The role of Patient Education in Recovery from Persistent Pain

Lynn Humplebee

*Our speaker ll. this evening is Lynn Humplebee, who is a physiotherapist working mainly at the moment in obesity and weight loss. But she's also become interested in pain because a lot of the reason people with high body mass indexes don't move around very much because they've got chronic pain. it kind of melds a lot with our interest in pain, etc. so over to you, Lynn*.

I am a specialist physiotherapist. I work in weight management in York in North Yorkshire. I've been doing this job for about four years now When I first started doing this job, I thought weight management, was all about goals. As long as you've got a goal like weight loss, you've got something to aim for and you'll reach it.   
 But it didn't take me very long to appreciate the complexity of obesity as a disease and that of weight management There are a lot of fears and a lot of barriers and the main barrier to physical activity was pain. I think your group has opened my eyes to the complexity of pain. It's been a journey from where I was quite green. in trying to widen my understanding and apply it to my clinical practice. So it might help if I told you a little bit about the weight management program that I work in. It's 12 months long. Patients with obesity can be referred through their GP. It's a like a golden ticket.. We have a hundred places for people in the York area. and they'll be under our program for a year. As the physiotherapist in the team I plan and deliver the physical activity side of the weight management program. There are also a dietitian, a counsellor and a consultant endocrinologist who is the clinical lead and looks after the medication side of things. I run physical activity groups. So patients will come every week. for 12 weeks Patients can either opt to come face to face or join online. I'll do traditional circuit style cardiovascular exercise with them and then I'll do different education sessions on aspects of weight

management and physical activity. With those that come face to face, I'll do group education and Tai Chi.

I started with quite a naive idea of weight management - a bit like the general misconceptions about pain.: it's just about eating less and moving more. Or when it comes to pain it's just about finding out what's wrong and then treating it and everything's better. There's a lot more complexity about it. So I have started off on my journey to understanding more about the barriers that my patients find in being as physically active as they would like to be.

So I came to join your group and I've done some more reading around the subject but I'm not a specialist in pain. But I do try to teach my patients and help them become specialists in pain themselves . This is something that if it affects their life and they need to have some current knowledge, not just myths and the sort of common assumptions that even health professionals are not up to date may. I'm forever growing and trying to expand my knowledge on pain because where I live in North Yorkshire, one in four people have a disability that is impacted by pain. So that's why I feel it's my duty to learn and to pass this on to the patients and empower them as well . The days are long gone when we just told our patients what to do. We're empowering them to take control and take charge - and ask us the questions. When I was a baby physiotherapist I went to Bradford University and I think were taught the medical model really around pain – that pain is a signal from damaged tissues and when we find out what's wrong, with the right investigations and find out the causes then we can treat it. And I did used to be a little bit scared when my patients were presenting with pain because I didn't want to make it worse. So we encouraged them to be ‘guided by their pain. That was kind of a gentle approach to pain. And I soon found that there were too many questions about this and our patients were, there wasn't, people weren't getting better . And it just didn't fit with my patients’ experience.  
When we have an injury and we know how long it is going to take, medications work really well, and investigations are appropriate . But when pan persists beyond the time that we know that it takes for this injury to heal, it all becomes a little bit messy and a little bit complicated and this just does not fit.

I suppose it's from patient demand that we're having more imaging, , more MRIs, more expensive investigations, in the search the cause of pain. Knee replacements are going up and arthroscopy is losing a little bit of favour. But when I was doing my placements as a physio in the outpatient department, we did do some education with our patients and told them about the lots of studies that take asymptomatic patients and image their backs and found changes in the joints etc. linked with age but not with pain. And it doesn't necessarily mean that there's something wrong. So this kind of gets my patients thinking a little bit.

We know that opioid use is increasing, and from around 1990 to the present day, despite increased prescriptions of opioid prescriptions, the prevalence of pain has doubled on the back of increased investigations. I see this all the time with my patients:, a long list of pain, analgesia, pain relief, but yet people are still wanting a cure. They're still poorly functioning. Pan is still a barrier to losing weight and to having a healthy life. So is there a better way to help my patients? I think they deserve better..

A better way?

If there is a better way, it might mean that this could change for our patients so that they aren't relying on prescriptions that don't seem to help pain. So this is where I became interested in the work of Professor Lorimer Mosley and the NOI group in Australia. . He's a pretty big deal. He trained as a physio but then became a researcher in pain. He did some master classes in York in the summer. So I managed to get some funding through my employers and I went to a two day workshop. I'm putting this education in from this into my practice. I used to give a definition to my patients of pain based on like some kind of washy medical model: the definition of pain as an unpleasant conscious experience that emerges from the brain when the sum of all the available information suggests that you need to protect a particular part of your body. But we know that pain is made in the brain and it's a protective mechanism.

This is a new idea for most of my patients: moving away from pain being a signal from damaged tissues and if it hurts it must be harmful and we need to rest. More than half of my patients in the work management clinics are affected by persistent pain. I like to introduce too the image of l pain as like the light on the top of a Christmas tree and there is far more going on than this one thing on the top, idea of pain as a protective mechanism

So I start with this idea which might be a difficult especially for people have been living with pain and have had frustrations from different health professional appointments and an increase in their pain with reduced movement, reduced mood, poor sleep, coping skills; just going round and round around.

I have to be careful when I say that pain is made in the brain so my patients don't feel I’m saying that it's all in their head. That is a tricky thing about this neuroscience, but we can discuss this and help our patients to get a better understanding on the lines of ‘yes, but everything is in the brain, isn't it? We're all, we're all just neural pathways, aren't we?’’ So when we're thinking of pain with the research of this body of scientists, we know, that the central nervous system reacts to all sensory nerve impulses including nociception and nociceptive pain. We know it's the most common type of pain. And this is where it's a signal from the receptors in a tissue that tells that is threatened or has actual damage to non neural tissue. So this can – and sometimes can’t - signal alarms to the brain.. This is of the difficulties with pain that sometimes our alarm system doesn't go off.   
 But we know through this model of understanding that it's not just about the impulses from the tissues, but it's all the information our brain encodes, all the information it can find: our environment, our beliefs, our understanding, and our expectations. We know it's frightening for our patients and we know pain can be unpredictable. We like it when things are going to heal and our brain likes it as well, and we adopt healthy behaviours. When we're in everyday sort of pain like sprains and things, we have healthy behaviours, we don't let it impact our lives.

And even the memory that we make from it can be a survival tactic which may prevent us from doing something like that again. We know that pain allows our tissues to heal. and our brain and our nervous system can protect us. And it is basically our assessment of danger.

As physiotherapists we deal in neuroplasticity, and bio plasticity and this is what we exploit with our patients - our brain's ability to change through learning and experience. And this can be lifelong healing and lifelong changing. We know as human beings, we're always updating, we're always adapting, sometimes negatively but hopefully when we're dealing in our line of business, we're doing this positively. So our nervous system creates neural networks to organize our experience in order to learn and survive. It creates memories that are often known as neurotags. And we all experience it, don't we - that our brain encodes all the information from our senses, so a smell can take us right back to being a child and a touch, smell or sight can create neural pathways that form together collectively as an interpretation of an event in the environment.. And we can have pain neurotags, a particular memory that all of our senses has packed together.

In terms of understanding whether our body is fit for the next movement, there are lots of different internal processes that evaluate this, whether we're never consciously thinking of them , but all the time our brain is interpreting within our environment and also within our neurotags. Am I able to do this? Are we able to do this? Often when we have pain there are neurotags that tell us that our body is not up to the purpose. What I often see in clinic is chronic, nonspecific lower back pain. We can see that a patient hold strong views ad internal models about being fragile, and maybe not unhealthy and stiff.

Educating patients

We take from our environment and our past experience perhaps of seeing health professionals that fits in with this and patients get an understanding that their body is not fit for purpose. This contributes to the way pain works and influences these internal models so it doesn't update and it stays the same. So I educate my patients on this model: that we can adapt, we can recover, we can heal. This is where therapies come in. I want them to see that their body is healthy, that it's strong, that it is fit for purpose and we can use all the biological and evolutionary tactics that our brain has developed to respond positively to progressive movement. And our tissues and our joints love movement, they love loading and they can become stronger and all the messages and beliefs that can fit into that. So this is where the education comes in. So this is what we deal with, this is what we sell, this is what we want our patients to have. This is recovery. .But there are many myths, misunderstandings and unnecessary fears around pain. It can stop my patients from doing the very thing that they need to recover.

And it's my job to pass this understanding to my patients so they can achieve this. Because the understanding, all the science that goes into this state comes to the understanding that knowing about pain, knowing what pain is the best, is the most effective way of dealing with it. We know pain. So in terms of sensitization, I help my patients to understand that pain systems drive the sensitivity and it can prevent their recovery. . I try to help them to understand that the brain can become too good at protecting us and their pain alarm system might be coming too sensitive. If their pain persists, it spreads, it worsens and becomes less predictable. And even if thinking about movement, or even a light touch brings on pain we know that things have become too sensitive. I try to get my patients to u look at their thought processes and their feelings because often, particularly in weight management, I see a separation of the body from the person's view of themselves. And it can be really difficult for them to voice some of their thoughts and their feelings about their pain, about themselves and about their barriers. So when I talk to them, I use metaphors. And we will look at metaphors about pain being an alarm system that can be very useful.   
There are some people that don’t feel pain and this can be life threatening. We use our memories to predict danger and to keep us safe. We know that pain relies on context, on sensory information that needs to be evaluated by the brain. And I often use examples with of how it relies on context and not just information from damaged tissues. . There is a famous case study, called A Tale of Two Nails where a construction worker, went into A&E  
He had a nail which had gone through his boot, through his foot and was poking out of the sole of his shoes. He was heavily medicated. But then when they pulled the nail out, they realized that it had gone through his toes and hadn't gone through his foot. There are lots of examples of people having shrapnel lodged in their brains in war situations.. And the brain isn't telling them that there's any danger there. So it does rely on context. If the brain doesn't detect any danger, it won't produce pain. And we've learned that since being a child. We learn that all the time in our everyday interactions in society. And we know that pain is very culturally specific and there are gender differences. It's complex involving learned understand and beliefs. . Toothache is really common and really painful. Is this partly because we know it's going to be? It is expensive. We have lots of fears about going to the dentist, so we don't go. . And that makes it worse. But sometimes when the emergency appointment is booked and the patient walks into the dental surgery even before they take an assessment or take any look, the pain will disappear. So it's our brain - -the brain kind of likes action and if it's satisfied that action is taken, pain will reduce.. And I'm sure lots of you guys out there that have been working in medicine and practice healthcare can have lots of examples of this.

So what do my patients say to me? I often hear: ‘I don't want to do anything until this pain goes away, I might make it worse -. I'm going to wait until the pain goes away’. Or they believe that there must be something wrong because there's a lot of pain. Severe pain must equal severe harm. And I do get a hear a lot of frustration that there isn't any way that anyone's been able to fix their pain which has had such a devastating impact on their lives, just going round and round in circles of frustration.

Language

One of the things that I've really found helpful about this Pain Society group is that it has really opened my curiosity around language. Before I became a physiotherapist, I was a newspaper reporter. I have found there is a lot of crossover between being a newspaper reporter and a physiotherapist. And one of those things is language. I enjoyed Sarah's talk about hypnosis and oncology last session which builds on what Maureen and others have said about how healing language can create an immune response. And being able to unlock fears through language and empower patients to take control at the very end stages of life.   
 I see and, I won't be the only one, where language can really disempower patients can have quite the opposite effect all the time. Every time I have a patient education session on pain, I will ask my patients what's their experience? Have they had any investigations? Was it helpful, was it not? And they will every single time say, oh, well, I've been told that it's wear and tear. They said it's bone on bone. These that I've had a slipped disc. These words are enough to stop movement. And it's quite upsetting really because the patients have been absolutely frightened to death. And it's simply just not true. I   
 And I find sometimes that I'm in a difficult position because people people that get paid a lot more than me have said this and it's and that ; I don't think they realize the weight of their words and how it impacts on patients’ recovery.. But we know that you can have disc changes and all the rest of the degenerative changes that we can see on an investigation, but with no pain.

Education

I don't know whether education has improved since I was at school, but understanding of why things hurt was non-existent. Anything we did know about it was based on the anatomy and the idea that it's signals from damaged tissues. But we understand that it's more of a complex model.. Pain is a complex picture. Based on years of high quality RCTs we can see that patient experience is more than just a marker of tissue health.

And maybe if I'm being honest, trying to impart a more modern pain education challenges me because this really takes on something that I don't feel so confident in. Getting the message across that healing from pain and recovery requires effort and active learning. . is something that I am still working on. . How do I convince my patients that I understand their pain is real but it's not just about the tissues in their body? Some will come back into clinic after doing their education with me and go, “yes, I understand what you said, that the pain is all in my head” - and I'm thinking, oh God, no, that's not what I'm saying. It's like obviously it hasn't landed that I understand their pain is real..

One way of giving them more confidence in this is to use examples of where patients or people have severe injuries, like in war situations , who don’t feel pain or say, or that of patients who have had a limb amputated, around 70% will experience phantom pain. So I try of talk around the virtual body and understanding that it's more than just but it is real.

I think as a clinician I used to skirt around the issue of handing patients the power of dealing with their pain I think I would say something like:

I'm here to support you in managing your pain – that kind of that therapeutic relationship. Probably if I'm being honest, I didn't want my patients to dislike me.

But I will confidently say to my patients :it is not your fault you're in pain, and your poor health is not your fault, *but it is your responsibility.* I was afraid they might hate me for saying this but it's what they wanted to hear to escape the roundabout of appointments and the awful dreaded circle of vicious cycle of pain by accepting this responsibility, and breaking into this vicious cycle that is not their fault. And I'm definitely growing in confidence in that area. Another challenge that I have is getting across the idea of that is going to take effort because while patients are quite happy to take on the responsibility of their own health, but many have found that to living with a long term condition like obesity is hard. Life is hard.

Everything Is difficult; just getting through the day, and doing their responsibilities. And I'm there saying this is going to require effort - your recovery requires you to make big changes and this is up you. And this is where this new concept of teaching comes in: it's not just about educating patients but the learner has to put effort in. It's going to be hard. I only have a short time with these patients and it takes time.

The discomfort for me is having confidence in this model in my research. As I said I'm not an expert, I don't work in pain. and this isn't my speciality, and I have some discomfort in offering the promise of recovery in my patients. But they need to understand that they can recover if they understand their pain They can gradually get more movement, and their brain can update and they can find healing. I think we sit on the fence with pain management, because we're not promising our patients anything. But this model does. I'm growing in confidence with this – but still growing in discomfort.

. So if I'm teaching pain education, I need to be emphasising effort .and I need to be teaching my patients effective learning strategies. A lot of my patients don't want to hear this. But we keep repeating that hurt does not equal harm, their health is their responsibility over and over , and asking patients if they understand this concept?

If our patients are really to have effective learning we need to remove distractions which can be quite hard.. if they are going to fully participate in their health and their education, they need to be leaving their mobile phones behind . I have had a patient in one of my groups just sit staring at his mobile phone all the time. I understand that patients have children, or are caring for sick relatives. But how is that person ever going to take control of their own health if they're just staring at their phone all the time and they're not willing to take responsibility,

So these are the pain facts that I repeat to my patients and that I want them to understand.: the idea that pain protects us and it promotes healing but persistent pain can overprotect us and prevent recovery. I want them to understand that there are many influences that impact pain. And I use metaphors for this -. they're probably metaphors that you've heard before - but metaphors are a really great way of helping patients to understand their pain and get some control over their health. So what do instead of the medical language that can prevent recovery? These are some of the slogans I use:

*Wear and repair*

When a patient says: “I've been told there's wear and tear on my joints”, I'll tell them that is not true. The science says it is wear and *repair*. It would only be true if one were a car or joints were like bricks that were wearing out and we needed to replace them.. We are biology; we change, grow, and adapt. With the right amount of movement, with understanding and our brain updating and making the right steps to recover, we are wear and repair.

*Motion is lotion*

This is the one that patients love and they'll repeat this to me back in clinic after the groups..

*You can you can be sore and safe.*

*The brain is like an orchestra.*  
The brain is very skilled, and can play different tunes and can come up with new ones, it's creative, it can change and adapt depending on the audience. And pain can be thought as one of these tunes. However, if the orchestra just plays this one pain tune over and over again, it becomes really good at playing this tune and it can play it without even trying. And then it gets that it can't play anything else. Then maybe musicians start leaving, maybe audiences don't come anymore. And the brain or the orchestra becomes less curious, less creative and just good at the playing this one tune.

*Pain is like an onion.*   
An onion has different layers. Nociception - the signals from potentially damaged tissues - might be in the centre. Wrapped around it are our beliefs, our understanding of pain, and our emotions.. All these different layers – our different family experience ; they all come into the complexity of pain. I try and help patients to understand that whatever their beliefs are, they're normal, they're rational. However, they can prevent us from. making progress, if they're in this vicious cycle: trapped by their pain, swinging from low levels of physical activity straight into high levels of physical activity, probably driven by societal expectations or stigmata about being lazy. But they're living with long term conditions and this energy use becomes a ‘boom and bust’ pattern so over time their activity levels become less and less. So I'm bringing my patients back. All my patients know that movement's good for them, but they can get trapped: They think their problem is significant so it requires significant action. In our clinic, we're kind of reframing this, as they need to take small steps which are really important because over time, they make a difference: Setbacks are smaller and smaller changes are more manageable. How can they sustain going to the gym every day, even if they have the energy levels for it? - they have other responsibilities. And they get swept into this cycle of negative feelings about themselves and just getting less and less able to do what they want to do, and less and less acting in a way that they want in accordance with what's important to them..

So I try to encourage patients to find where they're at, and find their baseline.. We plan together and look at progressions in small ways. I always coach on setbacks and . I get them to identify what may hr helpful for them when they have a setback such as injury, low mood, or just not having the time - or hose times when they’re just not progressing because that can be a difficult time for my patients.

I'm trying to give them some control over their health, so my emphasis is on recovery, not management. So taking inspiration from you guys, I'm emphasizing healing. We're exploiting the bioplasticity - creating new neurotags and new neural networks in the brain. And we do this by reloading the body by encouraging physical activity. I suppose my speciality as a weight management physiotherapist is really in behaviour change. But how do I affect behaviour change? Everybody knows that they should be physically active and this improves their health. But why don't we do it? How do we sell physical activity?   
It's actually not selling physical activity or exercise; it's looking at our patients’ personal values through the model of acceptance and commitment therapy; pain is life, pain is normal, pain is suffering. To live is to suffer and it's a part of the human experience. While life can be difficult and can still act according to our values. So I encourage my patients to identify their values and how they want to act and behave, how they can work towards good health rather than being swept along with unhelpful behaviours. So I'll look at values and work towards that in terms of recovery   
 My job involves building my patients’ confidence in moving and physical activity and this is where Tai Chi really helps my patients. There's not many that can't do Tai Chi. It builds resilience and helps them with future health challenges, and help them to change their thinking processes from just managing living and surviving to recovery. And the primary treatment is education.

But we all are driven by our wants. We've come into this as health professionals to help people so it's a challenge for us to say the patient is the expert in mastering their own situation - we want to be problem solvers but actually patients have their own solutions. We just need to let them speak them out loud they will then understand that they have the power to get rid of their pain, they have the power to live a meaningful life that's in accordance with their values; how want to behave and realising that they can do this, they can take charge, they don't need to rely on anybody else.. So that is where I feel my role is as a clinician is to assist the person with mastering their own situation.

Discussion

*Before COVID I was running a Wellbeing for People with Pain program because I thought I was a better use of language than a pain management program. And I like the question of how do I make my patients understand that it's not just about the tissues. I found quite a good way of doing that which was a couple of images that were really effective. One was an image of a person standing on top of a flagpole which was on top of the highest building in Hong Kong. And all you can see is a pair of shoes then the building and a road with tiny cars a long way away. Few people could look at it with comfort! And I would talk them through the picture and say imagine this is you up here. You can feel the wind, that you're swaying in the wind and the cars are moving at the bottom. And they would all experience an increase in pain. So then I would switch to a calm image of a beach with gentle lapping waves and they'd all experience a reduction in pain and. Then I would explain that nothing had actually physically changed: nothing had changed in their painful knee or their painful hip . It was just the context that had changed. And I think most people do recognize that they feel they experience more pain when they feel stressed, for example, when they have a good night's sleep or when they've eaten a poor diet.*

*My perspective is from primary care. And it's about metaphors. And for me there is a definite shift away from explaining the brain and neurophysiology to developing metaphors for people in an ongoing relationship which is a very different story than going to a program and expecting somebody there to fix their pain and inevitable disappointment., from going to somebody who says you are in charge. I think the ongoing flexible individual relationship in primary care , which can be two months or five years has been for me the answer.   
 It's not a political answer, but I can say that I see all the people who returned from pain management or weight management or fatigue management or anything management, with packaged programs, to reality. And I doubt that changes in the long run can often be made in this way . I'm looking at 2, 5 or even 20 years of a relationship in primary care where real changes can be made.*

*I totally endorse the message of the importance of understanding and education about the various meanings of pain and how one can move beyond them. Because obviously the automatic assumption is that something is wrong. But when you're living with a chronic problem or effectively carrying around a huge amount of extra weight and you have wear and tear which isn't going to go away unless one can change any of those circumstances. Certainly when you're living with long standing obesity or other medical conditions that hamper your movements and pain that hampers your movements, then obviously you feel a sense of locked* in.

So all *of these alternative metaphors that we've been talking about are core and from the physio side in terms of some of the things that I was dropping in on the back of my last talk which I think was about photo biomodulation, anti- inflammatories and the use of weight loss drugs and things which are all sort of external fixes. There is a huge amount going back to early trauma and a deeper psychological foundation for why people are in these situations. It sounds like you're actually doing more than just physio, you're doing therapy with all that you're saying. And we are all trying to help people to bridge the rationale of getting out of the place in their heads, which is often depression and helplessness, which is ‘ often there's damage, therefore you would have pain, therefore live with it’ . ,embedding of message that you just got to live with it. And bridging, which can involve hypnosis, is that there are different ways with living with it And if you can train your brain to ignore some of the messages and replace them ‘ the more you move, the more you heal’ .The hypnotic downstream effects give a person permission to live differently. Just coming back to those other adjuncts and how you blend them with other therapeutic avenues , I don't know. The red light seems to have not caught on in the NHS yet. It's approved for radiotherapy, under the NICE guidance. Photobiomodulation is approved for regeneration and actually has been shown to be very impactful in fibromyalgia. And so it may be a tool that will be coming through.*

*There's a very good book that people may have come across: Health Behaviour Change by Stephen Rollick and a couple of other authors. One of the things that I used to say to people when they absolutely couldn't change and you're banging your head against a brick wall trying to get them to do other things was: “it must be really hard for you. On the one hand you want to get better and lose weight and ease your pain, but on the other hand you find it very difficult to change and you prefer to rest and avoid movement. So you're sort of standing in the shoes of the patient, noticing there's an ambivalence: they want to get better, but they can't quite make the move. But if you explain that that's perfectly normal, sometimes it provokes a little bit of a change.*

*I think we can also help people to put pain in a different place in their life. I remember one lady saying to me, my pain used to be here, now it's here. And we can change the meaning of pain. A fantastic example is actually my husband, who had a lot of knee pain. Instead of going to an orthopaedic surgeon and I was fully expecting the surgeon to say you need a total knee replacement because he was quite a big sportsman. we ended up with a consultant in sports medicine who had a completely different view. He looked at his X ray of his knee, and you could see there was no cartilage in the lateral compartment of his knee. And he said you can't do any harm whatsoever using it and going to CrossFit still. He's in his 60s. He still goes to CrossFit. He said that you can't do any more damage to that knee and you will do far more harm if you stopped your exercise than if you just carry on. And my husband said if I could skip, I'd skip out of his office! And he was a different person.*

*This is something personal about pain experience. I had quite a bad fracture/dislocation of the ankle, quadriceps rupture, supraspinatus rupture, the works, all in one go. and have been in hospital to have it fixed. And everybody expected me to be in pain and asked me, how is your pain? And I was quite defiant and talked about philosophy, . And I didn't feel pain. I felt discomfort of course with swelling, etc. But that's not the point. The point is a friend of mine came to visit me and he knew me as a fit guy. And he saw me with the crutches, having gained weight, and he felt sorry for me. And it was bizarre that when I saw him and the pity in his face. And - Oh, yes,- it started hurting. This is crazy stuff. I'm enlightened. I know all the pain models, the predictive brain, you name it, the neuromatrix …. I know it all. But still when I had a different emotional relationship to the leg, the discomfort immediately became pain.*

*I said to him, can I please go back to my hero paradigm, all of this. And I've got the agency to do this, rather being an object of ‘ look what happened to him.’ But what I want to say is this is really powerful stuff, the relationship to your leg, what it means, the injury, the past, the future. It's highly psychological and highly. Not esoteric or in the brain or of course it's in the main, in the brain and in the mind, where else? But it's very powerful, even for, supposedly enlightened people. Maybe I'm not as enlightened as I think I am.*

*I was just going to carry on with the nocebo phenomenon that pity invoked . Even a look or an attitude can change one's experience. And in terms of countering that, I don't know how many people here have ever actually used a placebo - an open placebo capsule which patients can buy online. I gather you can get them on Amazon, all different colours which you can choose. But have you ever encouraged patients to effectively engineer their own placebo? There's no harm because they are inert capsules, but if they choose to use a placebo they're physically doing something that actually wills a change in their future.   
Irving Kirsch of Harvard said that his studies suggested the placebo response was an effect of care and you can take a placebo with self care as an end in mind That's from a therapeutic suggestion point of view. But there is some further mileage that one can get from that approach: it's knowing your patient and whether they're open to that and whether they are somebody who could utilize that. We have a hypnotherapeutic hypno placebo audio file on our website. And I had a patient who did that and was converted to the power of hypnosis as well. It's how you help yourself with a tangible anchor and those little placebo capsules have been shown to be anchor. And in fact I think it was. Placebo control studies have shown that as many people were better with sham arthroscopy as well as after the real thing.*

*That just reminds me of another study: I think they were looking at the behaviour of the helper, the carer, the husband or the wife or the partner of the person in pain. And if they were too nice, it made the pain and the disability worse. You’d that if your patients who are suffering t had a supportive partner it would be a good thing. But they found that it was actually worse for them. So you’ve got to educate them.*

I think it's all to do with control. If you have someone who's doing too much for somebody, it's taking away that patient's agency, that control . For yens that person coming in, giving them pity took away Yan's control of his own health and how he viewed himself. And that's kind of what like we as clinicians have done in the past We've been this sort of fatherly, motherly figure or caring figure that's taken away our control. Research says if we take a red shiny pill compared to a different type of pill, we know that is more effective because our brain is saying, I know that's more effective. I think we can empower our patients that, way.

But I think there's even some research that's been done on suggesting which colours work best for what issue like red for pain. and blue or green for sleep

*I think there's a study been done on sham stomach banding as well.*

*Yes, it's absolutely fascinating, isn't it? I had a patient who had an arthroscopy for to his knee, and the consultant said to him, so I'm going to have a look in your knee and if it's so bad and there's nothing I can do, I won't do anything. But if there's something in there that I can fix, I'll do it. So anyway, so anyway, the following morning the nurse comes in and the consultant had gone off so he asked what was the outcome? She looked at the file; she didn't really read the full notes - and she said, he didn't do anything. And so he thought, oit was so bad there was nothing that could be done. So he hobbled about on this sore knee for about five years. Then he came in to see me and he said I don't know what I'm going to do about this blooming knee. I examined his knee and couldn't find anything much . So I looked at the file and I found the operation notes and the consultant reported a 100% healthy knee joint, so he didn't have to do anything. So he completely misread ‘didn't do anything’ as because it was so bad. I explained this to him: here's nothing wrong with your knee. It's perfectly healthy. And he skipped out of the consulting room saying ‘I’ve been hobbling around on this thing trying to protect it from further damage’.*

*When I was a postdoc the University of Wasan, we did a great series on spouse. solicitousness. And they documented various ways of showing how that increases pain behaviours. I've done a lot of work in China. And they have this notion about blockage in chronic pain and they say where there's blockage, there's pain. And acupuncture is very effective because it breaks the blockage and then they can start the flows and channels and keys. Now, it's difficult to prove that with a placebo study, but it's very effective in China. where they understand the imagery. And I think acupuncture is more of a mind body thing and there's nothing wrong with it if it works as it does in China. It doesn't work so well here in the U.S. I the British guidelines, it's considered a sort of fallback. I was alarmed to see that opioids and heavy drugs are being prescribed in the Chinese population. .*

*I'm just saying that we should listen to our patients more and be sensitive to the symbolism that we've all talked about today. And it's just like if Native American Indian dances are effective for some conditions in the US excluding Native American Indians from those trials because they believe in them.*

*It's fascinating that in China the beliefs are so strong in the culture and we can't benefit from that because we don't have it so much. But acupuncture is still used here in the UK*

*I just wanted to put in a note of caution about not being so nice to people if we push it to the extreme. If you're not nice It works well with Marines who are going to go to war and are going to have to face pain and hardship to them unless they perform well. I've come across cases where people have had pain from damage like a hip joint replacement which failed and no one noticed the failure on the X rays; but they had such excruciating pain, they couldn't get out of bed properly. And yet the nurses were all saying, you've got to get out of bed, you're just lazy. This ended up as a clinical negligence case. Some people sometimes really can't do it and it's not good for them. My own daughter who's got Ehlers Danlos syndrome was at drama school and she was very highly active but she pushed herself far too much without appropriate self-knowledge. She couldn't feel her own body. And she's in a wheelchair now and that was partly because her enthusiasm to conform with people and not being shamed.. So never shame people because sometimes there's a real reason why that's not a good idea. So I just wanted to put a note of caution in there because it's so easy to think, I have found a way that will do it for a lot of people with over-solicitous spouses . If someone's got a lot of pain and for some reason they can't exercise, it might well be a good reason.*