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IN THE BONESETTER'S WAITING-ROOM

TRAVELS THROUGH INDIAN MEDICINE

AARATHI PRASAD

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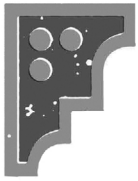


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The real voyage of discovery consists not in seeking
new landscapes, but in having new eyes.

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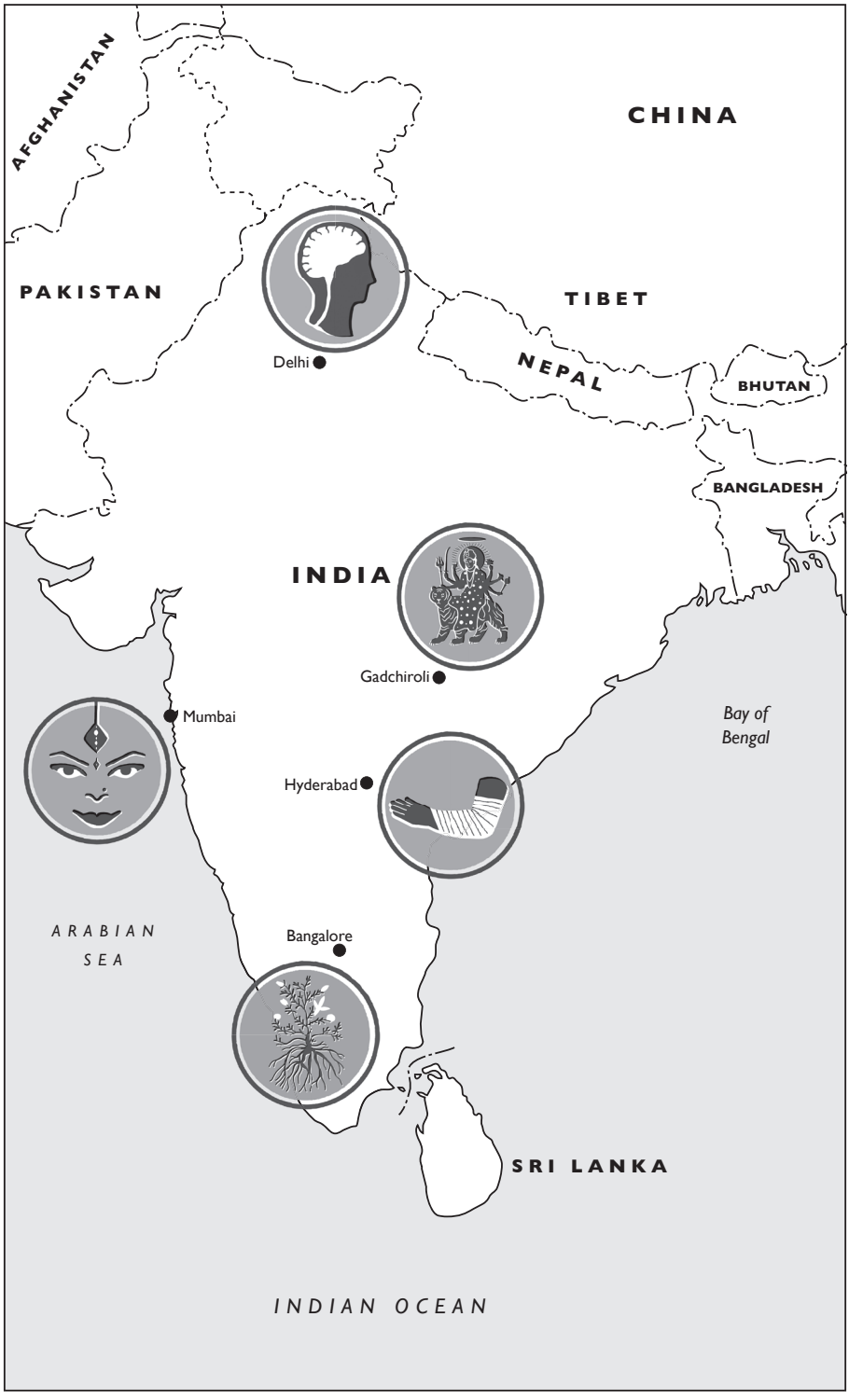
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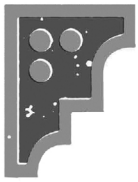


Introduction

EARLY ONE SUNDAY MORNING, I got into a taxi headed for Bangalore's City Market. A friend of mine, an artist who had created a montage of Indian medicinal plants for London's Natural History Museum, told me to meet him there. 'They sell everything,' Sunoj said, 'even things you wonder how anyone could ever need.' I was intrigued.

By the time I got there the streets were already heaving with crowds bartering with vendors while trying to avoid the constant flow of people, rickshaws, cows grazing on rubbish and the threat of rain. Sunoj was right about the offerings – there were stripped wires and light switches; decades-old badminton shuttlecocks made of real cork and goose feathers; antique brass ornaments and paintings; ancient coins of dubious provenance, Bakelite telephones, plastic shoes and semi-precious gems. Sometimes, Sunoj told me, if you looked carefully, there were the most wonderful curios to be found.

But we were browsing with a purpose: here, Sunoj had informed me, in the centre of the subcontinent's 'Silicon Valley', at the heart of India's home of technological innovation, was also an ancient world of medicine. As we walked on we found a man selling talismans to protect against scorpions, snake bite and the 'evil-eye'; another stall – probably the busiest – offered a black rock from the Himalayas, which, mixed with milk, would cure digestive

difficulties and back pain. There was a young woman with bottles of dried Ayurvedic herbs to be mixed with coconut oil, who released her Rapunzel-like locks as I talked to her, to prove the power of her herbal hair oil. 'Look,' she said, 'look how long it has grown in a year.' I asked her how long it was to start with. She indicated a very short bob, around the level of her ears. 'I cut my hair to sell it,' she continued, 'and with this oil, look how fast and beautifully it grows!' I was sure there'd be a stall selling human hair around the next corner, though not hers; not just yet.

I took her leaflet and walked to another area of the market where a man had pitched a large parasol, an old barber's chair and a cabinet covered with surgical tools, a box full of teeth and several sets of dentures. Sunoj was impressed. 'Much better equipped than he was last time I came,' he told me. 'But even then he had plenty of customers.'

When I got home, I told my mother about the street dentist. 'Did he have his monkey with him?' she asked, as if it were the most natural thing in the world. 'Why on earth would he have a monkey?' I asked. 'Because they have a very strong grip. When I was a child, street dentists used to have monkeys to help them.'

My mother was born in Bangalore in 1947, a few months before India became independent. In Delhi, even as thousands of refugees created by the subcontinent's partition into India and East and West Pakistan were still housed in makeshift camps around the city, long-discussed blueprints for the nation's new policies were being moulded. Among the goals were sustained economic development, education for the masses and healthcare for all. To many Indians, this meant making use not only of Western drugs and procedures but also of the many and varied traditional systems that had been practised across the country for centuries.

Charged with assisting the transition of India and Pakistan to independence, the interim government convened its

first health ministers' conference. As a result, my mother's father, a doctor of Ayurvedic medicine, was appointed secretary to the Chopra Committee, set up to make recommendations on both training and the synthesis of Indian (principally Ayurveda and the Greco-Arabic Unani) and Western medicine. Yet, despite the committee's best efforts, it would be around another fifty years before the government of India would create a department for traditional medicines under its Ministry of Health.

Today, medicine in India continues to be a multidisciplinary system in which there are not just three, as my grandpa and his colleagues were juggling, but seven officially recognised types of healthcare. The one with which Westerners are most familiar is variously called English, allopathic, Western, modern or biomedicine. Their doctors are referred to as MBBS doctors, after the name of the internationally accepted university qualification (Bachelor of Medicine, Bachelor of Surgery) for medical students.

Three others – Ayurveda, Yoga and Siddha – are Indian by birth. Unani, also of ancient origin, is Greek (via the Arab world) and the two most recent – Homoeopathy and Naturopathy – originated in nineteenth-century Europe. The collective term for this sextet of traditional systems is AYUSH, derived from the Sanskrit for 'long life' but is also an acronym of (most of) their initials.

Though allopathic medicine and AYUSH are based on vastly different principles, in practice doctors often have recourse to both systems. There are close to 400 MBBS medical schools in India, a mixture of highly competitive state colleges and expensive private ones, which prepare Indian doctors for mainstream medical careers in India. Alongside these mainstream schools are 500 universities and specialist medical colleges producing AYUSH graduates who are also taught relevant biomedical subjects – anatomy, biochemistry, pathology, physiology, surgery. AYUSH-trained doctors are allowed to prescribe conventional

medicines, but are expected to do so only in emergencies. Conventional medical training in India, by contrast, does not include the theory or practice of AYUSH. There is a theoretical proscription against MBBS doctors dispensing AYUSH remedies, although in practice, because of cost and demand, they often do. For day-to-day health problems, up to seventy per cent of Indians consult an AYUSH practitioner, not all of whom are licensed. There are a large number of 'fake doctors' who dispense pharmaceutical medicines: antibiotics, vitamin injections, steroids, but who have no training or qualifications at all.

India's healthcare system provides its citizens with enormous, if financially constrained, choice. In a country of twenty-two official languages and hundreds of dialects it is not surprising that there also exists a vast number of approaches to disease and its prevention. There are several non-AYUSH, non-biomedical traditions – folk, spiritual, herbal or ritual – whose practice remains ungoverned by the Ministry of Health despite the fact that they serve millions of people on a daily basis.

It is a hard truth that there are nowhere near enough trained health professionals to look after the sick among the country's 1.28 billion people, with MBBS doctor-to-patient ratios in rural areas, where seventy per cent of India's population live, reportedly as high as 100,000 to one, depending on the specialty in question. An additional problem is brain drain: many Indian doctors I spoke to, both in India and in other parts of the world, told me that the MBBS syllabus, its texts and its focus, seemed to concentrate on preparing young Indian doctors to work abroad, and less so on diseases they are likely to encounter in their home country. India is already the world's largest exporter of doctors, with about 47,000 currently practising in the United States and about 25,000 in the United Kingdom. On top of all this, for far too many, the cost of conventional medical treatment for common health problems is prohibitive and the

distribution of drugs and the execution of public health programmes can face massive bureaucratic and logistical hurdles.

AYUSH, which has a better distribution of doctors in rural areas, offers partial solutions to some of these challenges. However, there is a limit to what AYUSH practitioners can achieve without additional training. Patients who use AYUSH out of choice or necessity do so for primary medical care, or to manage chronic conditions for which mainstream medicine offers no satisfactory alternative. For those with access to it, Western medicine is still the only option for conditions that require surgery or emergency intervention.

Meanwhile, in a public health service already short of staff, many institutions' 'full-time' doctors spend an untenable amount of time occupied with private patients. As will become evident during the course of this book, the lack of doctors can mean more than deprivation of healthcare, the vacuum filled too often by unqualified practitioners with access to potentially lethal medicines or scalpels, or spiritual healers wielding hot irons – sometimes with fatal consequences. Within private hospitals, some state-funded basic healthcare is available, but there are reports that those subsidised services are being withheld or misused.

In 2013 India ranked sixth in the Billionaire Census, registering more billionaires than Hong Kong, France, Saudi Arabia and Switzerland. For the country's rich (and super rich), and for the 300-million-strong middle class whose wealth is growing with the nation's, there are private hospitals. Exceptional hospitals. And plenty of them, in which those who can afford it receive world-class care as well as nips, tucks, Botox and skin whitening: aesthetic corrections involving invasive surgeries or procedures that can be done in the space of a lunch break. Though not so long ago seen as vain and unnecessary, beautifying India, one facial filler at a time, is now big business. Yet India's majority group

– the poor – remain excluded from even good basic medical care in conventional settings.

Studies of out-of-pocket spend on medical care in India show that people spend up to 100 per cent of their income on healthcare, particularly for chronic conditions. They also sell property in 'crisis financing' medical treatment for themselves or family members. For these reasons, the treatment of disease is plunging people into poverty, not pulling them out. In the absence of an adequate universal health insurance scheme, individual spending power remains key to healthcare access. And what of government investment? India spends less than one per cent of its gross domestic product (GDP) on healthcare, a proportion which is among the lowest in the world. Despite the country's phenomenal growth, its free healthcare compares very badly with other rapidly developing nations: Brazil, China, neighbouring Bangladesh – even Afghanistan. It is heartening that in 2015 India's prime minister, Narendra Modi, announced plans to double health expenditure to two per cent of GDP over the next five years, and in 2017, his government's Finance Minister Arun Jaitley presented ambitious action plans for improving health or ameliorating disease, including the creation of new public medical institutes of excellence and the scaling up and strengthening of medical education and training across the country.

But, even with these intended budgetary increases and efforts, India will still continue to spend less on the health of its population per capita and percentage of GDP than most other countries in the world. As it stands, India's government-subsidised urban and rural hospitals remain underfunded to the point of collapse, resulting in inadequately resourced and staffed state-sector hospitals attempting to cater for the nearly 250 million of India's rural population and 80 million city dwellers who live below the poverty line.

Given India's manifest challenges, it might seem absurd

that the country should pour money into backing unproven alternative treatments. Few Unani and Ayurveda remedies have been tested using the global 'randomised controlled clinical trial' standard and diagnoses are based on concepts like 'temperaments' (respectively, the four humours or three *doshas*) – a concept that Western medicine has not subscribed to for several hundred years. Plant- and animal-derived ingredients are used in their formulations, which is also true of an extensive list of modern drugs, and the recipes developed by old medical families over the centuries are secrets as closely guarded by AYUSH practitioners as the computer databases of Big Pharma. Such secrecy prevents the testing by the wider medical community of claims that AYUSH remedies have succeeded where scientific medicine has failed. Scientific medicine is supposed to improve by being exposed to criticism and testing – it may not always happen, but the principle still stands. By comparison, homoeopathy and naturopathy opt for a more mystical approach and their effects thought to be psychosomatic (although mainstream medicine may also rely to some degree on the placebo effect).

Why, then, is the Indian government so willing to embrace such esoteric alternatives? That was one of the questions I set out to explore in this book and, while writing it, I realised that the situation in India was far more complex than I had imagined. Though the science mattered both to me and to many of the medics I interviewed, for others compelling evidence had many avatars – from the heavily computed to the anecdotal to the entirely absent. Though there have been multiple attempts to root out 'unscientific' AYUSH medicine in India, it continues to flourish, sustained by word of mouth, accessibility and even recently a process of 'reorientalisation'. Ayurveda in particular has benefited from the latter, a process by which traditions of the East, becoming popular in the West, are re-exported to their countries of origin as an aspirational, glamorous choice.

But despite all these challenges, the story of Indian healthcare is one not solely of inequality and deprivation, but also of innovation, hope and passionate individuals who have moved heaven and earth to find solutions. Many of the initiatives I encountered – from Devi Shetty's chain of cardiac centres, which treat the poor for free, to the pioneering research project run by Pawan Sinha, which restores the sight of blind children – began as philanthropic initiatives of forceful individuals prepared to engage with Indian bureaucracy.

Some policy makers and local governments are more open to advice (and capable of implementing it) than others. Doctors Rani and Abhay Bang and their team in the Gadchiroli jungle, for example, created a health and research camp in response to the dire medical need of the local and tribal community. Their computer scientists and statisticians work in a hut in the centre of a campus built on family land bought with family funds. As well as developing public health programmes, their team of doctors also want to make sure that they are effective and efficient. Their work has influenced health policy both in India and across the world. It illustrates what can happen when the best doctors go to the places they are needed the most, though the pay is low and the conditions hard. The Bangs also study non-communicable disease – stroke, high blood pressure and diabetes in the tribal population – conditions more usually associated with overstressed, underexercised, overindulged city-dwellers rather than thin, active people who live close to the land. Their work shows that events and innovations in India have implications for the rest of the world: at a time when fewer of us are dying from infection, and instead living longer with debilitating, chronic 'lifestyle' diseases, the results of work like this are increasingly relevant.

So many others in these pages have had the courage, foresight, or at times even the folly to challenge a system whose opacity and complexity would defeat many, their persistence

rewarded with support and funding from both individuals and international organisations. The scientist in my final chapter, Professor Pawan Sinha, for one, remains philosophical about the inherent difficulties. When I asked him about the challenges of working with the visually impaired in the country with the most blind people in the world, he said, quoting Khalil Gibran, 'When you set out to do something good, the energy of the universe aligns to assist you.'

Despite the work of these many inspirational individuals, there remains a long way to go before the ambition of that first government of modern India – state-supported healthcare for all – is realised. But if India is to achieve its full potential, it is a goal that remains vital: in one of the greatest nations on earth, the provision of world-class healthcare for all should be a major plank of government policy, not about philanthropy or ethics, or dependent on the goodwill of pioneering individuals. As an NHS colleague in London said to me – there is actually a strong economic case to be made as well. It is quite simply economic folly for a country to sacrifice its largest resource – its people – to ill health, poor nutrition and inadequate medical education.

Though I spent a good part of my childhood in India, hold an OCI (Overseas Citizen of India) card and was born to an Indian mother raised in Delhi and a Trinidadian father whose own father was taken into British indentured service from Uttar Pradesh, the stories in this book are still based on the observations of an outsider (though I think I have come to the conclusion that everyone is an outsider to some part of their own country, and even within their own cities). After completing my interviews for this book's final chapter, heavy-hearted to be leaving, I thought of something surgeon Dr Umang Mathur told me as I left the Dr Shroff Charity Eye Hospital in Delhi: 'India is everything they say it is,' he said, 'and nothing.'

Still, with an outsider's eyes, even in a familiar landscape, sometimes you find the most wonderful stories in

unexpected places. And so, ultimately, this is a book about how people in India approach health. It places centre stage stories of Indians in the business of healing – from the forefront of cutting-edge medical science to traditional street-corner pharmacies dealing with all manner of diseases by all manner of means – all hoping to deliver a cure. In researching it, I have spent time with healers and with patients, finding out who they turn to and why. The projects I have covered and doctors I interviewed were chosen for a variety of reasons. Some were pioneers in their fields; others attracted celebrity clientele. Several have been powerful catalysts for change, or have long family histories of medical practice. Yet others are passionate folk practitioners who fuse ancient tradition with modern technology, or command vast numbers of patients who place their trust in them despite knowing little about the treatment they receive.

My aim was to allow characters and their stories to speak for themselves, vibrant snapshots of health and disease – both inside a rapidly changing nation and in the work of its diaspora, who have long comprised a disproportionately large percentage of doctors and scientists across the world.

Detailing the entire breadth and diversity of the practice of medicine in India is clearly beyond the scope of any single volume. For every individual research centre or hospital whose story I relate, there are hundreds of others whose narrative remains to be told. India has a long history of iconic, brilliant scientific and medical minds. Its interaction with the wider world, in the provision of knowledge, doctors or scientific or scholarly exchange, go back millennia. The archaeology of the sub-continent is increasingly uncovering Indian innovation, reaching far into its prehistory, and so there are an almost uncapturable number of tales to tell. I would encourage everyone to continue to explore, engage and collect the wisdom and wealth of

human story this great country affords. Within the chapters that follow, my aim was to capture and curate a selection of stories that I found to reflect the experience of people from different socio-economic groups, from the educated to the illiterate, cities to forests, superstition to hard science. In India's rapidly changing landscape, any snapshot of 'now' is destined soon to become a mere record of practices, some of which, in just a few years' time, may well be obsolete. The stories told here move between rural and urban settings, from healing traditions rooted in India's religious, royal and colonial past to its twenty-first-century innovations. From neuroscience to jungle berries, ancient formulae to e-health, royal wrestlers to pioneering heart surgery, these are tales about medicine in India – as complex, vibrant, inspiring and bewildering as the country itself.