The Factors Mediating Change in People Practising Mindfulness

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December 2002

Submitted in partial fulfilment of the requirements for the degree of
Master of Social Science in Clinical Psychology, Rhodes University (Grahamstown)

This thesis is dedicated to my late father,
Samuel David Watkin.
I hope you are resting peacefully.

And to all those who stood by me through the
vicissitudes of my growth.

ABSTRACT

This study examines the experience of people who have begun practising mindfulness as it is taught in the Mindfulness-Based Stress Reduction programme (MBSR). The study has two aims: 1) to conceptualise the psychological mechanisms underpinning any change, and 2) to see if the changes produced are the same or similar to those produced in a cognitive therapy programme. The study focuses on two female participants, both with diagnosable psychopathology, who were part of the same MBSR programme at the Cape Town Medi-Clinic. Quantitative self-report measures of depression, anxiety, and medical symptoms were used as a measure of change. In-depth qualitative data which explored psychological, emotional and behavioural changes came from semi-structured interviews taken before, during, and immediately after the MBSR, and at a one-month follow-up. The interview data was supplemented by daily diaries documenting the participants' experiences of mindfulness, together with in-session video recordings. The analysis of these cases provide support for the model proposed by Segal, Teasdale and Williams (2002) of the factors underpinning improvement using mindfulness as a treatment. The changes were found to be similar, but not identical, to those that one would expect in a cognitive therapy programme.

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CHAPTER 1 : INTRODUCTION

Increasing interest in meditation as a self-regulation technique led the American Psychological Association in the 1970s to call for a scientific investigation to determine the therapeutic benefits of the practice (Walsh, 1984). This made meditation a respectable area for scientific inquiry and it spawned a wealth of research in the 1970s and early 1980s. Most of this research concerned transcendental meditation. At about the same time, Jon Kabat-Zinn began a Mindfulness-based Stress Reduction programme (MBSR) at the Massachusetts Medical Centre, which taught mindfulness as a therapeutic strategy for addressing a wide array of problems. Although there was some research on the MBSR in the 1980s, it was only in the early 1990s that systematic studies of his programme proliferated. This research was largely quantitative and provided evidence for the efficacy of the MBSR with regard to many medical and psychiatric disorders. The results of this research led to an increasing number of people using the programme and there are now over 250 MBSR clinics worldwide (Williams, Kolar, Reger, & Pearson, 2001).

However, few published studies have systematically attempted to document the psychological processes that underpinned the changes brought about by MBSR. So far there has only been speculation about the underlying mechanisms. Thus Shapiro, Schwartz and Bonner (1998) suggest future research is needed to 'tease out explanatory mechanisms of how the intervention worked'. Recently, these sentiments were echoed by Williams et al. (2001) who suggested that future research is needed to 'understand the mechanisms mediating observed reductions in medical symptoms and psychological distress'. Segal, Williams and Teasdale's (2002) conceptualisation of the dynamics of mindfulness in the treatment of depression have provided a solid foundation for answering the questions concerning the underlying dynamics. However, there is only limited qualitative research demonstrating the validity of their model, and it is not known if their explanation will have validity when mindfulness is applied to other psychological disorders. Thus, this research, by attempting to identify the underlying psychological processes, is a contribution to a further test of this model.

Cognitive therapy is one of the ascendant psychological paradigms and is the treatment of choice for many psychological disorders (Salkovskis, in press). Since the early 1980s, cognitive therapists have intermittently been attempting to find a synergistic relationship between meditation and cognitive therapy (see Ellis, 1984; Woolfolk & Franks, 1984). However, it is only in the last decade that models integrating mindfulness and cognitive therapy have been developed. In addition to Segal et al.'s (2002) integration of mindfulness and cognitive therapy for depression, Linehan (1993) included a significant mindfulness component in her cognitive-behavioural treatment of borderline personality disorder. Wells and Butler (1997) included a mindfulness component in the cognitive treatment of generalised anxiety disorder. Bennett-Goleman (2001) has developed a model which integrates mindfulness and schema-focused therapy. Are there more possibilities for cross-fertilisation of conceptualisations and treatment methods? A route toward answering this question could be provided by determining, as this study attempts to do, the extent to which the changes produced by a mindfulness-based treatment are the same, or similar to, those expected by a cognitive therapy treatment.

CHAPTER 2 : LITERATURE REVIEW

Anticipating what will be needed to understand and evaluate the subsequent cases, this chapter will build two lenses: a mindfulness lens and a cognitive lens. A lens is constructed from the concepts and the relationship between the concepts of a given paradigm. The structure of a lens determines the way phenomena is selected, which then affects the way it is interpreted and evaluated. The structure of the mindfulness lens will be presented first.

THE MINDFULNESS LENS

The Concept of Mindfulness

Mindfulness has a history dating back over 2500 years. Although mindfulness originated within Buddhism, it can be thought of as a kind of mental training, the usefulness of which stands independently of Buddhism or any other religious system (Kabat-Zinn, 1994). Its rich and intricate phenomenology make it difficult to define and it is often emphasised that to know it one must practise it rather than study it. In the literature there are subtle differences in definition, each embedded within a context and emphasising one or other dimension of mindfulness. At its simplest it has been defined as 'moment-to-moment awareness' (Kabat-Zinn, 1982, p.34); it is knowing what you are doing while you are doing it (Kabat-Zinn, 1990). Two other essential elements are usually included in the definition - intentionality and a non-judgemental attitude. Thus, Kabat-Zinn (1994, p.4) defines mindfulness as 'paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally'.

Teasdale, Segal and Williams (1995, p.34) elaborate on the texture of mindfulness with their definition of its essence:

> 'to be fully in the present moment, without judging or evaluating it, without reflecting backwards on past memories, without looking forward to anticipate the future... and without attempting to 'problem-solve' or otherwise avoid any unpleasant aspects of the present situation. In this state, one is highly aware and focused on the reality of the present moment 'as it is', accepting it and acknowledging it in its full 'reality' without immediately engaging in discursive thought about it, without trying to work out how to change it, and

> without drifting off into a state of diffuse thinking focused on somewhere else or some other time. The central feature of the mindfulness state seems to be a heightened awareness of being in the here and now, rather than operating in a 'mindless' 'automatic pilot' mode, in which one 'automatically' reacts rather than 'consciously' and 'mindfully' responds. The mindful state is also associated with a lack of elaborative processing involving thoughts that are essentially about the currently experienced situation, its implications, further meanings, or the need for related, but not immediate, action. Rather, mindfulness involves direct and immediate experience of the present situation.'

In this state, the moment is experienced in its 'multi-dimensional splendour'. This may appear elementary, but the mind has an almost compulsive tendency to plan for the future and reflect on the past. Mindfulness can be thought of as a way of being which anchors the mind in the present. It involves giving oneself permission to just be, 'letting your experiences unfold from moment to moment and accepting them as they are' (Kabat-Zinn, 1990, p.2). Acceptance here does not refer to resignation, but to an attitude of experiencing things for what they are, in and of themselves, without trying to alter them in any way. It is simply noticing what is already present, being with what is, without trying to change it (Marlatt & Christeller, 1999). It is in this sense that it is the cognitive expression of giving oneself 'radical permission to feel' (Young, 1994).

Shapiro et al. (1998) hypothesise that given the complexity of mindfulness meditation, there are multiple pathways through which it has positive effects. Kabat-Zinn (1990) stresses the self-regulatory benefits of the practice, but in addition to cultivating feelings of control, mindfulness has other benefits. Firstly, it facilitates the rapid and profound movement into deep states of relaxation. Secondly, it produces great clarity on the way we actually live and therefore presents us with what changes need to be made to improve the quality of our lives. Thirdly, in times of stress it allows for finer physiological and psychological distinctions and therefore for more directed focusing of energy and effort.

As a technique mindfulness can be learned and its benefits made accessible for anyone to try. In fact, the idea of simply paying attention to everyday experiences lends a quality of ordinariness to the practice which makes it more accessible (Kabat-Zinn, 1990). When used as a technique, Kabat-Zinn (1982) refers to it as 'detached observation'. Detached observation is the practice of engaging with experience in a witness-like, third-party manner. It does not refer to pathological withdrawal or a neurotic/defensive way of avoiding, but simply attending to experience without judgment or interpretation. Neither good nor bad, right nor wrong, experience is engaged simply in the capacity of an observer. It is a very gentle way of approaching experience, because every moment is seen as a new beginning, without any expectations or prejudgments. The moment is experienced without consideration of what happened before or what may happen afterwards. In this sense it is innocent.

Understanding the Dynamics of Mindfulness

Segal et al. (2002) provide a subtle and elegant model of mindfulness which facilitates a conceptual understanding of the psychological dynamics underpinning it. This model will be explained in detail to facilitate a clear comprehension of the distinct therapeutic processes underpinning mindfulness. There are two additional reasons why it is the preferred model: firstly, Kabat-Zinn endorses it in the forward of their book, calling their book 'seminal'. Secondly, they ground mindfulness concepts within a cognitive discourse, which facilitates comparison with cognitive therapy. The crux of their model can be summed up as follows: given that the mind has a limited capacity channel, through decentring one can move from a 'doing mode of mind' to a 'being mode of mind'. Mindfulness is the method by which one can move from a doing mode to a being mode, and it also characterises the being mode. The central concepts – decentring, limited capacity channel, doing mode of mind, being mode of mind – and their interrelated dynamics, will now be explained.

Decentring

Segal et al. (2002) define decentring as the process of changing one's relationship to (perspective on) negative thoughts, such that they 'could be seen as passing events in the mind that were neither necessarily valid reflections of reality nor central aspects of the self' (p. 38). This changed relationship applies not only to thoughts, but also to

feelings and bodily sensations. Mindfulness fosters a decentred relationship to mental contents by training people to take a wider perspective in order to observe their thinking as it occurs. This is a repetitive process of interrupting the mind's wondering by continually bringing attention back to the present and experiencing the moment non-judgmentally.

According to these authors, decentring can be done in a number of different ways with a number of different attitudes, so it is important to be specific about how it is used within the context of mindfulness. It does not refer to any process that encourages blocking, avoiding, suppressing or dissociating from one's experience. It is a process of engaging with one's experience within an attitude of acceptance or allowing. There is an encouragement to experience what is, gently. This attitude is taken toward all experience – thoughts, feelings and sensations. When decentring incorporates a non-judgemental or accepting attitude, then it corresponds to what Kabat-Zinn calls 'detached observation'.

One of the benefits of decentring, state Segal and colleagues, is that if we do not identify with the thought stream, but are able to experience it as an impartial witness, as an observer, without judgment, then we can resist becoming caught up in thought-feeling feedback loops. If we think negative thoughts, then we are likely to experience negative feeling. But if we can detach from the thought and see it as just another aspect of our experience, of no more importance than an itch, then we are less likely to react emotionally. The same is true of feelings and sensations: when our mood is lowered then it can lead to negative thinking, starting a negative feedback loop (Segal et al., 2002). Contextualising the feeling or sensation within the broader experience of the moment creates distance toward the feeling, allowing one to interrupt the habitual flow toward negative thinking.

Limited Capacity Channel

Segal et al. (2002) conceive of the mind as a network of interconnected components, which can be activated from internal or external stimuli. They conceive of the activity of the mind as a continually shifting, recurring, and evolving patterns of interaction among its components. Over time one can discern repetitive patterns of interactions

within the mind, which they refer to as modes of mind. Modes of mind are considered to be 'loosely analogous' to the gears of a car, with the activity of the mind similar to a 'car driving through a busy city undergoing a sequence of gear shifts'.

> 'Just as each gear has a particular use (starting, accelerating, cruising, etc.) so each mode of mind has a characteristic function. In a car, a change of gear can be prompted either automatically (with an automatic transmission, because a device detects when the engine speed reaches certain critical values) or intentionally (with a manual gearshift, because the driver makes a conscious decision to change gear). In the same way, modes of mind can change either automatically (triggered in response to particular kinds of information processing) or intentionally (the individual consciously chooses to rehearse a particular intention or to deploy attention in a particular way). Equally, just as a car cannot be simultaneously in two gears, because both gears require exclusive access to a single engine, so the mind cannot at the same time be in two modes that require exclusive use of the same mental components. Operating in certain modes of mind automatically precludes being in certain other states of mind at the same time' (p.69-70).

Conscious forms of information processing take up limited resources, which implies that the mind can only be in one mode of mind at a time. Thus, necessarily, when the mind is in one mode, it inhibits processing in any other contradictory mode. In this context one can think of mindfulness training as teaching individuals to become more aware of their mode of mind (mental gear) at any moment, and teaching them the skills to disengage, if they choose, from unhelpful modes of mind, and to engage in more helpful modes. Segal et al. (2002) describe two predominant modes of mind, the doing/driven mode and the being mode. The doing/driven mode is the dominant mode of Western people and will be discussed first.

The Doing/Driven Mode

Segal et al. (2002) conceptualise the doing/driven mode as a psychological state characterised by the desire for goal-attainment. It is triggered when the mind sees that things are other than it would like them to be; that is, when the mind registers discrepancies between how things are and how things are wished to be or ought to be.

This mode of mind can also be triggered by low mood: a person may notice they feel bad and want to feel better, which results in a mismatch between actual and desired states. The attempt to reduce this discrepancy actually perpetuates the problem by locking the person in the mismatched state.

According to the authors, this discrepancy tends to trigger negative feelings (for example, dissatisfaction or despondency) and sets in motion mental processing designed to reduce the discrepancy. If this cannot be done, then the mind goes round and round (ruminates), dwelling on the discrepancy, rehearsing ways of trying to reduce it. During this state one has only a vague awareness of the external world. The mind will only be aware of the present in a narrow sense (to the extent that the present holds the possibility of reducing the discrepancy). Since the mind tries to reduce the discrepancy through conceptual thought, thoughts are experienced as real. The phenomenology of the doing mode is characterised by a sense of 'unsatisfactoriness', and a continuous monitoring and evaluation of progress.

This state has particular characteristics which contribute to its problematic nature. The discrepancy-based processing causes a 'narrowing' of experience, in which the person becomes increasingly oblivious to the external environment and increasingly sensitive to their internal world. According to Segal et al. (2002), conceptual thought is the key mode through which the mind seeks the goals in the doing mode. Therefore thought is accorded the status of a valid reflection of reality. Within the doing mode, feelings are evaluated as good things or bad things, and the mind sets up goals to make sure they continue or cease respectively (which could perpetuate the sense of unsatisfactoriness by creating further discrepancies). This mental mode does not end at goal-attainment, as it will search for new goals which create further discrepancies.

The problem-solving of this mode can be very useful if applied intentionally and knowingly to problems for which it is appropriate. For example, while sitting at home watching television, John feels very lonely and thinks that he would like to form a romantic relationship. He recognises that it has been some time since his last romantic interlude. He is dissatisfied because of the discrepancy between his desired state (to be romantically involved) and his actual state (being single). This leads him to make a conscious decision to 1) explore why he has been unable to form relationships; and 2)

to make attempts to discover ways to meeting prospective partners. After which he feels encouraged.

But the automaticity which often characterises this mode can, for example, lead to self-perpetuating depressogenic ruminations, which make it self-defeating. Using the example above, if John cannot reduce the discrepancy, that is, form a significant relationship then, according to Segal et al. (2002, p.71) 'the result is that the mind continues to process all the information in 'doing' mode, going round and round, dwelling on the discrepancy and rehearsing possible ways to reduce it'. This is subjectively experienced as unsatisfactory mood states, for example, despondency or self-blame, which fuel depressive thought, forming a depressive interlock. One way of breaking the interlock is by processing experience through a being mode of mind.

The Being Mode

The being mode is characterised by acceptance, which refers to a psychological state of simply allowing what is. According to Segal and colleagues, in this mode one is not motivated to achieve particular goals, thus there is no need for monitoring and evaluation, nor for emphasising 'discrepancy-based processing'. Since it is not goal-oriented and there is no intention to change anything, one is able to experience any moment in its 'full depth, width and richness'. The phenomenology of the being mode feels like 'freedom' and 'freshness', where one is tuned in to the richness and complexity of the unique patterns of every moment. This is very different from the one-dimensional analysis which characterises the mind's relationship to its goal state in the doing mode.

In the doing mode, the mind is often anticipating and planning for the future and reflecting and processing the past. Consequently it is not really tuned to the here and now. The being mode is a psychological state only requiring you to be where you already are, thus the mind has nothing to do and nowhere to go. Mental processing can be dedicated exclusively to moment-to-moment experience, allowing one to be fully present and aware of what is. In the doing mode one is thinking *about* the present, future and past, relating to each of these through a veil of concepts (Segal et

al., 2002). In the being mode there is direct, immediate, intimate experience of the present.

Moving into the being mode of mind involves a shift in one's relationship to thoughts and feelings. Thoughts and feelings are related to with no more importance than sounds or other aspects of moment-by-moment experience; they are seen simply as events passing through the mind. They are watched as they rise, then pass away. In this mode thought and feeling are not utilised in any goal-related action. Since feeling (and thought) is an end in itself (as another aspect of what is), it does not automatically trigger sequences of actions or thoughts. Thus, for example, the thought 'take out the laundry' will not automatically link to any particular action. Each aspect of experience – thought, feeling, or sensation – is simply experienced as an event in itself without any implications or reflections.

Segal et al. (2002) emphasise that these are modes of *mind* that can characterise any activity or lack of activity. If one meditates in a doing mode, with the goal of relaxation, then distractions interrupting goal-attainment will lead to frustration. In a being mode if the doorbell rings while one is bathing, then it is just seen as another event incorporated into an experience of the moment, which may (or may not) link to further action. Mindfulness is the basic tool which effects the shift from the doing to the being mode of mind.

Mindfulness: The Basic Tool

Segal et al. (2002) argue that there are two modes of mind – 'doing' mode and 'being' mode – and when mindfulness works, it works by shifting a person from the doing to the being mode. The basic 'tool' that effects this shift is the intentional use of attention in a non-judgmental way: 'By choosing what we are going to attend to and how we are going to attend to it, we place our hand on the lever that enables us to change mental gears' (p.77). Being in one mode takes up the processing resources needed for the other mode, thereby inhibiting it. This is similar to a car being unable to be in forward and reverse gears at the same time (because they require the same engine resources).

How does this help? Merely by noticing thoughts, merely by becoming mindful of experience, we change our relationship to it. Awareness is, at least, the *sine qua non* of change, for how can one change if one does not know what it is that needs to be changed? Some have argued that gaining awareness changes the phenomenology of experience in a positive way. The difference created by awareness was demonstrated by Linehan (1993), who stated that there was a difference between 'walking' and 'noticing walking': walking is an automatic behaviour, whereas when one notices oneself walking, awareness allows for a different experience of the behaviour. In a successful scenario, when we gain the awareness associated with the being mode, a sense of choice develops. By being mindful, we create enough space to decide whether to respond or not, as opposed to reacting automatically. This is the necessary shift in changing behaviour patterns, especially dysfunctional behaviours.

To recapitulate, Kabat-Zinn (1994, p.4) defines mindfulness as 'paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally'. Changing the focus and style of attention is the 'mental gear lever' by which processing can be switched from one cognitive mode to another. Further, the non-judgemental, present moment focus of mindfulness characterises the being mental mode. Thus mindfulness provides both the means to change mental gears and an alternative mental gear into which to switch.

How does the MBSR go about teaching mindfulness meditation, that is, how do they effect the shift from a doing or driven state of mind to a being state of mind? To answer this question, a detailed exposition of the MBSR will now be given.

How does the MBSR teach Mindfulness?

The present research was undertaken on the programme currently run at the Cape Town Medi-Clinic. The MBSR is a structured eight-week group programme that provides intense training in mindfulness meditation and teaches formal and informal mindfulness-based stress reduction techniques (for the session by session programme details see Appendix A). There are usually 15-25 people with diverse disorders in each group and most of the group members are referred by health professionals. The group members meet for 2½ -3 hours once a week for eight consecutive weeks; each

session consists of formal meditation practice, psycho-education and group discussion. Towards the end of the programme, all the group members attend a 6-hour meditation session. The programme requires commitment from the participants to practice mindfulness for at least 45 minutes on a daily basis.

The MBSR programme differs in focus from most other psychotherapeutic treatments in that it is oriented toward generic stress rather than any particular diagnostic entity. Miller, Fletcher and Kabat-Zinn (1995) note that its focus is not on treating any specific diagnostic problem, but on learning more adaptive ways of dealing with stress generally: 'The intervention is oriented toward what is 'right' with people rather than toward what is 'wrong' with them and aims to nurture and strengthen innate capacities for relaxation, awareness, insight, and behaviour change' (p.197). Mindfulness is about being immersed in the moment, which required full attention in the moment and in order to do this one needs to be 'fully awake'. Mindfulness is not about relaxing to the point of unawareness or sleepiness.

Meditation is a practice specifically designed to develop mindfulness. Kabat-Zinn (1990, p.23) defines meditation as 'the process of observing body and mind intentionally, of letting your experiences unfold from moment to moment and accepting them as they are'. Meditation is conceptualised as 'non-doing': it emphasises simply being where you are, without any effort to do anything. This may sound paradoxical, but it can be thought of as an intentional allowing. Allowing seems like a passive process, but it requires active effort. Meditation is simple, but not easy (Kabat-Zinn, 1990). The MBSR teaches formal and informal meditations.

Formal mindfulness techniques include sitting meditation, body scan and yoga. They are called formal techniques because they are practised at a certain time and in a certain format. Kabat-Zinn (1990) emphasises the role of breathing in teaching mindfulness meditation. (See Appendix B for detailed instructions on how to do a breathing meditation.) Breathing plays such an important part because when we rest our attention on it, it anchors us in the body and in the here and now. The basic technique, according to Kabat-Zinn (1990) is to watch your breathing; be aware of it and feel the sensations associated with it and attend to their changing qualities. One can tune in to the rhythm of breathing and feel the air flowing in and out past the

nostrils; feel the movement of the muscles associated with breathing and feel the belly move in and out. This is done informally – at any time of day when one feels that they want to relax or be more present, or with one of the formal meditation techniques. Most commonly it is done with the sitting meditation.

Kabat-Zinn (1990) refers to sitting meditation as the 'heart' of the formal meditation practice. (See Appendix B for detailed instructions on how to do a sitting meditation.) Mindful sitting is different from ordinary sitting in that one intentionally adopts an 'alert and relaxed body posture [head, neck and back aligned vertically] so that one can feel relatively comfortable without moving, and then simply is in each moment without attempting to 'fill' it with anything. When combined with mindful breathing then, once the posture is assumed, one focuses one's attention on one's breathing: feeling it come in and feeling it go out. Invariably, the mind wanders off and begins planning for the future or reflecting on the past, and no matter how hard one might try, the mind perpetually drifts off. As soon as one becomes aware of this, then one attempts to bring one's attention back to the breathing. According to Kabat-Zinn (1990, p.65) by following this process:

> 'you are training your mind to be less reactive and more stable. You are making each moment count. You are taking each moment as it comes, not valuing any one above any other. In this way you are cultivating your natural ability to concentrate your mind. By repeatedly bringing your attention back to the breath each time it wanders off, concentration builds and develops, much as muscles develop by repetitively lifting weights. Working regularly with (not struggling against) the resistance of your own mind builds inner strength. At the same time you are also developing patience and practising being non-judgmental. You are not giving yourself a hard time because your mind left the breath. You simply and matter-of-factly return it to the breath, gently but firmly'.

The goal of the body-scan technique is to experience one's body rather than thinking about one's body. It requires a thorough and minute focus on the body. In the body scan, you lie on your back and move your attention through each part of your body: starting with 'toes of the left foot and slowly move up the foot and leg, feeling the sensations as we go and directing the breath in to and out from the different regions'

(Kabat-Zinn, 1990, p.77). Imagery is used to direct the breath to the designated area and then to breathe out from that area. Every body part is addressed region by region and if one's mind wonders, then return the focus to the breath. The cardinal feature of the technique, more important than imagining tension leaving the body, is the quality of awareness and the capacity to just feel the raw sensation, or lack of sensation, in each body part (Kabat-Zinn, 1993).

The last of the three main formal mindfulness techniques taught in the MBSR is hatha yoga. Hatha yoga consists of 'stretching and strengthening exercises, done very slowly, with moment-to-moment awareness of breathing and of the sensations that arise as you put your body into various configurations known as 'postures'' (Kabat-Zinn, 1990, p.96). This is included in the programme because when done properly it is actually a meditation and can increase relaxation and musculoskeletal strength and flexibility. It is practiced with the same attitude as the other two formal techniques: without striving or trying; simply accepting the body as it is in the moment. There is no emphasis on progress, but simply learning idiosyncratic limits and gently dwelling at those limits, being guided by feedback from the body. Throughout the practice there should be awareness of proprioceptive signals and internal cognitive phenomena, in short, anything in each moment.

Kabat-Zinn (1990, p.91) teaches that the litmus test of correct practice is as follows:

> 'when you notice thoughts in the mind about getting somewhere, about wanting something, or about having gotten somewhere, about 'success' or 'failure', are you able to honour each one as you observe it as an aspect of present-moment reality? Can you see it clearly as an impulse, a thought a desire, a judgment, and let it be here and let it go without being drawn into it, without investing it with a power it doesn't have, without losing yourself in the process? This is the way to cultivate mindfulness'.

You do not stop being mindful when you stop your sitting meditation or body scan. There is a carry over process and one of the central aims of the programme is the generalisation of mindfulness skills into everyday life. Each moment, irrespective of how mundane the activity may seem, can be experienced with mindfulness. The dishes can be done mindfully, driving a car can be done mindfully. Mindfulness is

simply moment-to-moment non-judgmental awareness and this can be brought to any activity. Interestingly, experiences appear to take on a different, more interesting quality, when they are encountered with mindfulness. The effects of practising mindfulness are cumulative, thus the more systematically and regularly one practices, the more adept one will become at using mindfulness.

The MBSR teaches how to work with the inevitable psychological and physical distress that affects each person's life. The value of the formal and informal techniques exists in their capacity to effect a mindful way of being. Participants learn to observe their own minds moment-to-moment, and their thoughts in such a way that they will learn how to let go of them without getting so caught up and driven by them. This involves a shift from doing to being, which can often be difficult in a culture that emphasises doing and continual striving and improving. The job of the mindfulness trainer is essentially to impart permission to each participant to be with themselves and their world with compassion and acceptance and providing them with the tools to do this (Kabat-Zinn, 1990).

Kabat-Zinn (1982; 1990) makes use of any elements which can maximise the programme's efficacy. Kabat-Zinn (1982, p.37) enumerates these elements: 1) it has a *group format*, during which the participants are encouraged to share their experiences, which enhances individual motivation and compliance. 2) Participants are told to *expect relief* through a decrease in symptomology. 3) They are provided with *didactic material* to facilitate learning the relationship between stress and illness, stress psychodynamics and meditation. Psychoeducation is given to instil or increase the belief in the efficacy of meditation through its physiological effects. 4) *Homework* is given to encourage patients to generalise mindfulness into their everyday lives, which also 'promotes the discovery of new resources for coping'. 5) *Spectrum of meditation techniques* cater for the differing preferences of the various participants including, sitting, walking, standing, and eating meditations. All the meditation techniques are designed to cultivate detached observation.

The attitude present while meditating is as important as doing the practice itself. In addition to the practical material disseminated during the MBSR, it attempts to instil the attitude that exists behind the practice. Kabat-Zinn (1990, p.32) emphasises seven

attitudinal factors that underpin the mindfulness practice as it is taught in the MBSR, which are referred to as the 'major pillars of mindfulness practice'. These interwoven factors are: 1) *Non-judging:* The aim is to experience without judging, to be an 'impartial witness'. This attitude is developed merely by becoming aware of one's judgment cognitions and observing them without reacting emotionally. 2) *Patience:* is the recognition that things must unfold in their own time. 3) *Beginner's Mind:* is a concept which represents a willingness to see everything as if for the first time. It is experiencing independently of expectations based on our past experience. It is the lived recognition that each moment is unique. 4) *Trust:* refers to the use of one's own experience and feelings as a guide. 5) *Non-striving:* this emphasises meditation as a form of non-doing. The goal is to be completely in the moment. It represents the attitude that you are already yourself. This attitude underpins the injunction to simply pay attention. Just watch. 6) *Acceptance:* means seeing things as they actually are in the present. Being with what is without trying to change or alter it in any way. While meditating one develops acceptance by being aware of each moment as it unfolds, as it is. 7) *Letting go:* addresses our tendency to hold onto pleasurable experiences; for example, replaying pleasant thoughts. In meditation one does not hold on or push away any experience, but rather just recognise it for what it is and observe it.

How effective has the MBSR programme been? In more than two decades since its inception there has been numerous studies designed to test the efficacy of the MBSR and it is toward this research one must turn to answer this question.

Research On Mindfulness Meditation

The quantitative research described below demonstrates the efficacy of mindfulness-based interventions administered in a *group* format. Some of the research added different dimensions to MBSR. For example, some added imagery techniques or kindness meditations, some are slightly longer or shorter than the MBSR. But all of them are linked by the central role of mindfulness meditation administered in a group format. The research is presented in chronological order beginning with the efficacy of MBSR to treat chronic pain.

Chronic Pain

Recognising the limitations of traditional pain-treatments, including analgesics, narcotics and surgery, Kabat-Zinn (1982) set out to test whether participation in an MBSR could reduce pain-levels and improve related symptomatology. The programme ran over 10 weeks; that is, two weeks longer than the one currently used, but with the same techniques as the current MBSR. Measures included those for the many dimensions of pain and those for commonly associated features of pain (non-pain measures). The five pain measures included a spectrum of overlapping indices designed to measure intensity and duration of pain in both the here-and-now and in the previous week and the extent to which the pain interferes with normal activities. Drug use and activity levels were assessed using home diaries. The non-pain measures tapped changes in affect and mood, health-related beliefs and goal attainment.

The sample consisted of 54 patients (18 males and 33 females) with an age range of 22 to 75, who had not improved with medical treatment or were dissatisfied with their level of improvement. The sample were all outpatients referred by a physician, and the pain aetiology ranged from 'gross somatic pathology' – for example, cancer and arthritis – to pain with no identifiable physiological basis. Length of pain symptoms ranged from six months to 48 years, with a median of eight years. Results on the pain indices indicate that 'the majority of patients experienced considerable improvement in their conditions... improvement was observed for all categories of chronic pain. Most of the pain reduction and affect improvement was maintained on follow-up at 2.5, 4 and 7 months' (Kabat-Zinn, 1982, p.43). On non-pain measures, there were significant reductions in negative mood states including depression, tension, anxiety, fatigue and confusion and an increase in vigour. These results were maintained at follow-up. Kabat-Zinn (1982) notes some methodological flaws of the study including lack of matched comparison control groups, data based on self-reports (although this was partially offset by using a range of indices) and lack of independent judges.

Kabat-Zinn, Lipworth and Burney (1985) furthered Kabat-Zinn's (1982) research on the effectiveness of 10-week MBSR as a treatment for pain. The authors attempted to compare the effectiveness of the MBSR to the traditional medical pain-specific approach. They therefore included a comparison group who were treated with traditional methods in a pain clinic. Note that this was not a randomised experiment with a matched control group. There was an increase in the number of participants to 90, who had participated in one of three different 10-week cycles of the MBSR within a two year period. The same data gathering instruments were used at the same intervals as in Kabat-Zinn's (1982) previous study. The findings indicated that the MBSR group in this study manifested significant improvement on the dimensions of present-moment pain, negative body image, inhibition of activity by pain, pain symptoms, mood disturbance, self-esteem, anxiety and depression. In contrast, the pain clinic patients' improvement did not reach clinical significance on any index. Further, all of the gains for the MBSR group, except those measured by the pain rating index (PRI), had been maintained at the time of a 15 month follow up. Kabat-Zinn et al. (1985) divided those who improved into two groups: the first group felt better because their pain was greatly reduced or eliminated. The second group's pain remained unchanged but because of an improvement in their relationship to the pain (for example, less fear of the pain), it was not as problematic as before the meditation training. Kabat-Zinn et al. (1985) postulated that the central component of the MBSR in the treatment of pain (for both groups) was the cultivation of detached observation of the pain experience, which 'may be achieved by paying careful attention to and distinguishing *as separate events* the actual primary sensations as they occur from moment to moment and any accompanying thoughts about pain' (1985, p.165). The overall conclusion reached within the limitations of this study (the lack of randomised control group leading to limited generalisation ability) is that mindfulness meditation administered in a MBSR format can be an effective treatment for chronic pain.

Anxiety and Panic Disorders

Kabat-Zinn et al. (1992) set out to research the effectiveness of meditation with a psychiatric population. Previous research on meditation either did not use

psychiatric populations, or there were no formal diagnostic assessments. Kabat-Zinn et al. (1992) wanted to test the efficacy of the MBSR with anxiety disorders strictly diagnosed according to the DSM-III-R. After a process of screening 321 patients, 24 met the full criteria for GAD or Panic disorder with or without agoraphobia as the primary diagnosis. Eight participants had a comorbid diagnosable depression. The authors used a repeated measures design, with multiple measures administered at recruitment, the start of the programme, completion of the programme and at a three-month follow-up. They used both self-rating scales and ratings of trained interviewers.

At the completion of the MBSR, 20 of the 22 subjects (two subjects dropped out) showed marked improvement on both self-report and interviewer ratings on both anxiety and depression. This improvement was maintained at three-month follow-up. In addition, there was a significant reduction in the number of subjects experiencing panic attacks and even for those who were still experiencing panic attacks, their severity had declined. Thus, Kabat-Zinn et al. (1992) concluded that mindfulness meditation applied in a group format may be a useful treatment approach for these kinds of psychopathology. 18 of the 22 participants were assessed in a three-year follow-up study conducted by Miller et al. (1995). This study found that the gains of the original study were maintained for both anxiety and depression and there was ongoing compliance with the meditation practice. Therefore, Miller et al. (1995, p.192) concluded that an 'intensive but time-limited group stress reduction intervention based on mindfulness meditation can have long-term beneficial effects in the treatment of people diagnosed with anxiety disorders'.

Fibromyalgia

Kaplan, Goldenberg and Galvin-Nadeau (1993) developed the Mind-Body Stress Reduction Programme (MBSRP) based on MBSR for the specific application to fibromyalgia – a chronic illness characterised by widespread pain, fatigue, sleep disturbance and resistance to treatment. They set out to test the effectiveness of the MBSRP because of the disappointing results of other treatments, which had led to treatment pessimism. Although it is also based on mindfulness meditation, the

MBSRP differed from the MBSR in that it included imagery and fatigue meditations to address the specific concerns of fibromyalgia patients – pain, sleep disturbance and fatigue. The participants were assessed with multiple measures of global well-being, medical symptoms, psychological distress, functional disability and general progress. 59 participants completed the study and the majority of them showed significant clinical improvement. Due to the lack of a randomised control group, Kaplan et al. (1993) cautiously concluded that a mindfulness meditation-based stress reduction programme is effective for patients with fibromyalgia.

Generic stress with medical and premedical students

In a matched wait-list control design, Shapiro et al. (1998) set out to replicate earlier findings, overcome some of the methodological shortcomings of previous research on mindfulness meditation, and determine whether it could be used to address/alleviate the deleterious stress of doctors. Their study expanded on previous research by measuring the effect of the MBSR on empathy and spirituality. The intervention was modelled on the MBSR, but included experiential exercises designed to cultivate mindful listening skills and empathy. A group of 78 medical and pre-medical students participated in the study and were measured before the intervention and soon after completion, which coincided with the exam period. Shapiro et al. (1998, p.592) found that 'participation in a mindfulness-based stress reduction intervention can effectively reduce self-reports of overall psychological distress including depression, reduce self-reported state and trait anxiety, increase scores on overall empathy levels and increase scores on a measure of spiritual experiences'. These results were replicated with the wait-list control group, held across experimenters and observed over an exam period. However, small sample size and use of premedical and medical students only, limited the generalisation of their results and the long-term effects were not recorded. However this study was the first to demonstrate the efficacy of a mindfulness-based group intervention with a non-clinical population.

Generic stress with outpatient populations

There have been two outcome studies testing the effect of the MBSR with outpatients. The first looked specifically at cancer outpatients and the second looked at a heterogeneous outpatient group. Recognising the high levels of emotional distress in people with cancer, Speca, Carlson, Goodey and Angen (2000) researched the effect of the MBSR on stress symptoms in a sample of cancer outpatients. They used a randomised weight-list control design with pre and post intervention measures. The MBSR programme was slightly shorter than the traditional one used by Kabat-Zinn, with the entire programme consisting of seven sessions, once a week, with each session lasting 1½ hours. For the 80 participants (with diverse types of cancer in different stages) who completed the study, Speca and colleagues found significant decreases in stress symptoms, confusion, anger, depression and anxiety factors. Moreover, they noted an increase in feelings of vigour. Thus the authors concluded that the programme can serve as an effective intervention for stress related mood disturbance in cancer outpatients. Carlson, Ursuliak, Goodey, Angen & Speca (2000) conducted a 6-month follow-up on 54 of the original 80 cancer outpatients and discovered that the improvements were maintained at the follow-up. They therefore concluded that the MBSR is effective in reducing mood and stress symptoms of cancer outpatients for upto 6 months.

Recognising the high levels of physical and psychological distress among an outpatient chronic illness population - pain, anxiety, depression, feelings of isolation, hopelessness, and helplessness - Reibel, Greeson, Brainard and Rosenzweig (2001) examined the effects of participation in the MBSR on quality of life and physical and psychological symptomatology in a heterogeneous patient population. 136 participants entered a MBSR programme modelled on Kabat-Zinn's programme, except they were only required to meditate for 20 minutes per day (as opposed to 45 minutes in Kabat-Zinn's programme). The authors found that participation in the MBSR significantly improved quality of life, reduced physical symptoms, and reduced psychological distress, including depression and anxiety. These gains were maintained at a one-year follow-up for at least some of the participants. They concluded that 'patients suffering from various health problems

can enhance their daily functioning and well-being and alleviate physical and psychological symptoms by participating in an intensive 8-week MBSR program. In addition, at least some participants in the program can experience long-term beneficial effects (Reibel et al., 2001, p.189).

Generic stress with self-selected community residents

Williams et al. (2001) investigated the effect of the MBSR on non-diagnosable 'daily hassles', psychological distress, and medical symptoms in a university community residence. Since most previous studies used participants referred by doctors, they wanted to determine the efficacy of the programme with community volunteers with high perceived stress and its effects on their medical symptoms and psychological distress. They used a randomised controlled design with a three-month follow-up with 103 volunteers, none of whom were referred by a medical practitioner. The intervention group participated in an 8-week MBSR programme, while the control group used community resources for stress management. Williams et al. (2001) found significant decreases on all dimensions - perceived stress, psychological distress and number of medical symptoms – of the intervention group and that these improvements were maintained at the three-month follow-up. Further, their gains were larger than the control group. The intervention group continued meditating after the MBSR completion, supporting the contention that this population - highly educated and self-selected people - would embrace the practices in the absence of doctor referral. Thus, the authors concluded that 'self-selected community residents can improve their mental and physical health by participating in a stress reduction intervention offered by a university wellness program' (p. 422). Limitations with this study included exclusive use of self-report measures, small sample size, and lack of generalisability due to skewed educational demographics of the sample.

Mindfulness-Based Cognitive Therapy with depressive relapse prevention

Motivated by the high rates of relapse of depressed patients and the lack of feasible psychological treatments to address this problem, Teasdale et al. (2000) used their version of the MBSR, which they call Mindfulness-based Cognitive Therapy (MBCT), to reduce rates of relapse and recurrence in patients who have recovered

from major depression, compared to treatments patients normally receive. MBCT is based on an integration of aspects of Beck's cognitive treatment for depression with components of the MBSR. The cognitive aspects added to the MBSR are primarily those designed to 'facilitate 'decentred' views, such as 'thoughts are not facts' and 'I am not my thoughts'. The focus of the MBCT is to teach individuals to become more aware of thoughts and feelings and to relate to them in a wider, decentred perspective as 'mental events' rather than as aspects of the self or as necessarily accurate reflections of reality' (Teasdale et al., 2000, p.616). 145 patients with previous major depressive episodes who had been well for at least three months participated in a multicentre randomised clinical trial. In patients with a previous history of more than three depressive episodes (77% of the sample), MBCT significantly reduced relapse rates compared to treatment as usual. In patients with only 2 previous episodes (23% of the sample) there was no difference in relapse rates. The authors therefore state that they can conclude with some confidence that in patients who have previously experienced more than three major depressive episodes, MBCT can produce useful reductions in risk of relapse compared to treatments that would usually be given.

Problems and qualitative research

There is a generic problem which threatens the internal validity of all the quantitative research on the MBSR, namely that in addition to mindfulness, the programme includes other potentially confounding therapeutic elements. For example, group support, relaxation, and psychoeducation. These factors make it difficult to conclude unequivocally that mindfulness was the only, or the cardinal, therapeutic factor. Thus the research makes conclusions about mindfulness-*based* group programmes and not mindfulness per se. It follows that where positive effects are found, it shows the efficacy of the MBSR and suggests the efficacy of mindfulness. The in-depth nature of qualitative research is ideally structured to solve this problem. However, there is a paucity of published research in this form. One exception is a study by Mason and Hargreaves (2001) who, using grounded theory methodology, set out to explore the mechanism by which mindfulness-based

cognitive therapy (MBCT) might bring about therapeutic effects. They were interested in *how* it works rather than whether or not it works.

In order to tease apart the therapeutic elements involved in a mindfulness-based group programme, they used a sample of four patients, each with at least two prior major depressive episodes, who had completed the MBCT programme. Mason and Hargreave's (2001) analysis of their narratives revealed several interrelated agents of therapeutic change. 1) Initial expectations of therapy were very important to later therapeutic change. 2) The development of formal mindfulness skills (mindfulness meditation, body scan and yoga) and informal mindfulness skills was considered to lie 'at the heart' of the therapeutic process. There were strong links between consistent practice, especially between sessions, and the process of change. 3) Shifts toward a more accepting and flexible attitude which was also related to 'living in the moment', served two purposes in that it was therapeutic in itself and it opened the door to skill acquisition. 4) Interpersonal processes, especially group support, were also a significant factor mentioned by all the participants and reportedly helped with skill development. 5) Although not an explicit aim, practices often led to feelings of calmness or relaxation. 6) Generalisation of these skills into everyday life was seen as crucial to continued practice and thus to the level of improvement and to their sustained improvement.

To recapitulate, at this point, the therapeutic factors of mindfulness and their interrelated dynamics have been presented. Further, how those factors are disseminated and the practices required to imbibe the approach has been explained. These elements combine to create the lens of mindfulness. Research documenting the efficacy of this approach was presented. The next section shifts focus to detailing the cognitive therapy lens. The choice of cognitive conceptualisations was determined by the information necessary to understand the subsequent case conceptualisations, and to facilitate a comparison between cognitive therapy and mindfulness.

THE COGNITIVE THERAPY LENS

The cognitive perspective is constructed out of general concepts which could be superimposed on any cognitive treatment. It is important to differentiate the various disorder-specific cognitive treatments from the overarching cognitive perspective. Each cognitive treatment is tailored toward specific themes which are characteristic of the different diagnostic presentations. For example, depression is usually associated with themes of loss, failure and emptiness; anxiety with themes of threat, imminent loss and failure, and lack of control (Leahy, 1996). This section will present the generic aspects common to all cognitive treatments, which will be followed by the cognitive conceptualisations of several specific disorders necessary to understand and formulate the participants' presentations.

The Cognitive Therapy Model

Of the several prominent cognitive models, Beck's is presented here because it is comprehensive and precise, it is well researched, and it has the theoretical ability to integrate many other cognitive models (Leahy, 1996). According to Beck and his colleagues, the key cognitive concepts are schemas, maladaptive assumptions and automatic thoughts. These represent three different levels of cognition. Each level is vulnerable to distortion. At the deepest level are an individual's schemas, which are defined as the cognitive structures the individual habitually uses for screening, coding and evaluating experience and which directs the focus and retrieval of information (Leahy, 1996). Distorted schemas filter experience in a way that negatively biases processing and is self-defeating. Young (1999) calls these "early maladaptive schemas" (EMS) and believes they are formed through the combination of innate temperament and ongoing patterns of dysfunctional experiences in early childhood. For example, a child who is repeatedly criticised for school performance deemed to be below her parents' standards is prone to develop the failure schema. Other examples of EMS include schemas of abandonment, rejection, and unrelenting standards. EMS have gained increasing importance as cognitive therapy extends its application to the more complicated area of personality disorders and other difficult disorders (Young, 1999).

At the second level are the maladaptive assumptions. These are a set of rules that guide and evaluate behaviour (Leahy, 1996). Beliefs or assumptions are generally not accessible to self-report and are often only indirectly revealed in an individual's cognition. Common forms of maladaptive assumptions are of the form 'I should do...', 'I must have...' or 'If I do x, then y will follow'(p. 25). Using the example above, someone with a Failure schema may develop maladaptive assumptions such as 'If I can't make my parent's happy, then I'm a complete failure'. Maladaptive assumptions may function to compensate for, or avoid, the negativity associated with schemas and they in turn underlie automatic thoughts - the most accessible form of cognition. Automatic thoughts represent an individual's immediate, involuntary, nonreflective cognitive reaction. They are what just 'pops into one's head' without any particular process of reasoning leading up to them (Freeman, Pretzer, Fleming & Simon, 1990). These thoughts appear to come forth spontaneously and, when dysfunctional, lead to negative affect. Cognitive distortions can take many forms. Some common examples include dichotomous thinking (e.g. 'I'm either a success or a failure'), overgeneralisation (e.g. after being told that one person does not like her, she thinks 'Everybody hates me'), and catastrophising (without any precedent a person states 'If I'm late for work, I'll be fired').

The foregoing discussion may create the mistaken impression that cognitive therapy is only interested in cognition. In addition to cognition, emotion and behaviour form the three aspects of human functioning that are of prime importance in cognitive therapy (Freeman et al., 1990). The cognitive therapist is interested in the kinds and intensity of emotion that the client feels in problem situations, what the client did and what the s/he thought. All cognitive interventions have a behavioural component (Leahy, 1996). In the therapy, 'the therapist's goal is to assess the client's cognitive, emotional, and behavioural responses in problem situations in sufficient detail to permit clear conceptualisation of the problem and strategic planning of interventions' (Freeman et al., 1990, p.32).

In order to achieve his or her therapy goals, the cognitive therapist has a host of behavioural and cognitive techniques. The number and extensiveness of the techniques have led to two common misconceptions (often levelled as criticisms) about cognitive therapy. First, critics maintain that cognitive therapy is too technique

oriented. This is a misrepresentation, as the therapy relationship is given cardinal importance. It is characterised by empathy, warmth, genuineness and compassion (Klosko & Sanderson, 1999). There is an emphasis on collaborative empiricism, a central aspect of the therapy, whereby the therapist and patient are considered partners in their attempt to rationally address the latter's problems. A second criticism of cognitive therapy is that it uses a 'hit-and-miss' approach, mechanically using a battery of techniques. Although cognitive therapists recognise that typical features of each disorder are present to a greater or lesser degree, the cognitive therapy approach is tailored toward the idiosyncratic presentation of each case.

Cognitive therapy for Depression

Freeman et al. (1990) state that the cognitive approach to depression is a comprehensive research-validated approach that forms the foundations for other, more complex, cognitive therapy treatments. Research has shown that for depression, cognitive therapy is at least as effective as any other treatment, including antidepressant medication, and often superior (Freeman et al., 1990). Thus, the cognitive view of depression will be given in detail.

Beck and his colleagues' research led to the identification of three central themes of cognitive distortion in depression, called the cognitive triad. This consists of a negative view of oneself (for example, 'I am a failure'), a negative view of the world (for example, 'my life is miserable') and a negative view of the future (for example, 'nothing will ever work out for me'). Two additional features of the cognitive conceptualisation of depression are that the cardinal maintaining factor of depression is cognitively based and that the causal mechanism is negative biases in information processing (Leahy, 1996). In other words, from the cognitive perspective, people become depressed because their cognitive filters (created by their depressogenic beliefs/assumptions and schemas) process their experience with a negative bias. This results in negative automatic thoughts, leading to depressed mood, which then further negatively bias recall (memory for past events) and perception (sensory selection); Freeman et al. (1990) call it the 'downward spiral of depression'

Within a collaborative relationship, cognitive therapy often begins either with behavioural interventions designed to improve clients' mood (for example scheduling pleasurable activities) or cognitive interventions focused on identifying and challenging dysfunctional thoughts. When addressing negative automatic thoughts the therapist's first goal is to demonstrate the connection between automatic thoughts and mood, which may be done by reflecting on an instance in the past when she had a increase in depressive mood and then uncovering the automatic thoughts at that time. Socratic questioning is used, during which the therapist asks a series of questions designed to guide the client to discover negative cognitive distortions and develop solutions herself. Solutions often include teaching the patient to challenge their automatic thoughts by 'talking back' to them, or rationally responding – forming a balanced response based on reason rather than depressive thinking.

After improvements in mood have been noted, the therapy turns its attention to identifying the underlying assumptions that predisposed the individual to become depressed (Freeman et al., 1990). One common method of uncovering underlying assumptions is to take negative automatic thoughts and determine the imagined consequences if they were true. For example, an automatic thought 'she does not like me' may have a depressive charge, because it is driven by the underlying assumption 'I should always be liked', which may be compensating for schema of worthlessness or defectiveness. The end of the treatment is oriented toward preventing a relapse. Toward this end, the therapist would work with the patient to identify risky situations and sensitise the patient to early warning signs of depression.

Cognitive therapy for Pain

As the proliferation of multidisciplinary pain-treatment centres demonstrates, the problem of pain has increasingly come to be recognised as a multifaceted phenomenon (Turk & Meichenbaum, 1994). A comprehensive view of pain takes cognisance of not only the sensory component, but also of the cognitive, affective and behavioural components. Pain perception cannot simply be defined in terms of simple sensory trauma. It is determined by, *inter alia*, cultural meaning, previous experiences, idiosyncratic qualities (the meaning of pain for the patient), and the

ability to understand the cause of the pain and grasp its consequences and dysphoric affect (Melzack & Wall, 1996).

Summarising several authors, Edwards and Wohlman (2002, p.389) group the main psychological elements of pain disorder into predisposing, precipitating and maintaining factors:

> 'Common predisposing factors are (1) alexithymia (a trait of limited awareness of different emotional states, inability to express emotional states in general); (2) external locus of control (attribution of causes of problem to others or to situations outside their control and absence of a proactive problem-solving approach); (3) a history of learned pain behaviours. Typical precipitating factors are an injury or illness episode associated with pain and a period of exposure to unusual stressors. Maintaining factors include: (1) Belief that it is best to rest, which causes a decreased blood flow to muscles and a weakening of muscles which increases pain sensitivity; (2) Depression which increases focus on pain and increases sensitivity to pain; (3) Anxiety also increases focus on the pain and causes muscle tension; (4) Muscle tension related to unexpressed anger can also exacerbate the problem; (5) Secondary gain: Expectation of reinforcement from family members in the form of nurturance and relief of responsibilities.'

In order to affect change, Turk and Meichenbaum (1994) use a traditional CBT approach, stressing collaboration between therapist and patient and active engagement from both parties. The therapy is time-limited, structured and goal-oriented. The CBT approach attempts to modify thoughts, feelings, beliefs and behaviours by 1) helping patients identify self-defeating behavioural and cognitive patterns and facilitating the acquisition and development of adaptive coping mechanisms; 2) encouraging patients to become aware of the way their thoughts and feelings can exacerbate and maintain their pain behaviours; 3) using behavioural therapy procedures, such as homework assignments (for example, to test the effect of their cognition on their pain), relaxation and relapse-prevention training.

Turk and Meichenbaum (1994) accomplish these goals through a programme divided into six overlapping phases. 1) During the *assessment* phase, psychosocial distress

and self-defeating behaviours are evaluated and integrated with biomedical information. 2) The *reconceptualisation* phase develops a multifaceted view of pain with circumscribed and addressable problems. 3) Important aspects of the *skills acquisition and skills-consolidation* phase are altering the patient's dysfunctional pain reactions, bolstering coping skills (including attention diversion through attentional training), relaxation skills (using controlled breathing), and problem-solving skills. 4) The *rehearsal and application training* phase consists of reviewing and consolidating new skills. 5) During *generalisation and maintenance,* the patient is encouraged to use the skills in a range of different situations, and is encouraged to predict situations in which he/she might struggle in order to prevent relapse. 6) The last phase is *treatment follow-up* in which all aspects of the training are reviewed. The efficacy of this CBT approach has been demonstrated in over 100 studies with many forms of pain and a variety of populations (Turk & Meichenbaum, 1994).

Cognitive Therapy for Panic Disorder

The critical feature of panic disorder is the experience of *recurrent* panic attacks and the development of a fear of further attacks (DSM-IV). When panic disorder occurs with agoraphobia, individuals avoid situations in which they think there is an increased likelihood of panic attacks or which they think would be particularly catastrophic (Clark, 1997). Research on the efficacy of cognitive therapy for panic disorder has established it as the treatment of choice. In controlled clinical trials, its performance was superior to supportive psychotherapy, applied relaxation and pharmacology (Clark, 1997). Clark's model of panic disorder will be presented because it is the accepted cognitive model and because Kabat-Zinn (1992) endorses its conceptualisation.

Clark's (1997) cognitive model of panic disorder proposes that individuals experience panic attacks because they misinterpret normal anxiety sensations, such as palpitations, dizziness, shaking, etc. as catastrophic. The physical or mental anticipated catastrophes often reported include dying, losing control, and going crazy. For example, a person may interpret breathlessness as evidence of suffocation, palpitations as indicative of having a heart attack, or pulsing sensations as evidence of a brain haemorrhage. The sequence of events is shown in the following diagram:

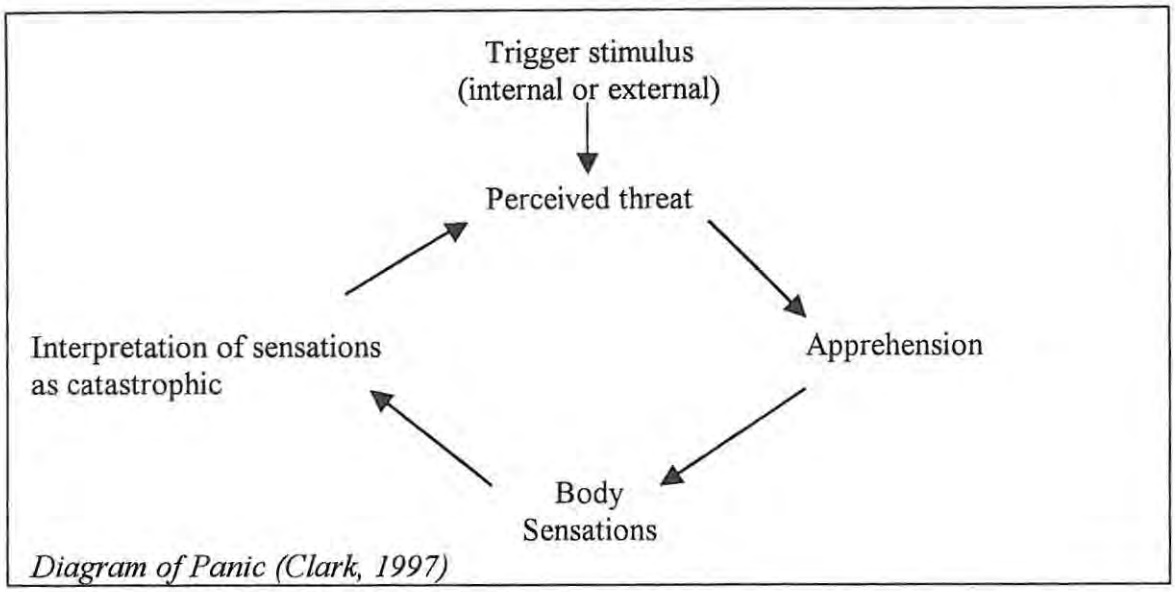


Diagram of Panic (Clark, 1997)

The diagram is interpreted as follows: 'External stimuli (such as a department store for an agoraphobic) and internal stimuli (body sensations, thoughts, images) can both provoke panic attacks. The sequence that culminates in an attack starts with the stimuli being interpreted as a sign of impending danger. This interpretation produces a state of apprehension, which is associated with a wide range of bodily sensations. If these anxiety-produced sensations are interpreted in a catastrophic fashion (impending insanity, death, loss of control, etc.) a further increase in apprehension occurs, producing more bodily sensations, leading to a vicious circle which culminates in a panic attack' (Clark, 1997, p.125). The panic disorder is then maintained by 1) hypervigilance to bodily sensations, which are then taken as further evidence for impending mental or physical disaster; and 2) various safety behaviours which are instituted to prevent further attacks, but maintain the person's negative beliefs. For example, a person who takes a anxiolytic when she feels heightened anxiety, prevents herself from disproving the belief that heightened anxiety is dangerous.

Cognitive therapy uses both cognitive and behavioural methods to alter these negative catastrophic beliefs. According to Clark (1997), typical cognitive methods includes psychoeducation, factual information about the nature of anxiety, that disputes their beliefs. For example, a person may believe that their panic might cause them to faint. Learning that panic is associated with an increase in blood-pressure, while it is a decrease in blood-pressure that causes fainting, disputes the belief. The behavioural techniques taught are usually divided into those that induce the feared sensations to

demonstrate their aetiology; and those that prevent the person from using their safety behaviours, which allows them to disconfirm their negative beliefs (Clark, 1997).

Cognitive Therapy for Generalised Anxiety Disorder (GAD)

GAD is an anxiety- or worry- (anxious apprehension) based disorder, which persists for at least six months and is associated with at least three of the following six symptoms: restlessness or feeling keyed up or on edge; being easily fatigued; difficulty concentrating or mind going blank; irritability; muscle tension; and sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep) (DSM-IV).

Riskind (1997) states that an understanding of GAD requires solid grounding in the cognitive model of anxiety. He summarises the model of Beck and Emery as follows: 'the initial judgment, or primary appraisal, identifies the situation as a threat and assesses the probability, imminence and degree of potential harm. The next judgment, the secondary appraisal, is an estimate of the ability to counter harm, or to neutralise or cope with the danger. Finally, maximum anxiety results from an identification that a situation is a threat coupled with a judgment that one lacks the ability to cope with or control the danger' (p.126). Riskind places the role of cognitions, especially schemas, in the forefront of the disorder. 'It is assumed', she states (1997, p.127), 'that danger schemas that organise the individual's beliefs and concepts of personal danger are activated virtually constantly. As a result, the individual reaches predefined conclusions ('I am in danger,' 'There is a threat to my survival or well-being') with minimal cues, makes negative predications, and worries about catastrophic scenarios'.

In addition to this conceptualisation of anxiety, the essential feature of pathological worry is its uncontrollability (Riskind, 1997; Wells & Butler, 1997). The uncontrollability of worry is derived from incorrect beliefs concerning future events and one's personal capacity to manage them. Thus, the attempt at problem-solving is thwarted and the thinking continues uncontrollably causing negative affect (Wells & Butler, 1997).

Wells and Butler (1997) state that CBT has been effective in treating GAD, but there are a considerable number of cases that do not respond to the treatment. In order to increase the efficacy of the cognitive treatment, the authors expand the conceptualisation of worry as a predominantly verbal, conceptual activity aimed at problem-solving, then add a very useful dimension to the conceptualisation of worry by differentiating Type 1 and Type 2 worry. The content of Type 1 worry consists of the usual concerns of worriers, including external events and internal non-cognitive events. Type 2, which they call 'meta-worry', 'is concerned with the negative appraisal of one's own cognitive events, particularly the occurrence of worry' (p. 166). Meta-worry describes a relationship to worry in which the latter is appraised as uncontrollable and disruptive. Examples of meta-worry include 'worrying will make me crazy', 'worrying thoughts can make bad things happen'. It is the presence of meta-worry that differentiates pathological worry from normal levels of worry. Non-problematic worry becomes problematic when meta-worry develops.

For lasting results, treatments must address meta-worry. A cognitive treatment would attempt to do this through the modification of dysfunctional beliefs about worrying. At a cognitive level, this may be achieved by challenging negative beliefs about worry, either through Socratic questioning, dysfunctional thought records, or behavioural experiments designed to test those beliefs. This is in addition to the typical techniques designed to challenge the belief in the uncontrollability of worry, including worry scheduling or postponement.

In this section the overarching theory of cognitive therapy and its specific conceptualisations were combined to create a lens through which the above mentioned diagnoses can be conceptualised and treated. This lens will be used to formulate the subsequent cases and provide a yardstick of improvement.

MBSR AND COGNITIVE THERAPY:

The lenses of MBSR and cognitive therapy have been presented. This section clarifies and magnifies the similarities and differences between the mindfulness and cognitive lenses. Mindfulness and cognitive therapy are *similar* in the following ways: 1) They both aim to increase the patient's awareness of cognitions, feelings, sensations and the

relationship between them. 2) Both approaches encourage a 'distancing' from experience – including cognitions and sensations – in order to view them more objectively. 3) As in cognitive therapy, the MBSR encourages patients to reconceptualise difficult situations as challenges and as cues to engage in new behaviours. In other words they both encourage cognitive restructuring. 4) They both use homework assignments to reinforce and generalise the skills learned during the sessions.

There are also important *differences*: 1) Unlike cognitive therapy, the MBSR does not emphasise distinguishing thoughts as positive, negative or faulty. It focuses on identifying thoughts as 'just' thoughts and encourages a distancing from all thought, whether they are maladaptive or not. 2) Again, unlike cognitive therapy, the MBSR does not set out to identify the schemas or underlying assumptions related to, or driving, cognitive distortions and feelings of distress. 3) Mindfulness is taught as a daily discipline to be practiced regularly independent of one's state of distress. The emphasis is on living mindfully, which happens to be an effective 'generic' strategy for coping with physical and psychological distress. It is not a technique for coping with a specific maladaptive condition. Thus, the focus of the intervention is on the meditation practice itself rather than on a specific disorder, diagnosis or constellation of symptoms. The orientation is towards strengthening people's healthy adaptive capacities (for example, relaxation or attention) rather than treating this or that disorder. 4) The MBSR intervention takes place in a non-psychiatric setting with a heterogeneous group of patients who have a wide range of medical and psychological problems, whereas the cognitive therapy ideal is to group patients with the same conditions.

The concepts and the relationship between the concepts of mindfulness and cognitive therapy have been described in detail and differentiated. The purpose of these lenses and the way they functioned in this research will now be explained.

CHAPTER 3 : AIMS AND METHOD

Aims and Objectives

The present research was undertaken with the aim of describing the experience of people as they begin practising mindfulness meditation and documenting the psychological, emotional and behavioural changes that occur. This will be done with two specific objectives in mind:

1. conceptualising the psychological processes which underlie the change
2. investigating whether these changes are similar to those that a cognitive therapy intervention would be looking for.

Methodology: The Case Study Approach

A case-study methodology was utilised to achieve the research aims. This section will describe the case-study method and show why it is the preferred methodology. How the research was carried out, from data collection to interpretation, will then be presented.

Research Method

The case-study method has played an important role in clinical psychology research and practice (Edwards, 1996) and in meditation research (Walsh, 1984). Edwards (1996) defined the case-study method as: the in-depth and systematic observation and rigorous recording of any phenomenon as it manifests in a single person or series of individual cases. It typically unfolds in three stages: first is the development of in-depth accurate descriptions of particular cases; second is the conceptualisation of the material in psychological and behavioural terms; third is the testing and retesting against new cases.

When a research field had demonstrated significant effects of an independent variable, then attention turns toward exploring how it works. Researchers design interventions which tease apart the mechanisms which mediate the results. Their interest is in isolating the contributing factors by asking questions about why and how the effect occurred (Walsh, 1984). Most of the major psychotherapeutic schools, including

psychoanalysis, behaviour therapy, and cognitive therapy have built and refined their theories on the careful and systematic description of cases (Edwards, 1996).

The case-study approach, when conducted within rigorous guidelines, can be a useful independent research tool. Taking one instance of a phenomenon and studying it in-depth can reveal the mechanisms and dynamics which are lost in large outcome studies. It is not being suggested that the case-study approach be used in lieu of outcome studies, nor as merely an adjunctive research tool. It offers a different and equally important source of knowledge about the phenomenon under study.

In order to achieve the aims of the present research, it is necessary to get as close to the phenomenology of the participants as possible. According to Walsh (1984), what makes the case-study so valuable is that it allows examination of the processes and evolution of effects. Edwards (1996, p.11) expresses it as follows: 'the case-study method allows for a much more thorough investigation of each individual, yielding a complex set of psychologically rich, qualitative information that provides an in-depth understanding'. The case-study is flexible and in-depth enough to accomplish this task. Edwards (1996) notes other advantages of this approach: firstly, it can be used to critically evaluate existing theory by subjecting claims to in-depth testing. Secondly, it can be used to extend and or refine existing theory. Thirdly, it has strong external validity because its stays close to real situations and does not distort these naturally occurring phenomena. Edwards (1998, p.65) concludes that, when correctly conducted, the case-study can be used as a 'fundamental tool for the development of valid knowledge in the human sciences'. Walsh (1984, p.26) states that for research of meditation the case study is an irreplaceable clinical research strategy.

There are pitfalls which threaten internal validity at each stage of the research process, but the case-study researcher has many tools available to help him or her overcome the problems. No general inferences can be made from a single case-study taken in isolation, but the findings of a series of cases can be used to form case-law (effectively theory) from which valid inferences can be made (Edwards, 1996). When executed systematically the case-study can yield valid scientific results (Edwards, 1996; Edwards, 1998).

Data Collection Methods

In order to determine whether change had taken place, several quantitative self-report measures were administered at different times. To understand the psychological dynamics of the change, in-depth semi-structured interviews were given before, during, and after the MBSR. The qualitative data was supplemented by 'Daily Diaries of Mindfulness', which noted what kind of meditation was practised, how often, for how long, and any experiences while meditating. In-session video recordings were used to gather and compare data. To determine whether the reported changes were sustained over time, another semi-structured interview was administered one month after the programme ended. A brief description of each instrument follows.

Beck Depression Inventory (BDI-II)

The BDI-II is a 21-item self-report measure of the presence and degree of depression (Beck, Steer & Brown, 1995). It has been well researched, and often used, with adults and adolescents. Each question enquires about different elements of depression including, for example, feelings of hopelessness and sleeping difficulties. Respondents are asked to rate the degree, between 1 (minimally present) and 4 (present to a severe degree) to which the symptom was present in the last week. The score on each question is summed to create a final score.

Beck Anxiety Inventory (BAI)

The BAI is a 21-item self-report which measures the degree of anxiety and panic symptoms present in the preceding week (Beck & Steer, 1993). Respondents check one answer on a four-point scale from 'not at all' (0 points) to 'Severely, I could barely stand it' (3 points). Individual responses are totalled to form a score which indicates a level of anxiety from minimal to severe.

Medical Symptom Checklist (MSCL)

The MSCL is a self-assessment tool designed to reveal problem areas which have been present in the preceding month. There are 96 questions, with 3 additional questions specifically for men and 11 additional questions for women only. Respondents tick yes or no to each question. The 'yes' responses are summed to reveal a general level of medical symptomology.

Profile of Mood States (POMS)

The POMS was developed to meet the need for identifying and assessing transient, fluctuating affective states. It has shown to be useful as a measure of mood states in psychiatric outpatients and as a research tool for people 18 years or older. The POMS is a self-administered 65 five-point adjective list. The word list restricts adjectives to those an average person can understand. The instructions read as follows 'Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in one circle under the answer to the right which best describes how you have been feeling during the past week including today.' The respondent checks the most applicable box under one of the following headings: 'not at all', 'a little', 'moderately', 'quite a bit', and 'extremely'.

The 65 adjectives are grouped into five discreet factors, including, *Tension-Anxiety* which refers to generalised states of discomfort and heightened musculoskeletal tension; *Depression-Rejection* represents a depressed mood accompanied by a sense of personal inadequacy; *Anger-Hostility* measures a mood of anger and antipathy toward others; *Vigour-Activity* consists of adjectives suggesting a mood of vigorousness, ebullience, and high energy; *Fatigue-Inertia* represents a mood of weariness, inertia and low energy levels; *Confusion-Bewilderment* refers to 'muddle headedness' and disorganisation. These 6 factors can be summed to created a Total Mood Disturbance (TMD) score which is a single global estimate of affective state.

Daily Diary of Mindfulness

(See Appendix C for a sample). The Daily Diary of Mindfulness Practice is designed to record the kind of formal mindfulness practice the participants engaged in on a daily basis, when it was done, and for what period of time. There was a section designed to record their qualitative experiences during their formal practices.

Video-recording of parts of the MBSR sessions

A video was set up during the group MBSR meetings. Its aim was to record the group discussion.

Tape-recorded semi-structured interviews

A series of semi-structured interviews were designed to elicit the participants' experience of mindfulness in their formal practice and in their everyday functioning. It included questions on their current level of functioning, with specific reference to their behaviours, feelings and thoughts. The interviews were tape-recorded.

Data Collection Procedures

Pre-intervention Baseline Assessment: Prior to the commencement of the MBSR programme, the assessment interview, the BDI-II and BAI were individually administered to each participant. The POMS and the MSCL were administered by the course facilitators as part of the assessment for inclusion in the programme.

Intervention: Participants were requested to complete and submit their daily diaries, a BAI and a BDI-II before the MBSR session every week. At the end of each MBSR, the researcher collected the video recording of the sessions. In the middle of the MBSR, the researcher held a semi-structured interview with each participant and they were requested to complete an additional BDI-II and BAI.

Post-intervention: At the final session of the MBSR, the participants completed their POMS and MSCL with the rest of the class. Within one week of the completion of the MBSR, the researcher met with each participant for a semi-structured interview, and each was requested to complete a BDI-II and BAI.

1-Month Follow-up: Approximately one month after the completion of the programme, the researcher met with each participant individually for a final semi-structured interview. Once again, each participant completed a BDI-II and BAI.

Data Reduction

The material from the semi-structured interviews was organised into a case history and a narrative of treatment that documented each participant's experiences. In order to do this, parts of the tape recordings were transcribed, and irrelevant and repetitive material removed. To check content selection bias some tape recording were transcribed on two separate occasions and without the previous notes. The information from the tape recordings was compared to the video recordings and their dairy entries. The self-report data was graphically displayed. Participants were

requested to read their case narratives to ensure that their experience was accurately portrayed. This helps to reduce problems associated with researcher content selection bias (Edwards, 1998).

Data Interpretation

Interpretation of the data was done in the following order: 1) The data from the interviews were used to construct a case history, conceptualise each case, and form diagnoses. 2) Their experiences during, and for one month after, the programme were organised into a case narrative. 3) Each narrative, with emphasis on the change in symptoms, was interpreted within the theoretical perspective provided by the literature on mindfulness. 4) The cases were analysed from a cognitive therapy approach to determine to what extent the documented changes were similar to those that a cognitive therapy programme would look for. Commonalities and differences between the findings within these two interpretative frameworks were discussed. 5) Cross case comparisons were undertaken in order to investigate the range of different affects and similarities between the responses of the different participants. 6) These analyses provided the basis for evaluating the theoretical claims made regarding the benefits of mindfulness meditation and the kinds of psychological processes it sets in motion.

Participants

The participants were chosen from those who had committed to doing the programme. From the total number of people who were intending on doing the programme, the facilitators selected those that they thought had Axis I diagnoses, excluding those with brain damage, psychosis and substance disorders. The facilitators contacted each prospective research participant and asked if they would mind being included in the research. Those who were prepared to be included were then contacted by the researcher and a first screening meeting was scheduled. In this meeting, the researcher explained the nature of the research and what would be expected of each participant, and asked them to sign a contract (see Appendix D). In addition, an assessment was given in order to ensure that they would meet the criteria for an Axis I disorder. The participants who met a diagnosis were only included once they were prepared to sign the contract.

First contact was made with seven people. One person was excluded because he did not have an Axis I disorder. Two other people did not want to participate because they thought the in-depth interviews may be too distressing for them. The sample consisted of the remaining four people. However, one of the four had had neuro-surgery several years previously to remove a cancerous tumour and it was later discovered that the post-operative neuropsychological assessment was insufficient. He was therefore excluded from the study. One of the remaining three participants produced poor quality data: she often did not complete her self-reports, and did not produce her Daily Diary. The two remaining cases, Pamela and Lisa, formed the sample of this study.

CHAPTER 4 : EXPLORING THE CASES

The cases are presented in the following format: first, the story of each participant is presented in the case history. This will be followed by a conceptualisation of the problems which motivated their participation in the MBSR programme. Then the participant's experiences with the mindfulness practices will be presented followed by a quantitative assessment of their level of functioning. After the documentation of their experiences, there is an attempt at understanding the findings. The participants' experiences are then viewed through a cognitive lens to determine whether their changes are similar to those expected in cognitive therapy.

THE CASE OF PAMELA

Pamela[1] presented as a sophisticated 47 year old woman wearing riding pants and a casual shirt. She described herself as a person who likes people and the arts. She has a 'need to feel useful' and therefore seeks out causes which can benefit from her skills. For example, she does volunteer work in a soup kitchen and sings in her church choir. Her behaviour during the interview was restricted and speech was flattened. She called herself 'depressed' and this was congruent with the interviewer's impressions. During our first meeting (14th February 2002) she felt 'shaky' and found the assessment difficult. Probably as a result of the depression, she struggled to recall some dates. The following case history forms the chronology leading up to Pamela's current distress.

Case History

Pamela was raised by her parents in Santa Barbara, California. She has three siblings: an older sister and two younger brothers. Pamela described her family of origin as 'dysfunctional'. Her father was a qualified accountant and a businessman. Pamela remembers him as happy-go-lucky and generous, but distant: he was often away on business and handed over the emotional care of the family to his wife. Pamela's mother, an intelligent woman, was a sociology graduate, who stayed at home and worked as a housewife. She was frustrated and always regretted her decision to have a family rather than pursue a career. Conflict was ubiquitous in Pamela's parents' marriage – they had 'cold wars' – and eventually they got divorced. When Pamela

[1] Identifying details have been altered to protect the confidentiality of the participants.

was a teenager her mother became mentally ill with either bi-polar mood disorder or schizophrenia. Pamela reported that depression runs in her family and her great grandmother was committed to a mental institute for melancholia.

Pamela was abused verbally and physically by her mother from an early age. In her childhood, her mother repeatedly told her she that she was ugly, that she would not have any friends and that she would not accomplish her goals. Her mother's pessimism was pervasive and she perpetually inculcated the belief in Pamela that dreams – goals and desires – are futile because they will inevitably not materialise. Pamela's mother disliked Pamela and made it known unambiguously. Her mother was 'mean' and her moods capricious. At times she would 'snap' and one of the children would get smacked. Pamela recalled that her mother's behaviour would determine how she felt on any given day. Pamela coped with her torment by attempting to remain 'invisible' or by drifting off into fantasies about 'nice things'.

Pamela went to day school in Santa Barbara until the age of 15, when she went to boarding school for two years. She was an underachiever and at times met with the school psychologist. When she was 17, Pamela left school and went to university for two years. At 19, without completing the degree, she dropped out to get married. The marriage produced one son, Benjamin (presently 24 years old). After his birth, Pamela and her husband moved to the east coast of the USA, and soon afterwards they got divorced. Pamela felt lost and became very fearful about her future. She went through a period of feeling 'out of touch with the world', dull, withdrawn from other people, accompanied by changes in her eating and sleeping patterns. She attempted suicide by slitting her wrists and ingesting forty Valium. After she recovered in hospital, she entered intensive psychotherapy, three times per week for two years. Pamela made considerable progress. She returned to university and completed her degree in economics.

At 28 years old (1982), Pamela remarried. Her second husband was an alcoholic and physically abusive. In 1989/1990, when Pamela was 36, she ended the marriage because he refused to get help. After the divorce, she regretted the loss, but moved on and settled in Maryland where she returned to university and completed a masters degree in business administration. Her mother was murdered in 1992. In 1994,

Pamela left Maryland in order to work on overseas contracts. She met Rory, her most recent partner, three years ago, in 1998, while she was working in South Africa. In 1999, she settled in Johannesburg to be with him. Despite his domineering and occasionally abusive behaviour, they got engaged. Pamela recalls that at this time she was not enjoying her job and found her relationship with Rory unsatisfactory. She found nothing pleasurable; as far as she could remember everything seemed 'grim'.

In April 2001, Pamela discovered that her father had metastatic lung cancer. During the next six months Pamela spent long periods in America nursing him. Her devoted caring for her father exacerbated her relationship problems with Rory, and they separated. Pamela's father died in September 2001. At this time Rory made efforts to restart their relationship. Since her father's death, Pamela has struggled to come to terms with her loss and has been feeling 'depressed' - 'blah', 'sad' and 'sort-of lost'. She began sleeping less and eating less (due to a loss of appetite). Her work suffered because she felt fatigued and struggled to concentrate. She could not keep up with her work and resented the travel demands it placed on her. Consequently she lost her job at the end of September 2001. Pamela felt a general loss of interest in the world, including her previous pleasures, such as singing in the choir and doing creative writing. She felt stifled and lost her imagination and creativity.

On the 30th December 2001, Rory was killed in a car accident. Pamela felt that it was 'too much' and found the grieving 'overwhelming'. She became very anxious and began experiencing 'panic attacks'. She was fearful of breaking down and crying uncontrollably in public places, because it would make her feel embarrassed and upset other people. In addition to her generally high anxiety levels, Pamela reported having five or six discrete panic attacks. One of these happened recently while she was sitting in an airport waiting for a friend to arrive. Pamela began worrying 'what if I start crying?' and 'I hope she's not expecting me to be myself'. At the same time she felt a tightness in her chest accompanied by shortness of breath, nausea, and 'cold inside'. Her hands began to shake, her face became flushed and she felt displaced. In order to calm herself, she began walking in a circle. Pamela is afraid of re-experiencing these episodes and avoids going to the mall or being around large groups of people. She goes out more infrequently and only feels safe inside her own home.

The cumulative effect of these deaths made Pamela 'afraid of the grief' and she attempted to numb and distance herself from her feelings, 'I would get outside of myself and intellectualise' she reported. Even though it is six months since her father died, Pamela still feels like she is living in the time of her father's illness: 'it feels like living each day looking back' she reported. She feels isolated and feels that her future is going to be filled with more negative events. Pamela recalled having two earlier episodes of depression similar to the one she experienced after her father's death. The first was about 20 years ago (1981), after she moved with her husband and young son to the east coast. The second was in 1992, after the death of her mother, with the addition of 'horrible nightmares'.

Although she has friends, Pamela did not have family support. Her son Benjamin was studying Buddhism at a monastery in Japan and was still there. Pamela coped by taking anti-depressants (40mg of an SSRI – she could not remember the name) and engaged in insight-oriented psychotherapy since October 2001. Her therapy has focused primarily on her childhood, but also on her present functioning.

Diagnostic considerations

Using the DSM-IV, an analysis of Pamela's presentation and case history suggest the comorbidity on Axis I of *Major Depressive Disorder, Recurrent, without psychotic features*, and Panic Disorder, with Agoraphobia. Her recurrent depression is supported by her symptoms of depressed mood, feelings of worthlessness, diminished interest in most activities, change in weight, change in sleeping patterns, fatigue, and a diminished ability to concentrate. These symptoms are severe and have caused functional impairment beyond what may be accounted for by bereavement. Furthermore, there is evidence for at least two prior depressive episodes – after her first divorce and after her mother's death. *Panic Disorder with Agoraphobia* is supported by discrete episodes of intensive discomfort and fear, with shaking, shortness of breath, feeling unsteady and fear of loss of control. After the attacks, Pamela has been worried about having additional attacks and has therefore minimised the periods she spends away from home. On Axis II, Pamela displays several traits of *dependent personality disorder*, including submissiveness, difficulty making everyday

decisions and difficulty expressing disagreement, but there were too few traits to meet the diagnosis.

Case conceptualisation

Depression and Dependence

Pamela's early home environment was characterised by abuse and neglect. Her mother psychologically abused her through her insults and pessimism. She repeatedly told Pamela that she was 'ugly', that she would have no friends, and that she would not amount to anything and that her dreams would not materialise. Further, it appeared that her mother attributed her own unhappiness to her family predicament, of which her children were a significant part. She disliked Pamela and made her feel guilty for her (the mother's) unhappiness. Pamela was afraid of her mother and was hypervigilant to changes in her mood. Pamela noticed that the way she felt depended on her mother's mood. Her father did not intervene because he was absent and took little interest in the family's affairs.

There were three main detrimental effects of this abusive home environment. Firstly, Pamela developed an EMS of badness/defectiveness. This served as her explanatory mechanism: bad things happen to Pamela, because Pamela is bad. Pamela's belief in her badness made the abuse and neglect she received from her mother, and later in her romantic relationships, ego-syntonic. That is, Pamela accepts the abuse, because she believes she deserves it for being bad. Secondly, Pamela modelled her views on her mother's pessimism and therefore maintained the belief that things would not work out for her. Thirdly, her hypervigilance to her mother's emotional state led to the development of an EMS of 'other directedness' (Young, 1999), which led her to focus excessively on the needs, feelings, and responses of others, at the expense of her own needs and emotions. This was done for two reasons: 1) in an attempt to gain love and approval (this need was exacerbated by her attempt to compensate for her feelings of defectiveness); and 2) to avoid her mother's temper.

Pamela's negative view of herself and of her future, and her related tendency to ignore her needs in favour of others' needs, made her vulnerable to depression. The first trigger occurred after the separation from her first husband. The loss of her husband,

whom Pamela claimed she did not really love, had a severely adverse effect because she attributed the divorce to her personal defectiveness. This made her feel guilty. Further, Pamela's preoccupation with him led to dependence on him and therefore when he left, she felt abandoned. Her pessimism exacerbated her depression because it made her feel hopeless about meeting future partners and finding happiness. These combined factors contributed to her serious suicide attempt.

The next depressive episode occurred after her mother's murder. Each depressive episode led to more entrenched beliefs about her defectiveness and pessimism. Her depressions followed the loss of a significant figure because of the abandonment and hopelessness that ensued. Pamela's current symptoms were precipitated by two significant losses. Firstly, her father died in September 2001 (after which she lost her job). Then in December 2001, her fiancé of three-and-a-half years was killed in a car crash. These losses activated familiar feelings of defectiveness, hopelessness, pessimism and abandonment.

Pamela's schema of being defective/bad continues to make her vulnerable to depressive episodes because it acts as an explanation for any negative events and rejections she encounters. Through charity and church work, she circumvents engaging with her belief that she is inadequate and bad by trying to prove that she is good and worthwhile. She does this through putting other people first, being compliant, and participating in 'objectively' good activities. The compensatory underlying assumption is 'I should always do good.' This maintains her pessimistic schema because it is not analysed, tested and refuted.

Anxiety and Panic

Pamela reported that she was always a 'nervous and flighty' person. This may have its origins in the hypervigilance she was forced to adopt with her mother. That is, because her mother could 'snap' at any time, Pamela kept a low threshold for experiencing danger in her environment. There was no clear precipitant for Pamela's first panic attack in January 2002. Her symptoms included tightness in her chest, nausea, cold sensations, shaking hands, hot flushed face, shortness of breath and displacement. This was followed by about five or six discrete attacks in a six week

period. It is possible that her anxiety levels increased after the traumatic loss of her fiancé. After her first anxiety attack, Pamela began to interpret anxiety symptoms as dangerous. The danger was exacerbated in social circumstances and public places, because Pamela believed that if she lost control of her feelings and broke down crying, she would embarrass herself and upset other people. To avoid this occurring, Pamela increasingly avoided public places and spent longer periods of time at home. This safety behaviour – staying at home – maintained her panic by preventing her from disproving her catastrophic interpretation that her panic symptoms were an indication that she was losing control of her feelings and that this would result in her crying uncontrollably and upsetting people.

Experience in treatment

After her father passed away in September 2001, Pamela made a conscious effort to 'heal'. She had been through severe depressions and was now on 'a quest to answer questions'. In this regard she began reading self-help books and began Reiki, meditation and psychotherapy. One of the self-help books was written by an author who was trained by Kabat-Zinn, and resonated with Pamela. When she saw that the MBSR was being offered, she wanted to participate in the programme. In February 2002 she joined the MBSR programme. Pamela made a considerable improvement very quickly and this improvement is reflected in her reports about the programme. Her experiences will now be explored to reveal the nature of these changes.

MBSR and Mindfulness-related experiences

Being mindful has permeated all aspects of Pamela's life. It is woven into her experiences. Her daily living is marked by being 'more present in the moment'. Pamela reported 'it's not that I'm trying to be that way, it's just how I am.' Her 'increased presence' refers to a general way of being more present, 'really here', rather than a specific technique. That is, she is more mindful, more often, without trying. Some of the benefits include an increased ability to be in and appreciate nature to a much greater degree, without drifting into reverie. For example, while completing a diary entry, she wrote: 'while I write this I feel the breeze tickle my foot, smell the sweetness of flowers and see the butterflies flitting'. She had also increased the time she spends in natural environments. Pamela remains mindful during mundane

activities such as driving, whereas before the course her mind would drift off often, and for long periods. In retrospect, she was amazed that she had not had more accidents. Now, while driving, she will feel the breeze coming in through the window and will appreciate her surroundings as well as concentrate on the road.

Pamela has also noticed that she is more in the present when she is with other people: "When I'm with people, I'm really with them in that moment. I'm not thinking for example 'maybe next week Anne and I can go wine-tasting on horse-back'. I'm just there with the person, and it makes life more enjoyable". Pamela is more mindful while shopping and uses some of her routine shopping behaviour to practice mindfulness. For example, when she bought soap, she chose it slowly, purposefully and with awareness, taking in all the sensations of this mundane and usually mindless activity. During unpleasant incidents, when there is a strong motivation to drift off into fantasy, she remains present for longer periods. This is particularly significant for her, because since she was a child she coped with abuse by going into fantasy. It was her characteristic way of dealing with difficult circumstances. Now she remains present and works with the difficulty. A further benefit of being in the moment is that it allows her let go and 'not hang on to bad things' or past experiences. When she is in the now, she is not thinking about what happened in the past. Pamela feels empowered by her capacity to be exclusively in the present.

Pamela increasingly noticed that mindfulness helped her manage difficult and distressing feelings. For example, toward the end of the MBSR course, she discovered that her son had recently got married without letting her know. She felt sad that she was not part of the ceremony and it made her feel alone. In the past, she would have dealt with the news by 'tuning out' and pretending that it did not happen, then coming back to it days later. On this occasion she remained mindful during her reaction. This changed her experience, because as soon as she recognized that she was feeling sad, it stopped 'pulling' – causing her sadness. She did not become an 'angry mother' or a 'sad mother'; that is, she did not identify with either her anger or sadness, she just noticed what she felt when she felt it. She was able to *be with* her sadness and anger, rather than *be* her anger and sadness. Thus although she still had anger and sadness, being mindful of it made it manageable. Pamela was surprised at how well she was

able to integrate the news. She attributed the difference to her awareness of her emotional reactions.

Another incident demonstrated the way that mindfulness has increased her capacity to handle difficult situations and feelings. At a dinner party she expressed views that other guests disagreed with. When she was outside preparing to leave the party, two male guests approached her and objected to what she said, telling her she had no right to her views. Pamela stood her ground and defended herself. She reacted to the men, but did it with awareness: 'I realized that I was reacting; I was aware of feeling pissed off and was going to express myself thusly' she stated. When it was happening, and afterwards, she was aware of her internal process and felt congruent with her behaviour. Before the course she would have arrived home, felt guilty, and questioned and berated herself about what happened, thinking to herself 'you should have said this or done that'. Pamela was also impressed by the ease with which she was able to let the incident go, even though she still did not understand what the men were upset about. She reported: 'I don't ever think about it. Previously, it would have haunted me. I would have analysed and reanalysed... maybe they said it because of this or if I had not said this, they would not have said that. It was unpleasant, but it's now past.'

Pamela prefers to stay in the present and recognises that the time spent analysing the past is time she loses being in the present. 'When I'm thinking about what's happening now, I don't also have the capacity to think about what happened in the past. When I'm thinking about the past, then I might be here, looking at the floor, but I'm not seeing the floor. When I catch myself thinking about the past or in fantasy or the future, then its almost like it's a waste of time, not a bad thing. For example, if I sell my screenplay, I'll earn money, then I can buy this house... If I take five minutes in fantasy, then I've missed five minutes of feeling the carpet beneath my feet or playing with my puppy'. In short, because Pamela has developed her mindfulness skills, she notices when she drifts off into the past, the future or into fantasy. She recognises that she has limited attentional capacity and cannot both drift off and be mindful. Her awareness has given her the choice to return to the moment.

Pamela's developments in mindfulness have contributed to one of her most important achievements: her improved capacity to process her thoughts constructively. Through

her meditation practice, she has become more 'mindful of what a thought is and what's useful and valid and what's not'. When she realised that thoughts are 'just thoughts' – when she no longer identified herself with her thoughts – she was able to process her thoughts without their leading her to feel depressed or anxious. This prevented depressive cycles from taking hold. Pamela mentioned three kinds of thoughts with which she noticed a significant change – her critical thoughts, her 'doomsday' thoughts (pessimism), and her judgmental thoughts. Her experiences with these thoughts will now be explored.

Pamela has found her mindfulness practice especially useful in abating the effects of her *negative thoughts*. She has developed the capacity to observe her negative thinking (implying a phenomenological distance) and to decide whether she wants to respond to it. She no longer automatically spirals down into depressive feelings. For example, since her father's death in September 2001, Pamela had been unable to expand on her screenplay. While working she had a creative idea of how to solve a problem in her screenplay, but when she began writing, she had the thought 'you're never going to be able to write this screenplay. It's not you. You're not talented enough. You're not smart enough.' Pamela recognized with a sense of achievement that her cognition was 'just a thought', which allowed her to let it pass and then continue writing. This contrasts with her previous responses to her negative thoughts: she would automatically take it for granted that the thought was true, felt dejected, turned off the computer and stopped writing. Since Pamela was able to recognise how her thoughts could lead her to act in self-destructive ways, she regularly allowed them to pass through her without affecting her behaviour or her mood.

This approach has also been effective with her frequent *'doomsday' thoughts* - her pessimistic thoughts about her future. For example, Pamela recalled her thoughts about her diminishing finances. In the past, before she developed this skill, these thoughts would have caused her severe anxiety. But now she experienced the thought simply as a 'matter of fact' – she has not worked, so she is going to run out of money. This resulted in her constructively addressing how she will earn money. Pamela attributes her new emotional resilience to her understanding that her doomsday thoughts and images are 'just thoughts', rather than accurate reflections of reality. She

phrased it as follows: 'My thoughts will be negative, but now I have a natural reaction of standing back from my thoughts and knowing they are not valid'.

Another example occurred one morning at 2:00am when Pamela was awoken by mosquito bites. This was distressing for her because she had important meetings the following day. While lying in bed, she had the thought 'I will be a wreck tomorrow', which was followed by other negative predictions such as 'then I'll get into a fight with Robin... it will be the end of our friendship'. While thinking these thoughts Pamela experienced a 'dark feeling' as if she was sliding down into depression. With an 'ah-ha', she noticed that she was exacerbating the situation with her negative thinking and then spoke back to the thought saying 'I may be fine tomorrow, lets not make it worse'. This process – becoming aware of and distancing from her thoughts, and then speaking back to her thoughts – was enough to help her fall back to sleep. For Pamela examples like this now occur on a daily basis. Further, the number of her doomsday thoughts has decreased.

Pamela's capacity to observe her thinking as it happens, thereby creating distance and allowing her to experience her thoughts as just thoughts, has led her to acknowledge her frequent *judgmental thoughts*, without condemning herself for having them. She expressed the difference as follows, 'I'm judging, but I don't buy into my own judgment'. In other words, she is still having judgmental thoughts, but because she knows they are 'just thoughts', they do not lead her to experience negative emotions. For example, while driving she saw a horse-rider in rubber boots (one is meant to only wear leather boots) and she began thinking that the rider must be a 'rank amateur'. Before the course, Pamela would have berated herself for this kind of judgmental thought. However, on this occasion she simply noticed she was being judgmental in a detached way and then she remembered that there was a time when she too could not afford leather boots and wore rubber ones. On another occasion, Pamela was introduced to someone and immediately had judgmental and critical thoughts about the person, but she simply noted the thoughts and continued to engage the person, who has since become a good friend. Pamela is increasingly able to notice how often she judges and is now able to 'catch it' right away. After she has caught it, she just says to herself 'oh, there you go again', then continues with whatever she was doing. Pamela has also noticed a reduction in the quantity of her judgmental thoughts.

Pamela has benefited from the *calmness* she maintains in her everyday life, which is particularly apparent because it contrasts with her previous 'nervous and flighty' self. For example, she felt calm and in control when she moved house on her own. Pamela noted the difference from an earlier move during which, although she had staff helping her, she felt 'frazzled' and unable to 'deal with it'. Pamela managed her recent resettling so well that her friends could not believe that she was in the middle of move. Pamela also noticed her sense of calm when while horse-riding, her horse went 'berserk' and began galloping off. In the past Pamela would have panicked and had images of herself being thrown from the horse, hitting the road and being run over by a truck. But on this occasion, she did not 'project' into the future. She focused on her breathing and remained 'cool, calm and collected'. Pamela described the central change as 'the capacity not to react emotionally... to use breath to become relaxed'. Her new calmness feels very natural and occurs without effort. She used the metaphor of a mountain: 'I feel like a mountain, with the winds howling and snow falling... but the mountain is the mountain'. She attributes the change to the insight that she is not her mind, because now she can hear all the chatter, but can distance from it because its not valid and not useful.

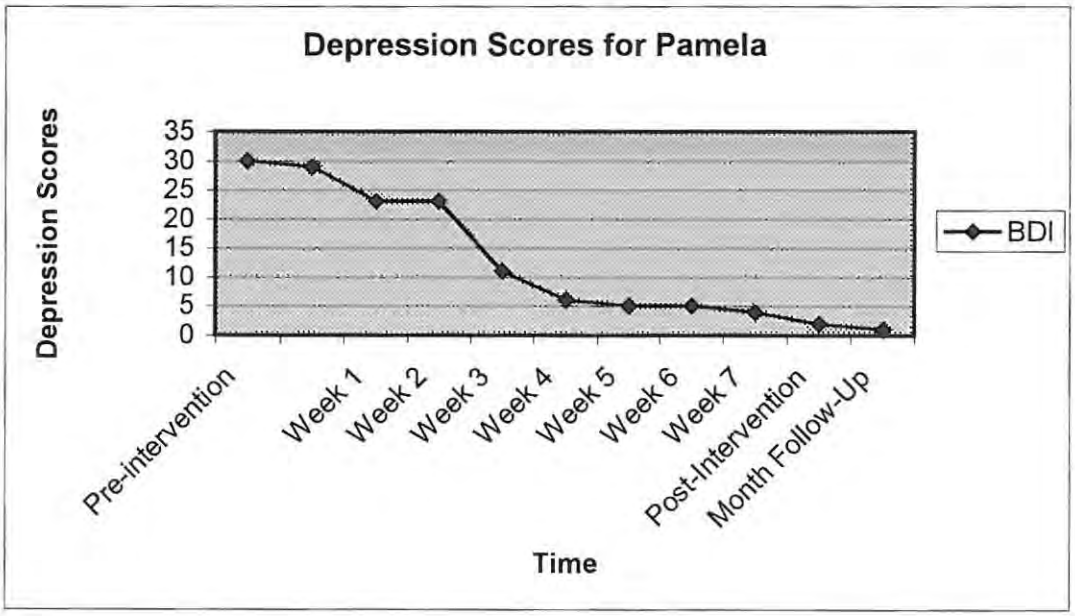
Pamela reported other psychological improvements. She has a subjective feeling of clarity, which has led her to become more discerning about who and what she wants as part of her life. She recognises that she has a choice and is now making her own decisions. For example, it was during this period that she decided that she would not return to her previous work in economics. She knew for a long time that she did not enjoy her work and the business people with whom she had to socialise. Now Pamela is clear that she will switch jobs and is choosing who she wants to spend time with.

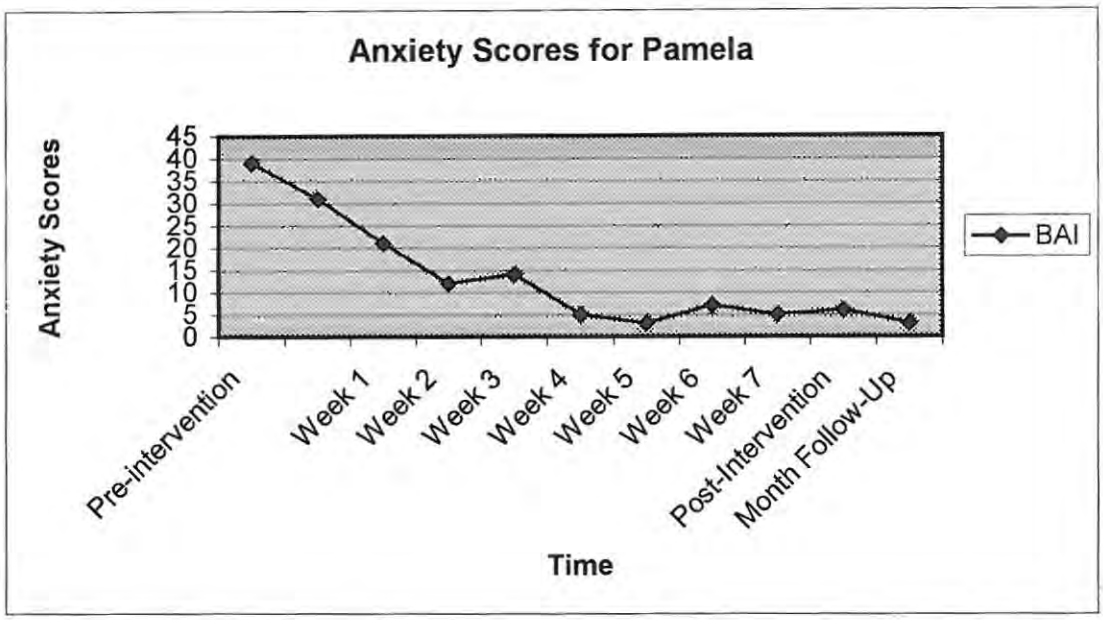
Pamela noted another recent example of how this dynamic manifested: before her shift to mindfulness, Pamela would look to others to make decisions for her, (for example, she would look to her therapist to find the solution for her). But recently, when she considered buying a dog, she reflected on her *own* feelings which clearly were in favour of buying the dog, thus she bought it. This is significant because before she bought the dog, she discussed it with her friend, who attempted to dissuade her by showing her how impractical it was. Pamela still bought the dog and felt no

need to justify the decision even when she saw her friend. This was a reported as a considerable personality change (from someone who relies on other people and listen to their advice), which she attributes to an internal conviction as a result of her mindfulness practice.

When Pamela reflects on the MBSR course, she describes the process as 'the whole is greater than the sum of its parts'. In the initial sessions, she found it 'airy-fairy' and wondered if anything of substance was being imparted. In retrospect, she believes that the open-ended style of the course allowed room for flexibility. Pamela also recognised the enriching nature of the group dynamics. She found the compassion of the group reassuring and the sharing of insights refreshing.

Quantitative Results





Analysis of BDI-II and BAI

The graphs above display Pamela's BDI-II and BAI scores before, during and after her participation in the MBSR. Pamela's two pre-intervention scores were 30 and 29, both reflecting severe levels of depression. After the first week of MBSR, Pamela's score dropped to 23 (moderate depression) and remained there for two weeks. A dramatic improvement occurred between the third and fourth week of the MBSR: one can see a drop from moderate depression to minimal depression (score 11). Pamela's improvement continued, and by the middle of the fourth treatment week her score was 6 – a normal level. This improvement was sustained until the end of the one-month follow-up, where her score was 1. A qualitative analysis of Pamela's initial BDI-II indicates pre-intervention elevations (a score of 3) on psychological indices indicating sadness, feelings of failure, self-dislike, anhedonia, indecisiveness, worthlessness, concentration difficulty, and fatigue. By week four all of these indices had returned to normal and the improvement was sustained until the end of the one-month follow-up.

Pamela's anxiety score showed an almost consistently decreasing pattern. Her pre-intervention anxiety scores, as measured by the BAI, were in the severe range. By the end of the first week of the treatment, Pamela's score had decreased and was squarely within the moderate range. Pamela's score continued to decrease: during weeks two and three, it was in the mild range, then fell within the minimal range until the end of the one-month follow-up. Qualitative analysis of her BAIs over the study indicates

that Pamela felt severely debilitated by her fears of the worst happening and of losing control. By the end of the first week of the MBSR, she was experiencing these symptoms to a lesser degree. By the third week of the MBSR, she had no severe anxiety symptoms and only one moderate symptom. Toward the end of MBSR she had hardly any anxiety, and this improvement was sustained until the end of the one-month follow-up.

Medical Symptom Checklist (MSCL)

Pamela's preintervention MSCL score was 32, which indicates a high level of medical problems. An analysis of her answer sheet indicates that the overwhelming majority of her 'yes' responses were on anxiety and depression related questions. Her post-intervention MSCL score was 11, indicating a drastic reduction in her medical symptoms. Thus the MSCL is in concordance with the other measures which indicate a notable improvement in functioning.

Profile of Mood States (POMS)

When compared to female *outpatient* norms, all Pamela pre-intervention scores, except for vigour, fell within the normal range. Her preintervention scores on the depression and fatigue scales were very close to being significantly elevated. Her pre-intervention score for vigour was significantly below the normal range, indicating lack of drive and energy, which may be attributable to her depression. Her post-intervention POMS scores on Tension-Anxiety, Depression-Rejection, Confusion-Bewilderment were significantly below the norm, indicating an absence of those mood symptoms. Her Vigour-Activity score was significantly elevated, which indicated a healthy 'zest for life'. Pamela's pre-intervention Total Mood Disturbance (TMD) was 93 and her post-intervention TMD was 10, which indicates a major improvement.

Understanding and discussion

Pamela has clearly experienced a significant improvement with respect to her diagnoses. There are no elevations on any psychological dimensions of the self-tests. Qualitatively, on the three basic dimensions of human functioning – thinking, behaviour and feeling – she feels positive and invigorated. She considers her health

better than ever. This sections aims to extract the psychological mechanisms mediating her change. Then, Pamela's improvement will be analysed from a cognitive perspective.

Depression and dependence through the Mindfulness Lens

As previously mentioned, mindfulness does not target specific disorders or pathological conditions. Its efficacy is based on strengthening healthy human capacities, rather than by addressing the dysfunctional aspects of the person. The presentation will first address the generic improvement, then the way mindfulness functioned to address her depression-related and anxiety-related phenomena.

From a mindfulness perspective, the success of the treatment was the extent to which Pamela managed to shift into a being mode of mind. Pamela's reports and her examples support this move. She has achieved a decentred perspective toward her experience and is able to watch her thoughts and feelings as a third party, seeing them as events passing through her consciousness. She experiences them as events on the landscape of her present moment experience. When Pamela has judgmental or critical thoughts, she does not try to change them or alter them in any way. She is able to simply watch them appear, then disappear. The benefit is shown in her capacity to short-circuit her negative cognitive-affective cycles thereby arresting her descent into the downward spiral of depression. This has now become a way of being, rather than simply a technique, which is supported by her reports that she uses it not only at times of lowered mood, but with mundane activities and positive thoughts.

Pamela's increased capacity to be with her thoughts implies that she does not automatically react to what she thinks. This contrasts with her report of earlier times when she would think negative thoughts and then feel dejected. For example, while writing her screenplay, the thought 'you're not talented enough to write this' would in the past have made her feel dejected and caused her to stop writing. Such behaviour perpetuated her depression because it confirmed her negative belief that she could not write and exacerbated her negative mood. However, three weeks after doing the MBSR, Pamela was able to simply allow such a thought to pass through her. She did not try to change it or block it out and it did not lower her mood. Pamela gave similar

examples concerning her judgmental thoughts: before the course, her judgmental thoughts would often lead her to feel guilty. By the end of the course she was able to accept that she had a judgmental thought and could nevertheless continue with life as normal.

Pamela's improvement is also due to her negative self-related thoughts, her pessimism ('doomsday thoughts') and her judgmental thoughts occurring more infrequently. This could be due to two factors: *firstly*, Teasdale et al. (1995) maintain that negative mood can lead to negative thinking. Pamela learned to relate to her negative mood mindfully: she is able to observe the negative feeling, be it anger or sadness, as bare sensation, simply watching it rise in her consciousness and then fade away without attempting to understand or avoid it. She simply accepts it as part of her experience in that moment. Her mindful approach to her feelings arrested the cognitive-affective loop at the affective level, preventing sad feelings leading to negative thoughts. *Secondly*, this process also occurred at the cognitive level: whereas before the course one negative thought would lead to another (and to negative mood), since she began operating in the being mode, this domino effect was stopped earlier resulting in fewer negative, pessimistic and judgmental thoughts.

To elaborate on the second point above, it is possible to explain Pamela's improvement at the cognitive level as follows: 1) mindfulness lowered her threshold of awareness for negative thoughts. 2) Through her mindfulness she created distance from the thought. 3) The distance gave her the psychological space for the thought to be filtered through a being mode of mind that codes all thoughts as potentially inaccurate and holds that the most constructive approach is simply to notice the thought in a non-judgmental accepting manner. Processing through this mental mode, the thought without its truth-value was simply noted and then her attentional processes were redirected to the subsequent moment. Further, given limited mental resources, this mode inhibits alternative depressogenic processing. 4) After having noted the thought, she chose how she would like to respond. Simply having a choice made her feel in control and empowered.

There was evidence supporting a shift at the level of Pamela's underlying assumptions and EMS. It appears that she was more able to act from within and consider her own

needs, rather than subjugating her needs in favour of others'. She was more clear on what she wanted and more decisive. For example, when she wanted to buy a dog, despite advice to the contrary from her friend, she bought it. Pamela reported that she is taking responsibility for her choices rather than looking to other people to decide for her.

How might mindfulness have contributed to this change? Through being mindful, Pamela became more aware of her own needs, feelings and desires. It focused Pamela on her own experience, which led to greater clarity in how things and people affected her and what *she* wanted. The clarity was strengthened by simply noting what happening to her and how she felt, rather than judging herself. Continually returning her attention to herself and her experiences led to greater conviction in her feelings and desires. This implies a shift from focusing on the needs of others to knowing her own needs. This counteracted her tendency, driven by her EMS, of other-directedness, and allowed her to use self-reflection for decision-making, rather than primarily relying on others. In other words, this process lead to actions based on her own feelings and desires rather than what she thinks will would make others happy. This reflects a significant personality change from dependence to relative independence.

Theoretically, given the above, there should have been an increase in Pamela's negative thoughts about herself. This should have followed from the decrease in compensatory behaviour, the reduction in other-directedness, and the increase in behaviours and attitudes which put Pamela first – as opposed to compensating for her belief in her badness by putting others first. The fact that Pamela reported a decrease in her negative thoughts may indicate that some change at the schema level had taken place. This would be consistent with her other reports of personality change.

Depression and Dependence through a Cognitive Lens

Cognitive therapy for Pamela would aim to break the depression perpetuating cycle, built on maladaptive assumptions and schemas, of negative automatic thoughts leading to depressed mood, which lead to biased recall and perception, and then feeds back into negative automatic thoughts. The cycle can be broken at any point.

Cognitive therapy would probably begin with addressing her negative automatic thoughts about herself and her future.

This may be accomplished by using dysfunctional thought records (DTR) which help the patient develop a rational response to her negative thoughts or by trying to show the distorted nature of her thoughts through behavioural experiments designed to test the truth of the thought. An example is when Pamela was lying in bed and had the thought 'I will be a wreck tomorrow', which led to further negative predictions – 'I'll get into a fight with Robin... it will end our friendship'. A cognitive therapist would want her to generate a credible rational response to her negative prediction which should decrease her belief in her negative automatic thought. Pamela, in fact, did just that: after she had managed to distance from the thought, she 'talked back' to it saying 'I may be fine tomorrow'. Her rational response had sufficient credibility to allay her fears and allow her to fall asleep. Breaking the cycle by successfully challenging her negative automatic thoughts is what a cognitive therapist would look for. Interestingly, this skill developed spontaneously once Pamela began experiencing her thoughts from a decentred perspective.

Pamela reported using this skill very infrequently. Her more characteristic response to her negative thinking was simply to watch the thought, in an objective manner, pass through her and then disappear. She neither rationally responded, nor disputed the thought, yet this approach was enough to interrupt the downward spiral of depression. For example, when Pamela had the thought 'I'm not talented enough to write this screenplay', she simply noted the thought and continued writing the screenplay. This behavioural consequence is different from her previous characteristic response, which would have been to take the thought as true and stop writing. This pattern – just noting thoughts, then continuing with her task – was often reported, but did not lower her mood. Segal et al. (2002) might explain this as a consequence of taking a decentred perspective which results in a changed relationship to the thought.

The traditional cognitive therapy view is that the spiralling down into depression is arrested by changing the patient's belief in their thought and their thought content. Pamela still had the negative thought and she neither reacted to it by trying to change it or by blocking it out. Yet it still did not lower her mood. Why? The answer is

because she is processing thoughts through a decentred perspective, which implies that they are 'just thoughts', events in a wider context. She does not engage with the thought at any level. After she has awareness of it, she simply watches it dissipate. There is no goal to change it, dispute it, or block it. Pamela just *is* and the thought just *is* in a moment, and in the next Pamela is and the thought is not, and Pamela feels fine. It was the way Pamela processed her thoughts, rather than the change in thought content that underpinned the change. These changes are not exactly the type a cognitive behavioural treatment would be looking for. They are similar because she changed the belief in her thoughts, but dissimilar because there was relatively little change in thought content.

Another difference is that the mindfulness approach was applied to all thoughts, not just negative depressogenic thoughts. Thus, when Pamela was having the thought stream 'if I sell my screenplay, I can buy this house...', it too was simply noted and attention returned to the task at hand. When Pamela realised she had drifted off, she chose to return her attention to the present, rather than engage in fantasy. This is a positive thought and may lead to an increase in motivation. Why then would a mindfulness approach teach letting it go? The answer is that the thought was generated in reverie, therefore without awareness and intention. If Pamela decided she wanted to think of how she could buy the house, that is, if she intentionally had the thought, then it would be fine. This is mindfulness as a general approach to all experience, as a 'way of being', rather than as a technique.

Although Pamela emphasised the cognitive domain in her report, there were also behavioural changes. She feels invigorated and is enjoying socialising with people (as opposed to finding it a chore). She is going to shopping malls, horse-riding and re-engaging with her other hobbies and interests. After the third week of the course, Pamela went away with friends for a weekend. She began planning and pursuing new business interests. From a cognitive perspective, these represent solid indications that there has been improvement.

A criticism that might be levelled from a cognitive perspective is that there was no direct attempt to address Pamela's underlying assumptions and EMS. From the cognitive perspective, distortions at these levels of cognition must be addressed to

sustain improvement and prevent relapse. Although the MBSR did not attempt to directly address these deeper levels of cognition, there is evidence that they were altered (see above). The extent to which they were altered can only be determined with a much longer follow-up.

Anxiety and Panic through the Mindfulness Lens

The move, reported above, from the doing / driven mode of mind to the being mode of mind, contributed to the abatement of Pamela's feelings of anxiety. Firstly, through her formal mindfulness practices, Pamela learned behavioural relaxation. This was effective as Pamela reported deep feelings of calmness which manifested in a variety of situations. Secondly, she was able to process her anxiogenic thoughts mindfully, which prevented them creating panic or anxiety symptoms. For example, her thoughts of diminishing finances would cause her worry, but being able to decentre from them led her to simply note them, after which she constructively addressed how she could begin earning an income.

Similar processes may have operated to inhibit her panic behaviour. Her conviction in her capacity to self-regulate led her to disbelieve that her feelings would spiral out of control. This implies that her symptoms of anxiety and depression would not be interpreted catastrophically. When she stopped fearing that her feelings would spiral out of control, the consequences – upsetting people and embarrassing herself- were no longer contemplated. This is consistent with the findings of Kabat-Zinn et al. (1992) on the treatment of panic disorder with the MBSR.

Anxiety and Panic through a Cognitive Lens

The absence of panic and anxiety symptoms would be the goal of any cognitive treatment for anxiety-based disorders. Pamela's last panic attack occurred about one week before the course began. However during this period she was hardly going out, and therefore there was an absence of situational cues. The dramatic cessation of Pamela's panic attacks made it difficult to state exactly what caused them to stop. Theoretically, a cognitive treatment for panic would attempt to target the catastrophic beliefs by showing that they are not dangerous. This would often involve removing safety behaviours to expose the patient to their symptoms. Yet this was not necessary

in Pamela's case, because her belief in her catastrophic thoughts was negated without exposure. At follow-up, Pamela had not had a panic attack for over two months and no longer feared having an attack. These kinds of changes are consistent with a successful cognitive treatment.

THE CASE OF LISA

Lisa is a 21 year old English speaking girl, who still lives at home with her parents. She described herself as a 'quite deep and soft person' who takes her dreams to heart. Lisa's life was dramatically changed when she began experiencing symptoms of a chronic autoimmune disease, most probably Rheumatoid arthritis, but possibly Lupus, or both. Rheumatoid arthritis is a disease of the joints, which results in painful, swollen and stiff joints. Over time the ligaments are damaged and the bone erodes. The disease usually follows a chronic course with remittance and relapse, finally leaving joints severely deformed (Oxford Concise Medical Dictionary, 2000). During our interviews, she engaged well and did not betray any indications of distress, except occasional fatigue.

Case History

Lisa portrayed her home life as secure, stable and happy. Her parents were 'quite protective' and instilled Christian-based moral values. Lisa's father (presently 52 years old) works as a quantity surveyor and her mother (presently 44 years old) works as a housewife. Lisa's parents have a good and close relationship. Lisa's one sibling, her brother, is three years younger than her (18 years old). Lisa describes him as 'carefree and relaxed'. She reported that they 'get on, but are not close'. Lisa is 'quite close' to her mother and considers her a 'best friend'. She described her relationship to her father as 'neutral'. She thinks they are very similar in that they both find it difficult to accept things and are perfectionists. Lisa recalls that throughout her school studies he tacitly encouraged her to be 'hard' on herself by often remarking that she should be working or studying. She said that when she was scared about an upcoming exam or test, he would terrify her by his remarks.

Lisa attended Milnerton High school. She enjoyed her school years and had close friends. In contrast to her school peers, she had lots of ambition. She dreamed of

going to UCT and graduating as an accountant. Academically she achieved well and received a B aggregate for matric. She enjoyed her hobbies of needlework and reading, and she attended church weekly. Toward the end of Matric she began dating her current boyfriend and they have now been involved for a year and a half. She describes their relationship as 'very close' and calls him her 'other best friend'. Lisa described herself as happy and carefree before the onset of her illness.

In retrospect, the first sign of any problem occurred in standard nine (1998) when Lisa contracted tonsillitis, after which there were no problems until she began her first year (2000) of a Bachelor of Commerce (B Com) degree at the University of Cape Town (UCT). Then, in May 2000, while preparing for a test, she began feeling pain in her left thumb muscle (she is left-handed), which developed into tendonitis. Despite treatment with injections, an anti-inflammatory (Voltex) and rest, her pain persisted. Lisa consulted a hand surgeon who decided to operate to relieve the friction between the tendon and the bone. She had routine blood tests, which revealed a slightly elevated arthritis level. As a precautionary measure, the surgeon sent Lisa to a Rheumatologist, who found 'something happening' in her right wrist. Lisa had the operation on her left-hand One month later, while working with her right hand (because her left was in a cast), she began to feel a similar pain, which precipitated a second operation to alleviate the pain in her right hand. Three weeks later, in July, pain in her knuckles forced her to return to her Rheumatologist, who did further blood tests and bone scans. The blood tests indicated Rheumatoid arthritis, Lupus, or both. The exact problem was difficult to diagnose because the blood must be observed over a period of time. Lisa consulted a second Rheumatologist. He thought she had a form of back arthritis and prescribed methotrexate. But it did not reduce her discomfort and he took her off it. Lisa reported feeling exasperated that she could not get a concrete answer as to what was wrong with her. All the while, her auto-immune disease caused her pain on almost a daily basis.

Lisa feels pain whenever she attempts to do anything with her hands, whether writing, stirring a pot, or picking up something. Further, there are times when she experiences pain without any clear precipitant. The more she tries to use her hands, the worse the pain becomes. Lisa is hypervigilant to sensations in her joints, which feel bruised and 'pap'. Her pain can get so severe that there are instances when she awakes in the

morning to find herself lying on her hands in an unconscious attempt to stop the pain by cutting off the blood-flow. Lisa's pain is not only in her hands, but can occur in any joint. She attempts to cope with the pain by taking painkillers (Panado), distracting herself, or trying to 'block it out'. The mild pain she 'just got used to'. But there are times when the pain just 'takes over'. When Lisa has pain, she becomes tired, finds it difficult to concentrate and often has to move around to alleviate it. Addressing her pain, and the stress associated with it, was the reason why Lisa decided to do the MBSR.

In the two years since May 2000, her weight dropped from 55 kilograms to 42 kilograms. After her first operation, she went from 55 to 47 kilograms. She remained at that weight until September 2001, when she dropped to 43-44 kilograms. Now her weight fluctuates between 44 to 45 kilograms. She attributes part of her weight loss to not being able to eat before operations. She is not gaining any weight and has no 'great desire' to eat. Since May 2000 she lost energy and weakened, which, in addition to her pain, often curtailed her ability to cope with her demanding academic schedule. Although she was unable to perform at her previous level, she managed to write some of her exams (albeit with extra time) and go into her second year. In September 2001, Lisa was hospitalised for a week because of severe recurring tonsillitis and hepatitis. As a result she missed weeks of university lectures and study time. At the end of 2001, Lisa wrote and passed some of her courses but by then it had become clear that continuing her degree at UCT would be too taxing and she was forced to leave and complete it part-time through UNISA.

Lisa's inability to continue at UCT was very distressing for her, because it signalled the end of her dream of becoming an UCT graduate. Since standard nine (1998) she had a clear goal of graduating from UCT as an accountant and was driven to achieve this goal. Lisa described herself as a person who takes her goals seriously, thus she felt 'upset' and 'resentful', since after all the effort she put in, she will not be able to do what she wants to do. 'I don't become happy or excited about anything because it's hanging there' she reported, staring at the ground.

Although Lisa noted emotional and physical changes since she contracted her illness (March 2000), these have been exacerbated since leaving UCT. Her appetite has

decreased and her sleeping pattern has varied. At times she finds it difficult to relax and often feels scared of losing control. She feels sad and cries more frequently. She has less patience and now even 'the littlest thing will irritate [her]'. Lisa's body feels 'pap' and is more easily fatigued. She reported feeling guilty because of the increased stress her condition has placed on her mother, who has recently begun consulting a psychologist. Lisa used to be relaxed and easy-going, but now she has become very serious.

Lisa admitted to having these feelings and symptoms in 2001 but claimed they were manageable. Since she was first diagnosed, she coped by 'carrying on like a robot, acting as if nothing was wrong'. She would 'block' anything to do with her disease by avoiding circumstances when she would have to talk about it; she numbed herself and detached from her story as if it was someone else's story. However, the fact of having to leave UCT has been a major self-confrontation and, despite her persistent attempts, more difficult for her to 'block' out. Thus feelings that were manageable are now increasingly distressing for Lisa. To help her cope, Lisa consulted a psychologist three or four times in May/June 2001, but she did not find it particularly useful. She has also been taking 25 mg of Trepaline (anti-depressant with anxiolytic properties), which she reports to have found calming. However, Lisa is trying to reduce the quantity because of the side-effects (puffy eyes).

Lisa's illness has adversely affected her relationships. She recognises familial and social support, but because she believes her friends and family cannot relate to what she is going through, she feels isolated and lonely. A 'distancing' has occurred between Lisa and her friends because Lisa does not want to talk about her condition with them, and does not want to hear what they are doing. She reported 'I don't want to hear about the things I want to be doing, that they're doing'. Lisa is congruent with this distance because it alleviates the pressure of discussing her predicament. She is content for her friends not to know what is happening with her.

In 2000, while Lisa had two operations on her wrists, her grandmother underwent an emergency operation for a block in her intestine. While in the intensive care unit, her grandmother did not get enough oxygen to her brain and was delirious for more than a week. In September 2001, when Lisa was in hospital again, her grandmother was also

admitted to hospital because she fell and cracked her hip. Lisa reported that it felt like 'everything was happening again'. These events had two interrelated consequences: firstly, Lisa no longer trusts that things will 'work out'; secondly, Lisa began waiting for the next negative event to happen.

When Lisa feels anxious, this manifests as a general feeling of being scared and unable to relax. She is restless and cannot concentrate. Lisa's *anxiety* is activated in different circumstances. Firstly, she becomes anxious when she cannot complete a designated task. For example, when Lisa was working and could not solve a particular accounting problem, she became anxious and had the thought 'I should be able to do this'. Secondly, Lisa reported that she becomes anxious when she has pain. For example, because of her pain she was struggling to do yoga exercises, which made her feel 'left behind' and anxious. Thirdly, on some days she just wakes up feeling anxious and then carries her anxiety for most of the day. Her anxiety makes it difficult for her to make even mundane decisions, and she feels confused. This begins a negative feedback cycle because her confusion makes her more indecisive, making her more anxious. When she becomes anxious, she attempts to avoid it by keeping busy. Further, there have been occasions when she avoids situations or people which require her to talk about issues that worry her. When Lisa has thoughts that make her anxious, she 'blocks' them out.

TIMELINE	
1998:	First contraction of tonsillitis.
2000: UCT First Year	
May 2000:	Lisa developed a lot of pain in her left hand/wrist, which became tendonitis. She tried to treat it with injections and anti-inflammatory. Then she went to hand surgeon and had an operation to separate the tendon from the bone.
June 2000:	While working Lisa got the same pain in her right hand. She had an operation on other hand.
July 2000:	Lisa experienced pain in her knuckle, she had blood tests and was diagnosed with Rheumatoid Arthritis or Lupus or both. The pain never went away; it remained difficult for Lisa to write.
2001: UCT Second Year	
Sept 2001:	Lisa was in hospital for 1 week, because of severe tonsillitis & hepatitis (multiple viruses). She missed weeks of UCT.
Dec 2001:	Lisa decided to leave UCT and go to UNISA

Diagnostic Considerations

Lisa's BDI-II base-line score was 31 indicating severe depression. (Note, she did not answer question 21 on loss of interest in sex.) Elevated features (indicated by a score of 3) included feelings of being a 'total failure as a person' and being very restless and agitated. Her BAI score was 17 indicating moderate anxiety. Elevated features (indicated by a score of three) included being scared, unable to relax, and fear of losing control.

Using DSM-IV nosology, Lisa met the criteria for three disorders. *Generalised Anxiety Disorder* based on reports that Lisa has had anxiety for at least six months and it is difficult for her to control her worry. Her worry is associated with restlessness, irritability, tension, and difficulty concentrating. *Major Depressive Disorder, Mild* is indicated by the following symptoms: significant sadness associated with low energy, low self-esteem, poor concentration and difficulty making decisions and feelings of hopelessness. This has been present for most periods since she was first diagnosed with her auto-immune disease (2000). *Pain Disorder* associated with both psychological factors and general medical condition was diagnosed because, in addition to the biological aetiology, psychological factors are believed to play an important part in the exacerbation and maintenance of her pain.

Case Conceptualisation

Although the dynamics of Lisa's pain, depression and anxiety will be conceptualised separately, they are interdependent and loop back into each other. On a gross level the interaction between these three syndromes could be explained as follows: Lisa's pain made it hard for her to function, yet she rigidly maintained her intention to accomplish her goals. Her illness and related task difficulties resulted in a belief that she did not have the resources to cope. The combination of her belief that she had to accomplish her goals and her belief that she did not have sufficient resources to achieve them resulted in her anxiety. Her anxiety exacerbated and prolonged her pain experience. Furthermore, because of her pain she was unable to achieve her unrelenting standards, which made her think of herself as a failure and her future as bleak. This resulted in her depression, which exacerbated her worry (by reinforcing the belief that she cannot cope) and her pain (by making her more sensitive to her

pain). Thus the interaction of these syndromes have resulted in a negative feedback loop which keeps Lisa in considerable distress.

Depression Conceptualisation

A psychological formulation of Lisa's current depression is as follows: While Lisa was growing up her father inculcated a strict work ethic, with a focus on performance. Lisa recalled instances when she would have an upcoming exam and whenever she took a break, her father would tell her that she should be working. Before exam time Lisa would already be nervous and she reported the consequence of his comments as follows: 'if I was scared, he would have terrified me, and it fuelled me to be hard on myself'. Through these repeated interactions Lisa developed the early maladaptive schema (EMS) of unrelenting standards and hypercriticalness (Young, 1999). When Lisa does not achieve her perfect standards, she believes it is due to her personal lack of ability and/or strength, which causes her to feel like a failure.

Lisa set goals and drove herself very hard to achieve them. Her conscientiousness and diligence were being driven by the underlying assumption 'if I meet my standards, then I am worthwhile'. Until her illness, this functioned effectively as she accomplished the goals that she set for herself; for example, being admitted to do a B Com at UCT. The only time Lisa reported feeling better and more optimistic occurred after she received a result of 85% on a university exam (after which she reinitiated contact with her friends).

When she became ill in 2000, she became increasingly unable to achieve her unrelenting standards. The negative consequences of Lisa's schema are often activated in her academic work and most of the examples she provided occurred while studying. She would struggle to solve an accounting problem, and then she would become angry with herself and berate herself with self-critical thoughts, ultimately feeling useless and worthless. All the correct answers were overlooked as she berated herself for her mistakes.

Another example of a performance task, where Lisa struggled and then became angry with herself occurred while she was doing yoga: 'I ... noticed when I couldn't do a

particular stretch or I couldn't do it perfectly then I became frustrated and angry with myself'. Lisa was unable to do the exercise because of the intense pain she was experiencing, but because of her criticalness she blamed herself for her limitations. Some of the adverse consequences of her schema can be shown by the following report which demonstrates a pressure to perform which undermines her capacity to relax: After 20 minutes of doing a breathing meditation, Lisa became agitated and thought 'I must be doing something else or moving around or doing something more productive with more results'.

Despite the physical and emotional toll of her illness, she did not alter her ambitions or goals. Rather, she attempted to block out the reality of her illness by going on with life 'as normal'. Cognitively she 'blocked' recognition of her illness. Behaviourally, she avoided circumstances where she would have to talk about her illness. This prevented her from dealing with the loss of her previous goals – a necessary part of mourning for an expected healthy life that is probably no longer possible. Yet, this strategy sustained her until September 2001, when she was hospitalised for a week for recurring tonsillitis and hepatitis. Even after the operation, Lisa attempted to continue with UCT, but it became clear that she would not be able to complete the degree at that university and, at the end of 2001, she withdrew.

Although her illness made it harder to achieve her standards, she persevered and did not drop a single subject. As opposed to altering her goals to make them more realistic, Lisa kept trying, and blamed herself for not being able to achieve them. She had thoughts such as 'if I was strong enough, no matter what the reason was, I could have done it [completed her B Com degree], so you're obviously not strong enough'.

Lisa's inability to accommodate her illness and adapt her goals accordingly can be attributed to her rigid psychological schematic processing. The schema negatively biases her information processing resulting in her two main cognitive distortions - over-generalisation (I didn't reach my goals, so I'm a failure) and dichotomous thinking (I'm either strong enough to accomplish my goals, or I'm weak and worthless). These cognitive distortions leave her with a view of herself as inadequate and weak and a view of her future as bleak. She feels alone in her predicament

because she believes that others cannot relate to what she is going through. These negative views all contribute to making and keeping Lisa depressed.

Pain Conceptualisation

The primary contributor to Lisa's pain is the Rheumatoid arthritis for which Lisa has tried several traditional pain management techniques, including heat treatment, pain-killers and rest. The mild pain she 'just got used to', but at other times the pain was severe and it would just 'take over'. Although Lisa's pain is aetiologically related to her autoimmune disease, her reports indicated that there is a significant psychological component that is exacerbating and prolonging her pain experience. Her anxiety and depression are the primary contributors to the exacerbation and maintenance of her pain. Yet both of these affective syndromes occur in the context of self-defeating rigidity and myopia caused by her schema-driven unrelenting standards and hypercriticalness. These EMS's have made it difficult for Lisa to accommodate her illness and pain because they threaten her idea of how her life should be.

The relationship between her anxiety and her pain is mediated by her schema-related belief that she should be able to manage her situation. Since Lisa often feels incapable of managing her pain, she feels helpless and out of control. This causes her to worry, which exacerbates the pain experience. The way her worry exacerbates and prolongs her pain experience was demonstrated in her report of an university exam incident. While writing the exam, Lisa felt pain shoot up her arm, which affected her capacity to think and write. Her script began to look messy. Because of her beliefs in the necessity to achieve, she began to panic, which made her focus more on her pain sensations. On another occasion, while Lisa was doing a MBSR body-scan exercise, she experienced pain and began to worry that she would fall behind. Anxiety causes muscle tension and may have prolonged her pain experience.

Lisa's pain is also indirectly aetiologically related to her depression. Her pain sabotages her efforts to meet her goals. When she does not reach her goals, she becomes self-critical and feels worthless, which causes her to focus on her pain, thereby exacerbating it. An example is her inability to continue studying at UCT for

which she blames and berates herself, leading her to focus on her illness and pain experiences as examples of her ineptitude.

Anxiety Conceptualisation

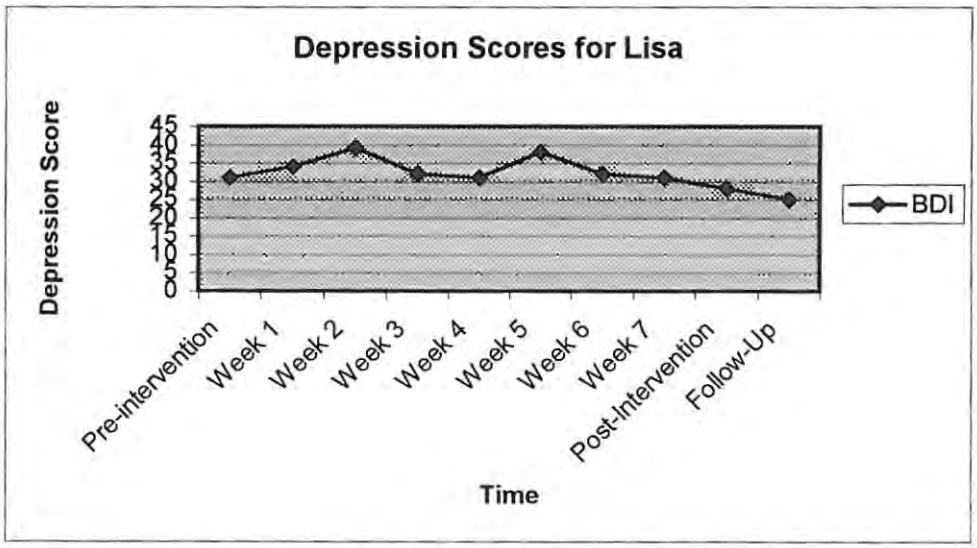
Lisa's psychological processing of her (and her grandmother's) illness had two interrelated consequences. Firstly, Lisa no longer trusts that things will 'work out'. Secondly, Lisa's illness has weakened her, which has made her feel vulnerable and undermined her confidence in her capacity to weather future adversity. Taken together these imply that Lisa does not think she has the resources to handle a bleak future, which makes living daunting and underpins her worry. Lisa's anxiety is exacerbated by her unrelenting standards, because at the same time as it puts increased pressure on her to succeed at/accomplish her goals, she does not believe she has the required resources to accomplish her goals. In other words, she does not believe she can achieve what she believes she must. Lisa's anxiety symptoms manifest cognitively (as being unable to concentrate), emotively (a general feeling of being scared) and behaviourally (being unable to relax, fidgeting, and restlessness).

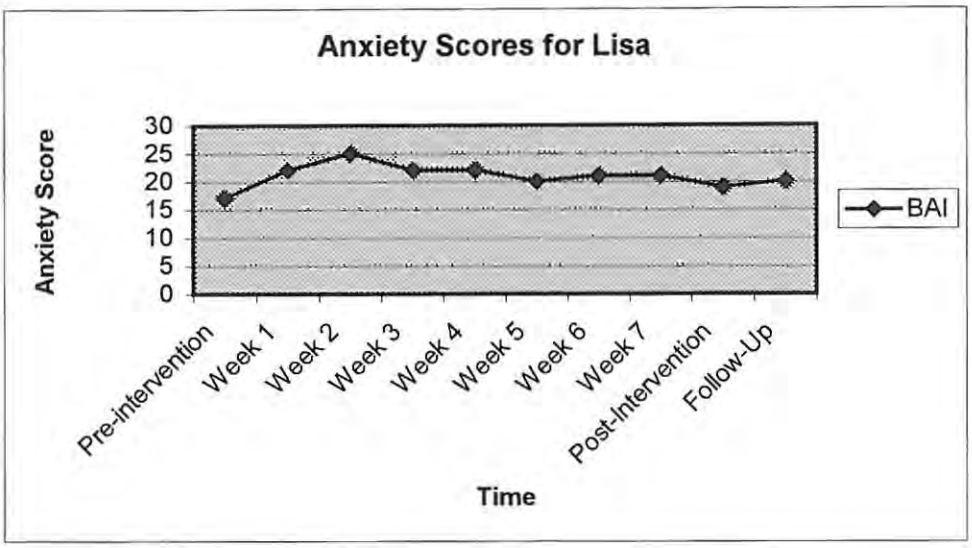
Following this conceptualisation, one would expect Lisa's anxiety to be activated in situations that trigger her feelings of not being able to cope. This was manifest in her experience: firstly, she becomes anxious when she cannot complete a designated task; for example, when she was unable to solve an accounting problem, she became anxious and had the thought 'I should be able to do this'. While doing the body scan there were times when Lisa felt 'incredible agitation' as she struggled to continually bring herself back to the present. There were also times when Lisa became anxious, because her pain undermined her capacity to manage difficulties. For example, because of her pain she was struggling to do yoga exercises, which made her feel 'left behind' and anxious. Lisa's anxiety has reached a point where she can wake up feeling anxious. On one such day, she woke up feeling very anxious and she carried this feeling with her for most of the day. Her anxiety made it difficult for her to make even mundane decisions and she felt confused. This begins a negative feedback cycle because her confusion makes her more indecisive, making her more anxious. This pattern demonstrates the uncontrollability of her worry: when she has it, she does not

know what to do, which exacerbates her worry, because she begins to worry about her worrying – she is worried that she is worried.

Lisa's anxiety is primarily being maintained by her avoidance and lack of coping techniques. Cognitively, when she is unsuccessful at blocking her worrying thoughts, then she begins to worry that she is worrying. This perpetuates her worrying because it thwarts attempts at problem-solving. Behaviourally, she attempts to avoid the anxiety by keeping busy. She also avoids situations or people which require her to talk about issues that worry her. These behaviours inhibit opportunities for Lisa to disprove her self-defeating beliefs, which would result in an abatement of her anxiety symptoms. Lisa mentioned several circumstances when she may have used relaxation techniques effectively, that she did not use them, may be due to lack of skills and this may also maintain her worrying.

Quantitative Measures





Analysis of BDI-II & BAI

The graphs above displays Lisa's BDI-II and BAI scores before, during and after her participation in the MBSR. The pre-intervention score was taken within two weeks prior to her beginning the MBSR. The post-intervention score was taken within one week following the completion of the programme and the month follow-up was taken 4 weeks after the MBSR completion.

Lisa chose not to answer the last question of the BDI-II concerning sexual interest. Almost all her scores were in the severe depression range: her preintervention score was 31, and during the course it peaked in the third week at 39. It remained squarely in the severe range until the post-intervention measure which dropped to 28 on the cusp of moderate and severe depression. This had decreased even further by the one-month follow-up, being 25 (squarely within moderate range). Lisa's preintervention BAI score was 17 indicating moderate anxiety. From week 1, her score increased to 22 (moderate range) and remained in the early twenties. Her highest score, 25 (moderate range), occurred in week 2. At one month follow-up her score was 20, three points up from her baseline, but still in the moderate range.

Both the BDI-II and BAI reached a peak between the second and third week of the MBSR. This correlated with a period during which Lisa was gaining increasing awareness of the self-critical nature of her thoughts and she was having 'bad days' with feelings of confusion and indecisiveness. Simultaneously she was unable to use

the MBSR techniques to help her manage those thoughts. Thus, the elevated scores may be the product of the combination of these two phenomena – increased self-critical thoughts and inability to process them. There was a second significant peak in the BDI-II during the fifth and sixth week. This corresponds to increases in her pain symptoms, especially in her joints. This produced occasions when she was unable to do the mindfulness practices as competently as the other participants in the MBSR, which led to her feeling left behind. It is possible only the BDI-II increased (while the BAI remained the same), because the accompanying feeling of being left behind is primarily of inadequacy, hopelessness and helplessness.

Medical Symptom Checklist (MSCL)

Lisa's preintervention MSCL score was 30. About half of this score consisted of 'yes' responses to statements concerning anxiety or depression; another third checked concerned pain symptoms. Lisa's post-intervention score, taken immediately after the MBSR was 29 and almost mirrored her first form. This suggests that there was no improvement in her symptoms.

Profile of Mood States (POMS)

Lisa's pre-intervention POMS scores on the tension-anxiety and depression-dejection indices was significantly elevated[2], indicating significant mood disturbance. Vigour-Activity was significantly below the norm, indicating an absence of ebullience. The only elevated score at Post-intervention was on the depression-dejection scale. Her pre-intervention TMD score was higher than at post-intervention, which indicates an overall decrease in mood disturbance. This incongruous finding may be due to the desire on the behalf of the participant to please her facilitators.

Experience in treatment

Lisa first heard about the MBSR programme from her GP. She only knew that it was a 'pain clinic' which taught techniques to help cope with her pain. Chronic pain and her aversion to the amount of medication she was taking served as the primary motivation for her decision to do the MBSR programme. Lisa expected to be told steps A, B and C, which she would follow and then everything would be fine. She

[2] Norms were taken from female American college students, which are similar to Lisa's profile.

soon altered her expectations to make them more realistic. The following documents her experiences as she progressed through the course.

Lisa's Experience of Her Pain

Before the MBSR, when Lisa felt pain, she would try to concentrate on something else in order to forget the pain, but this technique was usually unsuccessful and the pain would often 'take over'. A MBSR technique that Lisa found useful required her to focus on her physiological systems that function healthily, thus, she would shift her attention onto her heartbeat or her breathing. When this happens she feels more relaxed, because the breathing gives her a perspective on her pain, 'like I'm not the pain, which makes the pain more bearable' she recalled. When she identified with her pain, it feels like something 'pulls' her attention to her breathing. The pain is still there but it becomes more manageable.

Lisa provided several examples when she used this technique to deal with her pain more effectively. One instance occurred when during a sitting meditation the focus on her breathing helped isolate the feelings of pain in her back and her feet. This produced a feeling of control over the pain and she felt 'relaxed and calm'. On another occasion, Lisa experienced an intense 'taking over' back pain while driving to Cape Town. Just wanting the pain to stop, she became oblivious to everything around her. Despite the severity of the pain, she was able to shift her attention onto her breathing and use it to create psychological distance with her pain. When she did this the pain was still sore, but she realized that she could 'work around it' and thereby live a 'normal life'. Her perspective then changed and she began noticing the beauty of the sea and mountains around her, her thoughts shifted to recognising the things that go right in the world and she felt 'ok'. Lisa gave another example when, while driving at night, her body was aching so much that she could feel every movement of the car. She then focused on her breathing which relaxed her and she observed the city lights as she drove, which took her mind off her discomfort and made her feel better.

However, on many occasions when Lisa experienced pain, she did not use the tools she learned in the MBSR. Only afterwards would she think that she could have usefully used a MBSR technique. In addition, although the techniques are meant to

help Lisa with her pain, the pain often prevented her from properly engaging with the techniques. For example, when Lisa began doing the yoga, she enjoyed it and did it regularly, but since she has experienced pain while doing it, she has had to do it more infrequently. Lisa's pain has undermined her formal practices by, firstly, tiring her, thereby making it difficult to stay awake. Secondly, the pain disrupts her sitting meditation by forcing her to change positions. Thirdly, the pain makes it difficult for her to sustain her concentration during her meditations.

One month after the end of the programme, Lisa still experiences frequent and intense pain. She reported only two occasions in the last month when focusing her attention on her breathing helped her cope with her throbbing pain. Her preferred treatment is heat application. In sum, Lisa thought that the course improved her capacity to cope with her pain, but she thought it was insufficient as a tool on its own.

Lisa's Experience of Her Depression

Prior to the course, Lisa was relatively unaware of her thought content and processes; 'before the course...I wasn't analysing what I was thinking or how I was thinking', she said. Through doing the course she has become more aware of her preoccupation with her thoughts and their judgmental content. This increase in awareness is significant, because it gave Lisa a point at which she could interrupt the negative thought-feeling feedback loop by shifting her focus onto parts of her body that were functioning normally. For example, there were times when Lisa, feeling frustrated and having self-critical thoughts, focused on her breathing, which resulted in positive thoughts (thinking 'this is normal or that is normal') and feelings of comfort.

There are other times when Lisa has been able to interject with positive thoughts that are incompatible with or 'argue with' her negative thoughts. For example, while working, Lisa became demotivated because she was struggling with a problem. She thought 'why am I doing this?', and became so 'worked up' that she could not concentrate, which led to further negative thoughts like 'I will get nothing done'. But when she recognised her harshness, she realised that it exacerbated her study difficulties. After this she took a break and then returned able to study. In this example, recognition of her harshness facilitated awareness of its self-defeating

consequences and the implementation of constructive behaviours. This dynamic was also evident in her report of an experience during a body scan (occurring toward the end of the course): 'I recognised I was being harsh in the beginning and judgmental about coming back and I made the shift from that to one of noticing it in the moment and then gently refocusing back without pressurising myself about it, I could relax and benefit from the exercise and be present in the process'.

Becoming aware of her thoughts and, more importantly, her negative self-critical thoughts, has also helped by allowing Lisa to use her experience as a way of contradicting her previous thoughts. For example, Lisa thought that obtaining her degree from UCT was the only option and when she left she 'thought it was the end of the world'. Now doing her degree through UNISA, she realises that her previous thoughts and beliefs were not completely valid. In other words, her change in attitude, which legitimised other study alternatives, has reduced her previous conviction in her thoughts and beliefs that UCT was the 'only way'. This, in turn, reduced her feelings of failure and disappointment about leaving UCT.

However, at other times this strategy did not work. She recalled an occasion when she thought about leaving UCT and attempted to make herself feel better by 'talking back to' her harsh thoughts saying 'you can go back and do a post-graduate degree'. Thinking that she was just making excuses to make herself feel better, she doubted the validity of her constructive thoughts and retained conviction in the 'harder' thoughts. Lisa reported that despite her occasional successes, this outcome was more prevalent: 'through the course I can notice the thoughts, but because its been a reality for a long time I will still believe it' she reported.

Lisa gave examples supporting a shift in her depressogenic schema dynamics. Before Lisa began the MBSR course, she was unaware of her unrelenting standards and her severe self-reproach when she did not achieve those standards. Two reports indicating a change appeared during the course. Firstly, she became aware of some of her schema driven behaviour. For example, she reported during a yoga exercise: 'I also noticed when I couldn't do a particular stretch or I couldn't do it perfectly then I became frustrated and angry with myself. I was aware that I was judging myself'. The second was a spontaneous attempt (no formal techniques were taught) to change her

dynamics: during her breathing meditation, Lisa noticed that her attention had drifted off, but she refocused without being angry at herself. This marked a change from her frustration at her attentional instability. It appears that Lisa increasingly became aware of her unrelenting standards and the relationship between these standards and her critical and judgmental attitude (and ultimately to her feelings of uselessness and worthlessness), and one month after completing the course she was able to say that perfectionism is 'not always healthy'.

Lisa's Experience of her Anxiety

Increased somatic awareness lies at the centre of Lisa's increased effectiveness in handling her anxiety. This increased awareness has helped her manage her anxiety in two ways. Firstly, it has allowed her to 'step back' from her experience and follow a rational course of action. Recently, Lisa became aware of her anxiety while she was studying, because she could not complete work she was capable of doing. Because she was able to recognise her stress, she stopped working, wrote five things she must do to help her relax, followed what she wrote and then returned 20 minutes later able to complete her work (the five tasks did not include mindfulness techniques). By contrast, before the MBSR, Lisa would not have been able to recognise how stressed she was and how it manifests. She would simply have panicked and become ineffective; consequently she would judge herself harshly and criticise herself for her inability to work, which would make her feel even worse. Now she was able to engage with her experience as a 'third party' and use her observation of her inability to concentrate and fidgeting as cues to take constructive action to relax. Lisa links this new capacity to the MBSR, because she was aware of her difficulties.

Secondly, Lisa's increased somatic awareness has helped her control her anxiety by enabling her to use the accepting ethos of the course to form rational responses to her worrying thoughts. For example, during the Saturday MBSR body scan, Lisa had severe back pain and was anxious because she might fall asleep and not do the practice correctly. Recognising her anxiety, she thought 'If my mind shifts, I can come back... if I fall asleep it does not matter'. Since Lisa could form an accepting attitude toward herself, she could engage with the task feeling more relaxed and with less anxiety. Subsequently, she fell asleep, but did not berate herself on awakening.

There have been times when Lisa used the formal mindfulness techniques to help her regain a sense of calm after she became anxious or frustrated. For example, she recalled an instance when she felt very agitated and then did a 15 minute breathing meditation, after which she felt 'calm and peaceful'. At times when Lisa feels anxious while studying, she will stop, leave the room and do a breathing meditation until she feels calm, and then return to studying.

However, the techniques are sometimes ineffective and Lisa reported that occasionally the sitting meditation can make her feel *more* agitated and restless. At other times, when she becomes anxious 'everything flies out the window' – she is incapable of utilising the mindfulness techniques. Although there was a subjective increase in her anxiety (and an increase in her BAI score), Lisa reported that this is due to an increase in her awareness of her anxiety symptoms, rather than a quantitative increase in her anxiety per se. However, this does reflect poorly on the efficacy of the MBSR to reduce her anxiety.

Understanding and discussion

The combination of Lisa's quantitative results and self-reports creates the general impression that on her three dimensions of disorder – pain, depression and anxiety – there was little, if any, improvement. We can now turn our attention towards a more specific evaluation and analysis of the effects of the MBSR on her level of symptoms: if there was a change, what were the mechanisms mediating it? If there was no change, why not? In order to answer these questions, the following sections explore changes, or lack thereof, in Lisa's cognitive, behavioural, and affective dimensions as they were manifest in each different disorder. Then a comparison is made in order to determine whether the changes produced, if any, were similar to those which would be expected in cognitive therapy. Where there was no change, then what reasons would a cognitive therapist give for the lack of change?

Depression experience through a mindfulness lens

Indications from her self-report measures – BDI-II, POMS and the MSCL – and the interviews, consistently reveal an absence of any significant improvement in Lisa's

depressive symptoms. Yet, there was a change in depression-related symptoms, for example, in Lisa's negative cognitions and this must be accounted for. What follows is, firstly, an attempt to understand why Lisa did not improve and secondly, accounting for her areas of improvement.

A relationship to experience characterised by non-judgmental moment-to-moment awareness, processed through the being mode of mind, is required for producing therapeutic benefits. From a mindfulness perspective, a change in *relationship* to one's thoughts, as opposed to change in thought content, is central to an improvement. However, it appears that Lisa did not progress to being able to process her thoughts in the being mode, and this inability is the central reason for her lack of improvement. It appears she understood the techniques as means by which she could change thought content, rather than effect a shift in meta-cognition. With awareness, she attempted to challenge and question her thoughts.

To try and make herself feel better, Lisa would try and substitute her self-critical or harsh thoughts with positive thoughts. Sometimes this method was successful and she would feel better, but at other times she would undermine their effect by telling herself that she is only thinking them *to* make herself feel better, still believing the negative thoughts to be true. Irrespective of whether this technique worked or not, the intention was to make herself feel better, which represents a goal-orientated state characteristic of the doing mode. This implies that Lisa was not processing her experience through the being mode, which is necessary for the therapeutic benefits of mindfulness to take full effect. Lisa's use of awareness to change her thought content from negative to positive is simply a more sophisticated form of avoiding her negative thoughts and feelings. Whether it was her disappointment at leaving UCT or her self-criticalness, she could not accept, and be with, her moment-to-moment experience.

Lisa did gain an increased awareness of her cognitive processes, particularly her self-critical thoughts. This is a necessary condition for changing one's relationship to them and represents an improvement which must be accounted for. There are four aspects which contributed to this change: *Firstly*, spending time daily non-doing (in her sitting meditation) interrupted her behavioural avoidance and forced her to spend time with herself. *Secondly*, the instruction that she is to observe her thoughts superseded

her previous intention of avoiding her thoughts. *Thirdly*, the MBSR ethos, through stressing that thoughts are 'just thoughts' – mental phenomena without any truth-value – gave Lisa a way of processing her 'harsh' thoughts. That is, when she believed her harsh thoughts to be true she was increasingly motivated to avoid them, but through filtering them through a belief that they are merely mental phenomena and therefore not indicative of personal flaws or failure, she is increasingly able to process them. *Fourthly*, the contrast of her judgmental approach to the MBSR programme's non-judgmental acceptance, illuminated how judgmental she actually was.

Although only to a limited extent, the MBSR helped Lisa challenge her EMS of unrelenting standards and hypercriticalness. There are three ways in which the course facilitated this change: *Firstly*, by raising her awareness, it resulted in her being able to recognise these patterns, which created the necessary condition for them to be altered. Through spending time everyday noticing her thoughts, Lisa became aware of her self-critical attitude. Further, by contextualising these thoughts, she realised that they occurred in performance contexts, usually when she did not achieve the level she desired. If it was not to her standards, then she was useless. *Secondly*, the instructions about how to meditate inculcated a belief that each moment offers an opportunity to start again. By a process of generalisation, Lisa utilised this approach with her performance activities, believing that even if she did not achieve what she wanted, she could simply try again. This approach prevented the consequent schema-related self-criticalness by providing additional opportunities to accomplish the required standard. *Thirdly*, the course emphasises that there is a lot more right with a person than wrong with them. This attitude refocused Lisa on the aspects of herself that functioned normally and was generalised to other performance areas, helping Lisa refocus on what she does right. This had two implications; firstly, by pointing her toward what is right, it addressed her tendency to focus on her mistakes. Secondly, it addressed her negative bias toward herself. EMS are infamously impervious and it appeared that although a process of addressing their dysfunctionality was begun, it was not rehearsed, probably resulting in superficial and transitory gains.

Depression through a cognitive therapy lens

One way to interrupt the downward spiral of depression would be to challenge Lisa's self-critical thoughts. There was some evidence that this occurred. For example, the rigid belief that she could only do her degree through UCT altered when she became able to conceive of herself doing her degree through UNISA, which then decreased her belief that she was a failure and improved her mood. Another instance which demonstrated the kind of improvement a cognitive therapy programme would be looking for occurred when, after she recognised her self-criticalness while struggling with work, she intervened and took a break (adaptive behaviour) rather than slipping into negative ruminative-affective cycles.

At the cognitive level, there were other improvements which a cognitive therapy programme would attempt to produce. For example, Lisa reported instances where she was able to 'catch the thought' and successfully rationally respond to it, which resulted in an improvement in her mood. Interestingly, this skill – rationally responding – was not taught in the MBSR, but seemed to spontaneously develop once Lisa gained awareness of her cognitions, her feelings, and the link between them. This presents an instance of the kind of successful cognitive restructuring indicative of the cognitive therapy approach. However, Lisa reported that after rationally responding to her negative automatic thoughts, her belief in the negative thought was stronger than her rational response. Thus, although she might have managed to generate a rational response, she did not succeed in changing her beliefs in her negative thoughts, which would be required for a sustained improvement in her mood. A cognitive therapist might attribute her lack of conviction in her rational response to the absence of collaborative guided discovery, which would help her generate rational responses with greater validity and believability.

Cognitive therapy would attempt to uncover the assumptions and schemas which were unwittingly directing Lisa's self-defeating behaviour. This would entail directly focusing on her unrelenting standards – the root of her self-criticalness. Lisa's reports indicate that this sometimes occurred. For example, on one occasion Lisa noticed she was doing a formal technique incorrectly, but the recognition did not result in schema-driven self-criticalness. This implies either an uncoupling between her unrelenting

standards and her self-criticalness, or that her unrelenting standards were sufficiently weakened that they no longer produced self-critical thoughts. However these examples were too infrequent and her reports indicated that no significant schematic change occurred. This might be addressed in a cognitive therapy programme with behavioural experiments designed to demonstrate how she might benefit by making her standards more realistic.

In order to improve a depressed patient's mood, a cognitive therapy programme would often schedule pleasurable activities, which may include spending time with friends or doing an enjoyable hobby. Further, it would encourage Lisa to disclose her illness to her friends to help build a support base. In Lisa's case, there was a report of increased interaction with her friends, but this was related to her increased optimism after achieving a good mark and not to the course. Further, this behavioural change was only sustained for the short period after she received the mark and then she again withdrew. There were no other reports of increased pleasurable activities.

Pain through a mindfulness lens

By the one-month follow-up, Lisa had all but stopped using mindfulness techniques as pain management tools. Her pain levels were at least at the same levels they were when she began the treatment, and since she had experienced frequent pain in the week of the interview, she reported that it was worse. The lack of improvement is reflected in her answers on the pain questions on the MSCL.

According to Kabat-Zinn (1982, p.35) 'the potential benefit of using meditation for the self-regulation of chronic pain would depend on the patient's developing an ability to observe intense feeling in the body as bare sensation'. This is accomplished by processing the pain through a decentred perspective characteristic of the being mode of mind. For Lisa to derive benefit from the MBSR, she was required to be with her moment-to-moment pain experience in a non-judgmental accepting manner. There were examples which indicate that she did manage to process some of her pain experiences through a being mode of mind. Evidence for a 'gear change' into a being mode of mind comes from some of her reports during her pain episode; firstly, her attention went to her breathing and then it broadened to her external environment and,

though still in pain, she was able to appreciate the beauty of her surroundings. Secondly, that in this process the 'taking over' back pain became manageable. In this example the pain did not lead to worry or depressive ruminations. It was simply experienced as a *part* of a multidimensional experience of the moment.

Although Lisa gave several examples demonstrating, as above, a shift into a being mode of mind at critical moments, this skill was not used often enough and was not sustained after the programme's completion. She stated that she only used her breathing skills twice in the one month following the MBSR, preferring heat application as a treatment. This may have been due to her many unsuccessful attempts at using mindfulness to manage her pain. Even while doing formal techniques, Lisa indicated that, despite the techniques helping her manage the pain, the pain often stopped her from doing the techniques properly. For example, during the sitting meditation, there were times when she could not sustain attention through her pain. At other times, her pain forced her to shift position, or, because of her pain-related exhaustion, she would just fall asleep. Since she did not manage to hold attention through these difficulties, she did not build a strong enough belief in the efficacy of the techniques to facilitate its generalisation. The failure to generalise, led Lisa to turn to alternative treatments for relief.

It is important to understand why Lisa did not manage to hold her attention through her pain. One possible answer is that she used the techniques (shifting her focus onto her breathing) with the goal of pain avoidance, characteristic of a *doing/driven* mode of mind. Moving attention to one's breathing is meant to anchor a person in the moment, creating distance in order to process experience through the being mode. But the attitude of acceptance was absent from the way Lisa used the technique, implying that she did not effect a genuine shift to a being mode of mind. When she could not reduce her pain levels - reduce the discrepancy between her actual and desired pain state – it led to a loss of confidence in the technique.

Pain experience through a cognitive therapy lens

The self-reported lack of improvement in Lisa's experience of pain is sufficient evidence that the MBSR had a limited effect in helping Lisa manage her pain. A

cognitive therapist would aim to address the following four areas: inactivity, secondary gain, social withdrawal and the contributions of her depression (because it sensitises Lisa to her pain) and anxiety (because it produces muscle tension, thereby exacerbating pain). Lisa did not have problems with her activity levels and there was no clear indication of secondary gain. Social withdrawal was a problem, but it was not adequately addressed. There were attempts to deal with the affective contributions to her pain through skill development. But at follow-up Lisa did not appear to believe she could abate her pain with her new techniques and no longer used these skills, thus one may conclude that the MBSR programme was of limited benefit in helping Lisa manage her pain.

However, there were isolated instances where Lisa's reports indicated that the skills she learned were useful. For example, she recalled instances where she would shift her attention to her breathing or heart-beat, which abated her experience of her pain and made it more manageable. Though using this technique she was able to interrupt the negative affective-cognitive cycle, thereby preventing unmanageable anxiety or depression from developing. Although not a standard technique in cognitive therapy, these reports suggest that the MBSR inculcated coping skills that provided a more adaptive response to pain. This is one of the central goals of a cognitive therapy programme. But, as previously mentioned, her limited capacity to utilise these skills to manage her pain implies that the MBSR was largely unsuccessful in this case.

Anxiety experience through a mindfulness lens

The problems which affected Lisa's management of her anxiety were similar to those in the depression and pain sections above. One finding was that her anxiety levels, as measured by the BAI actually increased three points from her pre-intervention baseline (17) to one-month follow-up (20) – but both were within the moderate anxiety range. Lisa explained the increase, not as a literal increase in anxiety, but an increase in her awareness of her anxiety levels. Although this explains the increase in her BAI, it does not answer why, given the substantial improvement in other studies (see Kabat-Zinn et al., 1992, Miller et al., 1995), she failed to improve.

Similar to the findings with her depression, Lisa's reports on her experience of her anxiety betray a misunderstanding: she attempted to use the techniques to directly alter her anxiety, rather than trust her anxiety to be indirectly abated by processing her somatic and cognitive worry through a being mode. At those times when Lisa's awareness increased, she used it to try and regulate her anxiety by attempting to reassure herself, or by distracting herself. This implies a goal-directedness – the goal being to alleviate her anxiety – characteristic of the doing mode. There were no reports where Lisa simply allowed her worry to exist as part of the multidimensional experience of the moment, accepting it without attempting to change it. If she had anchored herself in the moment, for example, with a breathing meditation, and distanced from her worry sensations and thoughts, then she would have been able to let them pass.

Lisa did not habitually manage to use mindfulness as a relaxation skill. She developed some techniques, but they were not mindfulness-based. Her failure to use any MBSR techniques to alleviate her anxiety indicates a lack of conviction in mindfulness. For Lisa, the course seemed to be useful as an awareness increasing tool, but not as an anxiety management programme. She obtained the necessary condition for change, awareness, but she did not progress to being able to *be* with her experience with the *non-judgmental* moment-to-moment attention of the being mode.

Anxiety and GAD experience through a cognitive therapy lens

A cognitive treatment would attempt to treat Lisa by: 1) challenging her beliefs in her capacity to manage future adversity; 2) improving her relaxation skills; and 3) challenging her belief in the uncontrollability of her worry through the modification of dysfunctional beliefs about worrying. These goals may have been achieved, cognitively, with Socratic questioning and dysfunctional thought records, and behaviourally, by designing behavioural experiments to refute her worry beliefs, typically, by scheduling worry times.

There were reports indicating that there was some movement toward these goals. There were occasions when Lisa was able to manage her anxiety by rationally responding to her anxiogenic thoughts. For example, she reduced her worry of doing a

practice incorrectly by telling herself that if her mind wanders, she can bring it back, after which she felt relaxed. On this occasion, the result was that she participated in an activity that served as a behavioural experiment, which disproved her fear that there was something wrong with falling asleep. This would address the maintenance of her anxiety by de-catastrophising her fear of performing imperfectly. However, this was the exception rather than the rule, and there were many occasions when she would get helplessly stuck in anxiogenic cognitive traps.

Her new problem-solving skills would be considered a substantial skill-development, because they address the maintenance of her anxiety by targeting her belief in the uncontrollability of her worry. Each time she was able to use her focus on her breathing to relax, her belief in these problem-solving skills was strengthened. The belief that she was capable of managing her anxiety/worry challenged her belief that worry was damaging/dangerous (her meta-worry). However, these skills were not generalised and rehearsed sufficiently to seriously challenge her anxiety and worry. But even this minimal improvement provides evidence that some processes were produced that a cognitive intervention would look for.

CHAPTER 5: CASE COMPARISON

Pamela and Lisa's experience of change as they progressed through the MBSR has been documented and, in each case, the factors associated with their improvement, or lack thereof, have been noted. This chapter combines the dynamics of the cases to determine the factors which mediated the change. First, the factors mediating the change will be presented. Then the experience of change will be evaluated from a cognitive perspective.

The factors mediating mindfulness

The experiences of Pamela and Lisa provide support for Segal et al.'s (2002) conceptualisation of improvement being a function of the move from a doing mode of mind to a being mode of mind. But what are the factors involved in the shift? Pamela and Lisa's reports indicate the contribution of several factors, previously noted by Segal and colleagues, but based on Kabat-Zinn's (1990) 'major pillars of mindfulness' (chapter 2). The seven interrelated psychological factors are: 1) awareness of internal processes including thoughts, feelings and sensations; 2) non-attachment/letting go: the capacity to let experiences fade away without engaging them by thinking about them or attempting to understanding them; 3) non-judgmental attitude: the capacity to not look at the implications of having certain thoughts, doing certain actions, or having actions said or done to you; 4) intentional use of attention: the capacity to control where your attention is directed, and to sustain it; 5) distancing/decentring: the capacity to notice – observe as a third-party – thoughts as events; 6) being in the moment: the capacity to turn off cognitive chatter and rest or direct attention on percepts; and 7) acceptance/non-aversion: the capacity to see things for what they are or simply noticing what is.

Both Lisa's and Pamela's levels of awareness (of thoughts, feelings and sensations) increased dramatically, which makes the identification of the factors that mediated it of cardinal importance. First, there were the formal mindfulness practices, because they created periods of non-doing which counter-acted behavioural avoidance, thus forcing the participants to notice their experiences. This was strengthened by the MBSR's explicit instruction to observe the unfolding of their experiences. The ethos

of the MBSR – acceptance and non-judgment – was also useful, because it contrasted with their attitudes and beliefs, thereby bringing them more into awareness. This was important in relation to their cognitions because they had a tendency to believe their negative thoughts resulting in negative mood, which had become a motivation to avoid their negative thoughts. However, the mindfulness instruction to see thoughts as 'just thoughts', without implications, decreased the motivation to avoid negative thoughts and increased awareness of such thoughts (because the participants could recognise them without believing that they implied any personal defect or immorality). This observation was reported by both Pamela and Lisa. However, given Lisa's lack of improvement, the conclusion is that it was not enough that the practices lowered thresholds of awareness. The analysis must therefore turn toward factors which are able to explain their different outcomes.

To preface this analysis, an important differentiation must be made between the attitudes of mindfulness and the attentional capacities of mindfulness. The attitudes of mindfulness are acceptance, non-judgmentalism and non-attachment. The attentional capacities of mindfulness include intentional use of attention, awareness of thoughts, feelings and sensations, and being in the moment. Similar to the physiological capacity of a human hand to grasp, the mind has a capacity to be aware, or be in the moment, or intentionally direct its attention. These psychological 'skills' are different from the attitudes with which they are performed. A hand could grasp an object to crush it or to gently place it out of harm's way. This would be equivalent to the attitude: the mind could have awareness of internal processes in order to change them, or it could have awareness merely to note them. Both the attentional capacities of mindfulness and the attitudes of mindfulness are required to be properly mindful. An analysis of their reports indicate that the reason why Pamela's improvement was dramatic and Lisa's was marginal is because Pamela brought to her experiences both the attentional capacities of mindfulness and the attitudes of mindfulness, whereas Lisa brought the attentional capacities, but not all the attitudinal components.

Exploring some examples will clarify this. Consider an example relating to self-critical thoughts: when Pamela had the thought 'you're never going to be able to write this screenplay', she was able to note it, then let it go and continue writing her

screenplay. In order to do this, Pamela would have to have had awareness of the thought and the capacity to intentionally direct attention to the moment; together these would have created distance from the thought. Being able to let the thought pass without consequence implies that she had brought a non-judgmental and accepting attitude, because these are the qualities required to form non-attachment. This example represents her typical approach to all her cognitions, not just her negative ones. In contrast, when Lisa had the thought 'a stronger person would have been able to do it (stay at UCT)', she was able to notice it (otherwise she would not have been able to report it), and since she was able to objectify it, she must have achieved distance. She therefore used the attentional capacities of mindfulness. But she then attempted to evaluate the truth of the thought, and tried to reason with it by saying 'I can always go back to UCT and do a post-grad'. She could not just watch the thought and let it pass, which means she could not bring the *attitude* of mindfulness to bear on this cognition. Without the attitude, she could not derive the benefits of mindfulness. Consequently, the thought led to negative feeling and little emotional change took place.

The attitude brought to the experience of the moment was equally important with feelings and sensations. Lisa and Pamela's approach to their feelings and sensations mirrored the differences in their approach to their cognitions. There were times, for example, when Lisa was able to note her pain sensations and still weave herself into the tapestry of the moment. However, this was not Lisa's characteristic mode; approaching her pain within a being mode of mind was the exception rather than the rule. Lisa's inability to manage her pain should not be seen as a consequence of the intensity of the pain, because Kabat-Zinn (1982; 1985; 1990) worked with cases with severe pain, but reported large improvements. It seems likely that because Lisa did not move sincerely into a being mode of mind, she was approaching her experience with the intention of making it better, thus she could not derive the benefits of mindfulness. Thus her failure to bring the attitude of mindfulness to the practice of mindfulness weakened the practice and led to a lack of conviction which redirected her attention toward other pain-management techniques. Pamela, on the other hand, was able to use mindfulness to be with her feelings of anger and sadness. She noted the feelings, accepted them as part of her experience in that moment, without attempting to change them, and simply continued with her daily activities. She

watched as her anger and sadness manifested in her body and then faded away. Thus, her feelings did not overwhelm her. This self-regulatory capacity stands in contrast to Lisa's inability to relate to her negative sensations and affect mindfully, so that her negative sensations left her often overwhelmed.

These examples are indicative of the general approach of each participant. Although there were occasions when Lisa demonstrated elements of a mindful attitude, her *modus operandi* was to attempt to change her experience. With her thoughts she attempted to dispute the truth of the thought, and with her feelings she would attempt to abate them. For Lisa, the quality of acceptance was absent from her reports and this lack of acceptance led to an inability to merely be with her experiences. Thus, Lisa's case indicates that mindfulness necessitates a quality of acceptance. The importance of an attitude of acceptance has been previously noted by Marlatt and Christeller (1999, p.68) who state, 'Mindfulness awareness is based on an attitude of acceptance. Rather than judging one's experiences as good or bad, healthy or sick, worthy or unworthy, mindfulness accepts all personal experiences (e.g., thoughts, emotions, events) as just 'what is' in the present moment.' In contrast, the Pamela's experiences indicate that she was able to bring both the attitude and the attentional capacities of mindfulness to form a new therapeutic way of being.

The mindfulness factors also contributed to change at the level of the participants' schemas and underlying assumptions. How did they effect this change? They contributed to different extents depending on which EMS was operative. Inculcating an attitude of not judging, always being able to start again, and focusing on what is right rather than mistakes, were all important in addressing Lisa's EMS of unrelenting standards. Raising awareness of personal experience (her thoughts, feelings and sensations) was a critical factor in addressing Pamela's EMS of other-directedness and dependence. For someone who often considered how her actions impacted on others, it was a major shift to continually bring awareness to her own experience. The quality of being non-judgmental also contributed to this shift because it allayed Pamela's tendency to interpret the shift as selfish egotism and again judge herself harshly. In this way it opened the door for her to act according to her own needs.

In Pamela's case, mindfulness also led to some behavioural change. Her belief in the capacity to self-regulate allowed Pamela to begin socialising and going to public places without fearing that she would be overwhelmed by her emotions. Thus, although not specifically addressed or encouraged, mindfulness can lead to adaptive behaviour change through creating a conviction in self-control (self-regulation) and interrupting negative cognitive-affective cycles at either the cognitive or affective level. There was no sustained change in Lisa's behavioural patterns. This is attributed to not accepting her feelings/sensations and simply being with them. This may have been due to her inability to use mindfulness as a self-regulation strategy: she was not able to form the kind of adaptive relationship to her experience which is associated with mindfulness.

Change from a cognitive perspective

The elements of importance from a cognitive perspective include the three levels of cognition – automatic thoughts, underlying assumptions and schemas, and emotions and behaviours. It is with respect to these elements that the experience of change will be assessed. The experiences of the two cases indicate that many of the processes which are activated through participation in the MBSR are similar to those activated in cognitive therapy. Mindfulness addressed distortions at the level of automatic thoughts, underlying assumptions and schemas. This was accomplished by increasing awareness of internal cognitive processes which allowed the person to 'catch' the thought. Then, as cognitive therapy would encourage, the process of mindfulness also led to decentring or distancing from the thought. But at this point differences arise, because while cognitive therapy would attempt to test the thought against reason, reality (the actual state of affairs) or usefulness, mindfulness teaches simply letting the thought go. Similar to the findings of other studies of the MBSR (Kabat-Zinn, 1982; Kabat-Zinn et al., 1991), although mindfulness did not specifically teach the cognitive therapy strategy of testing the dysfunctional automatic thoughts against reasoning or empiricism, this skill seemed to automatically develop once the participants could distance from their thoughts.

There was also evidence that mindfulness had the capacity to effect change at the level of underlying assumptions and schemas. When Lisa gained awareness of her EMS of unrelenting standards and hyper-criticalness, she began being more compassionate with herself, allowing mistakes and weaknesses without berating herself for it. Pamela's capacity to respect her own feelings, thoughts and needs, indicated that there was some change with her EMS of other-directedness. Further, her reports of decisiveness and assertiveness provide evidence that there was a shift in her compensatory underlying assumption that she should put others before herself. At the same time, while one would expect an increase in self-berating thoughts driven by her schema of badness/defectiveness (because she is no longer compensating), this was not reported. This provides indirect evidence that there was change in this schema.

Cognitive therapy would attempt to address the mood component in a participant's presentation. Pamela's capacity to feel anger or sadness, but not allow it to lead to depressive or anxious thoughts, indicates that mindfulness may be an effective mood regulator. This is supported by Pamela's increased ability to manage her grief. Lisa was at times able to manage her sensations, but too infrequently to conclude that it had become part of her self-management repertoire. Nevertheless, Pamela's case provides some evidence that the MBSR may be effective in interrupting self-defeating affective-cognitive-behavioural cycles, which is what a cognitive programme would attempt to achieve.

For presentations of depression and anxiety, a cognitive therapy programme would typically encourage behavioural change of pursuing pleasurable activities and practising relaxation skills (Klosko and Sanderson, 1999). Pamela reported behavioural change, including taking walks in nature, slowing down some of her everyday activities in order to bring mindfulness to them, and remaining calm and level-headed in anxiety-producing situations. She started going out more often and spent more time socialising. Relaxation skills are a direct consequence of the MBSR programme, but the MBSR never explicitly encouraged pursuing pleasurable activities. It seems that this appeared as an indirect product of cognitive and affective changes. Lisa reported occasionally using her awareness of her breath to help her relax, but in general there was very little behavioural change beyond her required

formal practices. Pamela's improvement, and Lisa's marginal improvement, indicates that the MBSR has the capacity to bring about the kind of behavioural changes a cognitive programme would look for.

CHAPTER 6 : CONCLUSION

The two cases examined in this study were not designed to determine the efficacy of the MBSR in treating various diagnosable psychopathologies. They were explored with the intention of uncovering the mechanisms responsible for change and to determine whether the changes were similar to those that one would expect in cognitive therapy. The findings support Segal et al.'s (2002) understanding of improvement being due to a shift in mental mode from the doing /driven mode to the being mode. This shift was associated with mindfulness factors of heightened awareness of cognitions, feelings and sensations, acceptance, non-judgment, decentring, non-attachment, intentionality, and being in the moment. These factors can be divided into attitudinal (acceptance, non-judgment, non-attachment) and attentional/psychological (awareness, decentring and intentionality). This distinction has been important in understanding Pamela and Lisa's different experiences and demonstrates the importance of bringing a mindfulness attitude to the practice. The attitude of acceptance was found to be an important factor mediating change. The above implies that the practices alone are insufficient in bring about change. Merely sitting for 45 minutes and directing your attention to your breathing is only one aspect of mindfulness and will have limited effects. A critical factor mediating change is the attitude that the individual brings to the practice.

On a cognitive level, improved functioning depends on the capacity of the person to apply mindfulness in the moments when they experience distress. For example, the capacity to have a self-critical thought and not have it lead to lowered mood implies the involvement of a number of factors simultaneously: Firstly, the person must have awareness of the thought and intentionally direct attention toward it. When this happens the person enters a decentred attentional stance in which distance is created from the objectified thought. Once the thought is 'caught' in this manner, then for the benefits of mindfulness to take effect, attitudinal factors of acceptance and non-judgment must be present. If these attitudinal factors are present then, the psychological factors will facilitate anchoring the person's being in the moment. One effective method of staying in the moment is resting attention on the breath. This approach is also therapeutic because it inhibits other maladaptive forms of processing.

Letting go by holding attention in the present is not the only response to a thought or feeling. The person may choose to act on the thought by problem-solving or taking some other course of action. In the mindfulness process, the important aspect is not what is done but *how* it is done. If the person chooses to use problem-solving, this is acceptable as long as it is done mindfully. This is important because both Lisa and Susan used more traditional cognitive therapy techniques, such as speaking back to the thoughts, but Lisa's lack of improvement is attributed to her inability to bring the attitude of mindfulness to the process.

Analysis through a cognitive therapy lens revealed that there are sufficient synergies between the two approaches to justify further efforts at integration. The capacity of mindfulness to produce the changes expected in a cognitive therapy programme were evident, albeit to different extents, with both participants in all their diagnostic categories. On important finding of this study is that mindfulness has the capacity to effect change, not only with automatic thoughts, but also at the 'deeper' levels of cognition, including underlying assumptions and schemas.

Limitations and Strengths of the Study

This study has two notable limitations. Firstly, Pamela was engaged in psychotherapy at the same time she was participating in the MBSR. Although she was not in cognitive therapy, the way in which this may have contributed to her improvement is not known. Secondly, there was no long-term follow-up. This would be able to determine whether the gains at the deeper levels of cognition were sustained. However, given the limited nature of the study, a longer follow-up was not possible. The strengths include; firstly, multiple sources of data were obtained for each case, which increases the reliability of the information; secondly, the marginal improvement of Lisa necessitated the development of more subtle understandings of the importance of the attitudinal factors, which might not have been discovered had both cases shown significant improvement. Thirdly, the case-study method provided an in-depth view of the psychological processes mediating change and not merely an overview as to whether the programme is effective or not.

Recommendations for future research

There is a paucity of in-depth research on mindfulness. To develop increasingly subtle understandings, further case-studies need to be done. These should be directed toward determining the relative contribution of the various factors associated with mindfulness and the MBSR. Further, research needs to address the question of how constructive coping skills spontaneously appeared when people began practising mindfulness. The capacity of mindfulness to generate the kinds of changes that a cognitive intervention would look for justifies further attempts at synergies with different diagnoses, with different populations and with longer follow-ups. What would a cognitive therapy intervention look like which has decentring as its goal and which utilises the therapeutic attitudinal factors of mindfulness? How effective would such a treatment be with different diagnoses and different populations? These are questions for future research.

The MBSR has many advantages for a South African context: 1) the group format provides economy of scale; 2) it is well researched and outcome studies continually testify to its efficacy in both the short- and long-term; 3) it can be used with heterogeneous participants; 4) it is of a relatively short duration; 5) it can operate out of diverse environments; and 6) because it is experientially based, rather than pedagogically based, it is transportable across language barriers. Thus, future research might include South Africans of all race groups.

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Appendix A (please turn over)

Programme Structure of the Cape Town MBSR

Week 1:

- Welcome
- Review of programme structure, confidentiality and guidelines for participation (i.e. daily practice, attending all sessions), emphasising there is more right with you than wrong even if sick and stressed...focussing on the basics/ the simple
- Individual introduction...who are you, what brought you, what do you hope to get out of programme/expectations
- Introduction to mindfulness...eating meditation...eating one raisin mindfully (plus discussion)
- Flow to awareness of breath meditation (15 min) tying in with moment to moment awareness generated during eating the raisin
- Guided body scan (40 min)
- Homework...body scan daily, noticing/dropping in to the breath in moments during the day
- 9-dot exercise

Week 2:

- Guided Body scan
- Discuss homework...what came up...what got in the way
- Exploring perception (based on 9 dot exercise)...expanding field of awareness in identifying and solving problems
- awareness of breath sitting 15 minutes (AOB)
- homework: body scan daily, 3 AOB sitting during week
- mindfulness of daily activities e.g. brushing teeth, showering, washing dishes
- Pleasant events calendar (i.e. awareness of pleasant moments during day)

Week 3:

- Mindful yoga (1 hour) focusing on body in movement, stretching and relaxing, the mind states arising at borders of capacities, emphasising being compassionate with self in response to the experience
- Discussion of homework...NB of embodying the practice in one's life, did you notice pleasant events/what was that like/what got in the way...emphasising the possibility of being there for pleasant moments amidst even difficult times and our tendency to miss this if we are lost in what is wrong with us only
- Homework...alternating body scan and yoga, sitting meditation with AOB daily for 15 minutes, unpleasant events calendar/mindfulness of going into auto pilot mode

Week 4:

- Sitting meditation with AOB, progressing to body sensations, body as a whole (i.e. seamless changing in focus of awareness)

- Discussion...how was it alternating body scan and yoga, what is coming up in terms of body awareness and cognitive responses to these states, self-perceptions (initially in dyads then larger group), Noticing of unpleasant events....what is reactivity/automaticity...how does that keep us stuck
- Teaching...the stress response and health consequences of chronic stress...psychosocial stressors as main stressors
- Homework.....alternate body scan with yoga or sitting meditation (30minutes), awareness of stress reactivity during week

Week 5:

- 10 minutes of unguided sitting in silence
- Program half over...how is it going so far....am I doing it in the best way that I can, letting go of expectations for second half, emphasise that growth in this process is non-linear
- Sitting meditation with AOB and awareness of thinking (i.e. thoughts as thoughts (context versus content of thinking)
- Discussion in group of reacting to stress....what is required to respond rather than react in moments of stress/distress
- Homework: alternate sitting meditation with body scan or yoga
- awareness of difficult communications
- awareness of moments of reacting and options for responding with greater mindfulness...using the breath in these situations suggested as very useful

Week 6:

- Discuss upcoming day of mindfulness....what to bring, what to expect, how to work with it, anxieties that might be present, how to prepare
- 40 minutes sitting with AOB, awareness of body, awareness of sound
- Discussion....stressful communications...what happens in mind and body under these conditions...to one's sense of self
- Homework...formal as per last week
- awareness of what one puts into the body, where it comes from, what it does e.g. food, noise, media, pollution

Full day:

- no talking, custody of the eyes....maintaining the stream of mindfulness during the day....beginning again where you are when you catch yourself somewhere else.
- Guided through all formal practices plus mindful meal, mountain meditation, walking meditation and loving-kindness meditation

Week 7:

- Debrief the full day session...what came up, what did you learn, how was it that night, the next day?
- Formal...sitting for 40 minutes progressing to choiceless awareness i.e. simply sitting presently to whatever arises

- Discussion...what we take in and how it affects us...connecting to what being mindful of these things and your responses to them might mean in terms of ort health
- Homework...any formal practice without the tape (whichever works best for you)
- Emphasise informal mindful practice i.e. being present in moments of your life irrespective of whether pleasant/unpleasant or neutral

Week 8:

- Return to the beginning...i.e. body scan for 40 minutes
- Letter to self (to be sent out in 3 months) ...what do I want to remind myself about the programme and what works for me
- Dyads...what did I get? did it meet expectations? what did you have to give up?
- what are obstacles to further growth and healing? obstacles to continuing the practice
- Expanding dyads into large group
- Emphasising....last session continues for the rest of your life....tips on continuing practice, reviewing the programme, ongoing contact (i.e. subsequent full day sessions), resources i.e. tapes, books CD's etc
- Silent Farewell

Appendix B (please turn over)

Examples of Meditations Taught in the MBSR

Formal Breathing Meditation:

1. Assume a comfortable posture lying on your back or sitting. If you are sitting, keep the spine straight and let your shoulders drop.
2. Close your eyes if it feels comfortable.
3. Bring your attention to your belly, feeling it rise or expand gently on the inbreath and fall or recede on the outbreath.
4. Keep the focus on your breathing, 'being with' each inbreath for its full duration and with each outbreath for its full duration, as if you were riding the waves of your own breathing.
5. Every time you notice that your mind has wandered off the breath, notice what it was that took you away and then gently bring your attention back to your belly and the feeling the breath coming in and out.
6. If your mind wanders away from the breath a thousand times, then your 'job' is simply to bring it back to the breath every time, no matter what it becomes preoccupied with.
7. Practice this exercise for fifteen minutes at a convenient time every day, whether you feel like it or not, for one week and see how it feels to incorporate a disciplined meditation practice into your life. Be aware of how it feels to spend some time each day just being with your breath without having to *do* anything.

Informal Breathing Meditation:

1. Tune in to your breathing at different times during the day, feeling the belly go through one or two risings and fallings.
2. Become aware of your thoughts and feelings at these moments, just observing them without judging them or yourself.
3. At the same time be aware of any changes in the way you are seeing things and feeling about yourself.

Sitting Meditation with Thoughts and Feelings:

1. When your attention is relatively stable on the breath, try shifting your awareness to the process of thinking itself. Let go of the breath and just watch thoughts come into and leave the field of your attention.
2. Try to perceive them as 'events' in your mind.
3. Note their content and their charge while, if possible, not being drawn into thinking about them, or thinking the next thought but just maintaining the 'frame' through which you are observing the process of thought.
4. Note that an individual thought does not last long. It is impermanent. If it comes, it will go. Be aware of this.
5. Note how some thoughts keep coming back.
6. Note those thoughts that are 'I', 'me', mine' thoughts, observing carefully how 'you' , the non-judging observer, feel about them.
7. Note it when the mind creates a 'self' to be preoccupied with how well or how badly your life is going.

8. note thoughts about the past and thoughts about the future.
9. Note thoughts that are about greed, wanting, grasping, clinging.
10. Note thoughts that are about anger, disliking, hatred, aversion, rejection.
11. Note feelings and moods as they come and go.
12. Note what feelings are associated with different thought contents.
13. If you get lost in all this, just go back to your breathing.

This exercise requires great concentration and should only be done for short periods of time, like two to three minutes per sitting in the early stages.

Appendix C (please turn over)

*Daily Diary of Mindfulness Practice - (for research purposes)

WEEK NO._____

PLEASE CIRCLE THE APPROPRIATE OPTION

DAY	Kind of formal practice	Time spent	Comment - What was your experience of the practice?
1 Tues	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	
2 Wed	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	
3 Thurs	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	
4 Fri	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	
5 Sat	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	
6 Sun	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	
7 Mon	Sitting med, Yoga, Body scan, other	0' 10-20' 21-40'	

*It is suggested that you enter the details of your meditation practice on a daily basis. If there was no formal practice then circle '0' under the 'time spent' column.

Appendix D (please turn over)

RHODES UNIVERSITY
DEPARTMENT OF PSYCHOLOGY

AGREEMENT

BETWEEN STUDENT RESEARCHER AND RESEARCH PARTICIPANT

I (participant's name) _____ agree to participate in the research project of Matthew Watkin on experiences of people participating in the Mindfulness–based Stress Reduction programme.

I understand that:

1. The researcher is a student conducting the research as part of the requirements for a clinical psychology masters degree at Rhodes University.

2. The researcher is interested in the experiences of people as they progress through the programme.

3. My participation will involve my responding to five interviews over the following 12-week period (approximately 1½ hours each), completing two questionnaires each week (approximately ½ hour) and keeping a record of mindfulness practices.

4. I will be asked to answer questions of a personal nature but I can choose not to answer any questions about aspects of my life which I am not willing to disclose.

5. I am invited to voice to the researcher any concerns I have about my participation in the study and to have these addressed to my satisfaction.

6. I am free to withdraw from the study at any time – however I commit myself to full participation unless some unusual circumstances occur or I have concerns about my participation which I did not originally anticipate.

7. The report on the project may contain information about my personal experiences, attitudes and behaviours, but the report will be designed in such a way that I will not be able to be identified by the general reader.

Signed on (date) _____

(Participant) _____

(Researcher) _____

(Witness) _____