Orthodontics around the World

SPECIAL ARTICLE

Orthodontic Postgraduate Training in Germany – have we anything to learn?

F. LUTHER, B.D.S. (HONS), M.SC., D.ORTH., M.ORTH., F.D.S.R.C.S. (ENG.)

P. A. COOK, M.D.SC., B.CH.D., L.D.S., M.ORTH., R.C.S. (ENG.), F.D.S.R.C.P.S. (GLASG.), F.D.S.R.C.S. (ENG.)

Division of Child Dental Health, Leeds Dental Institute, Clarendon Way, Leeds LS2 9LU, U.K.

Abstract. *In 1996, the authors were able to visit the University Orthodontic Unit in Marburg, Germany. Author FL was able to undertake the visit as part of a discretionary secondment for specialist training and this article describes the author's (FL) experience of orthodontic, postgraduate training there, and highlights differences between training in the U.K. and Germany. In the current climate of change with regard to specialist training, it seemed timely to investigate how training occurs elsewhere in Europe.*

Index words: Orthodontic Postgraduate Training in Germany/U.K.

Introduction

In July, 1996, I (FL) was fortunate to be able to go on a discretionary secondment for specialist training to Professor Dr. J. M. H. Dibbets' Orthodontic Unit at the Philipps University of Marburg. Author PAC was able to visit the unit later that year. The purpose was to observe postgraduate (and some undergraduate) teaching methods as carried out in Germany and to see whether there might be scope for developing joint research projects. The Marburg unit is similar in size to our own unit in Leeds. What follows, is a summary of my (FL's) experience and concentrates on the postgraduate teaching/training aspects. Information was gained by sitting in on clinics, discussions with the assistants in training (both in Marburg and Giessen, a neighbouring university town), as well as of course, also with Professor Dibbets. It should be understood, that training at both Marburg and Giessen are not absolutely standard for Germany as both programmes are run by 'non-natives.' However, there are definite threads which do apply generally.

I flew in to Frankfurt on a hot July day, then took the train to Marburg (in Hessen). It was soon obvious that Marburg was a smashing place to be: the town has a population of approximately 40,000 people, whilst the area of 'greater Marburg' has a population of some 77,000. There are many cafes and restaurants, an historic castle, museums, churches, a lovely river (the Lahn), shops and much more. On the Monday, Professor Dibbets showed me around his department. It has nine chairs in a pleasant and airy open plan arrangement plus his own surgery. The view from the clinic is stunning: you look straight towards the fifteenth century castle on its hilltop surrounded by forest; lower down, lies the old town. The view, however, is not the only difference between Leeds and Marburg.

'Die Krankenkasse'

A major difference between the English and German systems is that, unlike in the U.K., healthcare funding is insurance-based or private. In general, all treatments are approved and paid for by 'Die Krankenkasse'. This is the medical insurance that must be paid into by all adults (12 per cent of the salary with contributions divided equally between the employer and the employee, thus 6 per cent of gross income). As a result, a noticeable difference is evident in the types of cases treated. Once a treatment plan has been formulated and then approved by the Krankenkasse, the family will pay 20 per cent of the cost. However, assuming treatment is completed satisfactorily, this money will be repaid and can encourage patient compliance or patient pressure to complete/undertake treatment. This process occurs whether the individual is seen in a hospital clinic or in specialist practice. Orthodontic therapy, however, is only available for children by this means, 'child' being defined as individuals who start treatment before their eighteenth birthday. If a salary falls below a minimum wage, then the Krankenkasse pays for all the treatment, but if a family or individual earns more than 6000 DM gross/month, then they may opt out and arrange their own private, medical/dental insurance. Treatment for adults will only be approved by the Krankenkasse if it involves treatment of a syndrome or a major surgical procedure.

The Pathway for Postgraduate Training as an Orthodontist

Once qualified as dentists, after a minimum 5-year course, graduates must then practice (in some states or Bundesländer) as general dental practitioners for at least 1 year before entering an orthodontic specialist practice. This will

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then be the first part of their 3-year orthodontic training. After this, there may be a long wait as many dentists want to become orthodontists and the main difficulty is getting on to the university part of the training. Not all those wanting to become orthodontists will get on to a course, but once accepted on to a programme, they will spend at least 1 year at a University clinic (often having spent one-and-a-half to two years in specialist practice). Theoretically, applicants could attend the university course first, but apparently, even after 1 year, this makes them so attractive to specialist practices, that they may well leave early, without carrying out a research project. Consequently, many universities are unlikely to accept applicants this way round. Currently, most posts (specialist practice/university) are salaried. Once on an approved course, postgraduates are known as 'assistants'.

Applying for Courses and the Specialist Practice Period

Orthodontics is a very popular profession in Germany: it is relatively straightforward to obtain a place in specialist practice (though this may vary according to location) and, consequently, there is no selection process by the universities/hospitals at this initial stage, as occurs in the U.K. In Germany, the major problem arises in getting from specialist practice on to a university course: it is not uncommon to have 170 applicants for a single university post.

Approval for a specialist practice to be involved in postgraduate training simply requires the principal to have been a specialist for a minimum of 5 years. Following such an application, the practice is 'inspected' once. It is possible that reinspections may occur in one or two regions, but this new development is most unlikely to spread quickly, if at all. It is attractive for a specialist practice to have an assistant (before he/she applies for university training), since they will be a cheaper pair of hands. In the specialist practices, the assistants work on the patients started by earlier assistants who have subsequently left, but they also see new patients when space allows in the appointment book.

University Training

Once the period in specialist practice is completed, the postgraduate then attempts to move to the University period of training. Selection at this later stage is made on the basis of the CV of the applicants and an interview. Some units may include a wire-bending exercise. For comparison, in the U.K., selection at universities is based on achieving further professional qualifications in addition to the basic dental degree, and may include assessment of a written paper and practical examination, as well as a formal interview.

There are approximately 30 universities in Germany where Orthodontic training programmes exist. Most usually have approximately 5–6 places. The assistants will see patients whose treatment was not completed by the preceding assistant. New patients are also taken on, but the caseload will probably be 100 cases of which, in Marburg, 40–50 cases approximately will be completely new. In the U.K., most hospitals and specialist practitioners have a waiting list. This is not common for hospital clinics in Germany which may have no waiting list or only a short one. Indeed, there may even be a shortage of patients on occasion. On the other hand, many specialist practitioners do have such a list. The reasons for such differences between the U.K. and Germany appear to be due to a number of factors. In Germany:

(1) patients may find it easier to attend a specialist practice;
(2) there is probably less apprehension about paying private fees;
(3) Germany probably has 2000–3000 specialist practitioners; the U.K. has approximately 415, based on numbers registered with the Specialist Practitioners Group of the British Orthodontic Society. (U.K. population is about 58 million people; German population totals 82 million people.)

In the pleasantest areas, there may be saturation: Marburg's catchment population is approximately 120,000. There are seven specialist practitioners in this area plus the university clinic. Consequently, the university clinic in Marburg has to actively try and attract patients. For comparison, Leeds has a population of roughly 750,000 and there are six specialist practitioners within the city plus two hospital units, totalling more or less equivalent personnel numbers (but not populations) for the two locations.

Case Selection and the Krankenkasse

In Germany, it was my impression that a greater proportion of more mild cases were treated than is now the case within the hospital system in the U.K., although severe cases were certainly also treated. However, a similar trend as has occurred within the hospital system in the U.K. may, in fact, be taking place in Germany: Professor Dibbets has stopped the previous 'tradition' of taking on all cases that came for consultation, whilst on a 1-day visit to Professor Pancherz's unit in Giessen, he explained that in Germany, '. . .one is only just getting away from the idea of malocclusion being an illness.' In Giessen and Marburg, definite efforts to justify treatment are made and cases failing to meet the criteria may be refused treatment. The only reason for making such assessments seemed to be simply the clinicians' own wish to have sound reasons for undertaking treatment. Justification of treatment seems to be only a very recent phenomenon in Germany.

Combined Specialty Cases

Although cases were treated together with other hospital specialities, combined clinics appeared to be rare. Some patients appeared to be treated relatively independently before being returned or referred to the dentist or orthodontic clinic to continue the rest of their treatment. It was evident that this could cause rather less than ideal treatment in some cases.

Timetabling and Teaching

Clinical teaching

Two factors should be remembered. First, as the assistants arrive at different times in a year, there are no set annual intakes. Units therefore operate on the basis of when an assistant is due to leave, which is their only fixed date. Assistants manage their own timetable and arrange this with the agreement of their colleagues. Secondly, in Marburg, as the Professor is the only clinical member of staff, assistants basically treat patients on their own, only requesting help from the Professor when they feel they need it. If an assistant needs help, then the Professor may, if at all possible, be able to see a patient immediately or else on a special session. Alternatively, the assistant can take models and other records in order to discuss the case away from the clinic with other assistants and the Professor.

Seminars

Once a week (Wednesday mornings) new patients who have not been seen by anyone other than the assistant, are discussed in depth in a group with the Professor and the treatment plan formulated. A similar system was operated at Giessen. Each assistant makes a detailed case presentation using study models, slide shows and radiographs arguing the case for the treatment they are suggesting. This makes up for the fact that fewer new cases are seen (compared with the U.K., for example), but means that each new case benefits everyone. If there are no new cases then 'situation so far' reports are given on cases already under treatment. These sessions were relaxed and informal and everyone 'chipped in'. Discussion was based on evidence rather than belief. Also, once a week (Thursdays), postgraduate seminars or courses are run which relate to many aspects of the orthodontic literature. For example, Professor Dibbets has developed a major course devoted to postnatal growth. In these sessions, assistants are required to have read up the relevant literature, and detailed discussions and presentations then follow. I was impressed by the depth of learning shown by the assistants. Similar seminars are run in Leeds, but the emphasis of these courses is perhaps more orientated towards treatment mechanics. Due to the conveyor belt type of entry of assistants on to the course in Marburg, as each arrives, they will enter at a different point in the course cycle. Thus, some assistants may meet some aspects of the literature late and others relatively early; the same will be true of, for example, typodont courses.

In addition, Marburg also holds a regular, weekly journal club. New or controversial findings of relevance to orthodontics are discussed and debated amongst the whole group. Given that both English and German language journals are involved, it speaks volumes for the standard of English which all the assistants command. All parts of the course are still being developed as Professor Dibbets is working alone and is still relatively new to the post.

In Leeds, regular journal clubs are held together with occasional, formal case presentations to the group. Cases are, however, more often presented on the clinic, at the chairside, but here time maybe more pressing.

Contact with Undergraduates

The undergraduate course is quite different to the Leeds course as the German undergraduates do not treat any patients. The undergraduates receive some lectures from the assistants as well as all wire bending instruction and exercises in diagnosis/treatment planning (with case books). This training was clearly useful to the undergraduates, but the assistants found it interesting and useful only if the undergraduates were themselves interested. On the other hand, it tested motivational skills. A similar system of undergraduate training occurs elsewhere in Germany, the major difference between U.K. and German systems being the lack of clinical contact in Germany.

Examinations and Research

Whilst clinical experience is rated as most significant, the professional qualifications are as, for example, Fachzahnarzt für Kieferorthopädie or Kieferorthopäde, but the title and examination format varies according to each state or Bundesland. These examinations occur at the end of the university period of training and, in Hessen, involve simply a variable length viva with one general dental practitioner, one local specialist practitioner, and a professor (usually the Professor and Chairman of the Orthodontic Department of Frankfurt). Should the candidate fail they are allowed only one re-sit, unlike in the U.K. If further training is required, the assistant will continue to be salaried by the university. In the U.K., professional orthodontic examinations involve general vivas, presentations of cases treated personally by the candidate, new patient (long case) assessments/treatment plans, short case vivas, as well as essays.

Professor Dibbets also holds his own examination with each candidate in which he examines 25 of the new cases they have taken on for treatment. This is not, however, a professional examination. As in the U.K., assistants also undertake a research project while at the university. It is expected that they stay for a period of at least 2 years. In some cases, postgraduates will not be accepted on to a course if they are unwilling to undertake a research project. The project is concluded with a thesis and is examined by referees and a team of four professors in a 30-minute viva. A similar system operates in the U.K. in the form of Masters projects.

Postgraduate Training: Differences between the U.K. and German Systems as seen by FL

1. German courses are far less standardized than the U.K. system, potentially leading to great variation in training standards.
2. Currently, little or no orthodontic training is undertaken in specialist practice in the U.K., although this may change in the future.
3. The university aspect of the German course may be 1–2 years shorter than in the U.K.
4. The German assistants have a greater role in undergraduate teaching than is usual in the U.K.
5. More patients are seen and treated in the U.K. than in Germany (in the university part of training though

not if the specialist practice training period is included) but correspondingly there is perhaps more in-depth discussion of cases in Germany than in the U.K.
6. Cases treated by U.K. postgraduates tend to be more severe and they have greater access to combined cases.
7. Assistants work with less supervision in Germany than in the U.K. (at least partly due to the fact that they have had 'training' in the specialist practice).
8. Career pathway heavily favours movement to specialist practice in Germany (the hospital/university pathway not being well defined as has been the case in the U.K.).
9. The assistants in Germany have to read much literature in English.
10. There is greater use of hand-wrist radiographs in Germany than in the U.K.

Discussing the specialist practice part of their training, assistants seemed unwilling, understandably, to 'slam' their own practice, but it was clear that they favoured far more inspection and standardization, although the likelihood seemed remote. They had definite knowledge of good practices and 'ones to avoid'. To quote one assistant: 'Typodont course? The patient is the typodont.' However, they wanted the current system improved rather than abolished, although it seems that this is unlikely because it balances in favour of specialist practitioners. Vested interests may play a role, restricting training that could be undertaken (better?) by the universities. Nevertheless, as one assistant said: '. . . the university courses are neither standardised nor scrutinized and can be just as influenced by the head of department as by the principal in a practice.' Indeed, it was pointed out that the German health system is not organized by the state in the same way as in the U.K. Consequently, the system there has to try and prepare the young dentist or orthodontist to take on the responsibilities and risks of running a practice, where most clinical work will be undertaken. A period in specialist practice therefore has the benefit of providing at least some insight into practice management.

Conclusions

In the U.K. currently, due to the changes in specialist training which are taking place (to train more specialists faster) a possibility arises that some training may take place in specialist practice. In order to maintain high standards, it would seem that three questions would need to be fully addressed before such a move could be supported:

Why?
What is the benefit?
Who will benefit?

Standards of training of Orthodontic postgraduates in Germany appear to be open to greater variation than in the U.K. due especially to variations in the specialist practice part of the training. Overall, I thought the training programme in Marburg excellent, albeit within the confines of the system, particularly the in-depth case conferences where everyone benefited from the detailed discussion and could be introduced here. Yet I felt the system could be improved, if excellence of training was to be the major aim. If the U.K. system is to be changed, then likewise, care must be taken for it to change training for the better, not just for expediency. Independent scrutiny maybe the key to not only maintaining, but also raising standards.

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