



“Mindfulness-integrated Cognitive Behaviour Therapy: A Transdiagnostic Approach”

Day: Wednesday 11th July 2018 Time: 9:00 – 10:15 am Track: Philosophical and Dharma Underpinnings

Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) is an evidence-based integration of traditional CBT and mindfulness meditation in the Burmese Vipassana tradition of Ledi Sayadaw, U Ba Khin and S. N. Goenka, developed into a four-stage model to address a range of acute and chronic conditions and prevent relapse. MiCBT is a “second-generation mindfulness-based intervention” (MBI) developed between 2001 and 2003, and continually piloted and improved across disorders since. While there are inevitable overlaps with MBIs that originate from MBSR, the structure, content and implementation of MiCBT differ in several ways, including the theoretical basis for the construction of each of the 4 stages. This symposium will discuss the theoretical basis, structure, implementation and efficacy of MiCBT.

Methods: We first examine the active mechanisms of mindfulness meditation and its neural correlates within an extended operant conditioning framework, the co-emergence model of reinforcement. We also examine the relevance of including exposure and cognitive reappraisal techniques, as well as the rationale for training clients in explicit ethics as part of compassion training. We then assess the empirical evidence for the benefits of this integration across a range of clinical conditions.

Results: Studies in social and affective neuroscience provide support for the co-emergence model of reinforcement, and studies investigating MiCBT show improvements in people with depression, generalised anxiety, PTSD, OCD, performance anxiety, perfectionism, alcoholism, chronic pain, and type-2 diabetes, among other conditions.

Discussions and Conclusion: MiCBT was developed in a way that maximally preserves the principal teachings of Buddhist psychology while excluding Buddhist religious rituals and cultural assumptions. New and established exposure and cognitive reappraisal techniques were tightly integrated with the practice of ethics, the four-fold cultivation of mindfulness, and the development of insight. Current evidence suggests that when the integration of core components of CBT and mindfulness is underpinned by the co-emergence model of reinforcement, this integration can be beneficially generalised to a wide range of disorders, both acute and chronic. Recent studies in India and Iran demonstrate that MiCBT remains efficacious across various cultures. Studies are needed to examine how the efficacy of MiCBT compares with other MBIs across disorders.



Symposium overview

- Presenter 1** **Bruno Cayoun** - Understanding and Integrating Mindfulness with CBT through the Co-emergence Model of Reinforcement. A Rationale for Mindfulness-integrated Cognitive Behaviour Therapy
- Presenter 2** **Alice Shires** - A comparison of the efficacy of mindfulness-based interoceptive exposure and distraction in the management of chronic pain.
- Presenter 3** **Sarah Francis** - Effectiveness of Mindfulness-integrated cognitive behaviour therapy for reducing symptoms of common mental health conditions: a randomized controlled trial; preliminary findings.
- Presenter 4** **Andrea Grabovac** - Therapeutic rationale for teaching explicit ethics in Mindfulness- integrated Cognitive Behaviour Therapy
- Chair:** **Lynette Monteiro**



Understanding and Integrating Mindfulness with CBT through the Co-emergence Model of Reinforcement. A Rationale for Mindfulness-integrated Cognitive Behaviour Therapy

Bruno Cayoun

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Background and Objectives: Evidence suggests that mindfulness meditation is beneficial in reducing the severity of a range of psychopathologies. The benefits have been mostly attributed to improved attention and emotion regulation. However, recent studies suggest that the active mechanisms underlying mindfulness remain unclear, despite a number of useful accounts. The co-emergence model of reinforcement (CMR) has been proposed to explain the mechanisms of change observed in MBIs. The CMR is a neurophenomenological integration of operant conditioning and the so-called “five aggregates” of information processing described in Buddhist psychology. This presentation describes the CMR and explains how and why it is used as an important theoretical framework for the integration of mindfulness and traditional Cognitive Behaviour Therapy to address a range of disorders.

Methods: The mechanisms of the CMR are examined through the interaction between sensory perception, cognition and emotion, and its consequences on behaviour. Also examined is the model’s proposition that the retrieval of autobiographical memories responsible for depression and anxiety is dependent upon the co-emerging interoception (feeling body sensations) that occurs at encoding, consolidation and reconsolidation of events in memory.

Results: Imaging studies show that emotions are experienced through interoception, with thinking and feeling co-emerging and depending on one another to manufacture behaviour, in accord with the CMR. The role of interoception is found to be the locus of reinforcement during learning experiences. There is increasing evidence that when equanimity is emphasized in MBIs, it allows interoceptive desensitization to occur. There is also evidence that this applies to chronic pain. The CMR reveals the deeper mechanism of operant conditioning and the role of equanimity in neutralising the emotional content of self-referential memories during mindfulness meditation.

Discussion and Conclusion: The CMR suggests that during distressing experiences, our attentional capacity is depleted from sensory processing and reallocated to evaluative thinking and reactivity, creating a disequilibrium state that can become chronic and promote psychopathology. Interoceptive awareness and equanimity act to recreate equilibrium by resisting the reinforcement of learned responses. The important advantages for case-conceptualising the reinforcement of emotional disorders through co-emerging thoughts and interoception in clinical practice using MBIs will be discussed.



A comparison of the efficacy of mindfulness-based interoceptive exposure and distraction in the management of chronic pain.

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Background and Objectives: There is now considerable evidence for the efficacy of mindfulness based approaches in pain management, which has led researchers to investigate whether briefer interventions might have clinical utility for pain management. However, the evidence regarding brief mindfulness based approaches is mixed. Following on from previous research on the effects of a brief Mindfulness task in experimental pain and with chronic pain this randomised controlled trial aimed to determine (a) whether a mindfulness interoceptive exposure task (MIET) was more efficacious than distraction and no-treatment conditions for people with chronic pain; and (b) whether attentional bias towards pain-related stimuli moderated the efficacy of mindfulness versus distraction.

Methods: Participants with chronic pain problems were randomized to receive one of two active interventions (either the MIET or distraction) or a control condition. Prior to the single-session intervention, those in the active intervention groups completed a measure of difficulty disengaging from pain-related stimuli using the dot-probe with eye tracking prior to the single-session intervention. Participants then completed the MIET intervention within the session and were asked to practice it at home as often as pain sensations intensify for two weeks. Participants completed an assessment of attention bias and self-focused attention to determine potential mechanisms of treatment. The primary outcome of the intervention was pain ratings. Measures of mood, pain-related anxiety and disability were also taken before and after the intervention. In the trial, we plan to follow participants for six months, and determine the impact of the intervention on disability.

Results: This presentation will show the preliminary results of the immediate short-term outcomes of this trial.

Discussion and Conclusion: A recent uncontrolled pilot study of the MIET demonstrated rapid and lasting significant reductions in both chronic pain and emotional distress. The present study is the first randomized controlled trial demonstrating the effects of the MIET. Clinical implications for the effects of a brief mindfulness interoceptive exposure task in both experimentally induced and chronic pain will be discussed.



Effectiveness of Mindfulness-integrated cognitive behaviour therapy for reducing symptoms of common mental health conditions: a randomized controlled trial; preliminary findings.

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Background and Objectives: Mindfulness-integrated cognitive behaviour therapy (MiCBT) is a trans-diagnostic clinical intervention applicable with groups or with individuals. This study investigates the effectiveness of MiCBT as a group intervention to decrease common psychological symptoms. It is hypothesized that MiCBT delivered in a private practice setting will lead to reduced depression, anxiety and stress compared to a waitlist treatment-as-usual control group at post-intervention and at 6-month follow up. Improvements in life satisfaction and flourishing are also expected to be greater in the MiCBT group along with improvements in the proposed mediators of clinical change including decentering, mindfulness, interoceptive awareness and non-attachment.

Methods: Inclusion criteria for the study are a Kessler Psychological Distress Scale (K10) score of 20 or above, medical practitioner referral, and fluency in English. Exclusion criteria are: current active psychotic symptoms, drug or alcohol dependency, organic mental disorder or being under 18 years of age. Target sample size is 120. The MiCBT intervention follows the published 8-week protocol (Cayoun, 2011) of eight two-hour structured weekly teaching sessions. Participants in the MiCBT group engage in twice daily 30-minute mindfulness meditation practices in the context of developing metacognitive and interoceptive awareness and equanimity. The program uses exposure methods to address issues of avoidance, including in interpersonal contexts, and integrates Loving Kindness meditation and the use of ethical behavior to help prevent relapse. The control group is asked to complete all measures at the same time points as the MiCBT group while continuing their usual treatment. Outcome measures, including the K10, the Depression, Anxiety, and Stress Scale, the Satisfaction with Life Scale and the Flourishing Scale, are administered at four time points: pre-randomisation, mid-intervention, post-intervention and at 6 months follow up.

Results: The study has been running since mid-2017 and is still ongoing. Although preliminary at this stage of the trial, the available outcome data from the first 12 months of the study will be presented.

Discussion and Conclusion: This presentation reviews preliminary findings and discusses the use of measures of interoceptive awareness and equanimity proposed to be key mechanisms in MiCBT and its trans-diagnostic applications.



Therapeutic rationale for teaching explicit ethics in Mindfulness-integrated Cognitive Behaviour Therapy

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Background and Objectives: Although adopting an ethical attitude has been a co-requisite for the efficacy of mindfulness training for 25 centuries, teaching ethics explicitly in modern Western mindfulness-based interventions (MBIs) remains contentious. Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) is a second-generation MBI that dedicates its fourth therapeutic stage to the development of empathy grounded in Loving-Kindness meditation (LKM) and ethical living, in order to cultivate compassion, prevent clinical relapse, and cultivate joy and well-being. The interdependence of ethics and mindfulness within Theravada Buddhism is presented, and the rationale for the development of ethics in MiCBT is discussed in relation to the co-emergence model of reinforcement.

Methods: In MiCBT, LKM is grounded in interoceptive awareness and equanimity and an integral component of compassion is the compulsion to extend oneself to relieve suffering; MiCBT clients thus integrate moral conduct into daily life motivated by compassion, not obligation. MiCBT introduces five ethical practices, with an emphasis on applicability in modern living; refraining from: using harmful speech, taking lives, taking what is not given, inappropriate sexual conduct and taking intoxicants. These practices support the integration of LKM into daily life.

Results: Loving-Kindness in MiCBT provides the cognitive terrain which cultivates compassion and supports dis-identification with self, as there is no separate self or identity to cherish. Negative beliefs are experienced with the intention of relieving associated suffering, resulting in re-processing unhelpful schemas. In addition to being a natural expression of compassion, the ethical practices serve to increase awareness of the relationship between patterns of attachment/aversion and their contribution to harm to self and others. When these patterns are replaced with non-harmful behaviours, clients' sense of self-worth increases and they feel more connected to others, thereby preventing the probability of relapse. Thus, Loving-Kindness and ethical practice become the foundations for relapse prevention.

Discussion and Conclusion: Cultivating compassion through loving-kindness and ethical behaviour facilitates self-regulation skills, in part by decreasing self-referential processing and reactivity. Equanimity, a key skill in MiCBT, allows compassionate action to be taken without expectation of results, allowing others to maintain responsibility for their actions and attitudes. The interdependence of compassion and ethics is reviewed, and implications for MBIs is discussed.