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The First William Pickles Lecture: The Evolution Of General Practice

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It is indeed a great honour for me to be invited by the Council of the College of General Practitioners of Malaysia to deliver this address which has been named after a great general practitioner.

Dr. William Pickles was a country doctor who served the small community of Aysgarth for forty years. He studied the epidemiology of infectious diseases in the community. Using to advantage his familiarity with every single member of the community, he traced each contact and drew a complete picture of the spread of communicable diseases in the district. Pickles confirmed the incubation period of infectious hepatitis and of several other communicable diseases. He described and suggested the name of 'farmer's lung' and was one of the first in the United Kingdom to describe accurately 'epidemic myalgia' or Bornholm disease. His own book, 'Epidemiology in Country Practice' has become a classic and is a monument to the art of observation and record keeping.

William Pickles was the kind of doctor that some of the best students in medical schools dream of becoming. Our patients continue to expect doctors of this kind and our inability to provide this sort of personal care any longer has been the source of disappointment and disaffection towards the medical profession. What place is there in the future for the tradition of personal and continuing care that the life of William Pickles exemplifies?

Until the middle of this century, it seemed that general practice was dying. In the United States of America the number of General Practitioners was diminishing rapidly and in the United Kingdom General Practitioners were losing status and prestige. Only in the Colonies were general practitioners important in the community but that was because the major hospital posts were reserved for colonial officers. Tiruchelvam with the FRCS could find no place in hospital practice and entered general practice. Sreenivasan with the MRCP was eased out of the General Hospital, Singapore and found refuge in general practice to which he brought resounding distinction. Tan Kim Seng who provided surgical care throughout the Japanese Occupation found he had no prospects in hospitals after the return of the colonial administration and went into general practice. General Practitioners were then the medical elite but in the twenty years after independence, specialisation has attracted many of the brightest from our medical schools.

This trend away from general practice was worldwide but we know that it was reserved and a renaissance in general practice occurred. In the United States, the American Academy of General Practice was established in 1947 and in the United Kingdom the College of General Practitioners was founded in 1952. Our own College in Malaysia was founded in 1973, at the same time as a College of Surgeons and a College of Physicians.

The task I have set myself today is to trace the historical process by which specialisation developed in Medicine. How did the undifferentiated generalist healer of ancient times give way to the doctor specialising in a single organ or a single disease? What were the factors responsible for the fragmentation of medicine into specialities? How finally was the ring of specialisation closed by the emergence of the latest and last specialty from the transmutation of general practice into family medicine?

I shall endeavour to show that the art and science of medicine developed in the most profound sense in response to the needs of the community and the specialities grew as a consequence of the level of scientific and technological development. It has been a long journey to our present situation and we carry constantly with us the historical imprint of our origins. To understand the present, you must know the past.

We belong to a very old profession, situated in ancient times between King and Priest, both of whom claimed divine healing powers and were suspicious of any others who made similar claims. Nevertheless both King and Priest resorted to a Physician in times of their own need. Throughout human history there has existed a great variety of healers, using charms, incantations, magic, as well as secret remedies. Every community had its herbalists and every family its own remedies.

The earliest step in the evolution of the medical profession was the separation of physicians from the purveyors of magic and charms. In our society the *dukun* and the *bomoh* are separate persons. Hippocrates had, 2000 years ago, already expressed his doubts regarding the 'sacred disease' epilepsy, but untangling the interwoven threads of magic and medicine continued until recent centuries. The other important step in becoming a distinct profession was the legal restriction of medical practice to those with the necessary skills. However, restriction was rarely possible as the community continued to turn to whoever it had confidence in. Nor was skill the necessary criterion as high social class was in practice the basis of determining entry. Nevertheless, a distinction was made and the Physician was separated from the quacks. The immediate reason given for this restriction was death and crippling resulting from the work of uncontrolled practitioners. Over 4000 years ago, Hammurabi of Babylonia specified fees and punishment for the physician in a code of 282 paragraphs that was engraved on a pillar of black stone. Eleven of these paragraphs dealt with the practice of medicine. In AD 931, a patient in Babylonia died from mismanagement and the Caliph ordered that thereafter none should practice medicine unless he satisfied the Physician-in-Chief of the hospital at Baghdad. In 1512, Henry VIII passed the first Medical Act on the grounds of protecting the community.

The third step in the emergence of medicine into the profession we now know it was the discovery of the scientific basis of medical practice. The practice of accurate observation, the pre-requisite of scientific progress, had been practised by physicians since ancient times. We know that five thousand years ago in ancient Egypt precise descriptions of clinical conditions were kept and we can read them in the Ebers and the Smith papyri. Contrecoup injury was described and the physician was warned against trying to treat head injuries with neck rigidity and bleeding from the nostrils and ears. The Hippocratic collection, which was written about 2000 years ago, contains many excellent descriptions of clinical conditions and shrewd observations on management. The spirit of describing only what he

saw inspired Andreas Vesalius to dissect in detail the anatomy of the human body in defiance of the clergy as well as the medical profession, thus correcting a thousand years of neglect and error. Sydenham published his precise and systematic observations of clinical conditions to give a scientific basis to bedside clinical medicine.

These then are the historical foundations of our profession. Medicine had a share in the general pace of scientific development. Physicians filled the ranks of the scientific societies and contributed in various areas of science whilst chemists and others contributed to medical progress. To the Renaissance in Europe we owe the intellectual attitudes that have given us modern medicine. The most impressive advances were in surgery because surgical conditions could be identified with relative precision and the response to treatment could be quickly seen. Surgery required special manual skills and knowledge of specific procedures. For these reasons, surgery can be identified as the earliest specialty in medicine. For several thousand years until very recent times, the rest of medicine could offer at best only the placebo effects of useless preparations if the patient survived toxic preparations and murderous procedures. Surgery could provide definite and generally predictable benefits. We have seen that ancient Egypt and Babylon already had its surgical craftsmen. The Hippocratic Oath enjoins the physician to leave cutting of stone to those who practised this art although this may be a reference to the ill-reputation of lithotomists. The Arabs gave a higher status to surgery and described surgical syndromes and procedures over 2000 years ago. Susruta in ancient India described 125 surgical instruments and gave instructions for plastic reconstruction of the nose and ears.

For several hundred years in Britain there existed only surgeons and physicians. I will use the developments in Britain to describe the further emergence of specialties. I do so because the British experience is well documented and accessible and it has determined the pattern of our own development.

In 16th Century England, the medical profession consisted of three separate branches, each with a different origin. From the grocers came the apothecaries with their familiarity with herbs. From the barbers came the surgeons with a knack for the knife. Lastly were the individuals in the Royal Court with an interest in medicine. The King, Henry VIII instigated the first Medical Act. By this Act the control of physic and surgery was restricted to graduates of a University or

those licensed by the bishops after examination by a panel of experts. This in effect excluded the lower classes from the practice of medicine.

In 1518, the physician to the King, Thomas Linacre then petitioned the King to set up a Company of Physicians which became the Royal College of Physicians in 1551. The Charter empowered the Royal College to license physicians throughout the kingdom and control practice within seven miles of London. The Surgeons followed through the influence of a barber- surgeon, Thomas Vicary who had the confidence of the King. In 1540 he obtained the King's Assent to a union of all the guilds in England into the United Company of Barber Surgeons. This Charter was a victory for the surgeons in their long battle to separate from the barbers; although full separation was to take another 200 years, as a result of the 1540 charter, surgeons were no longer required to act as barbers and barbers were restricted to dental extraction. Dentistry thus was to develop independently.

The Apothecaries too were struggling to improve their status by separating from the grocers who were politically powerful and had the City on their side. However the Apothecaries had the support of the population they served. They succeeded in forming a separate section in the large Grocer's Company in 1606 and in 1617 established a separate society. All the time they had to fight the efforts of the Grocers to reabsorb them.

The Physicians used their new powers to harass the Surgeons and the Apothecaries. They claimed that the Surgeon was a subordinate who must operate under the Physician's order. They warned the Surgeons against prescribing medicine as part of their treatment. The Apothecaries were forbidden to prescribe but only to dispense and were to collect fees only for medicine and not for advice. To get around this, the Apothecaries charged highly for their medicines and gave their advice free. To counter the Apothecaries' popularity with the poor, the physicians enjoined all fellows and licentiates to treat the poor free of charge. This had little effect.

During the great plague in 1665, the King and Court fled London and the Royal College of Physicians followed. The Apothecaries were left to tend to the population. When the court returned after the great fire, the physicians found the apothecaries serving as doctors and tried to reverse this. In 1703 they prosecuted

an Apothecary named Rose for practising medicine, but the House of Lords upheld Rose thus establishing the right of the Apothecary to act as a doctor.

In Edinburgh, in contrast, the Surgeons held the upper hand. Edinburgh was a great centre of medical learning and was in contact with the medical universities of the Continent. In 1505 the Barbers and Surgeons of Edinburgh formed a Corporation and obtained permission to dissect the bodies of executed criminals. This was before Vesalius, and before the Physicians and the Surgeons of London had been incorporated. The Surgeons in Edinburgh separated from the barbers in 1722. The barber surgeons exercised their prerogative of supervising physicians in Edinburgh. Two attempts by the Physicians to get a Royal Charter failed because of the opposition of the barber surgeons of Edinburgh and of the College of Physicians and Surgeons of Glasgow. Finally in 1681, the Royal College of Physicians of Edinburgh was founded.

In London, till the 19th Century, the Surgeon was still considered a tradesman. When he was called to the great houses, he entered by the tradesman's entrance whilst the physician went through the front door. But surgery was growing in importance. During the Napoleonic Wars, the surgeons increased in numbers and the methods of care of the wounded improved from the experience of the war.

Meanwhile the Apothecaries Hall had organised training programmes for their pupils. The Apothecaries Act of 1815 gave them the power to control the practice of medicine throughout the Kingdom. They used these powers wisely to insist on five years' apprenticeship during which attendance at courses in anatomy, physiology and the theory and practice of medicine was compulsory. In addition a candidate must have attended the wards of a hospital for at least six months. In this we can see the forerunner of the modern undergraduate course.

In contrast, the Royal College of Physicians stagnated as a small club of graduates of Oxford and Cambridge, where they could pass with very little teaching of medicine and without seeing a single patient. The strength was in their high social origins and in their connections at Court.

When the Royal College of Surgeons was established in England in 1800, they sought to attain equality of rights with the Apothecaries Hall. When they failed

to obtain an Act of Parliament, they came to an agreement with the Apothecaries to raise the status of the surgical diploma by confirming to the Apothecaries' requirements and by additional lectures on surgery and an additional six months in hospital wards. Thus up and coming young men now sought the double qualifications of the College and Hall, that is, the membership of the Royal College of Surgeons and the licence of the Apothecaries Hall.

Those were the first general practitioners qualifying in medicine and surgery and the forerunners of the MBBS of our time. For many years, the Royal College of Surgeons and the Apothecaries Hall provided a home for the rising number of general practitioners.

The Surgeons continued to rise in status. Surgery received a tremendous boost from the activity of John Hunter. He is one of the great names in the history of medicine, and placed surgery on scientific foundations. A colleague said of him "He alone made us gentlemen".

The 19th Century saw the rise of the Surgeons in achievement and esteem. The limitations upon surgery were pain and infection. As surgeons grew more daring, mortality rates became fearful. Then came two major advances in great succession. Anaesthesia became possible with ether and nitrous oxide and infection was controlled by antisepsis and asepsis.

The rapid advance of surgery now became possible and separated the surgeons from the general practitioners. The great body of General Practitioner - surgeons was eased out of surgery which was now concentrated in hospitals.

The rise of the hospital introduced a new cleavage into medicine between those with access to hospitals and those without. The hospitals were controlled by a small medical establishment. The Fellows of the Royal College of Physicians sought with diminishing success to control the Surgeons in hospitals. The younger physicians and the surgeons found that they could not rise or practise their new ideas because the medical establishment viewed with suspicion the emergence of new subspecialties.

In 1860, a Surgeon on the staff of St. Mary's Hospital London was dismissed for accepting an appointment at St. Peter's Hospital for the Stone. The development

of new instruments such as the ophthalmoscope and laryngoscope generated new skills and with these, new specialities. Dermatology emerged as a branch of surgery and became a flourishing field for private practice for the same reasons as now. With rapid growth of the cities, epidemics developed and public health emerged as a speciality. Obstetrics was discouraged in hospitals for fear of infection and gynaecology for fear of immorality. Practice in this area was looked down by the Royal Colleges and a President of the Royal College of Physicians was quoted as saying that “Obstetrics is no calling for a gentleman”. Repeated efforts early in the century to improve training within the Royal Colleges were rebuffed. Finally an attempt was made to set up a separate College. This was refused. However maternal mortality had become an election issue and political pressure was brought to bear on the Royal Colleges to agree to the British College of Obstetricians in 1929. To counter this in the same year, the Royal College set up a rival diploma which they proclaimed was a “guarantee of a high standard of attainment” in Obstetrics. This diploma never caught on and the new College never looked back.

During the period of great growth of hospitals, general practice languished. Whereas at the end of the 18th Century there was no difference between the type and quality of work in and outside the hospital, by the end of the 19th Century, there was a vast difference. The Royal College of Physicians emerged as a great force in medical training based on the hospital.

The hospital had become a centre of high technology. Powerful new agents were becoming available for the treatment of diseases and new equipment had been developed for diagnosis and therapy. General Practitioners were excluded from the advantages of many of those new diagnostic and therapeutic advances. Individually, general practitioners were amongst the founders of specialities such as cardiology and neurology but collectively they were excluded from a share in the advance of medicine. When the stethoscope was introduced by Laennec it was considered as too difficult to be used outside of hospitals. Similar arguments have been used to discourage the use of electrocardiography, radiology, clinical chemistry and new drugs outside the hospital.

What happened in the mid-century to change all this? I will identify two important forces. Firstly the rapid development of specialisation had undermined not only the position of general practitioners but also that of general surgeons and general

physicians. The greater the fragmentation of medicine into subspecialties, the more severely was missed the lack of an integrating personal physician. The same changes that were destroying the traditional general practitioner were creating the need for a new type of physician who would be the principal or primary source of care, who would integrate the contribution of specialists and undertake continuing care of the patient. Secondly the advances in medicine that strengthened the hospitals also opened new possibilities in general practice.

The antibiotics, steroids and psychotropic drugs made treatment more effective in general practice than they were in hospital just a few years previously. It is possible now to do a great many more things in general practice better than it had ever been possible to do in the hospital only a few decades ago. New technological developments opened the door to new possibilities both in hospital medicine and in general practice. New knowledge on diseases has led to a realisation that many of the major diseases have to be dealt with by prevention. Hypertension is better dealt with by prevention of its complications than by treatment, in coronary care units. Cancer of the lung must be prevented by behavioural changes and can never be treated effectively by surgery. As our understanding grows, new possibilities emerge that give the general practitioner a central role in the maintenance of health.

The establishment of Colleges and Academies of general practitioners Family Physicians is a sign of awareness of these new possibilities. William Pickles was a founder member of the Royal College of General Practitioners of the United Kingdom and to his efforts can be traced in a distant way the establishment of our own College.

We too will have to find a proper place for general practice so that it can contribute effectively to human health and welfare. We will have to work out new relationships with other specialities. General Practice is at the same time the youngest and the oldest of the specialities, the first and the last speciality.

The medical challenges that we face and the health problems of our people are such that it will tax us to the utmost and test to the fullest extent our skills and knowledge. It is foolish to be inhibited by fading boundaries of traditional medicine and by outdated beliefs. It is the mentality of guilds to resist new disciplines and, unworthy though it is, this mentality is common in medical history.

Family Medicine, Healthcare & Society:
Essays by Dr MK Rajakumar

We can be certain that almost all current techniques and all the newest drugs that we use will be replaced within a few decades. Even as we are filled with wonder and pride at the pace of medical advance, we should contemplate with humility the first aphorism of Hippocrates:

“Life is short, the art long, opportunity fleeting, experience deceptive and judgement difficult”.