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Medical History

Historical Development of Pan-European Medical Training for English speaking students in the 16th to 19th Centuries

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SUMMARY:

This essay summarises the development of a pan European approach to the education of English-speaking medical students over a period of four centuries. It demonstrates that the current interest in "English Parallel" courses across Central and Eastern Europe is not a new phenomenon. The essay investigates the role of push and pull factors in drawing people away from their country of origin to study medicine elsewhere. In addition it draws on the experience of examination candidates when faced with questions in a different language to their own.

The need and wish to travel and seek medical education at centres of excellence far from one's country of birth reaches well back into the origins of formal medical training. The driving forces have been a combination of the traditional "push" and "pull" factors that stimulate any migration. In the case of medicine, considerable attention has been given to "pull" factors where certain charismatic teachers were seen as magnets drawing students towards them. In practice "push" factors have also been of significance. In earlier centuries these included poor medical education locally, whereas in more recent times driving forces have included such restrictions on entry as gender.

During the medieval period degree-based courses started to emerge in centres at Paris, Oxford, Cambridge, Montpellier and Bologna. By the 15th Century, Bologna was the leading centre for medical training in Europe, although the number of graduates remained small.[1]Examples of distinguished medical practitioners who were highly mobile during this period include Andreas Vesalius. He began his training at Louvain in 1529, continued with it in Paris between 1533 and 1536 and finally graduated MD in 1537 from Padua[2]where he was appointed a lecturer in surgery.[3]William Harvey studied at Cambridge and graduated with an Arts degree in 1597. However, it was at Padua that he chose to study medicine under Fabricius. Having completed his studies, he returned to practice in London from 1602.[4] In the 1700s, Booerhaave was a significant magnet and helped attract 746 English speaking medical students to the faculty at Leiden.[5] However, other factors are likely to have also played a role. At that time, trade between Scotland and the Netherlands was important and many Scots fought in the Dutch army against the French.[6] These commercial and political links ensured that Dutch universities were attractive to Scots students and so influenced the development of medical education in Scotland.

Between the 1500s and the 1700s there were clear changes with Cahors and Rheims becoming much more popular destinations than the more traditional schools, such as that at Padua. As to which push and pull factors were influential in these decisions it is not now possible to say. However, what is clear is that there was a well-established tradition of English speaking students from the United Kingdom seeking medical training in Europe. This is a trend which is again to be seen

During the 1800s medical education was dominated by French universities. It was during this time that the science of physical signs and bedside diagnosis developed into clinical medicine.[8] The clinical method devised by the French followed Occam's Law and sought a single diagnosis. However, by the end of the nineteenth century the emergence of laboratory medicine in Germany and the growth of universities in Berlin and Gottingen displaced French education. Their influence was to spread to John Hopkins Medical School, USA and through Osler to England.[8] During this period the pull factors which drew medical students to Europe in earlier centuries seemed less powerful and this may reflect the growing national regulation of the training of doctors.

Push factors which led some students to seek formal qualifications outside of the UK were dominated by gender and financial issues. In 1812 James Barry received her MD from the University of Edinburgh. However, she had to conceal her feminine gender throughout her training and for the whole of her professional life.[9] A reluctance to allow women to obtain formal qualifications, despite having completed appropriate training programs was a clear "push" factor for Frances Morgan and Elizabeth Garrett. Frances Morgan obtained clinical training in Paris and Dusseldorf and qualified with an MD from the University of Zurich in 1870. Within a few months Elizabeth Garrett received an

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TABLE 1:

Numbers of English speaking Medical Students attending European Universities between 1550 and 1799

University	1550-99	1600-49	1650-99	1700 +	No date given	Total
Altdorf					16	16
Angers		6	5	2		13
Basel					18	18
Bologna	3	1	2		3	9
Bourges					3	3
Caen		5	9	1		15
Cahors		5	5	11		21
Ferrara	2				2	4
Franeker					30	30
Frankfurt/ Oder					20	20
Gőttingen					2	2
Groningen		2	2	2		6
Harderwyck			10	8		18
Heidelberg					25	25
Helmstadt	2	1			15	18
Herborn					5	5
Ingoldstadt					10	10
Kőnigsberg					15	15
Louvain					33	33
Montpellier	1	2	2	1		6
Orange		7	6	1	1	15
Padua		15	16	3		35
Paris		1				1
Pisa			2	2	1	5
Rheims		3	5	17		25
Sienna					1	1
Uppsala				1		1
Utrecht		1	2	5	11	19
Wittenberg					44	44

Data derived from: www.rcpe.ac.uk/library/history/english-students[13]

MD from the University of Paris, having undertaken her training in the UK. These were the first British women to receive formal recognition as doctors and both needed to do this in Europe. During the last two decades of the nineteenth century many women, especially from Central and Eastern Europe and Russia, went to Paris and took their MD.[10]These women are typical of many prospective medical students in

Fig 1. Arthur T. Schofield

their determination to overcome barriers of access to medical schools. A similar attitude was shown by Arthur Schofield. In the 1870s he entered medical school as a mature student with a young family and was consequently under pressure to complete his training:

> "I was quite unable to spend three years at any University, and yet,
>
> requiring an M.D. degree I took refuge at Brussels. Let no one dare to despise the Brussels M.D. I am quite sure the examination is harder than any in our country, and for the following reasons.
>
> In the first place, the examinations that usually cover three years are all concentrated in one awful fortnight, during which you are continually examined from morning to night by thirteen professors. In the second place, you are not admitted to the examination at all until you have at least two college qualifications; and lastly every year at that time at least fifty per cent were ploughed"[11]

In some ways the approach adopted by the Brussels examiners pre-figured the emergence of English Parallel programmes in

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Central and Eastern Europe. Although questions were asked in French for Arthur Schofield they were:

"translated for me into English"[11]

His replies were then translated into French for assessment.

The nature of barriers to entry to medical school has varied over the centuries, but they have provided powerful "push" factors. In addition, the need to defend degrees from Brussels, Paris and Zurich was something that not only characterised the 1800s but can be seen in the blogs of students on English Parallel courses within the EU.[12] The expansion of the EU again provides an opportunity for medical students to have a broad international education, dipping into a range of training experiences. The Bologna Declaration and Erasmus programs make this realistic.

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