

Does India need a William Osler for the millennium?

Terence J. Ryan

I have been reflecting on the editorial 'Medical Research and Education: Lessons from Osler'¹.

I am curator of 13 Norham Gardens, Oxford, the home of Sir William Osler when he was Regius Professor of Medicine in Oxford during 1905–1919. I have recently produced a DVD for the University of the Welsh National School of Medicine and in preparing this noted, that as their Principal Advisor on the proposed developments, Osler hoped that that new University would link to its hospitals².

I am an Emeritus Professor of Dermatology at Oxford University and I am envious that the Department of Dermatology in the Hospital of Cardiff, the capital of Wales, issues around 500 certificates each year to a wide range of in-house and outreach students qualifying in skincare in one form or another that links education and research to a global influence just as Osler would have wished, even though it is primarily awarding skills in diagnosis.

A student should be a citizen of the world, the allegiance of whose soul, at any rate, is too precious to be restricted to any one country. The great minds, the great works transcend all limitations of time, of language, and of race, and the scholar can never feel initiated into the company of the elect until he can approach all of life's problems from the cosmopolitan viewpoint. I care not in what subject he may work, the full knowledge cannot be reached without drawing on supplies from other lands³.

The complexity and equity of universal coverage by modern medicine is driven by the middle class and huge developments remain unavailable to the poor. It requires Oslerian wisdom to effect change. Today the patient in the developed world can obtain personal records of disease, seek help from the internet and be treated by allied health professionals and paramedics to an extent not possible in Osler's time. The likelihood of living to one hundred years of age is now much greater than in Osler's time one hundred years ago and it is likely that Osler would adjust his prophesy accordingly, because it is necessary that the years 60–80 in the fit, should be better used than on the golf course.

The things that should accompany old age: fairly good health to the end, an unceasing interest in life, and the affectionate esteem of a large circle of friends.

The effective, moving, vitalizing work of the world is done between the age of 25 and 40—these 15 golden years of plenty, the anabolic or constructive period, in which there is a balance in the mental bank and the credit is all still good⁴.

One can no longer depend on one's children for care in old age and so to age with dignity is much less likely. I envy India, which has retained a better chance of participation between the old and young in the village community compared to many other countries.

The time is now most appropriate for a re-examination and fuller appreciation of Osler's wisdom and his ability to generate collaboration and partnerships. However, one must make some assumptions about what he might write concerning the changes in contemporary medicine about which we would have asked his opinion. Osler famously suggested that there was no role for the aged physician, but it will not be long before the world is overwhelmed by a predominantly fit retired population of many useful professions. After Alma-Ata, the concept of primary care has advanced over 30 years to a stage when it, rather than hospitals, may be the most in need of research to provide better care at village level and the accelerating need for care in peri-urban slums. The difficulty is that hospitals are far more attractive to scientists than villages and getting the professions to go further afield is one of today's greater needs and it is proving difficult.

Actually in Oxford, to which the editorial refers to distinguished scientists such as Krebs, Harris and most recently, Weatherall in his Harveian Oratorian at the Royal College of Physicians of London, have argued that Osler's immediate successor, Archibald Garrod is a more worthy advertisement for science than was Osler. That is because the advances in genetics led us briefly to look at diseases of metabolism and the genome, as having the greatest influence on health and disease. Osler might be pleased with the more contemporary belief that genes interact amongst themselves and with 'junk', especially by courtesy of the

influence of environmental factors. It is these latter that now take us to the villages, but sadly the villagers are increasingly moving to city hospitals taking with them common diseases that overwhelm the services and leave little time for research. I have been involved in prioritizing the teaching in health centres predominantly about the commonest diseases in Mali, Africa, where the traditional health practitioner is first on call and the health centre is sadly second on call and its influence insufficient. India has a much better first-on-call system found in Ayurveda, Unani and Siddha. The Institute of Applied Dermatology led by Narahari in Kerala has given me the opportunity to choose diseases that are best served by integration and to experience good effects that would have delighted Osler, who in the year of his death was much more tolerant of other systems than is clinical science.

Twin berries on one stem, grievous damage has been done to both in regarding the humanities and science in any other light than complementary³.

Osler was fascinated by the history of medicine and gave himself a library that was unsurpassed in its insight into the history of medical practice. This went to his alma mater in Montreal. In a smaller way he looked at Oriental medicine and judging from what he thought of written traditions, he would surely want us to do research at the village level into the traditions which are so readily available and which are sustainable and which some of us would argue are less damaging by adverse reactions. The other pervasive thought about traditional medicine is that it is more holistic. Science is having to think again about its belief that research into single causes is the only way to progress. The complexity of interactions now demands even science to be more holistic. In dermatology we have to examine the causes of skin failure and follow the theme of 'precision medicine' that focuses on the function of organs. The naming of physical signs by Latin names or often by the names of their first described, including Osler, is no longer so useful even in rural dermatology.

For a while dermatology's expertise at recognizing physical signs seemed helpful to genetics; now the mechanisms

underlying skin failure provide a more informative field of study.

I have named the room in which Osler sat and hid his latest purchases from his wife, who considered he had too many books as 'Public health before and after Osler'. It includes a library on the history of leprosy, supporting the ILA and WHO website (www.history_of_leprosy.org). It also, for the education of our medical students, has a significant library on alternative and complementary medicine. Recently, several days were spent on cataloguing by the Bodleian Library. Fifty previously unrecorded books were added on the first day, thereby introducing to a university famous for its research, a new perspective which like the history of medicine would have Osler's approval.

Osler is often described as a therapeutic nihilist using only about three drugs – digitalis, morphine and aspirin – of herbal origin. That is a very different scenario to the world in which we now practice delivering a huge number of effective and dangerous remedies; only a few of herbal origin. These are presented at the kind of conferences as described in the editorial¹. Compared to reading a book, the value of these conferences as a medium of education is questionable, and it would be wonderful to hear what Osler would have said about the attendance and carrier bags swollen by samples, characteristic of such events.

Osler had the epidemics of syphilis and tuberculosis whereas we have HIV/AIDs. He had to think about diabetic coma in the lean for whom insulin was undiscovered, rather than foot ulcers and amputation in an obesity epidemic in which insulin resistance is common.

Those who write about obesity as something new will find only its sheer numbers are contemporary. India with its population in excess of a billion has a very large middle class seated at the computers almost from the womb until the tomb, which does not read anything in medicine that is over five years, but could read with benefit the more than 100 years ago writings of Osler.

Corpulence, an excessive development of the bodily fat – 'an oily dropsy in the words of Lord Byron (1888–1824, English romantic poet) – is a condition for which we are consulted in three groups of cases. First, there are persons of both sexes who have an hereditary tendency to obesity. Secondly, there is an increasing number of cases of obesity in children, particularly in the United States, associ-

ated with bad habits in eating, and carelessness and lack of control of the parents. Thirdly and most frequently, we are consulted by women at the middle period of life, who are troubled with an over-growth of fat. Too much food and too little exercise are largely responsible in about one half of cases, but in the hereditary ones these factors do not prevail, and this is a point to be borne in mind very carefully in the question of treatment⁵.

The questions raised about the current state of Indian medicine, of which I have some experience would have been answered by Osler: 'To you the silent workers of the ranks, in villages and country districts, in the slums of our large cities, in the mining camps and factory towns, in the homes of the rich, and in the hovels of the poor, to you is given the harder task of illustrating with your lives the Hippocratic standards of learning, of sagacity, of humanity and of probity.'⁶

The editorial describes medical students in India as having little feeling for the importance of research. He might be surprised to sit in a class of Oxford's medical students, to find how many are of Asian origin and how many write brilliantly on science and its research when given a month of special study to produce an innovative poster at the beginning of their clinical training. Their electives often take them to India, where we suggest in comparison to Oxford they will see the real world. A few have been introduced by me to, for them new diseases, leprosy or lymphatic filariasis. I tell them to read Osler while in Oxford, but prefer them to introduce themselves to the silent and unseen, access for the disabled and universal coverage, to listen to Ayurveda, Siddha or Unani, but taking with them their thoughts on evidence-based medicine, randomized controlled trials, genetics and molecular medicine. They should read the 2012 Harveian Oration in which Michael Rawlins, having dwelled on the benefits of evidence, says that the technique has important limitations of which four are particularly troublesome – the null hypothesis, probability, generalizability, and resource generability. In other words, to be like Osler and address complexity. Today, I wonder whether medical students in India should give equal priority to medical research: not as I suspect into the kind the editorial asks for, viz. molecular biology and genetics, but to sanitation, housing, equity, vulnerability, the patient's

voice, reduction in smoking, alcohol, and improvement in home gardens for health; all through collaboration with others who influence health, ranging from nurses to farmers or builders of sewers.

In the UK we read much about India's financial successes, and about an excess of billionaires, as well as the opinion of Green Peace on how wisdom may be lacking. One can only hope that one day there will be the gift of sanitation financed by the wealthy. It should happen faster, but in parallel to the linking of science with the practice of medicine. Two more quotes from Osler, born in Canada, practising in USA and the UK, and familiar with the wisdom of Asia, will suffice.

'Sixty years of sanitary reform have swept away typhus and cholera and have restricted yellow fever within narrow areas; we have learned how to fight tuberculosis and diphtheria, and in a hundred other ways the prevalence of the infectious disorders has been lessened. One demonstration stands out in clear relief above all others – with a *clean soil* and pure water typhoid fever disappears.'⁷

'Many of the State Boards of Health need a more efficient organization; all need a larger appropriation. A bureau of public health should form an integral department of each State government, with which civic, county, township, town, and village boards should be in close organic affiliation. The salaries of the health officers should be changed from the beggarly pittance, almost the rule, to sums which would warrant a demand on the part of the public that such officials should have modern training in *sanitary science*.'⁷

I conclude with an appeal that the science Balaram wants to infiltrate into the medical school and hospitals should include sanitation and the focus on patients should be coupled with a clean soil.

1. Balaram, P., *Curr. Sci.*, 2012, **103**, 463–464.
2. Cole, J., *Postgrad. Med. J.*, 1988, **64**, 568–567.
3. Osler, W., *Aequanimitas*, 1904.
4. Osler, W., Samuel Wilk, Men and Books, 1937.
5. Osler, W., *Br. Med. J.*, 1919, **2**, 1–7.
6. Osler, W., *The Principles and Practice of Medicine*, 1909.
7. Osler, W., *Med. News (New York)*, 1899, **74**, 225–229.

Terence J. Ryan is Emeritus Professor of Dermatology, Oxford University and Oxford Brookes University.
e-mail: userry282@aol.com