

MINDFULNESS:
THE MISSING PUZZLE
TO TREATING CHRONIC
PAIN AND
OVERCOMING YOUR
ANXIETY?



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Introduction

I first came across mindfulness about 4-5 years ago. I stumbled across it after watching videos around topics such as “overcoming anxiety and fears”, “finding your passion”, “how to express yourself” etc. Through searching for these topics I came across meditation as a form of treatment to help become more present and more self-aware. Initially, (as most of you could imagine), I thought what the hell is this, and imagined it was something only a monk would do.

I thought “It sounds so stupid, how could you silence the mind” and even if you could, how would this actually help with my problems.

“Your telling me the answer to my problems, is to become a monk”, I would laugh to myself.

Yet, something intrigued me; perhaps it was because it gave me hope or because I found the idea entertaining.

So I started reading books, attempting to meditate and attending courses. Over the years I have found it to be a truly life changing experience. I have found it very useful for myself but I have also met many other people who have benefited from it.

Working as a Physiotherapist and Mindset Empowerment Coach, I have also found it a hugely useful tool for many patients/clients, who have told me mindfulness helped them to manage their pain, overcome anxiety stress levels. In fact, whilst being a physiotherapy student, I had 5 week placement at Great Ormond Street where I worked with children with Chronic Autoimmune conditions (such as Rheumatoid Arthritis) being taught mindfulness techniques to help manage their pain. Some of the children found it “silly” whilst others found it really beneficial.

My experience led me to finding out even more information about mindfulness and more recently I completed a Mindfulness Teacher training course, in the hope of learning more around the current scientific evidence behind Mindfulness and how I could apply Mindfulness with clients and patients of mine. The course centred was around learning a new form of therapy being used called Mindfulness-Based Cognitive Therapy (MBCT).

Now, before you think mindfulness is nonsense, I urge you to carry reading on and perhaps by the end I can persuade to try and give mindfulness a go.

What is mindfulness?

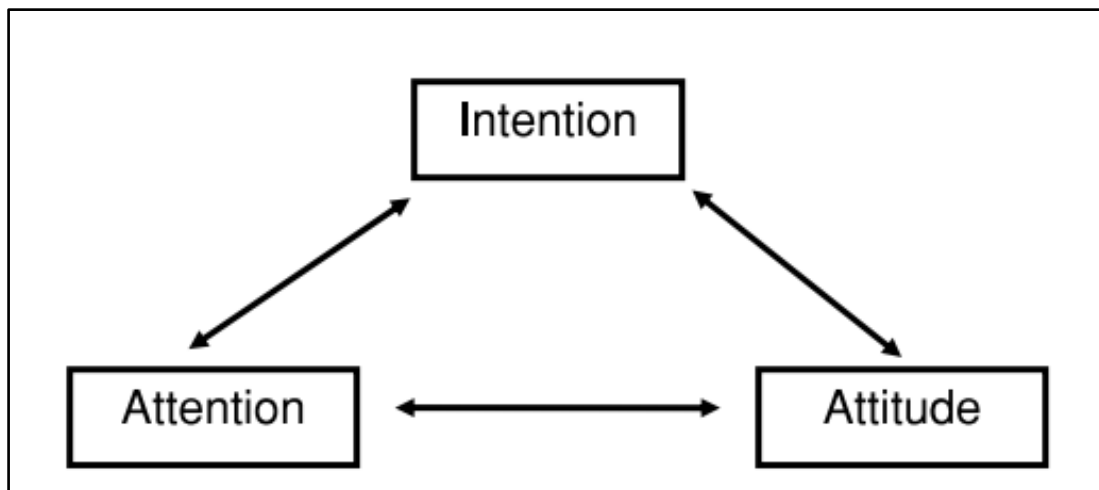
There are several different interpretations and meanings of mindfulness but to define it simply it is a mental state where an individual is (consciously) aware of the present moment. This could mean a person is being mindful (consciously aware) of their breathing, thoughts, feelings, bodily sensations or surrounding environment. Mindfulness is so much more than a “relaxation technique”; it is an opportunity to step out of negative habitual ways of thinking and being, it allows you to be more accepting of yourself and it can allow you to understand yourself better.

Rebecca Crane a teacher and trainer in MBCT describes mindfulness as the following:

“Mindfulness is the awareness that emerges when we pay attention to experience in particular ways – on purpose (the attention is deliberately placed on particular aspects of experience); in the present moment; and non-judgementally” (Shapiro et al., 2006; Kabat-Zinn, 2013; Crane, 2017).

The above definition embodies the three components of mindfulness:

1. “On purpose” or intention
2. “Paying attention” or attention
3. “In a particular way” or attitude (mindfulness qualities).



The image above taken from Shapiro et al. (2006) highlights that intention, attention, and attitude are not separate processes or stages—they are interwoven aspects of a single cyclic process and occur simultaneously.

Being versus Doing mode

The doing mode is a state of mind where you are trying to get something done. The idea of trying to achieve a goal or end result (Kabat-Zinn, 2013; Crane, 2017; Alidina and Marshall 2013).

Qualities of the doing mode could be (Kabat-Zinn, 2013; Crane, 2017; Alidina and Marshall 2013):

- Being goal orientated and self-centred.
- Trying to work harder or problem solving to achieve something.
- Seeing difficulties as something you must change to do something about, and not just acknowledging them as they are.
- Most actions tend to happen automatically.
- Lack of conscious awareness in the present moment.

The idea of being is the about being in the current moment and not thinking about the past or future. Also, importantly the being mode does not mean that all activity has to stop (Kabat-Zinn, 2013; Crane, 2017; Alidina and Marshall 2013).

Qualities of the being mode could be (Kabat-Zinn, 2013; Crane, 2017; Alidina and Marshall 2013):

- Connection with the present moment.
- Acknowledgement of how things are in the moment i.e. what you are feeling and thinking and how you're acting.
- Acceptance of things as they are including emotions and thoughts. So letting go of the need to change them or do something about them.
- Calmness, stillness, and a sense of being centred.
- Being goalless.

The practice of mindfulness involves moving from the doing mode to the being mode- being with whatever occurs in the present, consistently attending to and accepting the raw stream of experiences. Thus through mindfulness you can help develop the qualities mentioned above of the being mode such as calmness, be goalless giving you a chance to relax, appreciative of the current moment etc. (Kabat-Zinn, 2013; Crane, 2017; Alidina and Marshall 2013; Brown et al., 2007; Good et al., 2016).

Also, it vital to understand, that in no way is the doing mode "bad". In fact it has many uses in day to day life. However, there are many times during the day when our minds continue to process information and we feel like going round and around in cycles. Plus, we constantly self-criticise ourselves and feel we are moving further and further away from our desired goals. Thus the doing mode can make it further difficult to process difficult emotions or thoughts. It is during these times when the being mode becomes useful as it teaches us not react to unhelpful thoughts and be more relaxed in the moment. This can often be way more beneficial in reaching our goals and creating overall satisfaction.

"With mindfulness you're learning to step away from the thinking mind and become a witness to your thoughts. Learning you don't have to be affected by your thoughts and create a sense of freedom from them"

The key attitudinal foundations

Jon Kabat-Zinn the founder of the world-renowned Mindfulness-Based Stress Reduction Clinic (in 1979), and the Centre for Mindfulness in Medicine, Health Care, and Society describes seven attitudinal pillars of mindfulness (Kabat-Zinn, 2013; Crane, 2017):

1. Non-judging
2. Patience
3. A beginners mind
4. Trust
5. Non-striving
6. Acceptance
7. Letting go.

Non-judging is the ability to focus on the current moment and not attach our own thoughts, beliefs, opinions, ideas, likes and dislikes to the current moment. The tendency to judge something is usually an automatic reaction by your mind, hence by practising non-judgment you give yourself an opportunity to not react as you would normally react. Thus, it allows you to explore different ways to approach a situation. For example, if you are meditating and thoughts such as “I’m bored” come up, this is a judgement. Instead of reacting to this thought, you can recognise it as a judgement and carry on meditating. So it’s almost like you’re a third person looking at your thoughts and not judging them (Kabat-Zinn, 2013; Crane, 2017).

Patience could be described as the ability of waiting, or to continue doing something despite difficulties, or to suffer without complaining or becoming annoyed. Patience in meditation can be useful because it reminds us that we don’t have to fill up our moments with activity or thoughts. It helps teach us to be in the present moment without needing to be elsewhere (Dictionary.cambridge.org, 2019; Kabat-Zinn, 2013; Crane, 2017).

A beginners mind is the essentially ability to be a student again. It’s stepping out of the “I know” mind-set and approaching something in the perspective of a student who doesn’t know anything. The beginners mind helps us to not get caught up with our own perspectives and beliefs. It gives us the opportunity to approach a topic from a new perspective, even if we may have come across it multiple times before (Kabat-Zinn, 2013; Crane, 2017).

Trust is an integral part of mindfulness. The ability to trust yourself and your feelings is an integral lesson of mindfulness. You may come across feelings and thought that may not make to sense to you and you may start judging them negatively. However, as they come up its key to acknowledge them and trust the mindfulness process as opposed to judging the process isn’t working. Alternatively you make feel you are not getting anyway and give up, thus trusting in yourself and being persistent with your practice is a key element of mindfulness (Kabat-Zinn, 2013; Crane, 2017).

Non-striving is the ability to be not focus on the end result. Often people start mindfulness with then intention of helping with stress or anxiety. When these people start practising mindfulness and don’t get their result they wanted, they become annoyed and frustrated. Furthermore, they are conditioning their mind to expect the result they want. Instead it’s vital to focus on the current moment and let go of the past and future. This means having an attitude of non-striving- “focusing carefully on seeing and accepting things as they are, moment by moment.” (Kabat-Zinn, 2013; Crane, 2017).

Acceptance is the ability to see things as they truly are in the present. You have to accept yourself as you are, before you really change. By choosing to accept yourself as you are in this moment is a

form of self-compassion. The acceptance I am talking about here is not a form of resignation where you stop trying to break free of self-destructive habits or the desire to change and grow. It is instead the willingness to see things as they are and not cloud things by your own vision of how you think they should be. The process of acceptance can be very emotionally-filled with periods of denial and then anger. In mindfulness we open ourselves up to feelings and thoughts that come up on the present moment, and acceptance can play a key role in helping us stay in the present moment and not try and resist the feelings that come up (Kabat-Zinn, 2013; Crane, 2017).

Letting go is a fundamental component of mindfulness. By being attached to an outcome we start judging the feelings and thoughts that come up and will want to hold on to them if we feel they are beneficial. So we hold onto the thoughts and feelings and try and prolong them. Similarly we also might want to protect ourselves from thoughts and beliefs we think are not beneficial to us. Hence, in the process of letting go, you let go of your past and future and come back to the present moment. You allow yourself to accept your current thoughts and feelings let them go. This can feel very difficult at first but with practice it can feel very liberating (Kabat-Zinn, 2013; Crane, 2017).

Four core mindfulness meditations

There are four key forms of mindfulness meditation I have predominantly come across. They are as follows:

- Body scan meditation
- Sitting meditation
- Movement meditation
- Breathing space meditation

The **body scan meditation** is when we direct our breath into different parts of the body. This form of meditation can help teach us the following (Kabat-Zinn, 2013; Crane, 2017):

- Connect with the body and any direct physical sensations- hence help you become more self-aware of your body.
- Sustain the attention to where we want it, and to deliberately engage and disengage it as we move attention through the body.
- Understand how to intentionally pay attention to something- so this is done through focusing on specific parts of the body.
- Help relieve tension in the parts of body

The **sitting meditation** helps teach you settle and calm the mind and help develop a new relationship with experience. The sitting meditation begins with initially paying attention to details of experiences such as feeling the contact of the body with the chair and movement of breath in the body. This helps you to focus on something (paying attention) and helps prevent you from getting lost in your thoughts (Kabat-Zinn, 2013; Crane, 2017).

People often experience unpleasant thoughts which are accompanied by impulses of urgency (such as quitting). However, with repeated practice this gets easier and this form of meditation can help open a deeper and appreciative understanding of our minds. We furthermore, understand how our minds (thoughts and emotions) and our body (impulses, aversion and contraction) are subject to change and recur (Kabat-Zinn, 2013; Crane, 2017).

The **movement meditation** teaches you how to be present with bodily experience in motion (Kabat-Zinn, 2013; Crane, 2017). It may be very useful for those people who struggle with sitting still for long periods. Furthermore, for others it may add a further challenge of facing more thoughts. To do the movement meditation begins by noticing the sensations of your own breath. Breathe into your feet and feel the weight of your body through your feet. Following this start being mindful of parts of your body that feel tense or uncomfortable (Kabat-Zinn, 2013; Alidina and Marshall, 2013).

The **breath space meditation** teaches you to move attention in specific ways to help relax yourselves or to get unstuck from automatic routines (Segal et al, 2013). There are three steps to this practice: awareness, gathering and expanding (Segal et al, 2013; Crane, 2017).

Awareness is to step out of automatic pilot, recognise and acknowledge current experiences. This stage is often described a wide angle attention, where we stop what we are doing and intentionally adopt an upright angle or bring attention to whatever posture we find ourselves in. Gathering is to bring attention to sensations of the breath in a particular place in the body. Expanding is about widening your attention from your breath to the body as whole using particular sensations of the breath as an anchor (Segal et al, 2013; Crane, 2017).

The breathing space is often done within 3 minutes and is practised throughout the day. It is an important part of supporting the integration of learning meditation into daily life (Segal et al, 2013; Crane, 2017).

“Meditation is about how you pay attention to something not what you pay attention to something”

Kindfulness

The concept of Kindfulness is the idea of being more kind to yourself and others. The idea is that if we are kinder to ourselves we can help turn those feelings towards other people.

“Kindfulness is about being a friend to the person you are now, not putting it off until you become a perfect person, which for most of us never arrives”- Ajahn Brahm

Dr David Hamilton, the author of *The Five Side-Effects of Kindness* (Hamilton, 2017) talks about how being kind can have the following benefits on your body (Hamilton, 2017):

- The formation of the “kindness” hormone oxytocin (which is also a cardiovascular hormone) which keeps the arteries clear and lowers blood pressure by reducing levels of harmful free radicals and inflammation. The free radicals and inflammation can both cause disease.
- The production of the above hormones also helps slow the ageing process by again reducing levels of harmful free radicals and inflammation, which cause disease.
- Being kind can also help relax us by effectively out vagus nerve which regulates our heart beat
- There are positive psychological effects of kindness, too, known as the ‘helper’s high’. Studies show that volunteers experience a natural high — a release of the brain’s natural opiates and dopamine.

“There are so many people who say that nature is savage, that if we could rid ourselves of social constraints we would become animals and literally eat each other alive. But I don’t know if that’s necessarily the case. There are sides of us that are quite brutal and selfish, but nature has given us many gifts among them something known as the helper’s high: the neurobiology of helping others.”

-Jason Silva on “The Helper’s High”

Bringing the concept of kindness into mindfulness is vital to help you not be harsh on yourself and show compassion towards your mindfulness practices. When we first start mindfulness practices such as meditation we can often criticise and judge ourselves especially if you’re a perfectionist. As mentioned earlier, mindfulness to begin with is not easy and hence by adding kindness to your practice enables you to show compassion, be forgiving and friendly towards your practice and efforts (Alidina and Marshall, 2013). You can think of it like offering encouragement to a young child who’s learning to walk as opposed to criticising the child.

Three steps to practice kindness (Alidina, 2015a; Alidina, 2015b):

1. As you’re meditating, place your hand on your heart-The warmth of your hand encourages a compassion feeling to whatever you’re focusing on.
2. Smile- Even if it’s just beginning with a small smile, try and add it to your meditation. And if you can’t smile, use your two fingers to push up the corners of your mouth and hold them there for a while....I’m serious!
3. Soften your self-talk- Say soothing words to yourself. E.g. you tell yourself to “relax,” “take it easy,” “breathe”.

The value of Mindful living

There are numerous benefits reported from living mindfully. These benefits include increased general physiological and psychological well-being (Brown, Ryan, & Creswell, 2007), optimism (Brown & Ryan, 2003), enhanced levels of life satisfaction (Brown & Ryan, 2003), and self-esteem (Rasmussen & Pidgeon, 2011). Living mindfully has also been associated with decreased general anxiety (Kabat-Zinn et al., 1992), and increased compassion for others (Jazaieri et al., 2012). Expert mediators have been shown to have diminished anxiety in anxiety-related areas, such as the insular cortex and the amygdala (Ricard, Lutz and Davidson, 2014).

Living mindfully can increase your working memory and help you perform under stress (Kabat-Zinn et al., 1992; Brown & Ryan, 2003; Cahn & Polich, 2006). It also helps with having more self-control and having effective goal attainment (Brown & Ryan, 2003; Chatzisarantis & Hagger, 2007).

Neuroscientific studies have found that meditation can rewire the brain circuits to produce beneficial effects on not just on the mind and the brain but also the entire body; hence meditation has been shown to facilitate neuroplasticity (Ricard, Lutz and Davidson, 2014).

During meditation, when attention is directed on the breath for long periods, studies shows the dorsolateral prefrontal cortex stay active (Ricard, Lutz and Davidson, 2014). This part of the brain is involved in higher cognitive functions, such as switching attention, working memory, maintaining abstract rules, and inhibiting inappropriate responses (Ricard, Lutz and Davidson, 2014).

The enquiry process

The enquiry process during mindfulness can be considered a reflective process on an experience that has just occurred. The idea is help people's ability to deal directly with experience they occur. For example, if someone experiences a feeling of being not good enough, the enquiry process would involve the person going into that thought and reflecting on it (Kabat-Zinn, 2013; Crane, 2017). This doesn't mean we immediately draw interpretations or judge our experience. Instead we stay with the experience and let it unfold naturally. The enquiry process is about getting uncomfortable with not having the answers or knowing how things will turn out (Kabat-Zinn, 2013; Crane, 2017). It is about tracking experience as it is occurring in the moment and not getting lost in the story about it. Therapeutically the enquiry process can enable meditators to reflect on the origin or root of any difficulties arising, thereby eliciting change and promoting wellbeing of body, heart and mind. Typical enquiry questions could be (Kabat-Zinn, 2013; Crane, 2017; Alidina and Marshall, 2013):

- What is this experience that's showing up
- If the feeling was to manifest physically where in your body would it be
- What am I noticing now and where in your body is this feeling
- What am I feeling now
- What did you notice within the meditation practice

“Meditation can help us to turn towards experiences that we may perceive as harmful as opposed to away from them. Hence, it can reverse habitual tendency we have in avoiding them”

Mindfulness and Pain

Now I have gone through the foundation of mindfulness, I wanted to conclude by touching upon how mindfulness can help in managing pain.

As previously for my final year of university I had the opportunity to have a placement at the Great Ormond Street Hospital in Rheumatology. During in this time, I was responsible for leading the rehabilitation gym sessions every day for paediatric patients with diagnosis such as MSK pain, juvenile idiopathic arthritis, juvenile dermatomyositis and scleroderma. It was an amazing experience to see the children become stronger and more confident over the rehabilitation program. One of the most important things I learnt on this placement was how influential mindfulness is in helping empower and treat patients. The use of mindfulness practices such as meditation helped the children to manage their pain. Many of the children reported that they felt their pain improved when they carried out the mindfulness techniques.

A 2019 meta-analysis (Khoo et al., 2019) analysed the evidence from 21 previous studies involving 2,000 chronic pain sufferers. It was designed to assess whether mindfulness was as effective as Cognitive Behavioural Therapy (CBT) for relieving chronic pain and its associated distress. The study reported CBT can be effective and has none of the side-effects of traditional painkillers, such as lethargy and addiction. But, crucially, not everyone benefits from CBT. The new analysis suggests that mindfulness is just as effective as CBT when it comes to improving physical functioning. And both mindfulness and CBT were equally good at reducing pain and its associated conditions, such as depression.

Furthermore, with pain you can have associated stress and anxiety. Anxiety to carry out movements because you think you will damage something or make the pain worse. This causes you stop doing certain movements out fear. In addition, this may make you to become stressed because you may not be able to do the things you want to. So ultimately the pain can feel debilitating and effect your overall well-being.

Through mindfulness you can to take a step back and it can help you realize that anxiety is just a temporary emotional state which will eventually go away. Additionally, through this process of acknowledging all mental states as changeable, the anxiety will become less frightening and less overwhelming. This will help endure and maybe even end the inner suffering caused by pain (Shapiro et al., 2006).

Kabat-Zinn created a new treatment for stress, anxiety and chronic pain: mindfulness-based stress reduction (MBSR). MBSR is an approach combining body scans, walking meditation, breathing space meditation, yoga exercises and everyday awareness, in which people learn how to be mindful of daily activities (Kabat-Zinn et al, 2013).

A Massachusetts General Hospital study in 2013 (Hoge et al., 2013) found that 93 individuals with DSM-IV-diagnosed generalized anxiety disorder (GAD) were randomly assigned to an 8-week group intervention with mindfulness-based stress reduction (MBSR) or to a control group, stress management education (SME). The group that went through the MBSR program was associated with a significantly greater reduction in anxiety (Hoge et al., 2013).

Furthermore, systematic review by Khoury et al (2015) on the MBSR programme showed there was a large effect on stress, moderate effects on anxiety, depression, distress, and quality of life. The MBSR consists of 8 weekly classes with daily practice at home. The systematic review showed 29 studies, with a total of 2668 participants included and the benefits were over maintained over at

least five months follow-up. Furthermore, the MBSR course has been shown to cause brain changes similar to traditional long-term meditation practice (Rinske et al, 2016).

In regards to pain and mindfulness you're trying to change your perception and relationship to pain. You're learning to relate to the original emotion that the pain evokes in a different manner. You're not trying to fix it but instead explore the possibility to relate to it in a different way. Mindfulness will allow you to attend to your emotions and regulate them better. Additionally, mindfulness help improved your adaptive coping skills and hence, you don't become triggered by your past habits and experiences.

Research (Brown & Ryan, 2003; Carlson & Brown, 2005) has also found mindfulness to be associated with lower levels of emotional disturbance (e.g. anxiety, symptoms of depression and stress and higher levels of subjective well-being (e.g. higher positive feelings and satisfaction with life).

As a physiotherapist I believe mindfulness is a very useful and vital tool that is actually underused by many healthcare professionals. One of the many reasons I was inspired to create my business Conscious Physiotherapy was so that that I could use mindfulness is to help them manage their pain, anxiety and fears with more confidence, so that they can feel empowered and hopeful about living a life of freedom again.

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