Skin, the forgotten organ, p 1420

G8 must seize chance to tackle undernutrition

PERSONAL VIEW **Mohamed Ag Ayoya**

The world continues to fail malnourished children and hence stalls any progress in achieving the United Nations' millennium development goals to halve hunger and reduce child mortality by two thirds between 1990 and 2015.

We know that between 3.5 million and five million children aged under 5 years die every year because of undernutrition and that low birth weight is responsible for 3.3% of overall child mortality (*Lancet* 2008;371:243-60). Initiation of breast feeding within one hour of birth, exclusive breast feeding for the first six months, and continued breast feeding for two years or beyond—together with age appropriate, nutritionally adequate complementary foods—have the potential to prevent 19% of all deaths of under 5s in the developing world.

Providing vitamin A supplements twice a year to all children aged 6 months to 59 months can avert 23% of child mortality from all causes. Zinc supplementation can reduce the prevalence of diarrhoea, a major killer of children, by 27% and reduces its duration and severity.

Yet in developing countries 178 million children aged under 5 are stunted (too short for their age), 55 million are wasted (too thin for their height), 112 million are underweight (too thin for their age), and 19.3 million have severe acute malnutrition, which makes them nine times more likely to die than a well nourished child. An estimated 33% (190 million) of preschool children and 15% (19 million) of pregnant women are deficient in vitamin A, and 1.62 billion people have anaemia. Availability of and access to zinc and low osmolarity oral rehydration salts are still limited, and 63% of infants under 6 months old are not exclusively breast fed. This bleak picture of child nutrition, drawn from various sources (see references on bmj.com), is being further exacerbated by the recent increases in the price of food, particularly in South Asia and sub-Saharan Africa.

Although the challenge is gigantic, it is possible to reverse these trends and end the huge toll that child undernutrition takes on the development of poor countries and communities. Furthermore, there are many success stories and lessons to be learnt from recent experiences. Bolivia, Brazil, China, Mexico, and Thailand provide us with evidence that progress is possible and, more importantly, that it can be rapid. Thailand reduced child undernutrition by 75% over two decades, and Brazil did the same over a decade. In addition, there is strong evidence—epidemiological and from programmes on the ground—that we can effectively respond with quality and equity to this challenge through the introduction of high impact interventions, such as:

- Promoting early and exclusive breast feeding
- Promoting breast feeding for two years or more
- Introducing complementary foods at age 6 months
- Providing micronutrients (vitamin A, zinc, iodine, and multiple micronutrients for children; iodine, iron and folate, and multiple micronutrients for pregnant women)
- A full course of vaccination and malaria prevention
- Promoting improved sanitation, along with good hygiene practice and facilities, including access to clean water and hand washing with soap
- Providing additional food supplements to populations with insecure access to food
- Treatment for childhood illnesses (diarrhoea, respiratory infections, malaria, and measles), and
- Timely and high quality care for children with severe acute malnutrition.

JENNY MATTHEWS/PANOS

Tahoua village, Niger, 2005: measuring the mid-upper arm circumference of a malnourished child. Oxfam and other relief agencies appealed this week for emergency aid to avert a famine in North Africa's Sahel region, which includes Niger.

News on bmj.com
See *BMJ* 2010;340:c3372

If what to do is known, then what is keeping us from doing it? The reasons for this failure are many, with the key factors being a lack of serious political commitment globally and investment that is too little, too late in low and middle income countries. The G8 summit in Canada this week should seriously reflect on this, setting a new stage and triggering a new dynamic among member countries to push nutrition higher up the global agenda.

So, this is a make or break time for the world's leaders, decision makers, and donor countries. If leaders of the G8 countries fail to act at this moment, they will miss a unique and historic opportunity to change the lives of voiceless, deprived, and vulnerable children whom they have been failing for so long.

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See NEWS, p 1380

REVIEW OF THE WEEK

Skin: the forgotten organ

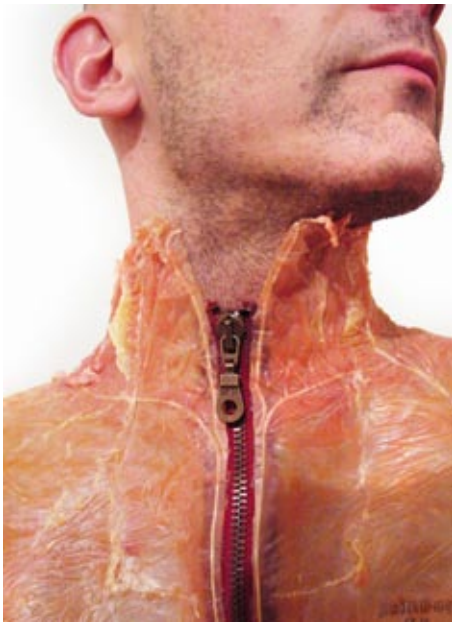
Skin, the most vulnerable and visible human organ, is the subject of an intriguing new exhibition, finds **Sophie Cook**

Skin

An exhibition at the Wellcome Trust, 183 Euston Road, London NW1 2BE. Open every day except Mondays (open bank holidays) from 10 June to 26 September. Admission free.

www.wellcomecollection.org

Rating: ★★★☆



"SkinBag" clothing by Olivier Goulet and a ceramic apothecary jar by Tamsin van Essen representing psoriasis

The crucial physiological role of skin is drummed into clinicians from an early stage. A new exhibition at the Wellcome Trust considers skin beyond this, examining the cultural, artistic, sensory, ethnic, and identity roles that skin plays in society. Alongside beautiful and delicate anatomical drawings and contemporary art are some gruesome representations of diseased skin, tattooed human skin cuttings, and magnified video footage that some may find unsightly. However, the collection is intriguing and encourages visitors to think about skin in many different ways.

The exhibition's four main themes are objects, marks, impressions, and afterlives. It walks viewers through the history of skin, which until the 18th century wasn't considered an organ in its own right but was viewed merely as a barrier to the internal organs that so intrigued the early anatomists. This view is depicted in many of the Renaissance écorché drawings, in which the subjects can be seen flaying the skin from their bodies like a gown. The first written works on skin disease began to emerge in the 18th century, but dermatology as we know it was not established until the 19th century. The artistic representations of skin disease from this era are strangely intricate and attractive, despite depicting disfiguring conditions. The waxwork teaching models on show are also eerily lifelike. Educational videos from the 20th century, graphic artwork, and anatomical models take the viewer on a journey through skin education. We learn how skin has been transformed from a covering that was ignored to an intricate organ that is now the basis of an entire medical specialty and profitable industry.

Moving away from the science of skin, the exhibition explores its close links with identity. Scars, marks, and tattoos all contribute to individuality. Tamsin van Essen has designed a collection of ceramic apothecary jars, each representing a different skin disease. Even though the jars are constructed in the same way, their outer flaws make them unique—a representation of how difficult it can be to hide dermatological disease.

Skin marks such as tattoos are integral to cultural identity, as seen in the traditional facial tattoos of New Zealand's Maori population. A striking photograph of a member of one of South Africa's prison gangs, known as "the numbers," highlights how tattoos are used as a form of expression. Each of the subject's tattoos conveys a message about where he has been or what he has done, in pigment made from, among other things, ground-up rubbish. A selection of tattooed skin cuttings is taken from the permanent Wellcome Collection. These were acquired in the 1920s from a man who obtained them through his work in Parisian military establishments. At first glance you would be forgiven for not recognising these specimens as human skins. Viewed in isolation, the skin could be just another artist's material.

The exhibition touches on how skin can represent fashion and status. Tanning illustrates a dynamic trend in skin appearance. While wealthy Victorians strived to be fair skinned to avoid the sun kissed look associated with manual labour, by the 1930s a tan was a symbol of travel and wealth. Nowadays the Victorian look is back in vogue as people become increasingly concerned about the risks of sun damage.

Visitors are encouraged to consider the "honesty" of skin as an organ: to the outside world internal organs show no visible signs of ageing or disease, but skin wrinkles, sags, and marks visibly through the years. Several photographs of ageing bodies show how, without even seeing a person's face, you can instantly tell whether they are old or young. In essence the skin tells a person's story. People have been trying to hide the skin's telltale signs of ageing for a long time: in one photograph two women from the 1920s sport anti-ageing medicated rubber masks. Today skin preservation is a booming business, with plastic surgery and cosmetics industries thriving on the eternal quest for youth.

An interactive section, the Skin Lab, carries the visitor into a more contemporary world. Epithelial cell jewellery by Marta Lwin and geometric models of reconstructive skin flaps by Rhian Solomon are on show. A selection of "SkinBag" clothing designed by Olivier Goulet is also available for you to try on in front of a full length mirror, though these items of clothing, made of synthetic materials that mimic natural skin, are unlikely to be to everyone's taste.

The exhibition encourages viewers to think about skin outside the medical box. It probably isn't for the squeamish, nor for anyone expecting a dermatology revision course. However, if you want to explore the broader functions of skin and what has led to a medical, industrial, and cultural fascination with it you will be impressed.

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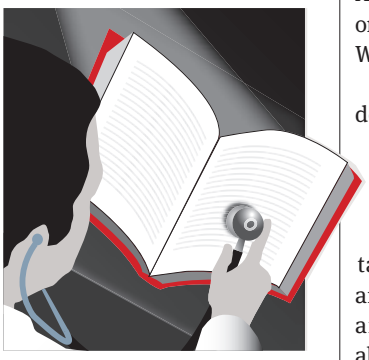
Tales of old mortality

BETWEEN THE LINES
Theodore Dalrymple



Scott was one of 12 children, only five of whom survived infancy. One of his surviving brothers joined the East India Company "and died a victim of the climate" . . . Another brother died on his return from the West Indies

Like many a famous author, Walter Scott (1771-1832) had a doctor in the family: his maternal grandfather, John Rutherford, who studied in Leiden, was awarded his MD at Rheims, became professor of physic at Edinburgh, was the first man in Britain to teach medicine to students at the bedside, and delivered his lectures in Latin, in which language he was said to be more fluent than in his native tongue.

John Gibson Lockhart's *Life of Sir Walter Scott* is often said to be the second greatest literary biography in English, (long) after Boswell, of course. At the beginning of the work is a short memoir of his early life by Scott himself, which is of considerable medical interest.

It was written before the passage of the Anatomy Act, when the only source of bodies for dissection was the hangman's noose or those feloniously resurrected from recent interment. Sir Walter tells us that if his life were of use in moral instruction he "would as readily consent to [a minute narrative of] it as I would bequeath my body to dissection, if the operation should tend to point out the nature and the means of curing any peculiar malady." Considering how unpopular and feared human dissection was at the time, this was a very enlightened attitude.

Scott was one of 12 children, only five of whom survived infancy. One of his surviving brothers joined the East India Company "and died a victim of the climate," that is to say from a disease such as malaria. His sister Anne was accident prone, and when she was aged 6 her cap caught fire and burnt her severely. Scott wrote that this made her delicate all her life, "the slightest cold occasioning swellings in her face," and she died aged only 29. Another brother died on his return from the West Indies.

Then Sir Walter describes what happened to him when he was 18 months old: "One night, I shewed great reluctance to be caught and put to bed; and after being chased about the room, was apprehended and consigned to my dormitory with some difficulty. It was the last time I was to shew such personal agility. In the morning, I was discovered to be afflicted with the fever which often accompanies the cutting of large teeth. It held me three days. On the fourth, they discovered that I had lost the power of my right leg."

This relatively mild case of poliomyelitis was perhaps of some use to the development of Scott's literary career, for, being unable to compete at school in games, he compensated in the search for popularity by developing a skill in telling stories.

Many remedies were tried on him. His grandfather, the professor of medicine, proving powerless, a folk remedy was resorted to: wrapping him up in the warm skin of a recently slaughtered sheep. This did not work either, nor did a prolonged stay in Bath.

Polio was not the only near escape that Scott had as a child. His nurse "contracted a sort of hatred at poor me," and she confessed that one day she "carried me up to the [hills] under a strong temptation of the Devil, to cut my throat with her scissors, and bury me in the moss." Scott adds with admirable restraint: "She was dismissed, of course, and I have heard became afterwards a lunatic."

Theodore Dalrymple is a writer and retired doctor

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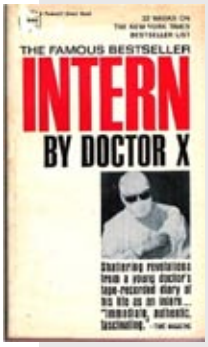
MEDICAL CLASSICS

Intern By Dr X (Alan Nourse)

Published 1965

Intern is the authentic chronicle of the internship year of a young US doctor, Alan Nourse (1928-1992), who later made a name for himself in science fiction. He recorded his journal on audiotape in real time (I suppose today he might have posted it in a blog), had it duly typed by his ever patient wife, and published it under the name of "Dr X," anonymising as many details as possible. This wasn't just to protect patients' confidentiality: with the zeal and naivety of a neophyte he pulls no punches in describing the blunders, the sloppy manners of staff (his politically incorrect remarks about nurses would probably not pass an editor's scrutiny these days), the gross mistakes that cost patients their lives, limbs, or babies, and the cover-ups of such mistakes to keep senior colleagues off the hook.

Through the eyes of the intern—the doctor usually first on the spot—we watch the dramas and occasional charades of everyday medical life in a busy city hospital. In 1965 polio was still in the list of daily differential diagnoses, and even tetanus makes an appearance in what must have been this intern's diagnostic coup. Lumbar punctures were as common as phlebotomies for all sorts of neurological patients. We marvel at the heroism of the physicians and surgeons who had to resort to pneumoencephalography to diagnose intracranial disease and to laparotomy for virtually any abdominal complaint. Recording an electrocardiograph in the middle of the night was considered extreme diagnostic effort; putting a patient with dyspnoea in an oxygen tent was the closest one could get to intensive care. This was not some third world hospital: this was the mid-60s United States of America. Lots of things have changed, but at what cost?



The book's value lies not just in the author's literary skills but in his matter of fact approach to his subject. Those were the days of television audience fascination with the handsome Dr Kildare; our intern takes us behind the scenes and shows us the real thing. He marches through sleepless nights in medicine, surgery, obstetrics, and paediatrics, building up the necessary clinical skills with little supervision and without any formal tuition—structured training programmes were introduced only much later. The frustrations of medical life are complicated by the idiosyncrasies of the attending physicians; and the low pay of the intern is no compensation for the long hours of duty. The author adds occasional post hoc comments to explain in retrospect situations that puzzled him at the time.

It is useful, particularly when we are in a low mood about our medical lives, to stop and take stock of the progress that has been made. This book should make us feel grateful for what we have now, compared with what our medical forebears had to put up with (or without). It should be recommended reading for everybody interested in clinical medicine and its history. The book is out of print but should be able to be found through libraries and online book services. My 25 year old paperback copy is certainly not for loan.

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Losing the moment

FROM THE FRONTLINE
Des Spence

Life is tedious monotony interspersed with occasional memorable moments. My wife and I have never stood on the bow of a ship pretending to fly, nor have I wrapped my arm around her while making a clay pot on a potter's wheel; but like everyone else I have my own memorable moments. Memorable moments are more frequent when we are young and are woven of optimism, recklessness, youthful invincibility, and an overwhelming sense of wellness—a sense more mental than physical. The rest of life is spent chasing that sense of being alive and just living for a few moments more to remember. Indeed we embrace the flawed, reckless, and free purely because they are the catalysts of memories. I often wonder what becomes of life when these moments stop coming. What has modern medicine done to these moments and our associated sense of wellness?

Our notion of iatrogenic harm was once crude, such as removing a head instead of a leg. But we now understand it to be more complex: unnecessary surgery, medication errors, and hospital acquired infections. But again, these are all obvious and, importantly, measurable and so can be modified. Perhaps iatrogenic harm is broader even than this, and again we should rethink our definitions. Modern medicine's obsession with risk modification involves treating large numbers of people as "patients" even though virtually none of these patients benefit directly. For example, if the number needed to treat is 50, then 49 people are treated without any benefit to them. This is true for all risk factors such as hypertension, cholesterol concentrations, osteoporosis, and the rest. And in national screening programmes many patients are given false positive results. The overall effect is that large numbers of well people are medicalised with no direct benefit to them—the treatment paradox. Private medical systems compound this further, exploiting wellness for profit.

So we have polluted wellness—restricting lifestyles; tying people to treatment and review; stealing confidence and self esteem; and generating health anxiety. But how do we measure the scale of these effects? Corporate medicine underplays and grossly underestimates the scale of this problem. Research on this topic seems scant. Billions of barrels of sticky, stinking medicalisation are spewing from medicine's ocean floor with no attempt to cap the flow. This man made iatrogenic disaster is becoming visible over the horizon, slowly expanding and choking all wildlife, and will soon hit the pristine beaches of wellness. The pollution of iatrogenic health anxiety is passing to the next generation, their memories and wellness sliced and diced by unregulated thinking and profit.

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Balance?

THE BEST MEDICINE
Liam Farrell

Northern Ireland's minister for culture recently wrote to the Ulster Museum urging it to reflect creationist and intelligent design theories of the universe's origins. While being interviewed about this on BBC radio he was ambushed by Richard Dawkins, whose withering scorn reduced the minister to an incoherent babbling about intolerance and equality and the need for debate. It was funny but also embarrassing; yep, that's our minister for culture, folks, don't it make you proud?

It also illustrates the dangers of a politically correct search for balance. When the director of the CERN Institute is interviewed about the hadron collider and the nature of the universe, you don't expect an alternative view from Mrs Poots from Barking, who believes that the stars are little fire-folk sitting in the air and that quarks are little white mice that can scurry very fast and that the hadron collider obviously wasn't going to work because the scientists didn't put out enough cheese. The interviewer then turns to the director. "So, why didn't you put out enough cheese?" he asks accusingly.

In science there is no point in debating with nonsense and superstition; even entering a debate lends the nonsense an undeserved credibility. Medicine is particularly vulnerable to those who peddle the illusion of knowledge to the gullible and the vulnerable; consider MMR versus anti-MMR, homoeopathy versus medicine that actually works, the tooth fairy versus regular dental hygiene, Santa Claus versus your parents buying stuff, female circumcision, astrology, the stork theory of making babies. It's not lies, it's just . . . bullshit.

Science acknowledges uncertainty, so I'll allow that I might be wrong. Some of these mightn't be just fairytales; the tooth fairy could be a very hardworking lady; and it's theoretically possible that there's a big fat beardy guy at the North Pole who can warp time and space. If there are so many imitators, as with Elvis, then yes, Virginia, there must be a real Santa Claus somewhere. There, you see, I'm being properly scientific, always ready to change my mind when presented with credible evidence.

OK, I know this isn't fair, I'm being narrow minded, I've sold out to the Man, I'm under the thumb of big pharma; but you'll have to forgive my cynicism, I can't help it because I'm a Scorpio.

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