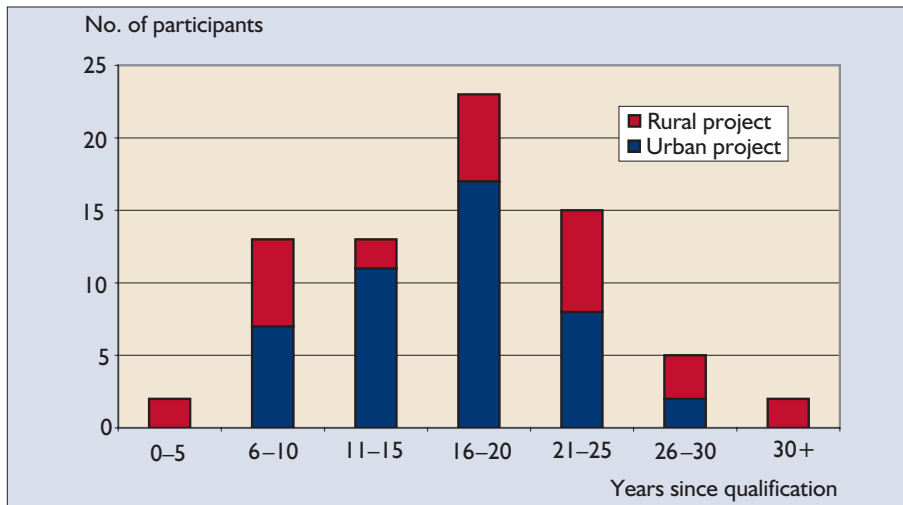


Fig. 1 Experience of project's participants

Table 2 Gender and postgraduate qualifications of project's participants

	All	Urban	Rural
Participants holding FDS, MGDS or DGDP	16.44% (12)	17.8 (8)	13.8% (4)
Gender of participants:			
Male	78.1% (57)	80% (36)	75% (21)
Female	21.9% (16)	20% (9)	25% (7)

Within the group, 12 held postgraduate qualifications; 3 FDS, 3 MGDS and 6 DGDP. The gender split of each group is also illustrated in Table 2 (the figures shown are percentages, with actual numbers in brackets).

Questionnaire responses

From the group of those expressing an initial interest in participation, 72 responses were received (90%) and these remained anonymous to the facilitators throughout (urban: 36 male, 12 female; rural: 19 male, 5 female).

This group was not representative of the dental population in the respective regions, given that the urban group were self selected with the final group representing only about 5% of those originally sent the introductory flyer, while all the rural group were 'volunteered' to participate by the local CPD tutor.

Reason for being involved in PLP Study

Respondents were asked to give their reasons for being involved in the project. Table 3 shows the ranking of the areas of interest for the two areas. Each item was considered separately and the choice was 'not at all', 'a little bit', 'quite a bit', 'a great deal'.

Differences reached levels of significance in two areas, the urban group being slightly more interested in brushing up skills ($P = 0.049$), while the rural group were much more interested in learning computing ($P = 0.010$) (Mann-Whitney test for two non-parametric groups on SPSS).²³

Gaps in experience

The inclusion of a question on gaps in practitioner experience was an idea developed from a previous study by McKinstry *et al.*²⁴

Participants were asked to identify gaps from a list of 11 items. Specialist clinical skills were identified by the highest number of dentists, both by the whole group (80%) and for the two regions separately. The results indicated that relatively few of the practitioners involved considered they had gaps in the fields of general clinical skills, communicating with patients, acute care of dental patients and continuing care of dental patients. This is unsurprising as these skills are integral to a general practitioner's daily work.

Finance

No one in the rural project and two in the urban project considered the money had encouraged them to take part. Seventy-five per cent (rural) and 54% (urban) felt that they were influenced to some extent, but

found the funding still inadequate. The others (25% rural and 42% urban) were not at all influenced (no additional money was available in the urban project).

Educational activities

Most people in both regions read for less than three hours per week about the practice of dentistry, with only 13% in the rural project and 10% in the urban project reading for three or more hours. More time was spent attending educational activities on clinical matters than those concerned with practice management issues.

Eighty-eight per cent in both regions said that they would like to send staff on courses more often. In the rural project, the main reason for not sending staff on training courses was that suitable courses were rarely available, followed by 'lack of money' and 'no cover'. In the urban project, the reason most frequently chosen was 'lack of money', followed by 'no cover' and 'rarely suitable courses provided'. Fifty-one per cent disagreed totally that staff would feel threatened if they were sent on a course.

Attitudes to work questionnaire

The attitudes to work questionnaire is a 25-item list of statements with a 5-point scale from 'strongly disagree' (scored 0) to 'strongly agree' (scored 4) adapted by Firth-Cozens²⁵ for use with junior doctors from Warr's eight perceived environmental conditions.²⁶

Respondents agreed most with the five ranked items in Table 4. There was least agreement with the statements in Table 5.

DISCUSSION

This study was undertaken in order to explore the merits of this type of educational delivery for dental practitioners. The success of the scheme is inevitably related to the benefits obtained by the GDPs and, hopefully, the resultant benefits obtained by their patients.

The results of a post-project questionnaire are noted in the second part of this paper and a qualitative analysis of the project is to be published independently.

The organisation and management of both regional studies undoubtedly gave the

Table 3 Reasons for being involved in PLP Study

Reason given	Respondents who answered 'quite a bit' or 'great deal' (%)		
	All	Urban	Rural
1) Update knowledge	73.6	79	63
2) Update clinical skills	68.6	73	59
3) Contact with others	52.8	57	46
4) Wanted a change	44.4	52	29
5) Learn computing	40.3	31	59
6) Improve practice organisation	34.7	37	29
7) Brush up skills	18.6	23	8

Table 4 Statements producing most agreement from respondents

Urban project	Rural project
1. I am useful most of the time	1. I am useful most of the time
2. I think most people in my position are suffering similar difficulties	2. I am developing new skills.
3. Patients can be too demanding.	3. I think most people in my position are suffering similar difficulties
4. I can discuss work problems with other colleagues	4. I use my skills to the full in my job
5. I am developing new skills	5. I am confident of my abilities

Table 5 Statements producing least agreement from respondents

Urban project	Rural project
1. I regularly feel I am working beyond my capabilities	1. I regularly feel I am working beyond my capabilities
2. I do not see myself continuing in dentistry	2. I do not see myself continuing in dentistry
3. I have sometimes been bullied	3. I have sometimes been bullied
4. The responsibilities of my work are overwhelming	4. The responsibilities of my work are overwhelming
5. I can discuss personal problems with colleagues	5. Much of my work is very mundane

facilitators a greater workload than would have been involved in the production of a simple catalogue of courses. Inexperience of managing learning plans resulted in several misjudgements, mostly concerning the formulation of the plans, a procedure which took much longer to undertake than expected. It also resulted in a failure to meet expectations in certain instances and with hindsight, some PLPs were unrealistic or impractical. The number of variables made it impossible to satisfy all of the participants' wishes for their plans when the different desired modes of learning, timing of learning events and level of advancement of teaching were considered.

The facilitators, in an attempt to provide freshness to the programme, tended to be slightly more experimental in their choice of speakers and teaching modes. It was recognised that while some of these new methods would result in originality, some would not succeed. The teaching modes were organised in response to requests from the participants and these were not necessarily the same in the two regions. Choice of speaker for each event was influenced by the facilitators knowledge of available personnel. There was no collaboration between the regions and this obviously would have a bearing on participants' feedback on satisfaction of each event.

Funding issues necessitated a curtailment of some of the more expensive forms of teaching requested by the group, although hands-on teaching and one-to-one mentoring was provided at a greater level than would normally be available in 'Section 63' programmes.

It is certainly true to state that a more efficient management of such a project could be achieved once the facilitators became more experienced with PLP.

The introduction of recertification and the likely resultant future increase in the number of verifiable educational courses will compound current difficulties experienced by course lecturers to allocate time for postgraduate teaching. PLPs will not alleviate this problem. However, if a more effective education can be provided by their means, should consideration be given to their more widespread use in certain circumstances? Encouraging previously poor attenders to embrace education more enthusiastically again, or helping GDPs distant from postgraduate centres may be instances where the extra workload and financial implications of organisation and management of such a scheme may be justified.

It is hoped that the experience gained by those taking part in the project would be of benefit if they were to participate in a further development of this type of education. More focused, facilitated self assessment and inclusion of PCD could provide additional benefits should personal learning plans evolve into effective practice development plans in future.

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