Body in mind? The need for an integrative approach to compassion in the NHS

Tamara Russell

Visiting Lecturer at King's College London; Director, Mindfulness Centre of Excellence London

I am a clinical psychologist, martial artist and mindfulness trainer. My own personal practice of mindfulness, using moving meditation (Tai Chi and Qi Gong) and seated practices, has transformed my clinical work. Not only am I able to maintain and support my own mental health and ongoing personal and professional development with mindfulness, I also increasingly notice a massive difference in how I interact with clients and, correspondingly, in their response to the treatment. Working with mindfulness really speeds up the process of therapy and working with body in mind opens up a wider range of information to use in the process.

Summary

Working in healthcare we inevitably encounter suffering and negative emotion. If we cope by cutting off, we disable our ability to empathise or respond compassionately. In a system that routinely asks staff to do more with less, there is an urgent need to improve our ability to cope with our own and our clients' emotions. Recent findings from the field of neuroscience form a basis for training that helps staff safely engage more compassionately with patients and take better care of themselves.

It feels appropriate to pause and connect to our own experience and response to what Aidan Halligan has said [see previous article]. I make this invitation because listening to his talk I became aware of some strong reactions in my own body in the region of the chest and the heart. This layered reaction was to both his passion, and the stories he told. I would encourage people now, if you feel comfortable to do so, to close your eyes and allow yourself to connect with whatever you're experiencing, particularly in the body, and in the torso region. There may be a range of different sensations, and the invitation is to see if we can accept and acknowledge whatever is there, without trying to change anything at all. Alongside those sensations, feelings, emotions you might notice the breath moving gently in and out of the body. (Pause of a minute or so) And then in your own time open your eyes and re-engage with the room. Here we have just connected to our bodies in a micro-mindful moment; something I would very much recommend people build even just for thirty seconds into their professional and personal working lives.

The invitation is to come out of the head and into the body, literally to connect to the heart of healthcare work. I hope to explain why this is a route to authentic self- and other-compassion by exploring what we now know about brain activity and emotion regulation during mindfulness practice; and to suggest why this practice is vital for healthcare staff. Key to the whole mindfulness endeavour is a connection to the body, and an understanding of how current ways of working in healthcare have reduced this connection. I believe mindfulness and in particular mindfulness of the body provides an antidote to the ongoing crisis of compassion in the NHS.

I will cover three main areas. First, compassion and the social brain – describing the parts of the brain that are integral to our social and interpersonal functioning. Second how these regions are compromised during times of stress, and finally how mindfulness can help develop and maintain compassion.

Compassion and the social brain

There are a number of definitions of compassion but ultimately compassion

is an emotional response. It was noteworthy that Aidan said several times in his presentation that he had felt someone's pain. These feelings did not originate in his head or in his brain; rather the brain encoded emotional sensations arising in his body and integrated them into a feeling state which he was able not just to be aware of but also to feel an appropriately compassionate response.

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Damasio (2012) defines emotions as being sensations experienced in the body, whereas feelings represent the integration of these bodily states with cognitive labelling and processing in the brain. This definition distinguishes between the body's rapid onset (and offset) emotional responses and the slower responses due to 'post-processing' by the forebrain. This distinction is a vitally important one in mindfulness training. The difference for instance between 'I am stressed' and 'I am noticing sensations in the body that I am labelling as stressful' is the difference between reacting to stress and responding to stress.

Living in large social groups confers advantages – protection from predators for example – but it comes at a cost because you need to co-operate and have some sense of how others are thinking and feeling (a capacity termed 'theory of mind'). Therefore the brain has evolved a complex network to regulate our behaviour in relation to others (Frith and Frith 2009) which combines theory of mind, emotion processing and affect regulation. Nicknamed 'the social brain' these circuits help us navigate complex social environments in ways that increase our chances of survival. From the perspective of evolutionary biology compassion and altruism can be considered higher order enablers of social cohesion. This would imply not only that we have an innate tendency to be compassionate, but also that this ability can be trained and cultivated through practise.

Many commentators have suggested that compassion in the NHS has declined. Calls for it to somehow be revived have formed part of the thoughtful response to the Francis Report. As with any other human quality 'dispositional' compassion will no doubt be unevenly distributed in the population. It has been proposed that people who work in the caring professions have a stronger innate capacity to care. However, the reasons for choosing to work in healthcare are more complex than this. For instance among those attracted to the caring professions are so-called 'wounded healers' who have their own or a family history of suffering and ill-health. While this might make them excellent and passionate carers such back-grounds brings with them definite vulnerabilities in the emotion laden domain of the healthcare system.

Individual factors such as this can be addressed by providing training and support, but systemic factors must also be considered since current systems of working have contributed to this crisis: tolerance and innate compassion will be compromised, under conditions of stress and uncertainty.

The importance of social and emotional learning

How can we cultivate compassionate states, deliberately choosing to cultivate positive emotions? This is a topic not only of interest in the health sector but also across other sectors, including education: young people who are stressed, anxious, uncertain and lonely will not learn the material being taught. Kimberly Schonert-Riechl's (2007) work explores social and emotional learning in the education setting, teaching young people to develop skills that will keep them socially connected to their peers in an education system that is essentially individualistic. Her research indicates that this heart-centred training helps young people thrive in work environments very different from those of 20, or even 10 years ago (see Caprara *et al* 2000). She suggests that for the best results this emotional intelligence training should precede other forms of learning. In this type of training we are moving out of the 'head' and into the 'heart' to include the richness of bodily information that is continually reaching the brain and influencing the way we think, act and relate.

In the early years of psychology and neuropsychology there was a real interest in the frontal lobes: the brain region most active when we make decisions, plan activities and monitor our behaviour. These are the kinds of mental computations you need to be good at when taking exams, planning a course of action or trying to get into a medical or nursing programme. There is no denying that these brain regions help us achieve such things. But they not all we need. You might have a really high IQ but if your emotional quotient (EQ) isn't developed how are you going to get along with others in your team? How are you going to get along with your patients? How are you going to care for yourself emotionally? If 'heart smarts' were seen to be as important as 'head smarts' it would represent a massive shift towards understanding humans as integrative beings.

But as yet, medical and nursing education is far from putting equal emphasis on emotional and cognitive abilities even though frontal regions are greatly influenced by emotions. As recent studies have shown our emotional state often drives forebrain activity to an extent that calls into question whether we are rational, logical creatures at all (Arnsten 2009). If, as this work suggests, our ability to think clearly, plan and monitor reality and communicate are so compromised under stress, then our emotional intelligence becomes as important as general intelligence, and as much in need of nurturing. Indeed Arnsten's review shows that although when all is calm and the frontal lobes are fully engaged we can do all of the things

that make humans unique, when stressed the forebrain is easily hijacked by the emotional limbic system and we turn into a different beast entirely.

In a healthcare system like ours – industrialised, high demand and unpredictable – there can be little doubt that this will be happening to many of the staff. For these are conditions where the emotional limbic system will take control, clear thinking becomes difficult, and other humans (equally unpredictable and emotional) actually become stressful stimuli; even more so when that other human is in distress and we are expected to 'fix' them.

Burnout in UK health teams

We know that high levels of burnout are present in our UK workforce. Staff in UK mental health teams had the highest rates of depersonalisation and emotional exhaustion in a recent European comparison (Hill *et al* 2006). This is what happens when people are repeatedly exposed to highly emotional situations without training in how to manage or process these emotions. What happens to emotions unexpressed because we're rushing on to the next task, getting home exhausted and crashing into bed? Where do all they go? How and when are they to be processed? A key aspect of burnout syndrome is depersonalisation and a disconnection from the body that leads to cynicism, indifference, despair, hopelessness. This is the way the system tries to protect itself. Although the burden is psychological the emotions have nowhere to go so the body has to signal there is a problem – backache, neck pain, medically unexplained symptoms – repeatedly telling us we are not listening because in order to cope we have had to cut off awareness of the body. As a result we lose what is at the heart of the work being done – symbolically but also literally, the heart.

The effect of stress on the brain

Imaging data shows us that cumulative adverse life events and stressors adversely affect brain structures implicated in the social cognitive brain network (Frith and Frith 2009) including the medial prefrontal cortex and anterior cingulate (Ansell *et al* 2012). The anterior cingulate is involved in attentional processes and it interacts with the limbic system to alert us to pay attention to emotionally salient stimuli (Pessoa 2012). The medial prefrontal region is involved in making inferences about the mental state of others (so called 'theory of mind'). When we are stressed and anxious this part of the brain down-regulates so the mental and emotional states of others becomes less of a priority. This brain state, by effectively dropping into a self-referential 'it's all about me' mode, orients the mind-body towards survival. Highly alert to the possibility of threat, it prepares us for fight or flight, and perceives no space or time to care for or think about the needs of others.

Different brain modes

The insula – which codes the 'felt sense' of the body – is particularly important not only in processing emotions but also in that it provides the brain with viscerocceptive information – the sense of our insides. Clinicians are generally aware that their 'gut instinct' is often a vitally important resource in the clinical setting. However, the work of Farb and colleagues (Farb *et al* 2007) shows that in 'self-referential' modes the interaction between the 'it's all about me' medial prefrontal regions of the brain and the insula reduces the ability to listen to this aspect of our body knowledge, so that 'gut feeling' is compromised under conditions of stress.

> A key aspect of burnout syndrome is depersonalisation and a disconnection from the body

Farb's work suggests that mindfulness training can allow the individual to experience strong emotions without signals from the insula (the felt sense of the emotion in the body) having to be processed in concert with the 'it's all about me region' signals from the medial prefrontal cortex. Post-mindfulness the brain can process these emotional messages in ways that allow the experience to be observed as non-threatening. Farb's work is beginning to distinguish brain networks activated during moments of 'I am stressed, it's all about me, the stress is me, it's all too much' from 'it's OK, I'm aware that I feel sick, that I'm feeling knots in my stomach, and that I really want to run away – but I'm not going to, I'm going to stay with it'. This more mindful mode of processing internal discomfort makes it possible to have strong feelings without losing their overwhelming the ability to think clearly. This mode does not try to shut down the emotion, but rather to stay open to it. This makes it possible to remain open to emotional experiences of all kinds – one's own as well as others' – instead of backing away from them.

Growing your brain?

Since brain imaging data helps us understand the neurobiology of mirroring and empathy might it therefore inform ways of supporting staff who must engage every day with distress and suffering? Can it show us ways to be with the emotional experiences of our work without getting overwhelmed? Can this knowledge help us foster our innate tendency to be kind? In particular how to be kind when almost everything is stacked against us? And overall, will neurobiology's insights help us move from a life of struggling to cope with stress to one of thriving?

Until recently, it was thought that the brain was malleable only during certain developmental periods

(neonatal and during adolescence). But mindfulness studies show it is possible to change our brains through training (Holzel *et al* 2011). What is more it seems that learning to tolerate strong emotions, particularly as felt in the body, may be the key to more skillful emotion processing and regulation. A number of imaging studies with expert and lay meditators have shown that we can 'grow' our insula cortex (Lazar *et al* 2005). Another MRI study of very experienced compassion meditators (Tibetan monks) showed that when generating compassionate states of mind (even when challenged by negative emotions) the insula is the region of the brain that codes for the bodily experience activated by emotion (Lutz *et al* 2008). This suggests that our way to reach compassionate states is not through the thinking brain but by working through awareness of the body. It could be argued that acceptance of the feelings and sensations of strong emotional states in the body without reacting to them or dissociating from them is the very opposite of the burnout depersonalisation syndrome.

Caring for ourselves first

An important implication of this work with experts in compassion meditation is that the 'circle of compassion' must include compassion for ourselves. Eastern meditation teachers when they first came to the west were shocked to find that westerners struggled to generate self-compassionate states of mind. So great was the difficulty that they made changes to the meditation practice used to cultivate compassion (a practice called loving kindness). These difficulties should not be underestimated, especially in those who care for others – health care staff and carers who routinely put everyone's needs before their own. The research suggests that we will care better for others if we care for ourselves and can connect to our own suffering. Perhaps only then is it possible to help others in ways that are sustainable.

In these studies monks practising loving kindness meditation activated the anterior insula in response to the negative emotions. This suggests a felt sense of the emotional response that was both very strong and very much associated with regions of the brain that code for bodily awareness. Activations in secondary motor cortex and somatosensory cortex suggest that during compassionate states we actually feel more. In the meditating monks both sides of the brain and the amygdala were active too, suggesting that they were fully allowing and experiencing the emotion. And yet they were not reacting to these emotions cognitively, with narrative, inner dialogue, and comments. In short they were neither getting emotional about their emotions nor practising some sort of 'dispassionate awareness'. These studies of the compassionate brain demonstrate that the Buddhist tradition far from detaching its practitioners from their feelings suggests there is actually more feeling. What is different is the lack of self-referential reactivity to deliberate and deeply felt emotion.

How do we do this? Well one option is to 'go big'. This is a mental response to strong emotions, one that works as an antidote to the constriction and tightening that comes with fear and stress and allows the emotion to fully run its course without struggle, without suppression, denial etc. When we notice we are feeling 'a something', a movement in the body, can we 'go big', experiment with allowing it, observing it, rather than getting caught up in it. This does take practise and with practise the skill can be refined. This is an inner shift we can experiment anywhere – at work or at home or whenever we notice irritation or frustration with other people. It is possible to engage this way with positive as well as negative emotions and the more we practise the easier it becomes. The research with the monks suggests that this practise can make lasting changes to the brain.

Training in 'body in mind'

Finally, some new research has been looking at how training in mindfulness of the body can help to support the development of tolerance of strong emotions and self-compassion. Body in mind training (BMT) is a movement-based mindfulness training programme that is founded on the neuroscience data presented. The training, which has been piloted in a psychiatric setting (Russell 2011) with both clients and staff, will shortly be evaluated by two postgraduate projects in the UK (a project working with those who care for others') and Brazil (in a cardiac rehabilitation setting). A book on this method is forth-coming (Russell in press) and the theoretical aspects are detailed in Russell and Tatton-Ramos (in press). Aspects of this BMT programme were incorporated in a masters project that was conducted in collaboration with King's College London and with the support of the Royal College of GPs (Osborn 2013). It was in the form of a 'low dose' (4 sessions of 2.5 hours) mindfulness and coaching intervention offered to GPs and some psychiatrists. After just four sessions there was a decrease in perceived stress and an increase in self-compassion. The doctors reported less self-judgement and an increase in a sub-scale that measures 'common humanity'. This suggests that this training increased these doctors' ability to connect to common human experiences in a way that involved suspending judgement. The prospect then is that by learning to accept how we are feeling and by embracing all of our experience through mindful body awareness, a wealth of positive effects flow into our personal and working experience.

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