A career in academic medicine: personal experiences

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This article is based on an invited lecture given at the Careers in Academic Medicine Conference at the Royal College of Physicians on 13 January 1999. It discusses the ups and downs of pursuing a clinical academic career in neurology from a personal perspective. Although I will draw on my own experiences, my perspective and advice to people who wish to pursue a clinical academic career are coloured by the successes and difficulties I have seen experienced by many others, both men and women.

Personal career history

All the main steps in my career have taken place in Newcastle. I qualified in 1979, knowing that I wanted to be a physician. My general and higher professional training was undertaken before the introduction of the Calman system. Following my house officer posts, I was appointed to a three-year medical rotation and obtained the MRCP. I was lucky to have the first year of the rotation as an elective, and I used this time to do attachments in the three medical specialties which inspired me most (neurology, cardiology and endocrinology); this helped me choose the specialty I wished to pursue. At the end of two years I decided to switch the third year of my rotation, and spent a further year obtaining a good basic grounding in neurology at senior house officer level. At this relatively early stage, I wanted to do some research. I took a leap of faith in learning how to put together a grant application, and was fortunate to be awarded a junior research fellowship by the British Heart Foundation to investigate the neurological complications occurring after coronary bypass surgery. Following two years of clinically-based research, I knew I wanted to pursue a career as a clinical academic. However, after obtaining an MD, I returned to full-time clinical neurology for four years at registrar and senior registrar levels. I chose to spend this period in full-time clinical training because I wished to gain full confidence in my chosen specialty.

When I had spent enough time in clinical work to obtain accreditation in neurology, I moved out of full-time clinical work. The Wellcome Trust supported me with a Research Leave Fellowship; this enabled me to set up a new research programme in the field of neurodegeneration, with particular emphasis on motor neuron disease, at that time rather a neglected disease in terms of both scientific research and of clinical care. With this early support I was able to do the groundwork required to apply for one of the highly valued Wellcome senior clinical research fellowships. I was awarded one in 1991, initially for five years and renewed for a further five years in 1996. From my Wellcome post I was appointed a consultant in neurology in 1991, and Professor of Neurological Medicine in 1997.

Points of emphasis

In the current UK climate, each clinical academic needs to shape his or her own ‘individualised’ career path, but I want to emphasise one or two factors that worked well for me. Obtaining early experience in research was valuable. During this time I learnt how to write papers and grant applications, as well as how to present research findings at meetings. I carried those skills and a special area of expertise into the period of higher professional training, which was very beneficial. For a clinical academic, I spent a long time doing pure clinical work and have never regretted the confidence in my specialty and the clinical respectability this gave me.

Rewards of a clinical academic career

Clinical academics are in a unique position to contribute to the developments in molecular genetics and cell biology by studying patients and their diseases. Physician scientists can take observations from the clinic or bedside into the laboratory, contribute to basic discoveries and translate these discoveries into new ways of diagnosing, treating and preventing human disease. On a personal basis, I greatly enjoy providing a bridge between the two disciplines to try to direct laboratory science towards solutions for the clinical problems of patients. There are huge opportunities for personal growth and the development of multiple skills within a clinical academic career. I have an understanding of molecular neuroscience that I am sure would have eluded me as a pure clinician. I enjoy the challenge of helping junior clinicians and scientists working with me to achieve their potential and career goals. There is great satisfaction in the feeling that comes in research every now and then that your team may have contributed some steps forward in providing valuable knowledge about the way the human nervous system works and what goes wrong in a devastat-
Problems or challenges in a clinical academic career

Balancing clinical and academic work

One of the problems with which I have struggled, particularly since becoming a consultant, is balancing the clinical and academic sides of my work; this is a challenge, even from the protected position of a Wellcome senior fellowship. It is like doing two full-time jobs, but doing neither quite so well as being full-time in either the clinical or the laboratory camp. Early in my academic career, a European professor of experimental neurology said to me, by way of encouragement, 'if you want to be a clinical academic, you have to be prepared to be despised by both full-time clinicians and full-time scientists' – a statement that may exaggerate the severity of the problem but which contains an element of truth. This aspect of the life of a clinical academic is likely to be particularly prominent in medical specialties such as surgery or obstetrics where clinical work demands highly developed practical skills and experience. A way has to be found of achieving an appropriate balance between the demands of clinical and academic work. The difficulty has intensified now that increasingly formalised performance demands both from the universities and the hospital trusts have to be met.

Problems for women

The position for women in medicine has substantially improved since I qualified 20 years ago. Nevertheless, even with the most positive attitude, cultural and gender role expectations continue to cause problems and obstacles, particularly in specialties which women have not traditionally entered. When I first decided I wanted to become a neurologist, I sought advice from one of the most respected leaders in British neurology. His response was one of those never-to-be-forgotten moments. He said, 'there is no doubt that you have the ability to become a first-rate neurologist, but I wouldn't advise it, not as a woman.' I was stunned and, being very junior at the time, did not have the courage to ask the great man to expand on what he meant – but simply decided this was a piece of advice I would leave by the wayside. Prospects have now improved, but my perception is that women may still struggle to achieve what they see as fairness, acceptance and professional respect on an equal footing with their male peers.

Social aspects of an academic department are important for informal discussion and the cementing of relationships. Historically, these may have centred around activities in which only men participate. The wisest heads of department that I have encountered, appreciating that a happy and fully productive department kindles a sense of belonging in all its members, have used kindness and sensitivity to ensure that women do not feel excluded from these social events.

Balancing home life and career

For reasons of both biology and tradition, this is a particular problem for women, and each woman must work out the balance in a way best suited to her personal circumstances. When I entered medicine, I had the impression that most of the relatively few successful women clinical academics had probably made significant sacrifices in their personal lives in that they were often unmarried and childless.

I am well aware that the way in which I, as a woman academic, have balanced these factors would not be the right path for many others. I have always greatly enjoyed the company of children, and imagined that I would have a large family. However, when I married at the age of 27, I was in the early stages of training in neurology, doing one in two nights on call, with not infrequent spells on call every night and every weekend for several weeks. I considered it unfair to have a child in these circumstances, so my husband and I waited 10 years for the arrival of our first child. I compromised on having a large family, but have no regrets. I have one daughter, whose addition to the family has been all the more enjoyable and rewarding having been deferred for so long. During a short maternity leave I continued to direct my research group and write research papers. I was fortunate in that a friend and colleague was able to cover my clinical consultant post on a locum basis, because I felt strongly that my domestic responsibilities should not cause an increased workload for my clinical colleagues. For peace of mind on my return to work, I made sure that I had in place reliable child care arrangements and a back-up plan for those occasions when the nanny or the child was unwell. We had an excellent nanny who worked for 10 hours a day for the first 3½ years of my daughter's life. To achieve such stability requires luck, good judgement, and a willingness to provide attractive employment, not least in terms of pay.

The other major factor in my ability to juggle the time demands of home and clinical and research life is my relationship with my spouse. We have always shared domestic responsibilities. Whoever arrives home first cooks the supper! We play an equally active role in bringing up our daughter, and create space for each other when particular demands at work require it. Without this support, I could not have followed my current career and parental paths. The pressures on women who work full-time in clinical academic medicine, as well as taking on most of the demands of caring for children and running the home, may often be too great to be sustainable long-term.

I think it is now possible for women to combine successfully clinical medicine, a research career and a fulfilling home life. It is a busy life for a woman, and balancing all
three means doing none of these so well as if she devoted herself full-time to a single sphere. Help needs to be enlisted from spouse and family where possible, and she should be prepared to devote a portion of her salary to child care and domestic help.

Security and self-belief

The other problem that potential clinical academics often struggle with is the long years of relative job insecurity, in comparison with peers who pursue a course devoted to clinical practice. On several occasions, I have had to make an active decision to take a research fellowship for up to five years rather than a secure post. A certain amount of courage and self-belief needs to be mustered at a stage before success in research is fully established. Financial disincentives may also represent an obstacle for some individuals contemplating a clinical academic career. During training years, clinical academics are likely to spend long periods without salary supplements derived from out-of-hours clinical on-call duties. At a more senior level, clinical academics are less likely to derive income from private practice than their clinical peers.

Personal tips for budding clinical academics

In this final section, I would like to put forward some advice, derived from personal experience, for trainees in medicine who might be contemplating a clinical academic career.

1 Find people who will support and encourage you in the early stages. The people whom I will always warmly remember, who helped and encouraged me, include the following. First, David Gordon, from the Wellcome Trust. After completing my training in neurology, I phoned to ask his advice as to how I might go about obtaining support from the Wellcome Trust to set up a programme of research in motor neuron disease. At that stage, I fell between two stools: I was too senior for a training fellowship, but without enough research experience to apply with confidence for a senior clinical research fellowship. He gave me sound and kindly guidance which enabled me to lay the foundations of my current research programme and to continue in laboratory research with the invaluable support of the Wellcome Trust.

Peter Cardy, then director of the Motor Neuron Disease Association, saw something he liked in the plans for clinical care and research into motor neuron disease in Newcastle and gave my team great support at a crucial time.

George Alberti, when Dean of Medicine in Newcastle, supported me during times of doubt. I remember agonising in his office one day about whether to apply for a five-year extension of my Wellcome senior fellowship or to take up a clinical consultant post which I knew would divert the majority of my time away from research. He gave the advice I really wanted with a smile and one word: 'courage'. There are also many friends around the world in the field of neurodegeneration who are fun to meet up with and who have always made me feel that I have chosen the right path – less secure but, for me, more exciting.

2 Walk away from discouragement. When you meet people who discourage without justification or resent what you are trying to do, my advice is to keep your head down, be as good as possible at your job – and walk away towards an alternative source of encouragement.

3 Pay attention to the level of excellence of your clinical skills and training. If you want to be a clinical scientist, forming a bridge between the bedside and the laboratory bench, devote time to the acquisition of clinical excellence in your specialty, so that you will always maintain clinical, as well as developing scientific, credibility.

4 As someone who does both clinical medicine and laboratory science, be prepared for a little sniping from both camps. Do not be too sensitive about this. It may take time and patience to feel that you have the respect of the full-time clinicians and the pure scientists with whom you interact. Remind yourself that the unique skills and efforts of clinical academics are essential, and that the medical care of the future depends on medical research happening today.

The last three tips are especially for women. It is possible to combine being a physician, an academic as well as a wife and mother but:

5 Realistically appraise what you can manage and be prepared to compromise and to enlist help.

6 Invest in good reliable help with child care, have help in running your home either from your partner (if this is possible) or from a housekeeper.

7 Do not let your domestic commitments become a problem for colleagues at work.

Conclusions

Concern has been expressed that physician scientists may soon become an extinct species. If this happens, it will have a drastic effect on the harnessing of science to the problems of patients, and on the translating of scientific advances into better medical care. Every effort should be made to encourage and value this breed of doctor. If you have the interest, and are willing to put in the hard work required and take the risk of sowing seeds in the clinical academic world, there are undoubtedly rewarding harvests eventually to be reaped. I have found my own idiosyncratic path in clinical academic medicine both stimulating and rewarding. My mind is continually stretched, and dividing my time at work between clinical neurology and neuroscience increases my
enthusiasm for both. I admit there are sometimes days when I think that I need a 'wife' at home – but these happen only occasionally!

Reference

1 Rosenberg LE. Physician-scientists – endangered and essential. Science 1999;283:3312.

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