Life & Times

Neuroscientific narrative consulting:

how to engage our patients

Narrative approaches to the consultation offer an elegant and compelling way to harness the power of storytelling. Allowing and encouraging a patient to tell their story can offer unheralded insight and lead to particularly satisfying consultations for both patient and clinician. New neuroscientific research not only helps explain why, but also suggests ways in which we might communicate even better. Functional MRI scans demonstrate that, when we hear a story, more areas of our brain are active than when hearing facts or simple instructions. Crucially, this includes areas engaged with working memory such as the hippocampus, thus, stories are both more engaging and memorable.

THE HORMONE OF TRUST

MRI studies at the Hasson Lab in Princeton[1,2] have revealed that, during storytelling, the speaker's and listener's brains exhibit joint, temporally coupled response patterns. Information and data are essentially being transferred directly from one brain to another.[3] This 'neural coupling' diminishes in the absence of a narrative, for instance, when listening to an unintelligible language — medical jargon perhaps? By telling patients stories we have the means to more effectively transfer information and to improve retention of this information.

On a neurochemical level the neuropeptide oxytocin (OT) is strongly associated with a feeling of empathy, while the adrenocorticotropic hormone (ACTH) is the hormone of attention and distress.[4] Participants watching a 100-second fundraising video for a children's hospital demonstrated a 47% increase in serum oxytocin.[5] Oxytocin is the hormone of generosity, bonding, and trust — it makes us feel human, it makes us care, and, as we will see later, it also helps us agree.

An ingenious study in Harvard[6] recruited 42 volunteers and asked them to watch the same 59-second UK Public Service Announcement (PSA) about the dangers of smoking. Each was then given $40 and invited to donate a proportion of this to an anti-smoking charity. The participants had blood taken before and after the film to measure ACTH and OT levels. The results showed that when the film generated an increase in both ACTH and OT there was a 261% increase in the amount donated. They demonstrated this effect further by giving a dose of either intranasal oxytocin or placebo to a further 40 volunteers. After watching 16 further PSAs, those who had received oxytocin donated to 57% more causes, 56% more money, and reported 17% more concern for those in the advertisements.

TELLING A STORY

Advertisers and charities utilise this already, but could we too when recommending a treatment we feel is important? A statin perhaps, or an antihypertensive medication to be taken for the rest of a patient's life? Perhaps the ability to generate ACTH and OT during the consultation are of even greater importance than the application of the latest risk calculator. This might help explain why patients decide whether to agree to a management plan, and why information from a trusted GP rather than an unfamiliar specialist is so valued.

So why don't we try to generate ACTH and OT by packaging our information as a narrative? Why not tell patients the tale of diverticulosis? I suspect most of us start by describing little swellings on the bowel. You may even draw a picture. But this is the end of the story and not particularly memorable.

Stories need a beginning, middle, and end. Let us explain how food first gets broken down into liquid mush and in the large bowel becomes increasingly solid as water is reabsorbed. As this matter is squeezed down the colon and the bowel isn't so muscular or elastic, or if the faeces gets too hard, it pushes out little pouches called 'diverticula'. These can be sore, get infected, inflamed, or even bleed. This is why it is so important to keep our faeces nice and soft by eating enough fibre and drinking enough water. My suspicion is that such a narrative will generate more ACTH and OT, and increase understanding of the diagnosis and concordance with the management plan.

The research questions long-held truisms about the consultation, even how we break bad news. A neuroscientific approach would suggest that the 'Warning Shot' model will only trigger a surge of adrenaline, which actually impedes memory and recall. How many times have you heard patients say they remembered nothing further after they had been told the bad news? So let's use neuroscience here: walk people through the events that have led to this bad news; take them with us, generate empathy, and ensure their attention and memory throughout.

I believe that this emerging neuroscientific research not only helps explain the power of narrative approaches to consultations but also affords opportunities to reflect on aspects of the consultation in a novel evidence-based manner founded in our evolving understanding of brain function and biochemistry. Most importantly, it demonstrates the fundamental importance of remaining empathetic during the consultation, of showing our patients that we care. The most important skill of all.

"... 'the Warning Shot' model will only trigger a surge of adrenaline, which actually impedes memory and recall."

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