

EDUCATION ISSUES IMPACTING ON MODERN AUSTRALIAN MEDICINE

Where do you think your heart is?

Expect to be surprised when you ask your patients the location of several major organs.

I have long noticed the need to never assume that the patient in front of me understands their own anatomy, understands their normal bodily functions or understands illness.

I was fortunate enough to do some formal training in teaching at university so from then onwards I stopped asking "Do you understand about (insert medical condition)?" & shifted to "What do you believe happens to you with (insert medical condition)?"

The answers I started getting back were bizarre. Far too often people really have no idea.

I was a member of several groups which were each involved in public education (National Asthma Council, Aust Lung Foundation, Coeliac Australia, Division of General Practice etc). I used travel around & visited every state & territory. The more questions I asked, the more concerned I became.

There are major education issues impacting on modern Australian medicine

- Literacy/ Numeracy
- Health literacy
- Poor education at school
- A handout is not education
- Educate the carer or don't bother educating the patient

Literacy

There is a high incidence of literacy & numeracy difficulties in people educated in the Australian primary & secondary school system. In 1980 it was 20%. In the population at large, it was higher.

First the definitions of Levels of Literacy

The OECD defines literacy across six levels. People with Level 1 or below literacy skills are considered to have very poor literacy skills, while Level 3 is considered the minimum literacy skills required for coping with everyday life. The levels are defined as follows:

Below Level 1: Adults can read brief texts on familiar topics and locate a single piece of specific information. Only basic vocabulary knowledge is required and the adult is not required to understand the structure of sentences or paragraphs.

Level 1: Adults can read relatively short digital or print texts to locate a single piece of information that is identical to or synonymous with the information given in the question. Knowledge and skill in recognising basic vocabulary, determining the meaning of sentences, and reading short paragraphs of text is expected.

Level 2: Adults can make matches between the text, either digital or printed, and information. Adults can paraphrase or make low-level inferences.

Level 3: Adults are required to read and navigate dense, lengthy or complex texts.

Level 4: Adults can integrate, interpret or synthesise information from complex or lengthy texts.

Adults can identify and understand one or more specific, non-central idea(s) in the text in order to interpret or evaluate subtle evidence-claim or persuasive discourse relationships.

Level 5: Adults can search for, and integrate, information across multiple, dense texts; construct syntheses of similar and contrasting ideas or points of view; or evaluate evidence based arguments.

Adults understand subtle, rhetorical cues and can make high-level inferences or use specialised background knowledge.

Around 3.7% (620,000) of Australians aged 15 to 74 years had literacy skills at Below Level 1, a further 10% (1.7 million) at Level 1, 30% (5.0 million) at Level 2, 38% (6.3 million) at Level 3, 14% (2.4 million) at Level 4, and 1.2% (200,000) at Level 5.

So 13.7% are functionally illiterate

Numeracy

The figures for numeracy were somewhat lower. Close to 6.5% (1.1 million) of Australians had numeracy skills at Below Level 1, 15% (2.5 million) at Level 1, 32% (5.4 million) at Level 2, 31% (5.2 million) at Level 3, 11% (1.8 million) at Level 4 and 1.4% (230,000) at Level 5. 21.5% are functionally innumerate.

Reference [https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4228.0Main+Features202011-12#:~:text=Proportion%20at%20each%20literacy%20level%E2%80%942011%E2%80%9312&text=Close%20to%206.5%25%20\(1.1%20million,\(230%2C000\)%20at%20Level%205.](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4228.0Main+Features202011-12#:~:text=Proportion%20at%20each%20literacy%20level%E2%80%942011%E2%80%9312&text=Close%20to%206.5%25%20(1.1%20million,(230%2C000)%20at%20Level%205.)

This was from adult surveys done in 2011-12. This was the latest rate I could find
Sadly this is a touchy political subject & subject to a lot of obfuscation in reporting

Health Literacy

Definition 1) Health literacy is about how people understand information about health and health care, and how they apply that information to their lives, use it to make decisions and act on it.

The Australian Commission on Safety & Quality in Health Care separates health literacy into two parts:

- **Individual health literacy** is the skills, knowledge, motivation and capacity of a person to access, understand, appraise and apply information to make effective decisions about health and health care and take appropriate action.
- **Health literacy environment** is the infrastructure, policies, processes, materials, people and relationships that make up the health system and have an impact on the way that people access, understand, appraise and apply health-related information and services.

<https://www.safetyandquality.gov.au/our-work/patient-and-consumer-centred-care/health-literacy#:~:text=Health%20literacy%20is%20about%20how,Our%20work>

Assessment parameters:- Proportion of 15–74-year-olds with health literacy above the minimum level regarded as necessary for understanding and using information relating to health issues.

<https://www.aihw.gov.au/reports/australias-health/australias-health-2018/contents/indicators-of-australias-health/health-literacy>

- In 2006, 41% of Australians aged 15–74 were assessed as having adequate or more than adequate health literacy skills (ABS 2008b).
- Half (50%) of all people aged 30–39 had health literacy skills that were adequate or better. Less than one-quarter (22%) of people aged 60–74 had health literacy skills that were adequate or better

Poor Education at School

Judging by such terrible results it can only be surmised that health literacy is not being adequately taught at school.

What is being taught at school? - this has to be found out.

There is enormous political pressure play when it comes to the teaching syllabus. There is much pressure to include a wide range of topics for reasons other than simply providing the three R's. In the early years of school students are initially taught in classes that depend on age & most are taught to the same syllabus. Then is the ideal time to teach the basics of health literacy. In later years students are divided into a variety of streams & concentrate on specific subjects. Then health is only taught to those doing biology.

A simple handout is not education

Many health professionals believe that they educate their patients when they provide them with a handout that is concise, language appropriate, aimed at a reader of Year 5 standard & has adequate diagrams & has website references.

Sadly, they are incorrect. To quote from my own teachers

Education is more than blandly providing information. It is helping a person understand. It is an interaction with the person & those who support them. It is integrating new learning into their pre-existing knowledge & beliefs. It means there should be a lot of questions & a lot of listening before even thinking of giving rehearsed answers.

It includes the concept of ongoing learning as knowledge can rapidly become outdated

Before you pour the tea, first empty the cup

Nan-in, a Japanese master during the Meiji era (1868-1912), received a university professor who came to inquire about Zen.

Nan-in served tea. He poured his visitor's cup full, and then kept on pouring.

The professor watched the overflow until he no longer could restrain himself. "It is overfull. No more will go in!"

"Like this cup," Nan-in said, "you are full of your own opinions and speculations. How can I show you Zen unless you first empty your cup?"

To be educated rather than informed you must first correct any outdated ideas, error or previous misconceptions.

The only way you can correct a patient's expectations is to ask them about their current understandings.

Educate the carer or don't bother trying to educate the patient.

The role of the informal carer is critical.

Every care situation is different. Some carers provide 24-hour nursing aid to a family member with high needs. Other carers support a person who is fairly independent but may need help with some tasks like banking, transport, shopping, or housework. Carers may give comfort, encouragement and reassurance to the person they care for, oversee their health and wellbeing or monitor their safety, regardless of where they currently live.

They are also the person the patient goes to in an attempt to understand what health professionals tell me. I know of fatalities that occurred because the carers did not have confidence in what the health professionals said.

Logic has a small but limited part to play in Medicine

It is often said that Medicine is the graveyard of theories.

The problem lies not in the use of logic, but in the assumptions on which logic is based.

A theory is just a hypothesis & all hypotheses must be tested.

It must be tested because our understanding of the workings of the human in health & in sickness are incomplete. There are often more systems & factors in play than we are aware of.

We can have a beautiful theory that leads us to believe that a treatment should work- but it doesn't. That is one of the attractions of Complementary Medicine- they have wonderful theories that determine an answer to many complex questions. Sadly, when tested, they are ineffective or even harmful.

I have had patients disagree with my treatments "because it is not logical yet what my naturopath says IS logical".

Maybe the logic of naturopathy etc is what appeals to people with a degree.

A lot of Medicine is memory work. The retention & recall of what works & what does not.

Sadly, medical information changes rapidly for some very interesting reasons.

- We continue learning more & more
- The treatments & therapies improve & change
- The diseases change (The description of asthma by Maimonides is different from that of Osler & different again from what we see now)

It is said that an expert is someone who makes a difficult task look easy. GPs are experts & we do not explain in detail what we do & why we do it.

A simple chat with the patient is anything but that.

We explore their state of mind, their stresses, their problems, their strengths & supports. We examine their current health, expectations, relationships & activities. We are relaxed & chatty but we do an extremely complex task.

Anyone can do a simple examination & write a script but there is much more than that in our consultations.

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