Integrating Buddhist Practices and Principles into Mental Health Settings:

A Mixed Method Investigation

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SECTION C: CONTRIBUTION TO PRACTICE

To Professor Mark Griffiths for his ongoing mentorship

To the simple monk, Venerable William Van Gordon

Declaration of Originality

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material which has been accepted for the award of any other degree or diploma of a university or other institute of higher learning.

Signed: (Edo Shonin) Date: 18th December 2015

Statement of Ethical Compliance

All of the studies conducted as part of this doctoral thesis were subject to an in-depth assessment of their ethical implications. Ethical approval for all studies was provided by the Nottingham Trent University College of Business, Law, and Social Sciences Research Ethics Committee. I declare that I have not deviated from the terms of the ethical approval issued by this Committee.

Signed: (Edo Shonin) Date: 18th December 2015

Author Contribution Statement

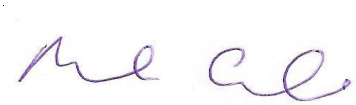
I confirm that I am responsible for the conception, design, and writing of all chapters included in this thesis. I conducted the literature reviews, designed the research, collected and analysed the data, and prepared the first-draft of each chapter.

Some of the empirical and theoretical findings from this thesis have been published in peer-reviewed journals. In such instances, I confirm that I was the primary and corresponding author, and was responsible for responding to reviewers and making any revisions to the paper. Professor Mark Griffiths was the Director of Studies for this research programme and his role as co-author on papers submitted for publication involved: (i) making suggestions on the presentation and refinement of the material included in the paper, (ii) providing suggestions for some additional content of the paper (which may or may not be included in the chapters that comprise this doctoral thesis), (iii) providing advice on responding to comments from the journal reviewers and editor, and (iv) providing advice on the selection of a suitable journal to target for publication. The role of any other individual included as a co-author on a published paper that was based on findings from this doctoral thesis was limited to providing editorial input and commenting on drafts. Two exceptions to this are Thomas Dunn who provided statistical support for the randomised controlled trial and William Van Gordon who conducted an independent audit of findings from the systematic reviews as well as on outcomes from specific empirical analytical components.

Signed: 

Edo Shonin

Date: 18th December 2015

Signed: 

Mark Griffiths (Director of Studies)

Date: 18th December 2015

List of Publications

As referred to in the *Author Contribution Statement*, this PhD thesis resulted in a number of peer-reviewed journal outputs. In the following list of publications, a '*' denotes published works that are largely based on the content (whether in full or in part) of specific chapters included in this PhD thesis. In the case of all published papers designated with a '*', I am the first author. The final published versions of these papers are unlikely to exactly replicate the contents of the chapter in this thesis upon which they were originally based. I acknowledge that the copyright of the final version of any published works arising from this doctoral thesis resides with the copyright holder(s) of those works.

All other papers shown below (i.e., those not marked with a '*') have been published since the start of this doctoral project, but are more loosely based on some of the theoretical and/or empirical findings of the thesis. Consequently, in the list of publications that follows, I may or may not be the first author of papers that are not designated with a '*'.

List of Publications

*Shonin, E., Van Gordon, W., Compare, A., Zangeneh, M., & Griffiths, M. D. (2015). Buddhist-derived loving-kindness and compassion meditation for the treatment of psychopathology: A systematic review. *Mindfulness, 6,* 1161-1180.

*Shonin, E., & Van Gordon, W. (2015). Managers' experiences of Meditation Awareness Training. *Mindfulness, 4,* 899-909.

*Shonin, E., Van Gordon, W., Dunn, T., Singh, N. N., & Griffiths, M. D. (2014). Meditation Awareness Training for work-related wellbeing and job performance: A randomised controlled trial. *International Journal of Mental Health and Addiction, 12,* 806-823.

*Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Mindfulness and the social media. *Journal of Mass Communication and Journalism, 2014, 4: 5,* DOI: 10.4172/2165-7912.1000194.

*Shonin, E., Van Gordon W., & Griffiths, M. D. (2014). Practical tips for using mindfulness in general practice. *British Journal of General Practice, 64, 368-369.*

*Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Cognitive Behavioural Therapy (CBT) and Meditation Awareness Training (MAT) for the treatment of co-occurring schizophrenia with pathological gambling: A case study. *International Journal of Mental Health and Addiction, 12,* 181-196.

*Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). The emerging role of Buddhism in clinical psychology: Toward effective integration. *Psychology of Religion and Spirituality, 6,* 123-137.

*Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Do mindfulness-based therapies have a role in the treatment of psychosis? *Australia and New Zealand Journal of Psychiatry, 48,* 124-127.

*Shonin, E**.,** Van Gordon, W., & Griffiths, M. D. (2014). The treatment of workaholism with Meditation Awareness Training: A Case Study. *Explore: The Journal of Science and Healing, 10*, 193-195.

*Shonin, E., Van Gordon, W., Slade, K., & Griffiths, M. D. (2013). Mindfulness and other Buddhist-derived interventions in correctional settings: A systematic review. *Aggression and Violent Behaviour, 18,* 365-372.

*Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Buddhist philosophy for the treatment of problem gambling. *Journal of Behavioural Addictions, 2,* 63-71.

*Shonin, E., & Van Gordon, W., & Griffiths, M. D. (2015). *Mindfulness and Wellbeing: Towards a Unified Operational Approach*. In: T. Lomas & I. Ivtzan (Eds). *Mindfulness in Positive Psychology: The Science of Meditation and Wellbeing*. Oxford: Routledge. [In Press]

*Shonin, E., Van Gordon, W., Singh, N. N., & Griffiths, M. D. (2015). *Mindfulness of Emptiness and the Emptiness of Mindfulness*. In: E. Shonin, W. Van Gordon, & N. N. Singh (Eds). *Buddhist Foundations of Mindfulness* (pp.159-178). New York: Springer.

Van Gordon, W., Shonin, E., & Griffiths, M. (2015). Are contemporary mindfulness-based interventions unethical? *British Journal of General Practice, In Press.*

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2015). The efficacy of mindfulness-based interventions: Where are we now? *British Medical Journal, In Press.*

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2015). Teaching ethics in mindfulness-based interventions. *Mindfulness,* DOI: 10.1007/s12671-015-0429-0.

Shonin, E., & Van Gordon, W. (2015). Mindfulness of ignorance. *Mindfulness.* DOI: 10.1007/s12671-015-0421-8.

Shonin, E., & Van Gordon, W. (2015). Thupten Jingpa on compassion and mindfulness. *Mindfulness*. DOI: 10.1007/s12671-015-0448-x.

Griffiths, M., Shonin, E., & Van Gordon, W. (2015). Mindfulness as a treatment for gambling disorder. *Journal of Gambling and Commercial Gaming Research, 1,* 1-6.

Shonin, E., & Van Gordon, W. (2015). Practical recommendations for teaching mindfulness effectively. *Mindfulness, 6,* 952-955.

Van Gordon, W., Shonin, E., & Griffiths, M. (2015). Towards a second-generation of mindfulness-based interventions. *Australia and New Zealand Journal of Psychiatry, 49,* 591-591.

Van Gordon, W., Shonin, E., & Griffiths, M.D. (2015). Mindfulness in mental health: A critical reflection. *Journal of Psychology, Neuropsychiatric Disorders and Brain Stimulation,* 1(1), 102.

Shonin, E., & Van Gordon, W. (2015). The lineage of mindfulness. *Mindfulness, 6,* 141-145.

Van Gordon, W., Shonin, E., Griffiths, M. D., & Singh, N. N. (2015). There is only one mindfulness: Why science and Buddhism need to work together. *Mindfulness, 6,* 49-56.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2015). Are there risks associated with using mindfulness for the treatment of psychopathology? *Clinical Practice, 11,* 389-382.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2015). The self and the non-self: Applications of Buddhist philosophy in psychotherapy. *RaIIS-IT, 11,* 10-11.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2015). Mindfulness in psychology: A breath of fresh air? *The Psychologist, 28, 28-31*.

Shonin, E., Van Gordon, W., & Singh, N. N. (Eds). (2015). *Buddhist Foundations of Mindfulness*. New York: Springer.

Shonin, E., & Van Gordon, W., & Griffiths, M. D. (Eds). (2015). *Mindfulness and Buddhist-derived Approaches in Mental Health and Addictions*. Gewerbestrasse (Switzerland): Springer. DOI: 10.1007/978-3-319-22255-4_1.

Shonin, E., & Van Gordon, W. (2015). *The Mindful Warrior*. London: One World. [In Press]

Shonin, E., Van Gordon, W., & Singh, N. N. (2015). *Mindfulness and Buddhist Practice*. In: E. Shonin, W. Van Gordon, & N. N. Singh (Eds). *Buddhist Foundations of Mindfulness* (pp.1-6). New York: Springer.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2015). *Mindfulness and Buddhist-Derived Treatment Techniques in Mental Health and Addiction.* In: E. Shonin, W. Van Gordon, & M. D. Griffiths (Eds). *Mindfulness and Buddhist-derived Approaches in Mental Health and Addiction*. Gewerbestrasse (Switzerland): Springer. DOI: 10.1007/978-3-319-22255-4_1.

Langer, A. I., Carmona-Torres, J. A., Van Gordon, W., & Shonin, E. (2015). Mindfulness for the Treatment of Psychosis: State of the Art and Future Developments. In: E. Shonin, W. Van Gordon, & M. D. Griffiths (Eds). *Mindfulness and Buddhist-derived Approaches in Mental Health and Addiction*. Gewerbestrasse (Switzerland): Springer. DOI: 10.1007/978-3-319-22255-4_1.

Van Gordon, W., Shonin, E., Griffiths, M. D., & Singh, N. N. (2015). *Mindfulness and the Four Noble Truths.* In: E. Shonin, W. Van Gordon, & N. N. Singh (Eds). *Buddhist Foundations of Mindfulness* (pp. 9-27). New York: Springer.

Compare, A., Zarbo, C., Shonin, E., Van Gordon, W., & Marconi, C. (2014). Emotional regulation and depression: A potential mediator between heart and mind. *Cardiovascular Psychiatry and Neurology, 2014, Article ID 324374,* DOI 10.1155/2014/324374.

Shonin, E. & Van Gordon, W. (2014). Using mindfulness and insight to transform loneliness. *Mindfulness, 5*, 771-773.

Shonin, E. & Van Gordon, W. (2014). Mindfulness of death. *Mindfulness, 5*, 464-466.

Shonin, E**.,** Van Gordon, W., & Griffiths, M. D. (2014). Current trends in mindfulness and mental health. *International Journal of Mental Health and Addiction, 12*, 113-115.

Compare, A., Zarbo, C., Marín, E., Meloni A., Rubio-Arias J., Berengüí, R., Grossi E., Shonin, E., Martini, G., & Alcaraz, P. (2014). PAHA study (Psychological active and healthy ageing): Psychological wellbeing, proactive attitude and happiness effects of whole-body vibration versus multi-component training in aged women: study protocol for a randomised controlled trial. *Trials, 15:177,* doi: 10.1186/1745-6215-15-177.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Understanding and practicing mindfulness. *RaISS-IT, 10,* 14-16.

Van Gordon, W., Shonin, E., Zangeneh, M., & Griffiths, M. D. (2014). Work-related mental health and job performance: Can mindfulness help? *International Journal of Mental Health and Addiction, 12,* 129-137.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Mindfulness as a treatment for behavioural addiction. *Journal of Addiction Research and Therapy*, *5*, e122. DOI: 10.4172/2155-6105.1000e122.

Van Gordon, W., Shonin, E., Skelton, K., & Griffiths, M. D. (2014). Working mindfully: Can mindfulness improve work-related wellbeing and work effectiveness? *Counselling at Work (A Journal of the British Association for Counselling and Psychotherapy), Winter Issue, 14-19.*

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Just what the doctor ordered! Mindfulness meditation as medication. *Awakenings Middle East, September/November,* 10-13.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Changing paradigms: Buddhist insight in Western psychological treatments. *PsyPAG Quarterly, 92,* 35-39.

Shonin, E., & Van Gordon, W. (2014). Dream or reality? *Philosophy Now, 104,* 54.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Practical tips for teaching mindfulness to school-aged children. *Education and Health, 32,* 30-33.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Loving-kindness and compassion meditation in psychotherapy. *Thresholds: Quarterly Journal of the Association for Pastoral and Spiritual Care and Counselling (A Journal of the British Association for Counselling and Psychotherapy), Spring Issue*, 9-12.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Mindfulness meditation in American correctional facilities: A 'what-works' approach to reducing reoffending. *Corrections Today: Journal of the American Correctional Association, March/April*, 48-51.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). The top ten mistakes made by Buddhist meditation practitioners. *The Buddhist Voice, 1(5),* 22-24.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Meditation as medication: Are attitudes changing? *British Journal of General Practice, 63,* 654.

Shonin, E., & Van Gordon, W. (2013). The consuming mind. *Mindfulness, 5*, 345-347.

Compare, A., Calugi, S., Giulio, M., Shonin, E., Grossi, E., Molinari, E., & Dalle Grave, R. (2013). Emotionally Focussed Group Therapy and Dietary Counselling in binge eating disorder: Effect on eating disorder psychopathology and quality of life. *Appetite, 71,* 361-368.

Compare, A., Grossi, E., Bigi, R., Proietti, R., Shonin, E., Orrego, P., & Poole, L. (2013). Stress-induced cardiomyopathy and psychological wellbeing 1 year after an acute event. *Journal of Clinical Psychology in Medical Settings*, DOI: 10.1007/s10880-013-9380-1.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Mindfulness-based interventions: Towards mindful clinical integration. *Frontiers in Psychology, 4,* 194. DOI:10.3389/fpsyg.2013.00194.

Shonin, E., Van Gordon, W., & Griffiths M. D. (2013). Meditation Awareness Training (MAT) for improved psychological wellbeing: A qualitative examination of participant experiences. *Journal of Religion and Health, 53*, 849-863.

Van Gordon, W., Shonin, E., Sumich, A., Sundin, E., & Griffiths, M. D. (2013). Meditation

Awareness Training (MAT) for psychological wellbeing in a sub-clinical sample of university students: A controlled pilot study. *Mindfulness, 5*, 381-391.

Shonin, E., & Van Gordon, W. (2013). Searching for the present moment, *Mindfulness, 5*, 105-107.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Meditation for the treatment of addictive behaviours: Sending out an SOS. *Addiction Today, March,* 18-19.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Mindfulness-based therapy: A tool for Spiritual Growth? *Thresholds: Quarterly Journal of the Association for Pastoral and Spiritual Care and Counselling (Journal of the British Association for Counselling and Psychotherapy), Summer Issue*, 14-18.

Shonin, E., Van Gordon, W. & Griffiths, M. D. (2013). Mindfulness-based interventions for the treatment of problem gambling. *Journal of the National Council on Problem Gambling, 16*, 17-18.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2012). The health benefits of mindfulness-based interventions for children and adolescents. *Education and Health, 30*, 94-97.

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General Abstract

During recent decades there has been growing public and scientific interest into the applications of Buddhist practices and principles for improving psychological wellbeing, and for enhancing psychosocial functioning more generally. Although there is a growing and credible evidence base that supports the utility of Buddhist techniques for treating specific mental health issues, these techniques were originally taught by the Buddha in the context of a spiritual path, and with the complete liberation from suffering as the ultimate goal. Consequently, an increasing number of researchers, scholars, and Buddhist teachers have raised concerns that the manner in which Buddhist meditation techniques are being taught and practised in Western mental health settings bears little or no resemblance to the traditional Buddhist approach. Furthermore, concerns have also been raised over the extent to which the average researcher and teacher of secular Buddhist-derived interventions (BDIs) has an accurate and grounded understanding of the basic principles of Buddhist meditation. The purpose of this doctoral thesis is to make an original contribution to knowledge by: (i) providing robust theoretical foundations to support the effective interpretation, classification, and operationalisation of Buddhist terms, principles, and practices within mental health settings, and (ii) empirically investigating the benefits to mental health of authentic Buddhist practices and principles within currently unexplored population settings. Findings from this thesis demonstrate that BDIs—when correctly taught and administered—may be effective treatments for a range of mental health issues including schizophrenia, pathological gambling, work addiction, and work-related stress. However, perhaps of greater significance, findings demonstrate that if Western research and mental health disciplines truly wish to assimilate and make use of Buddhist practices as part of alleviating human suffering and advancing understanding of the mind, then it is vital that empirical investigations look beyond the superficial attributes of these spiritual practices and seek to

identify the cooperating and underlying psycho-spiritual properties that are traditionally assumed to authenticate them.

Chapter 1. General Introduction

According to historical sources, the Buddha lived in India and is understood to have been born approximately 2,600 years ago (Gombrich, 2009). He recognised that the human mind has a propensity to be eternally distracted, and that suffering was a condition of human existence (Shonin, Van Gordon, & Singh, 2015a). Consequently, the Buddha expounded a path to transmute suffering and help people realise their inherent enlightened nature. Rather than promoting 'Buddhism' *per se*, and consistent with the approach adopted by other Buddhist and non-Buddhist spiritual adepts, the Buddha was primarily concerned with encouraging individuals to take up a practice of authentic spiritual development (Shonin & Van Gordon, 2015a).

In recent decades, there has been growing scientific and public interest into the health benefits of Buddhist practices and principles as well as their applications in various applied settings (Singh, Lancioni, Wahler, Winton, & Singh, 2008a). For example, initiatives are underway and/or research has been conducted that supports the use of Buddhist spiritual and contemplative practices as techniques for (but not limited to): (i) the treatment of psychological and somatic illness, (ii) reducing reoffending and regulating anger in forensic populations, (iii) improving work-related wellbeing, job satisfaction, and job performance in occupational settings, (iv) improving academic performance, knowledge acquisition, cognitive functioning, and quality of the learning environment in schools and other education establishments, and (v) helping athletes and sports professionals enhance situational awareness, task focus, and competitive performance more generally (Shonin et al., 2015a; Shonin, Van Gordon, & Griffiths, 2015b).

Understandably and in many cases, Buddhist techniques have been introduced to the non-Buddhist Westerner in a manner that filters out many of the contextual factors that connect them with their Buddhist origins (Shonin et al., 2015a). To a large extent, this has been a

successful strategy and has meant that individuals that might otherwise be deterred from practising Buddhist techniques have been willing to explore their potential merits.

However, it is for this exact same reason—the apparent watering-down of Buddhist meditative practices—that there have been growing concerns amongst academicians, clinicians, and Buddhist teachers that secular Buddhist-derived approaches have become estranged from the traditional Buddhist model to such an extent that they can no longer be accurately described as 'authentic' (Monteiro, Musten, & Compson, 2015). Furthermore, due to the rapidity at which Buddhist techniques have been introduced into Western clinical and applied settings, a degree of confusion regarding the use of Buddhist terminology has become manifest in the psychological literature (Rosch, 2007).

Given these issues, there is need for academicians and mental health professionals to be appraised of the original, concise, and accurate meanings of relevant Buddhist concepts and practices. Furthermore, as Buddhist principles become increasingly embedded into clinical treatment models, the issues generated by such integration need to be meticulously examined. There is also a need for greater research into the potential applications of authentic Buddhist practices and principles within currently unexplored population settings (Ekman, Davidson, Ricard, & Wallace, 2005; Kelly, 2008). Indeed, research examining the effects of Buddhist-derived interventions (BDIs) on mental health has been disproportionately weighted towards anxiety and mood-spectrum disorders within outpatient settings (e.g., see meta-analysis by Hofmann et al., 2010). Population groups that have been specifically highlighted as requiring additional empirical enquiry (and/or a synthesis and consolidation of extant findings) in this respect include individuals with: (i) psychotic disorders (Chadwick, Hughes, Russell, Russell, & Dagnan, 2009), (ii) work-related mental health issues (Dane, 2011), (iii) forensic-related mental health issues (Howells, Tennant, Day, & Elmer, 2010), and (iv) behavioural addictions (Shonin, Van Gordon, & Griffiths, 2014a).

Summary of Aims and Methods

This doctoral thesis makes an original contribution to knowledge by advancing psychological understanding regarding the effective utilisation of Buddhist practices and principles in mental health settings. There are two specific sub-aims in this respect: (i) to provide the theoretical foundations and propose a system for the effective interpretation, classification, and operationalisation of Buddhist terms, principles, and practices within mental health settings, and (ii) to empirically investigate the potential benefits to mental health of authentic Buddhist practices and principles within currently unexplored population settings (or to systematically review and/or critically appraise findings for population groups where BDI research has already commenced but is still at an early stage).

The second of the abovementioned aims was achieved by investigating the effectiveness, acceptability, and versatility of a BDI known as Meditation Awareness Training (MAT) (Shonin, Van Gordon, & Griffiths, 2013a; Van Gordon, Shonin, Sumich, Sundin, & Griffiths, 2014a). Although secular in nature, MAT belongs to a second-generation of BDI that are considered to be closely aligned with traditional Buddhist spiritual values and meditative principles (Van Gordon, Shonin, & Griffiths, 2015a). This thesis expanded upon and developed the researcher's earlier empirical investigations into the effectiveness of MAT for treating anxiety and depression (Shonin et al., 2013a; Van Gordon et al., 2014a).

In order to respond to the abovementioned calls for research into the applications of BDIs in unexplored (and underexplored) population groups, and in order to ensure a thorough assessment of the flexibility and versatility of the MAT intervention, separate empirical investigations were undertaken involving individuals with: (i) psychotic disorders, (ii) work-related mental health issues, and (iii) behavioural addictions. The researcher identified that some preliminary empirical enquiry had already been undertaken with regards to the utility of BDIs in forensic mental health settings. Consequently, the assessment of the application of

BDIs in forensic mental health was undertaken by conducting a rigorous evaluative systematic review (following the *Preferred Reporting Items for Systematic Reviews and Meta-Analysis* [PRISMA] guidelines; Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009) of extant findings.

In order to allow for a rounded evaluation of the potential benefits and versatility of MAT, a mixed-methods design was employed. A qualitative investigation using *interpretative phenomenological analysis* (Smith, Flowers, & Larkin, 2009) was employed in order to examine participant experiences of receiving MAT. The qualitative component was embedded within a randomised controlled trial (RCT) structured according to CONSORT (*Consolidated Standards of Reporting Trials*) 2010 guidelines (Schulz, Altman, & Moher, 2010). Clinical case studies were also conducted to allow for a detailed evaluation of the treatment process at the assessment, case formulation, and intervention phases of clinician-patient (or client-therapist) engagement.

Chapter Summary

The various chapters of this thesis are grouped into three distinct sections that can be broadly categorised as: (i) contributions to theory (Section A), (ii) contributions to research (Section B), and (iii) contributions to practice (Section C). However, the above category headings (i.e., theory, research, and practice) are not intended to reflect absolute descriptions but are merely intended to represent the overriding focus of the section in question. Consequently, some context-specific theoretical work is also included in the research section (i.e., Section B) in order to provide the necessary conceptual background for the corresponding empirical investigations that seek to assess or develop the theory accordingly. These context-specific theoretical components are distinct from the comprehensive theoretical foundations provided in Section A that tend to be more generic, and address the wider issues relating to the integration

of Buddhist practices and principles into mental health settings.

Section A

Section A focuses on constructing strong theoretical foundations for the effective clinical operationalisation of Buddhist practices and principles. The first chapter in Section A (i.e., Chapter 2) provides accurate definitions and/or explications of Buddhist terms and practices that have become embedded into the mental health and psychological literature. Chapter 2 also reviews the various different types of BDIs utilised in mental health settings and examines the issues likely to impede their effective integration. The next chapter in Section A focuses in detail on a specific group of BDI that were briefly introduced in Chapter 2. Specifically, Chapter 3 follows the PRISMA guidelines and undertakes an evaluative systematic review of the effects of Buddhist-derived loving-kindness and compassion meditation on psychopathology. The third (and final) chapter in Section A exclusively concentrates on mindfulness which is arguably the most empirically researched of all Buddhist techniques. Chapter 4 undertakes an in-depth examination of how traditional Buddhist depictions of mindfulness differ from contemporary psychological interpretations. Chapter 4 then proposes a model and definition of mindfulness that, whilst still applicable to secular mindfulness interventional approaches, is more congruent with the traditional Buddhist understanding.

Section B

Section B is divided into four parts and comprises the empirical component of the thesis as well as some context-specific theoretical work as referred to above. Part 1 of Section B consists of two chapters (i.e., Chapters 5 and 6) that examine the applications of BDIs for the treatment of psychotic disorders. Chapter 5 undertakes a literature review and then assesses whether mindfulness and meditation have a role in the treatment of psychosis. This is followed in

Chapter 6 by a clinical case study of a participant who received MAT (after a prior phase of cognitive behavioural therapy) and was successfully treated for co-occurring schizophrenia (with psychotic symptoms) and pathological gambling.

Part 2 of Section B comprises Chapters 7 and 8 that focus on the utility of BDIs for improving work-related mental health. More specifically, Chapter 7 is an RCT that assesses the effects of MAT on work-related wellbeing (and job performance) in middle-hierarchy office managers. Chapter 8 is a qualitative study that was embedded within the abovementioned RCT. The qualitative study utilised interpretative phenomenological analysis to analyse participants' experiences of MAT.

Part 3 of Section B consists of one chapter (Chapter 9) that focuses on the applications of BDIs in forensic mental health. This chapter comprises an evaluative systematic review of the evidence for BDIs in correctional settings. The systematic review focussed on controlled intervention studies of BDIs and utilised *Jadad scoring* (Jadad, Moore, & Carroll, 1996) to evaluate the methodological quality of included studies. As with the other systematic review included in this thesis (i.e., Chapter 3), the study was conducted according to PRISMA guidelines.

Part 4 of Section B includes Chapters 10 to 12 that examine the role of BDIs in the treatment of behavioural addictions. Chapter 10 reviews current directions, proposes conceptual applications, and discusses integration issues relating to the utilisation of BDIs as problem gambling treatments. Chapter 11 explores the conceptual applications of mindfulness for preventing addiction to social media and for promoting healthy social media engagement. Section B concludes with Chapter 12 that presents a clinical case study of a director of a blue-chip company who was successfully treated for workaholism using MAT.

Section C

Following the contributions to theory and research in Sections A and B, Section C comprises two chapters and focusses on providing guidelines for health and mental health professionals wishing to utilise Buddhist practices and principles as part of their client-therapist practice. Section C begins with Chapter 13 and provides practical recommendations for using mindfulness in general practice. This is followed in Chapter 14 by an elucidation of the practice of *mindfulness of emptiness* including a discussion of: (i) its theoretical provenance, (ii) how to practice *mindfulness of emptiness*, and (iii) its role in the wider context of the path of using Buddhist meditation to foster lasting psycho-spiritual wellbeing.

Conclusion

This doctoral thesis makes an original contribution to knowledge by advancing psychological understanding regarding the effective utilisation of Buddhist practices and principles in mental health settings. More specifically, the theoretical foundations introduced in the thesis are intended to help facilitate the effective interpretation, classification, and operationalisation of Buddhist terms, principles, and practices within mental health settings. Likewise, the various empirical investigations are intended to advance scientific understanding regarding the benefits to mental health of authentic Buddhist practices and principles within previously unexplored clinical and non-clinical population groups.

SECTION A

CONTRIBUTION TO THEORY:

THEORETICAL FOUNDATIONS FOR THE EFFECTIVE INTEGRATION OF BUDDHIST PRACTICES INTO MENTAL HEALTH SETTINGS

Chapter 2

The Emerging Role of Buddhism in Clinical Psychology: Toward Effective Integration

This chapter (whether in full or in part) was adapted for publication and was subsequently published as:

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). The emerging role of Buddhism in clinical psychology: Toward effective integration. *Psychology of Religion and Spirituality, 6,* 123-137.

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Abstract

Research into the clinical utility of Buddhist-derived interventions (BDIs) has increased greatly over the last decade. While clinical interest has predominantly focussed on mindfulness meditation, there has also been an increase in the scientific investigation of interventions that integrate other Buddhist principles such as compassion, loving-kindness, and 'non-self'. However, due to the rapidity at which Buddhism has been assimilated into the mental health setting, issues relating to the misapplication of Buddhist terms and practices have sometimes arisen. Indeed, hitherto, there has been no unified system for the effective clinical operationalisation of Buddhist principles. Therefore, this chapter aims to establish robust foundations for the ongoing clinical implementation of Buddhist principles by providing: (i) succinct and accurate interpretations of Buddhist terms and principles that have become embedded into the clinical practice literature, (ii) an overview of current directions in the clinical operationalisation of BDIs, and (iii) an assessment of BDI clinical integration issues. It is concluded that BDIs may be effective treatments for a variety of psychopathologies including mood-spectrum disorders, substance-use disorders, and schizophrenia. However, further research and clinical evaluation is required to strengthen the evidence-base for existent interventions and for establishing new treatment applications. More importantly, there is a need for greater dialogue between Buddhist teachers and mental health clinicians and researchers in order to safeguard the ethical values, efficacy, and credibility of BDIs.

Introduction

"Wonderful, indeed, it is to tame the mind, so difficult to tame, ever swift, and seizing whatever it desires. A tamed mind brings happiness"

— Buddha (as cited in Buddharakkhita, 1966)

According to the Mental Health Foundation (MHF; 2010), one in four British adults practise meditation and 50% would be interested in learning to meditate as a means of coping with stress and improving their health. Furthermore, approximately 75% of general practitioners in the United Kingdom believe that meditation is beneficial for people with mental health problems (MHF, 2010). Comparatively lower figures are reported for America where over 20 million people (~ 6.5% of the population) practise meditation (Elias, 2009). The Buddhist-derived practice of mindfulness, in the form of Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teesdale, 2002), is now advocated by both the National Institute for Health and Care Excellence (NICE; 2009a) and the American Psychiatry Association (APA; 2010) for the treatment of specific forms of depression. Indeed in 2014, almost 600 scientific papers concerning mindfulness were published which compares with just 50 papers concerning mindfulness published twelve years prior to this in 2002. Likewise and in the last five years, other Buddhist principles such as compassion, loving-kindness, and 'non-self' have been integrated into a battery of purposefully developed psychopathology interventions (e.g., Gilbert, 2009; Johnson et al., 2011, Pace et al., 2013; Shonin et al., 2013a).

Interest into the clinical utility of Buddhist-derived interventions (BDIs) is growing. Potential treatment applications for BDIs span almost the entire spectrum of psychological disorders including (for example) mood disorders (Hofmann et al., 2010), anxiety disorders (Vøllestad, Nielson, & Nielson, 2011), substance use disorders (Witkiewitz, Bowen, Douglas, & Hsu, 2013), personality disorders (Soler et al., 2012), and schizophrenia-spectrum disorders

(Johnson et al., 2011). BDIs also effectuate improvements in psychological wellbeing, cognitive function, and emotion regulation capacity in sub-clinical and healthy-adult populations (e.g., Chiesa, Calati, & Serretti, 2011; Desbordes et al., 2012; Eberth, & Sedlmeier, 2012; Van Gordon et al., 2014a).

The assimilation of Buddhist practices by allied health disciplines is likely to have been influenced by factors such as: (i) increased rates of transnational migration resulting in greater cultural and ethnic diversity amongst service-users (Kelly, 2008), (ii) the need to develop culturally syntonic treatments for Asian Americans and Asian Europeans (Hall, Hong, Zane, & Meyer, 2011), (iii) Buddhism's orientation as more of a philosophical and practice-based system relative to some religions where a greater emphasis is placed on worship and dogma (Shonin, Van Gordon & Griffiths, 2013b), (iv) similarities between Buddhism and established therapeutic modes such as Cognitive Behavioural Therapy (CBT) in terms of their construal of the relationship between thoughts, feelings, and behaviour (Segall, 2003), (v) the need for novel interventions that can augment the effectiveness of psychopathology treatments—where relapse rates in therapeutic modalities such as CBT can be as high as 60-75% (e.g., Hodgins, Currie, el-Guebaly, & Diskin, 2007; Emslie, Mayes, Laptook, & Batt, 2003), (vi) the growth in research examining the effects of Buddhist meditation on brain neurophysiology (e.g., Cahn, Delorme, & Polich, 2010), (vii) the wider scientific dialogue concerned with the evidence-based applications of specific forms of spiritual practice for improved psychological health (Lindberg, 2005), (viii) the international recognition and acclaim of prominent Buddhist leaders such as Nobel Peace Prize laureate H.H. XIV Dalai Lama and Nobel Peace Prize nominee Thich Nhat Hanh, (ix) increases in the number of seminal Buddhist works translated into the English language (and improvements in the translation quality thereof), and (x) the recent (i.e., during the last 30-40 years) founding in the West of practice centres representative of the majority of the world's Buddhist traditions.

The manner in which Buddhism (when considered as a single entity) has been made available to the interested Westerner has been relatively unstructured. In conjunction with the rapidity at which Buddhist principles have been integrated into clinical interventions, it is therefore unsurprising that a degree of confusion has arisen within the clinical and psychological literature regarding the accurate meanings of Buddhist terms (Rosch, 2007). Dorjee (2010) provided an example of such confusion based on the term 'insight' which has been used within the psychological literature (e.g., Brown, Ryan, & Creswell, 2007) to refer to an increase in perceptual distance (e.g., from thoughts and feelings) that often follows mindfulness practice. However, within Buddhism, the term 'insight' is generally used in the context of transcendent intuitive leaps of realisation into the very nature of reality itself. A further example relates to the practice of 'vipassana meditation' that is generally described in the healthcare literature as being synonymous with mindfulness meditation. Although there are some similarities between these two forms of meditation, according to traditional Buddhist perspectives (and as will be explicated below), they represent two distinct meditative modes (Van Gordon et al., 2014a). In fact, even the term 'mindfulness' takes on a different meaning in the Buddhist literature *vis-à-vis* its conceptualisation by Western psychologists (Kang & Whittingham, 2010).

For techniques such as mindfulness, there have been various attempts to reconcile some of these terminological issues. Nevertheless, to date, there remains a lack of consensus amongst psychologists as to what defines the mindfulness construct (Chiesa, 2013). Furthermore, since scientific debate regarding the salutary health effects of Buddhist practice has predominantly focussed on mindfulness meditation, terminological and operational issues relating to other clinically employed Buddhist principles have been over-looked. Moreover, proposed schemas for interpreting or operationalising Buddhist concepts invariably fail to consider the cooperating or mechanistic role of other Buddhist principles (Van Gordon et al., 2014a). Indeed, hitherto, there is currently no unified and structured system for the effective interpretation, classification,

and operationalisation of Buddhist terms, principles, and practices within clinical settings.

Consequently, the purpose of this chapter is to propose such a system and establish robust foundations for the on-going clinical implementation of Buddhist principles and practices. More specifically, this chapter aims to provide: (i) succinct clinician-relevant interpretations of key Buddhist terms and principles that are truer and more closely aligned with their intended meaning (limited to those Buddhist terms that have become embedded or utilised within the clinical literature), (ii) an outline and discussion of current directions concerning the full-spectrum of Buddhist principles currently employed in clinical interventions (however, this chapter is not intended as a systematic literature review—recent systematic reviews are highlighted where appropriate throughout the chapter), and (iii) an assessment of issues that arise from the continued operationalisation and roll-out of BDIs within clinical and psychological settings.

Contextual Background

Buddhism originated approximately 2,600 years ago and is based on the teachings of Siddartha Gautama (later becoming known as Shakyamuni Buddha) who taught throughout India. Although Buddhism takes on many different forms, one method of classification is to assign each particular tradition of Buddhism to one of three overriding vehicles (Sanskrit and Pāli: *yanas*): (i) Theravada Buddhism[1] (sometimes subsumed under the title of Shravakayana—'the hearer vehicle'), (ii) Mahayana Buddhism ('the great vehicle'), and (iii) Vajrayana Buddhism

1 Although a number of prominent Buddhist scholars and teachers (e.g., the Dalai Lama) support the use of the term 'Shravakayana for referring to the first Buddhist 'yana', others view this as inadequate because Shravakayana appears to be terminology primarily employed by Mahayana/Vajrayana approaches. Likewise, Shravakyana does not by default encompass the mode of practice of the 'pratyekabuddha'—a practice mode generally attributed to the first Buddhist 'yana'. An alternative to 'Shravakayana' is the term 'Hinayana'. However, 'Hinayana' is pejorative vernacular as it means 'lesser vehicle'. Simply referring to the first vehicle as 'Theravada' is equally problematic because the term Theravada refers to only one of the original 18 Buddhist schools commonly associated with the first transmission cycle of the Buddhist teachings. Thus, there is (a longstanding) debate within Buddhism regarding the most apt term for referring to the first Buddhist vehicle.

('the diamond vehicle'). Theravada Buddhism is the longest-enduring school of Buddhism[2] and is prevalent throughout South East Asian countries such as Thailand, Sri Lanka, and Burma. Mahayana Buddhism is believed to have originated around the turn of the first century AD and is prevalent throughout East Asia (e.g., Japan, Taiwan, Korea, and Vietnam). Vajrayana Buddhism is generally considered to have originated in the seventh century and is associated with Himalayan plateau countries such as Tibet, Bhutan, Nepal, and Mongolia (and to a lesser extent Japan). All three vehicles are now practiced in the West.

The defining characteristics of each Buddhist vehicle might be concisely summarised as follows: (i) greater adherence in Theravada Buddhism to the 'original word' of the historical Buddha, (ii) greater emphasis in Mahayana Buddhism on compassionate activity and the 'non-dual' or 'empty' nature of phenomena, and (iii) greater significance in Vajrayana Buddhism placed on 'sacred outlook', the bond with the spiritual guide or '*guru*', and on more esoteric practices intended to effectuate a realisation of the 'nature of Mind'. Notwithstanding these variances, the underlying Buddhist rudiments of wisdom, meditation, and ethical awareness reflect the root principles of each Buddhist vehicle. The three principles of wisdom, meditation, and ethical awareness are collectively known as 'the three trainings' (Sanskrit: *trishiksha; Pāli: tisso-sikkha*) and encompass the entire spectrum of Buddhist practices. Therefore, section headings of (i) 'Wisdom', (ii) 'Meditation', and (iii) 'Ethical Awareness' are used to conceptually stratify the current chapter (and each of these three sections is further divided into subsections of (i) Meanings, (ii) Current Directions, and (iii) Clinical Integration Issues. The classification of Buddhist principles and derivative interventions according to categories of Wisdom, Meditation, and Ethical Awareness is also proposed as a system suitable for adoption by Western psychology as part of a unified operational approach.

2 While Theravada is the longest-surviving Buddhist tradition and is the modern day descendant of the historical Sthaviravada Buddhist school, it should be distinguished from pre-sectarian Buddhism that survived for approximately 100 to 150 years after the death of the Buddha.

Method of Interpretation and Didacticism

In my usage and descriptions of Buddhist terms, I have endeavoured to impart some measure of their experiential meaning while adhering to widely accepted Buddhist interpretations and didactic modes (the present author has been a Buddhist monk for approximately 30 years). Although the views of teachers from a wide range of living Buddhist traditions are reflected, I have frequently favoured interpretations as promulgated by the current Dalai Lama. My reasons for so doing are because the Dalai Lama, although an obvious representative of the Tibetan Buddhist approach (and in particular the Gelug tradition of Tibetan Buddhism), is regarded by many living Buddhist traditions (some contemporary Chinese Buddhist traditions being notable exceptions) as somebody who embodies an authentic 'worldview' of the Buddhist teachings. This fits well with my own view that while it is advisable for clinicians and researchers to be aware that there exist multifarious interpretations of Buddhist terms, it is probably more pragmatic and helpful if they (and perhaps Buddhist adherents more generally) adopt a unifying rather than divisive approach to the Buddhist teachings. Furthermore, the Dalai Lama (as with many Mahayana/Vajrayana Buddhist teachers) accepts the full authenticity of, and uses as a basis, the teachings of the earlier cycle of Buddhist transmission (e.g., the Theravada tradition). Interpretations by the Dalai Lama are also favoured because he is frequently cited in the clinical and psychological literature and his teachings are readily accessible to a Western readership.

Consistent with the stated aims of this chapter, explanations of Buddhist terms are restricted to only those that have become embedded or utilised within the clinical and psychological literature. The present chapter is not intended to be an answer for all unresolved Buddhist debates regarding terminological propriety, nor a compendium providing absolute definitions of Buddhist terms (such a text has never been written in the entire 2,600 history of Buddhism). Indeed, each tradition of Buddhism (and arguably each teacher within a given tradition) has its own experiential understanding of a given aspect of Buddhist practice. In fact,

each individual term introduced in this chapter could easily become the subject of several chapters in their own right. Thus, although not without its limitations, the method employed for elucidating Buddhist terms and principles is deemed to be apt given the scope of the chapter as well as its intended readership (i.e., researchers, academicians, and clinicians interested in the psychological and clinical applications of Buddhist practice).

Wisdom: Redefining Self and Reality

Meanings

Buddhist wisdom-related terms or concepts frequently referred to in the mental health literature include 'wisdom', 'deluded', 'non-self', 'attachment', 'impermanence', 'interconnectedness', 'emptiness', and 'original nature'.

Wisdom: In order to appreciate some of the nuances of the Buddhist construal of wisdom (and of other aspects of Buddhist thought), Shonin et al (2013b) recently proposed 'ontological addiction' as a new category of addiction (i.e., in addition to substance addiction and behavioural addiction). Ontological addiction is defined as *"the unwillingness to relinquish an erroneous and deep-rooted belief in an inherently existing 'self' or 'I' as well as the 'impaired functionality' that arises from such a belief"* (Shonin et al., 2013b, p.64). The ontological addiction formulation is a means of operationalising within Western clinical domains the Buddhist view that suffering, including the entire spectrum of distressing emotions and psychopathologic states, results from adhering to a false view of self and reality. Therefore, within Buddhism, 'wisdom' refers to the gradual[3] development of insight that allows and facilitates an individual to undergo recovery from ontological addiction by reconstructing their

3 Although many Buddhist teachers advocate a gradual approach to the development of wisdom, other teachers (e.g., in certain Zen traditions) subscribe to an 'instant' view of enlightenment. However, Trungpa (2006) contends that even where wisdom (or enlightenment) manifests 'instantly', such a breakthrough of realisation simply reflects the coming to fruition of practice-born insights that had hitherto remained latent.

view of self and reality. Thus, the Buddhist notion of wisdom differs from the Western psychological depiction where wisdom is generally measured against parameters of knowledge, adaptive psychological functioning, and socio-environmental mastery (Baltes & Staudinger, 2000).

Deluded: The term deluded (or delusional) is frequently used within Buddhism, yet it takes on a much broader meaning when compared to its use in clinical psychology. The concept of mindlessness provides a notable example for understanding this difference and for illuminating a key Buddhist premise. Mindlessness (as opposed to mindfulness) refers to a lack of present moment awareness whereby the mind is preoccupied with future (and therefore fantasised) conjectures or past (and therefore bygone) occurrences. In this regard, interesting similarities can be drawn between mindlessness and certain forms of hallucination. Insofar as hallucination refers to 'the perceiving of that which is not', the present author would argue that mindlessness might be designated as a form of 'inverted hallucination', due to it being the 'non-perceiving of that which is'. With the exception of individuals who have progressed along the 'spiritual stream', Buddhism assigns mindlessness as the default disposition of the vast majority of population. Thus, most individuals considered mentally healthy and psychosocially adaptive by Western conventions (e.g., as defined by the World Health Organisation) would still be considered to be immersed in delusion according to Buddhist philosophy (Suzuki, 1983).

Non-self: There are numerous formulations of 'the self' in Western psychology and many of these are constructed on the basis of their being a definite 'I' entity (see Sedikides & Spencer, 2007). In such formulations, the self is often represented as being separate from the world around it such that the possibility of 'self in other' and 'other in self' is often overlooked (Sampson, 1998). Furthermore, even in the psychological study of human personality, social

relationships, and cognitive and behavioural processes where a self is not explicitly posited, there is an implicit acceptance of an inherently existing 'I' (Chan, 2008). Within Buddhism, the term 'non-self' refers to the realisation that the 'self' or the 'I' is absent of intrinsic existence (Dalai Lama, 2005). As explained in the *Shalistamba sutra* (Reat, 1993), Buddhism asserts that the individual comprises five aggregates (i) form, (ii) feelings, (iii) perceptions, (iv) mental formations, and (v) consciousness; Sanskrit: *skandhas;* Pāli: *khandhas*) and that an inherently existing self may not be found within the aggregates whether in singular or in sum. For example, the form aggregate (e.g., the human body; Sanskrit and Pāli: *rupa*), consists of (amongst other things) skin, bones, teeth, hair, organs, and tissue. Buddhist teachings assert that the body manifests only in dependence upon its constituent parts and that the 'selfness' of body may not be found.

Non-attachment: In many respects, the concept of non-self is intrinsically interwoven with the concept of non-attachment. The Dalai Lama (2001) asserts that attachment is an undesirable quality that leads to the reification of the ego-self. Afflictive mental states arise due to the imputed 'self' incessantly craving after objects it deems to be attractive or harbouring aversion towards objects deemed to be unattractive (Chah, 2011). Thus, the present author would argue that the Buddhist notion of attachment could be defined as '*the over-allocation of cognitive and emotional resources towards a particular object, construct, or idea to the extent that the object is assigned an attractive quality that is unrealistic and that exceeds its intrinsic worth*'. The Buddhist non-attachment construct is not discordant with the Western psychological construal of attachment that, in the context of certain relationships, is generally considered to exert a protective influence over psychopathology (Sahdra, Shaver, & Brown, 2010). The reason for this is because Buddhism does not assert that the relationship stakeholders of psychosocially and developmentally adaptive relationships (e.g., between caregiver and child)

assign an attractive quality to those relationships '*that is unrealistic and that exceeds their intrinsic worth*'. An example of the Buddhist portrayal of 'attachment' (i.e., as a maladaptive behavioural strategy) would be a relationship between husband and wife where one or both parties' relationship behaviour is controlling, possessive, and/or highly conditional.

Impermanence: Within Buddhism, 'impermanence' refers to the fact that all phenomena are transient occurrences and are subject to decay and dissolution (Sogyal, 1998). Along with 'suffering' and 'non-self', impermanence constitutes one of the three Buddhist 'seals'[4] or 'marks' of existence (for an introduction to basic Buddhist tenets and teachings, see Bodhi, 1994; Dalai Lama, 2005; Nhat Hanh, 1999a). The universal law of 'impermanence' applies as much to psychological phenomena such as thoughts, feelings, and perceptions, as it does to material phenomena both animate (e.g., the birth, life, and death of sentient beings) and inanimate. Cultivating an awareness of the certainty of death (and the uncertainty of the time of death) serves to heighten the practitioner's resolve for spiritual practice (Dalai Lama, 1995a).

Interconnectedness: The term interconnectedness is utilised in Buddhism to refer to the inter-being nature of all phenomena (Nhat Hanh, 1992). Each and every occurrence becomes a causal condition for the arising of all subsequent occurrences throughout space and time. For example, one person's out-breath forms part of the next person's in-breath, the decaying corpse provides sustenance for the blossoming tree, and so on. Thus, phenomena are 'empty' of an independent self but are 'full' of all things. Likewise, just as a wave is never separate from the ocean, the human consciousness, despite its relapse into a state of ignorance, can be considered inseparable from the realm of ultimate reality (Sanskrit: *dharmadhatu;* Pāli: *dhammadhatu*) (Rabjam, 2002).

4 In certain Buddhist systems a fourth seal of 'Nirvana' is included.

Emptiness: Emptiness is closely related to the principle of non-self but takes on a greater level of profundity whereby all phenomena are deemed to be 'empty' of intrinsic existence (including the concept of emptiness itself). According to the *Prajnaparamita-Hrdaya sutra* (more commonly known as the *Heart sutra*—a key Buddhist teaching on emptiness), "*form is emptiness and emptiness is form"* (Soeng, 1995). The meaning of this phrase is profound and it implies that for the enlightened being, 'Samsara' (i.e., the mundane world of birth, suffering, death, and rebirth) and 'Nirvana' (i.e., the state of total liberation from suffering) are in fact one and the same thing. Indeed, a full realisation of emptiness represents the quintessence of Buddhist practice and emptiness is intrinsically interrelated with each of the aforementioned 'wisdom' constructs. For example, at a more subtle level, impermanence refers to the moment-by-moment transitory nature of existence (Dalai Lama, 2005). According to this view, phenomena are changing all of the time. Nothing remains static for even an instant. However, if phenomena are in a state of constant flux, then at what point can it be said that they actually 'exist' in order to undergo change? Thus, the self-contradictory nature of impermanence can, in this manner, be used as a 'key' for intuiting emptiness.

Nagarjuna (2nd c. AD) fathered the Buddhist Madhyamaka school of reasoning that asserts a 'middle way' between the diametrically opposed extremes of 'inherent existence' and 'nihilism'. However, rather than becoming 'attached' to the concept of a middle-way, Nagurjuna advocated complete freedom from the trappings of inflexible dualistic (e.g., self and other, good and bad, one or the other, etc.) conceptualisations. In other words, even the middle-way standpoint has to be relinquished because if the extremes of existence and nihilism are both belied, then the concept of a 'middle-way' is also rendered untenable. Thus, emptiness does not deny that phenomena appear but requires 'non-conceptualisation' in order to intuit the true and absolute manner in which such appearances abide (Huang Po, 1982).

Original nature: Terms such as the 'original nature of Mind' occur throughout the Buddhist literature but particularly so in certain Vajrayana and Zen Buddhist contexts (Zen Buddhism is typically regarded as a Mahayana Buddhist vehicle but aspects of the more esoteric Zen approaches might actually be more consistent with Vajrayana practice). The word 'Mind' is often capitalised in this context to denote the 'primordially enlightened Mind' as opposed to the 'everyday mind' with its various emotional and knowledge-based limitations. The phrase 'nature of Mind' is used to express the view (or realisation) that all phenomena are 'Mind-born' (Norbu & Clemente, 1997). This is a somewhat ineffable concept that is perhaps best illustrated via the analogy of a dream. Various psychosomatic sleep-state symptoms including anxious arousal, sudden screaming, and increased autonomic discharge (e.g., tachycardia, increased respiratory amplitude, and perspiration) have been correlated with bad dreams and nightmare disorder as defined in the DSM-5 (APA, 2013). Therefore, although the entire dream experience is generally considered to be 'unreal' and self-produced, it is nevertheless experienced as 'real' at the time of dreaming. According to Buddhist exponents of this view, the mode of abiding of everyday waking reality exists in much the same manner (Dalai Lama 2004; Urgyen, 2000). Although phenomena certainly appear, they are considered (or experienced) to be illusory, without substance, and are deemed to be non-other than Mind's luminous spontaneous display (Dudjom, 2005). As stated by the Buddha: *"One who looks upon the world as a bubble and a mirage, him the King of Death sees not"* (as cited in Buddharakkhita, 1966, p.67). 'Wake-up', is therefore a term sometimes employed by Buddhist teachers (e.g., Norbu & Clemente, 1997) to refer to the process of recovering from ontological addiction and awaking from the deep-sleep of primordial ignorance (Shonin et al., 2013b).

Current Directions

In contrast with treatment approaches based on the Buddhist practices of mindfulness or

compassion, the clinical utilisation of Buddhist wisdom techniques has progressed at a slower pace. Nevertheless, since 2010, several interventions have become operational that attempt to integrate Buddhist wisdom techniques as the central therapising component. An example is Buddhist Group Therapy (BGT), a six-week programme (weekly sessions of two-hours duration) in which participants partake in mindfulness practice, diary keeping, sharing of personal stories, and tutoring in the Buddhist 'wisdom' principles of suffering, impermanence, and selflessness (Rungreangkulki, Wongtakee, & Thongyot, 2011). Diabetes patients (n = 62) of Buddhist background with depression who received BGT evinced significant reductions in anxiety over treatment-as-usual controls.

A further and more recent example is Meditation Awareness Training (MAT) (Van Gordon et al., 2014a). MAT is an eight-week group-based secular intervention and employs a comprehensive approach to meditation whereby mindfulness practice is an integral part but does not form the exclusive focus of the programme. MAT is grounded in the three Buddhist principles of wisdom, meditation, and ethical awareness, and includes practices designed to cultivate ethical awareness, patience, generosity, loving-kindness, and compassion. The intervention also integrates concentrative and insight meditation techniques in order to encourage a gradual familiarisation with concepts such as impermanence and emptiness. In a controlled pilot trial of MAT (n = 25), a sub-clinical sample of university students with issues of stress, anxiety, and depression demonstrated significant improvements over controls in psychological distress and dispositional mindfulness (Van Gordon et al., 2014a). In a further recent study of MAT, participants (with issues of stress, anxiety, and depression) experienced a growth in personal agency and a greater willingness to relinquish rigid habitual behavioural patterns that they attributed to preliminary meditative-born insights into emptiness and impermanence (Shonin et al., 2013a).

In addition to the direct evaluation of interventions such as MAT and BGT, empirical

support for the clinical utilisation of Buddhist 'wisdom' principles is derived from cross-sectional studies. An example is a cross-sectional study (comprising 511 adults and 382 students) by Sahdra et al (2010) who found that 'non-attachment' predicted greater levels of mindfulness, acceptance, non-reactivity, self-compassion, subjective wellbeing, and eudemonic wellbeing. The same authors also demonstrated that the Buddhist non-attachment construct was negatively correlated with avoidance (of intimacy), dissociation, fatalistic outlook, and alexithymia (i.e., a deficiency in recognising or describing feelings).

Further support for the clinical application of Buddhist wisdom practices comes from the tacit or explicit utilisation of such practices within psychotherapeutic modalities more generally. For example, Segall (2003) identified the extent to which Buddhist principles are engrained within various cognitive-behavioural and experiential psychotherapies such as CBT and Gestalt Therapy. It is also well known that Albert Ellis' Rational Emotive Behaviour Therapy is heavily influenced by the Buddhist view that attachment and self-grasping lie at the roots of suffering (Christopher, 2003). Furthermore, aspects of Zen Buddhist practice have been shown to support Smith's (1999) ABC (e.g., Attentional, Behavioural, and Cognitive) theory of relaxation via a mechanism of non-attachment to cognitive arousal that begets increases in mental quietude and relaxation (Gillani & Smith, 2001).

According to Chan (2008), meditation on 'non-self' can complement therapeutic techniques that work at the surface level of behaviour and cognition via a mechanism of gradually uprooting egoistic core beliefs. Sills and Lown (2008) use terms such as 'witness consciousness' to refer to the process of therapeutic reconnection and transformation that takes place as client and therapist begin to widen their view of self and work in an *"open and empty ground state"* (p.80). Thus, an understanding of non-self can enhance therapeutic core conditions because *"the more the therapist understands annata [non-self], the less likelihood that the therapy will be about the selfhood of the therapist"* (Segall, 2003, p.173).

The Buddhist principle of impermanence perhaps warrants additional discussion due to its potential utility for facilitating recovery from trauma and grief. Traditional Western models of grief are based on a phasic bereavement process and normally involve stages of (i) shock (ii) distress and denial, (iii) mourning, and (iv) recovery (e.g., Jacobs, 1993). However, a greater familiarisation with the impermanent nature of life may exert a form of resilience effect. For example, Wada and Park (2009) suggest that increased acceptance and internalisation of impermanence may help to soften the grieving process and facilitate earlier-onset of the recovery and restorative phases. Similarly, Kumar (2005) posits that impermanence awareness can assist post-traumatic growth due to a *"radical acceptance"* of the transitory and precious nature of human existence (p.8).

Clinical Integration Issues

Although preliminary findings indicate clinical utility for Buddhist-derived wisdom practices, empirical evaluation of this area of Buddhist practice is at an early stage. Findings should therefore be considered in light of their limitations. For example, both the MAT and BGT quantitative studies (i.e., Rungreangkulki et al. 2011; Van Gordon et al., 2014a) were limited by (i) small sample sizes, (ii) between-group baseline differences in medication status or levels of psychological distress, and (iii) the absence of an active control group. Furthermore, concepts such as non-self and emptiness are subtle, complex, and somewhat tangential to conventional Western thought. Rather than a data-driven, or academic understanding, Buddhism emphasises the need for regular and prolonged meditation practice so that the 'realisation' of such teachings can arise intuitively. Therefore, there are risks associated with concepts such as non-self (Michalon, 2001) that if misunderstood (or incorrectly taught), could easily accentuate any delusional schemas or give rise to defeatist, nihilistic, and/or psychosocially maladaptive beliefs. Additional caution is therefore recommended prior to

considering such techniques as viable options for patients with cognitive impairment and/or reality-distortion complexes.

Meditation: Calming and Training the Mind

Meanings

Arguably, the two Buddhist terms related to meditation that are most widely applied in the clinical literature are 'meditation' (including concentrative meditation and insight meditation) and 'mindfulness'.

Meditation: Buddhist meditation involves a process of training and developing the mind, and most forms of Buddhist meditation integrate both concentrative (or serenity) and analytical (or insight) components (Dalai Lama, 2001)[5]. Concentrative or 'tranquil abiding' meditation (Sanskrit: *shamatha;* Pāli: *samatha*) involves the calming of afflictive cognitive and emotional states whereas insight or analytical meditation (Sanskrit: *vipashyana;* Pāli: *vipassana*) is the process of uprooting such afflictions (Rabjam, 2002). Therefore, in order to switch from samatha meditation to vipassana meditation, a subtle yet deliberate shift in meditative-mode is required in order to penetrate the 'truth' (i.e., the absolute mode of arising) of a particular object (such as the self) (Kongtrul, 1992). This depiction of samatha and vipassana meditation is not only consistent with the Tibetan and general Mahayana Buddhist view (e.g., Dalai Lama & Berzin, 1997; K'uan Yu, 1976), but also with the Theradava Buddhist perspective (e.g., Chah 2011; Maha Boowa, 1997, Nyanatiloka, 1980)[6]. Indeed, according to the Buddha's words as

5 Serenity and insight techniques are integral to the development of meditative awareness and are practiced by the vast majority of Buddhist traditions (including traditions from each of the three Buddhist vehicles). However, there are a number of exceptions to this generalisation especially in certain Zen Buddhist traditions.

6 As with many Buddhist practices, vipassana meditation is operationalised differently by different Buddhist traditions. Nevertheless, there is a strong degree of concordance between the three Buddhist vehicles that vipassana meditation involves the use of penetrative analysis as a means of generating meditative insight or wisdom. For example, in traditional Theravada vipassana practice, the practitioner learns to see the aggregate (or skandha-nature) of all phenomena. Instead of seeing things as substances with an essential core, the meditator

captured in the *Mahavacchagotta sutra* (Majjhima Nikāya sutra 73): *"When these two things—serenity and insight—are developed further, they will lead to the penetration of many elements"* (Ñanamoli & Bodhi, 2009, p.600). Likewise, at various points in the Anguttara Nikāya (one of the five collections of sutras that collectively comprise the Sutra Pitaka—the basket or division of the Buddhist canon comprising the Buddhist sutras), direct reference is made to the "*coupling or yoking of tranquillity and insight*" (i.e., samatha-vipassana) in order to reach the stage where "*all ignorance is abandoned*" (Nyanatoloka, 1980, p.194).

At the initial stages, samatha meditation typically involves the use of a reference-point or 'object of placement' in order to help anchor the mind (Ponlop, 2003). One-pointed concentration on objects such as the breath or a visualised object (normally of spiritual significance such as the Buddha), are typical examples of objects of placement. At more advanced stages, samatha meditation can be practiced with a much broader attentional aspect whereby present moment experience becomes the object of placement (Ponlop, 2003).

Mindfulness: As part of the practice of meditation, mindfulness is the process of ensuring that the mind remains concentrated on the object of placement. Mindfulness therefore involves an observance of emotional and cognitive processes (such as 'mental formations'; Sanskrit: *samskara;* Pāli: *sankhara*) that might otherwise result in a loss of concentration. Vigilance is a concept related to mindfulness and refers to the quality of awareness that oversees and regulates mindfulness. In other words, mindfulness ensures that the mind does not wander from the object of placement and vigilance observes that mindfulness is intact (Dalai Lama, 1997).

trains to see phenomena as composed of 'skandha parts'. All things granulate—no permanent core remains. When the practitioner can see the world through this granulating lens, then insight is said to have arisen. In Mahayana contexts, insight and therefore vipassana practice is depicted in a similar manner but relates more to realising a 'non-dual' outlook—the disintegration of the self-other divide: "*I am the child in Uganda, all skin and bones, my legs as thin as bamboo sticks, and I am the arms merchant, selling deadly weapons to Uganda*" (Nhat Hanh, 1999b, p.72,).

Buddhism emphasises the importance of maintaining meditative awareness beyond formal meditation sessions. In fact, the more advanced meditator should essentially be aiming to practice 'non-meditation', in which no distinction is made between meditation and post-meditation periods (Dudjom, 2005). Therefore, mindfulness plays a vital role in the integration of meditative awareness into everyday life.

Amongst contemporary Buddhist scholars, there is a sensible level of agreement that the term 'mindfulness' is an acceptable interpretation of both the Pāli word '*sati*' and the Sanskrit word '*smrti*'. However, it is should be noted that there are different interpretations of both of these terms, and therefore depictions of the Sanskrit term '*smrti'* and the Pāli term *'sati'* may not always be identical. For example, the Sanskrit root '*sat*' means 'truth' or 'to exist', and so if it is accepted that the Pāli term '*sati*' is a transformed borrowing from the Sanskrit '*sat*' (i.e., as opposed to being part of the Prakrit lexicon), then the Pāli term '*sati*' might be construed as meaning the '*awareness of the existence of experienced phenomena in a given moment*'. This would be distinct from certain interpretations of both *sati* and *smrti* that, from the Buddhist perspective, are less satisfactory due to depicting mindfulness as the faculty of 'remembering' or 'recollecting' (see review of mindfulness definitions by Gethin, 2011). However, given that both the Sanskrit root '*smr*' and the Pāli '*sati*' can also denote 'intense thought' (Har, 1999), 'mental activity' (Rhys Davids, 1881), or 'intense cognition', then in the context of Buddhist meditative practice it seems acceptable to render both of these terms as meaning 'full retention of mind' or 'full awareness of mind' (and therefore mind objects) in the present-moment (i.e., rather than the remembrance of past events). Slight variations in the meanings and interpretations of these terms are likely to be one reason (amongst others) why mindfulness is interpreted and operationalised differently by different Buddhist approaches (see, for example, Kang & Whittingham, 2010; Rosch, 2007).

Despite the abovementioned variations in how Buddhism construes mindfulness, the

notion of present moment awareness is regarded by all Buddhist traditions as a central component of mindfulness practice. This present moment awareness generally refers to a full awareness of processes relating to: (i) body, (ii) feelings, (iii) mind, and (iv) phenomena (collectively known as the four 'Establishments of Mindfulness'; Pāli: *satipatthana*; Sanskrit: *smṛtyupasthana;* Nyanaponika, 1983). Anapanasati is a Pāli word (Sanskrit: *anapanasmṛti)* which means 'mindfulness of breathing in and out' and is a method of arousing the four establishments of mindfulness by using the breath to 'tie the mind' to the present moment while awareness is directed, in turn, to each of the four abovementioned focus points (i.e., body, feelings, mind, and phenomena) (see the *Anapanasati sutra;* Majjhima Nikāya sutra 118; Ñanamoli & Bodhi, 2009). Thus, mindfulness is essential for (i) maintaining meditative awareness, (ii) subduing discursive and ruminating thought processes (Nyanaponika, 1983; Teasdale, Segal, & Williams, 1995), and (iii) cultivating a state of mind conducive to spiritual awakening (Sanskrit: *bodhipakṣa dharma;* Pāli: *bodhipakkhiya dhamma*).

Current Directions

Mindfulness meditation has been shown to be efficacious for the treatment of health conditions ranging from depression, anxiety, bipolar disorder, sleep disorder, and substance-use disorders, to human immunodeficiency virus, coronary heart disease, chronic pain, fibromyalgia, and cancer (for recent reviews, see Chiesa et al., 2011; Chiesa & Serretti, 2011; de Vibe, Bjørndal, Tipton, Hammerstrøm, & Kowalski, 2012; Eberth, & Sedlmeier, 2012; Fjorback, Arendt, Ørnbøl, Fink, & Walach, 2011; Hofmann, et al., 2010; Klainin-Yobas, Cho, & Creedy, 2012; Shonin, Van Gordon, Slade, & Griffiths, 2013c; Vøllestad et al., 2011). Discounting a small number of exceptions where no reliable effect was reported (e.g., Toneatto & Nguyen, 2007), the strongest meta-analytical effect sizes (e.g., Hedges' $g > 0.85$) are typically evinced for the treatment of mood and anxiety disorders (Hofmann et al., 2010; Vøllestad et al., 2011).

However, effect sizes generally fall into the small-to-moderate range for the treatment of somatic illnesses (e.g., Baer, 2003; Grossman, Niemann, Schmidt, & Walach, 2004; Ledesma & Kumano, 2009).

Group-based interventions using mindfulness meditation typically adhere to an eight-week secular format and comprise: (i) weekly sessions typically of three hours duration, (ii) guided mindfulness exercises, (iii) yoga exercises, (iv) a CD of guided meditations to facilitate daily self-practice, and (v) an all-day silent retreat component (Shonin et al., 2013c). The two most established techniques are Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990) and Mindfulness-Based Cognitive Therapy (MBCT; Segal et al., 2002). Variants of MBSR and MBCT include interventions such as 'Mindfulness-Based Relapse Prevention' (Bowen et al., 2009) for the prevention of relapse following rehabilitation from substance use disorders, Mindfulness-Based Childbirth and Parenting for maternal wellbeing during (and post-) pregnancy (Duncan & Bardacke, 2010), and Mindfulness-Based Eating Awareness Training for treating binge eating disorders (Kristeller & Wolever, 2011). Mindfulness is also integrated into a number of cognitive-behavioural one-to-one therapeutic modes such as Dialectic Behaviour Therapy (Linehan, 1993) and Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999) (for a review of the differences/commonalities between the various mindfulness-based interventions, see Chiesa & Malinowski [2011]).

Other forms of Buddhist-derived meditative interventions to be applied in clinical contexts include Vipassana Meditation (VM), a technique devised by Satya Narayan Goenka[7] (for reviews, see Chiesa, 2010; Shonin et al., 2013c). The VM programme is generally conducted in silence as part of a standardised 10-day retreat and includes the use of pre-recorded discourses on various Buddhist principles. Studies of VM have demonstrated a range of salutary effects—particularly for incarcerated samples. Examples of outcomes from VM

7 Techniques such as Transcendental meditation, kundalini yoga, sahaja yoga, and hatha yoga are not explicitly Buddhist-based (i.e., they derive from Hinduism) and are therefore not discussed in the current chapter.

studies in minimum and maximum-security correctional settings include: (i) reductions in substance use, alcohol use, and alcohol-related negative consequences (Bowen et al., 2006), (ii) reductions in thought suppression (Bowen, Witkiewitz, Dillworth, & Marlatt, 2007), and (iii) improvements in levels of mindfulness, emotional intelligence, and mood disturbance (Perelman et al., 2012).

Clinical Integration Issues

Although there is a growing body of evidence that attests to the clinical utility of VM and mindfulness-based interventions (MBIs), a number of factors limit the overall validity of empirical findings. Examples of such factors are: (i) an over-reliance on self-report measures rather than clinical diagnostic interviews, (ii) poorly designed control interventions that do not account for non-specific factors such as therpeutic alliance, psycho-education, or physical exercise, (iii) fidelity of implementation not assessed (i.e., to control for deviations from the standard intervention format), (iv) absence of (or poorly implemented) intent-to-treat analysis, (v) variations in the experience and competance of programme instructors, (vi) adherance to practice data not elicited, and (vii) heterogeneity between different MBIs in the usage of other Buddhist techniques such as loving-kindness meditation (Van Gordon et al., 2014a).

There are also integration issues concerned with the availiability of MBIs for service users. For example, only 20% of general practitioners in the United Kingdom report being able to access MBIs for their patients (MHF, 2010). Similarly, although based on aspects of Buddhist practice, MBIs do not necessarily represent culturally syntonic treatments for all Asian Americans and Asian Europeans, including those of Buddhist descent (Hall et al., 2011). For example, many lay Asian Buddhists do not practice meditation and may not even be familiar with Buddhist concepts such as emptiness and interconnectedness (see Hall et al., 2011). In fact, compared to the average dedicated Western lay Buddhist, it is probably accurate

to say that the practice of the average lay Asian Buddhist is more orientated towards 'gaining merit' (i.e., positive karma) and observing Buddhist ethics in order to be reborn in conditions (such as a Buddhist monk) that are more conducive to intensive spiritual practice.

Other integration issues relate to the credibility and competance of MBI programme instructors. For example, although there are currently attempts to disseminate best-practice and assessment guidelines for MBI teachers (see Crane et al., 2011; Crane et al., 2013), as yet, there are no dedicated regulation and accreditation bodies to stipulate minimum competency levels for MBI instructors. Indeed, as it stands, MBI instructors may have as little as 12 months' mindfulness practice and teaching experience following completion of a single eight-week course (MHF, 2010).

Arguably, the most commonly reported integration issue relating to MBIs is that there remains a lack of consensus within psychology in terms of what defines the mindfulness construct (see Chiesa, 2013; Kang & Whittingham, 2010). Many of the issues in this debate relate to the extent to which Western psychological depictions of mindfulness are consistent with traditional Buddhist perspectives. Given that it is common for MBIs to proclaim a certain 'grounding' in Buddhist practice, this may be potentially confusing (or even misleading) for service-users because it is questionable whether mindfulness meditation, as used in MBIs, continues to resemble the faculty of 'right mindfulness' as it is construed by the Buddhist teachings (Shonin et al., 2013a). Indeed, the term 'mindfulness meditation' is actually not common to the Buddhist lexicon as in general the technique is simply referred to as 'mindfulness'. Key examples of how Western psychological portrayals of mindfulness may differ from the traditional Buddhist perspective are described below, and illustrative questions that may help to inform scientific debate regarding how best to define and integrate mindfulness within clinical contexts are outlined in Table 2.1.

1. *Context for practice*: Within Buddhism, mindfulness is practiced in conjunction with numerous other practices and perspectives and is just one aspect (the seventh aspect) of a key Buddhist tenet known as the Noble Eightfold Path. In particular, the successful establishment of mindfulness relies upon a deep-seated understanding of the three root principles of wisdom, meditation, and ethical awareness—all of which interact to form a cohesive whole. Thus, concerns have therefore arisen relating to whether MBIs lack 'foundational congruence' and whether the 'spiritual essence' and full potential treatment efficacy of mindfulness has remained intact in its clinically orientated and Westernised form (Howells et al., 2010; McWilliams, 2011; Rosch, 2007; Singh et al., 2008a; Shonin, Van Gordon, & Griffiths, 2013d; Van Gordon et al., 2014a). Consequently, there is an urgent need for Western psychologists to determine and clarify whether, in addition to alleviating psycholgical and/or somatic distress, MBIs are also primarliy intended (and provide the necessary infrastructure) to spiritually empower their participants.

2. *Non-judgemental awareness*: According to Kabat-Zinn (1994), mindfulness is the process of *"paying attention in a particular way: on purpose, in the present moment, and non-judgmentally"* (p.4). Although there is agreement between Western psychological and (all of the) Buddhist perspectives that mindfulness is fundamentally concerned with becoming more aware of the present moment, the statement that mindfulness necessitates a 'non-judgemental' awareness requires closer examination. Insofar as the term 'non-judgemental' implies that the mindfulness practitioner should accept (i.e., and not try to reject or ignore) present-moment experiences then it is likely that most Buddhist traditions would agree that this is an appropriate term. However, the term 'non-judgemental' could also imply that the mindfulness practitioner doesn't seek

to discern which cognitive, emotional, and behavioural responses are conducive to the upholding of ethical commitments and to spiritual development more generally. This would obviously be inconsistent with the Buddhist perspective. Thus, a more comprehensive elucidation by Western psychologists of the intended meaning of the term 'non-judgemental' is required in order to reconcile ambiguity concerning the use of this term.

3. *Insight generation*: In the clinical literature, the terms 'vipassana meditation' and 'insight meditation' are frequently used interchangeably with the term 'mindfulness meditation'. Indeed, 'vipassana meditation' is often referred to as a form of meditation in which awareness is directed in a non-reactive manner to the stream of internal thoughts, emotions, perceptions, and so forth, as they spontaneously arise in the present moment (e.g., Bowen et al., 2006; Chiesa, 2010; Sills & Lown, 2008). However, this depiction of vipassana meditation (and insight meditation) is inconsistent with the traditional (and already outlined) Theravada, Mahayana, and Vajrayana Buddhist perspectives. In these traditional contexts, vipassana meditation refers to the use of (various styles of) penetrative analysis in order to give rise to transcendent insight or wisdom (e.g., Chah, 2011; Dalai Lama, 2001; K'uan Yu, 1976; Maha Boowa, 1997; Ñanamoli & Bodhi, 2009 [e.g., see Majjhima Nikāya sutra 73]; Nyanatiloka, 1980; Rabjam, 2002). In fact the terms 'vipassana meditation' and 'insight meditation', as used in the clinical literature, more accurately describe the practices of mindfulness or certain forms of open-aspect concentrative meditation (sometimes referred to as 'samatha without reference').

   One possible source of this confusion are contemporary (i.e., 20th/21st century) and primarily Theravada-derived Buddhist 'Insight Meditation' movements such as the

one initiated by Satya Narayan Goenka (see previous subsection on 'Current Directions') in which vipassana meditation is depicted as being similar to mindfulness meditation. However, rather than a form of mindfulness practice (as implied by Goenka and certain Western psychologists), the classical Buddhist teachings explicate that vipassana (which actually means 'superior seeing') involves a different and more investigative meditative mode that can only be applied after first calming and placing the mind using samatha techniques (see above section on the 'Meanings' of the terms 'meditation' and 'mindfulness'). This is certainly not to say that Goenka's and certain other contemporary styles belonging to the Insight Meditation movement are not authentic in their transmission of the Buddhadharma (because they undoubtedly are). However, it does mean that their use of certain Buddhist terms is not always consistent with the traditional construal. Furthermore, although mindfulness meditation certainly leads to the generation of insight in the sense that it facilities (for example) a better understanding of "*the nature of thoughts and feelings as passing events in the mind*" (Bishop et al., 2004, p.234), mindfulness meditation is not insight meditation as per the traditional Buddhist technique. Thus, for the purposes of avoiding (further) inconsistency, terminological accuracy, and confusion in the clinical psychology literature, it is the view of the present author that any contemporary system that differs from the interpretation of samatha and vipassana meditation as depicted in the classical Buddhist (Theravada, Mahayana, and Vajrayana) literature, should not be adopted by Western clinicians and researchers.

Although there is an urgent need for greater clarity relating to several aspects of the Western psychological mindfulness formulation, rather than academicians striving to devise and disseminate an all-encompassing model and definition of mindfulness, one insightful

means of reconciling aspects of the 'mindfulness definition debate' might be to just accept that "*the definition of mindfulness will vary depending on whether one is interested in mindfulness from a social psychological, clinical, or spiritual context, or from the perspective of a researcher, clinician, or a practitioner, and their various combinations*" (Singh et al., 2008a, p. 661). Similarly, it is improbable that an absolute definition of mindfulness will ever be formulated because as a spiritual phenomenon, certain dimensions of the mindfulness construct will always be somewhat ineffable and only fully understood by those individuals who can tap into them on the experiential rather than empirical or academic plane.

Table 2.1 Questions pertinent to the effective operationalisation of mindfulness in clinical and psychological domains

Facet of Mindfulness Meditation	**Illustrative Question**
Connectivity to other meditative components	• Is mindfulness (e.g., as utilised in programmes such as MBSR and MBCT) considered to be a standalone practice or just one key faculty of meditation that cooperates with properties such as 'concentration' and 'vigilance'?
Attentional breadth	• Does the use of the term 'mindfulness meditation' (i.e., in Western psychological contexts) simply refer to the practice of everyday mindfulness (as practiced during day-to-day tasks) while adopting a seated meditation posture? • Conversely, does seated mindfulness meditation involve greater concentration on a particular object of mind (such as the breath, feelings, or thoughts)? • If so, in what way does mindfulness meditation differ from referential forms of concentrative (samatha) meditation? • If seated mindfulness meditation practice does not involve such object-focussed concentration, then in what way does it differ from non-referential open-aspect forms of samatha meditation in which present moment experience is assumed as the focus of concentration?
Insight generation	• Do qualities of mindfulness meditation such as "*a clear focus on aspects of active investigation of moment-to-moment experience*" (Hofmann, Grossman, & Hinton, 2011, p.1127)

	refer to a more analytical (and therefore insight-generating) component? • If so, is this an active form of analysis (consistent with the traditional Buddhist approach—see Chah, 2011; Dalai Lama & Berzin, 1997) that refers to a distinct shift towards a more penetrative meditative mode (i.e., by searching for 'the self', 'the mind', or the intrinsic existence of a particular object)? • Alternatively, does the Western clinical operationalisation of mindfulness meditation feature a more passive form of analysis (as appears to be the case in S.N. Goenka's VM approach) in which (for example) 'insight' simply refers to a better understanding of "*the nature of thoughts and feelings as passing events in the mind*" (Bishop et al., 2004, p.234)?

Ethical Awareness: Constructive Thoughts and Behaviours

Meanings

Terms frequently employed in the clinical literature that can be subsumed under the heading of ethical awareness include 'ethical discipline' (also referred to as 'ethical awareness') as well as certain conduct-related terms such as 'generosity', 'patience', 'loving-kindness', and 'compassion'.

Ethical discipline: Ethical discipline lies at the roots of Buddhist practice and serves to ensure that spiritual progress does not fall prey to 'spiritual materialism' (Trungpa, 2002) or become derailed by mundane aspirations. Tsong-kha-pa (2004) defines ethical discipline as *"an attitude of abstention that turns your mind away from harming others and from sources of such harm"* (p.143). Without ethical awareness in terms of which actions (of body, speech, and mind) to adopt and which to reject, then constant craving for sensory or emotional gratification prevents meditative quiescence from arising (Dalai Lama, 1999). Various systems (or combined systems) of precepts are used as supports for observing ethical discipline (e.g., the Pratimoksha vows of Theravada Buddhism, the Bodhisattva vows of Mahayana Buddhism, the

Samaya vows of Vajrayana Buddhism).

Precepts are not imposed as a series of rigid rules. Rather, they serve to synchronise spiritual practice with the 'law of the effects of actions' (karmic law). The Buddha advocated a middle-way between the behavioural extremes of over-indulgence and total abstinence (Nanamoli, 1979). However, rather than the avoidance of certain experiences or situations, the most essential point is that actions should be governed by a complete freedom from attachment or aversion. For example, in the *Mahasakuludayi sutra,* the Buddha explains that he sometimes eats "*choice rice and many sauces and curries*", lives *"in gabled mansions"* and acquaints with *"kings and king's ministers",* yet such activities do not affect his virtue or wisdom (Ñanamoli & Bodhi, 2009, pp. 633-634). Thus, for the highly experienced practitioner who is free from attachment, ethical awareness transcends any concept of right or wrong (Rabjam, 2002; Trungpa, 2003).

Generosity: Rather than Western psychology's construction of generosity (or altruism) as concern for the welfare of others (Batson, 2011), Buddhism conceptualises generosity more as a dedication and unconditional giving of one's entire being (e.g., presence, time, and meditative insight) and resources (including spiritual teachings) for the benefit of others (Dalai Lama, 1995b). Most importantly, this begins with altruism and kindness towards oneself.

Patience: Patience is born from generosity and nourishes the practitioner with fortitude to endure the challenges of spiritual practice as well as the wrongs inflicted by others. Santideva, an eighth century Indian Buddhist saint states that *"the mind does not find peace, nor does it enjoy pleasure and joy, nor does it find sleep or fortitude when the thorn of hatred dwells in the heart"* (1997, p.60). According to the Buddhist view, patience leads to contentedness and a state of open acceptance to the present moment and is therefore a key attribute of mindfulness.

The Buddhist idea of perfected patience is a state beyond all hope and fear and beyond any desire to modify the present moment.

Loving-kindness and compassion: Loving-kindness refers to the wish for all beings to have happiness and its causes while compassion refers to the wish for all beings to be free from suffering and its causes (Bodhi, 1994). Within the Tibetan lojong ('mind training') modality, a meditation technique known as tonglen or 'giving and taking' involves 'straddling' the visualisation practices of 'taking' others' suffering and 'giving' one's own happiness astride the in-breath and out-breath respectively. In this manner, 'giving' could be regarded as the meditative actualisation of loving-kindness and 'taking' as compassion.

The Buddhist construal of loving-kindness and compassion does not involve any sense of pity and is perhaps best elucidated within the framework of the Four Immeasurable Attitudes (Sanskrit: *catvari brahmaviharahs;* Pāli: *cattari brahmaviharas*) of (i) joy, (ii) loving-kindness, (iii) compassion, and (iv) equanimity. Joy (as one of the four immeasurable attitudes) emphasises the Buddhist view that loving-kindness and compassion can only be forged from a mind that is already pacified and 'well-soaked' in meditative bliss. 'Equanimity' stresses the need for unconditionality and impartiality in the cultivation of loving-kindness and compassion that are extended in equal and unlimited measure to all sentient beings irrespective of whether they be friend or foe (for an in-depth elucidation of the Four Immeasurable Attitudes see the 'Vissuddhi Magga' [an important Buddhist treatise on 'The Path of Purification']; Nanamoli, 1976). Each of these conduct-related practices (e.g., generosity, patience, loving-kindness, and compassion) should be conducted free from any dualistic view. For example, when compassion is suffused with emptiness, and therefore stems from a realisation that there is no self (and hence no giver) and no other (and hence no receiver), then, according to Buddhist teachings, acts of 'great compassion' (Sanskrit and Pāli: *maha karuna*) can arise spontaneously

(Khyentse, 2007; Trungpa, 2003).

Current Directions

In the last ten years, compassion meditation (CM) and loving-kindness meditation (LKM) have been the subject of increasing clinical interest (for reviews, see Hofmann, Grossman, & Hinton, 2011). This is consistent with the growth of publications relating to CM and LKM in mainstream Western meditative culture (e.g., Chodron, 1996). Accordingly, a number of novel interventions have been formulated with the intention of operationalising CM and LKM as palatable techniques for Western service-users. Of notable interest is an intervention known as Cognitively-Based Compassion Therapy (CBCT; Pace et al., 2009). CBCT is a group-based six-week (or similar) long secularised intervention based on the Tibetan Buddhist 'mind training' technique. Participants attend weekly or twice-weekly classes ranging from 50 minutes to two hours duration and receive instruction on meditative practices intended to cultivate self-compassion and compassion.

Outcomes from recent studies of CBCT include: (i) reductions in innate immune and distress responses to psychosocial stress in healthy adults (Pace et al., 2009), (ii) reductions in salivary concentrations of C-reactive protein (a health-relevant inflammatory biomarker for psychopathology) in adolescents with high rates of early-life adversity (Pace et al., 2013), (iii) reductions in levels of depression for adolescents at-risk for psychopathology (Reddy et al., 2013), (iv) improvements in empathic arousal in healthy adults (Mascaro, Rilling, Negi, & Raison, 2013a), and (v) increased emotion regulation capacity as evinced by increases in right amygdala responses to an image-based emotion eliciting task (Desbordes et al., 2012).

A further technique incorporating compassion practices is Compassion-Focussed Therapy (CFT; Gilbert, 2009). CFT is a one-to-one therapuetic mode in which clients/patients typically attend one-hour sessions over a twelve-week period. CFT integrates a technique the

author terms ‘compassionate mind training’ whereby a client’s shameful and self-disparaging tendancies are displaced by therpist-led compassionate regard. Outcomes from several small pilot studies suggest that CFT may help to (i) reduce anxiety and depression in patients with chronic mood disorders, and (ii) reduce hostile auditory hallucinations in patients diagnosed with paranoid schizophrenia (Gilbert & Procter, 2006; Mayhew & Gilbert, 2008).

Recent studies have also returned promising findings for the clinical utilisation of LKM. Participants of LKM interventions are typically instructed to direct feelings of love and kindness firstly towards themselves, then towards a neutral person (e.g., the postman), towards a person who was a source of difficulty (e.g., a disrespectful former boss), and finally towards all living beings (Carson et al., 2005). Similar to CM interventions, LKM interventions are normally group-based and of a secular nature. Participants attend weekly sessions (1 to 2 hours duration) over a six- to eight-week course and receive a CD of guided meditations to facilitate daily self-practice.

Outcomes of recent LKM intervention studies include: (i) reductions in pain intensity and psychological distress in patients with chronic lower back pain (Carson et al., 2005), (ii) improvements in asociality, blunted affect, self-motivation, interpersonal relationships, and relaxation capacity in patients diagnosed with a schizophrenia-spectrum disorder (Johnson et al., 2009), and (iii) improvements in anhedonia, intensity of positive emotions, consummatory pleasure, environmental mastery, self-acceptance, and satisfaction with life in outpatients with a schizophrenia disorder (Johnson et al., 2011).

Clinical Integration Issues

It appears that CM and LKM interventions represent promising novel treatments for a broad spectrum of psychological disorders. Nevertheless, findings from CM and LKM intervention studies should be considered with caution due to being limited by factors such as: (i) small

sample sizes (sample sizes in the abovementioned studies ranged from 3 to 93 participants), (ii) differences between intervention and control groups in baseline characteristics, (iii) fidelity of implementation not controlled for, (iv) poorly designed control conditions, and (v) high attrition rates.

Caution is also recommended in the delivery of CM and LKM techniques in order to avoid adverse treatment effects. For example, some care providers (e.g., nurses) have been identified as at-risk for 'compassion-fatigue', a form of secondary traumatic stress incurred during the provision of care to patients with illnesses of a distressing nature (or who have experienced a traumatic event) (Yoder, 2010). For this reason, prior to embracing the suffering of others (and acting unconditionally to alleviate that suffering), Buddhist practitioners are first taught to cultivate emotional stability within themselves and to become fully aware of the nature of their own suffering (Khyentse, 2007). Consistent with this approach, higher levels of self-compassion (Thompson & Waltz, 2008) and mindfulness (Follette, Palm, & Pearson, 2006) have both been shown to reduce maladaptive post-traumatic avoidance strategies. Thus, there are certain risks associated with the practices of compassion and loving-kindness yet it appears that these can be mitigated via the prior development of self-compassion and mindful awareness. In a similar vein, future clinical and scientific enquiry could explore whether the Buddhist practices of joy and equanimity (i.e., the other two of the four Brahmaviharas) can augment the effectiveness of LKM and CM interventions, or whether these practices have clinical utility in their own right.

Considering the complications involved in defining mindfulness, it is probable that attempts to define CM and LKM will meet with similar operational challenges. Indeed, in addition to the degree of 'construct-overlap' that exists between CM and LKM, there is also an element of overlap between both of these meditative techniques and mindfulness meditation. For example, Johnson et al (2009) describe LKM as a technique that *"involves quiet*

contemplation, often with eyes closed or in a non-focussed state and an initial attending to the present moment" (p.503) in which participants are instructed to *"non-judgementally redirect their attention to the feeling of loving kindness when attention wandered"* (p.504). Based on such descriptions, it is difficult to discern where mindfulness practice ends and LKM (or CM) practice begins. Thus, an operational challenge for CM and LKM interventions is the need to establish clear and accurate workable definitions as well as a thorough depiction of the unique attributes of these techniques relative to other forms of meditation.

Conclusions

There is growing evidence for the salutary effects of BDIs in the treatment of psychopathology. Although clinical interest has predominantly focussed on mindfulness meditation, recent years have seen an increase of investigation into other Buddhist techniques. Nevertheless, much remains to be done in terms of strengthening the evidence-base for BDIs and for exploring currently 'untapped' ground. For example, Ekman, Davidson, Ricard, and Wallace (2005) emphasise the pivotal role that Buddhist principles can play in informing the direction of emotion-based research. Similarly, although there is some research examining the role of patience as a predictor of adaptive psychosocial functioning (e.g., Curry, Price, & Price, 2008), exploring the Buddhist dimensions of such qualities (e.g., non-reactivity, contentedness, desirelessness, etc.) may lead to greater application within the clinical setting.

According to the Buddhist teachings, sustained ethically-informed and insight-driven effort over a prolonged period of time are prerequisites for 'sukha' (a Sanskrit and Pāli term interpreted by Ekman et al [2005] as meaning 'enduring psychological wellbeing'[8]). Therefore, a certain degree of realism is required in terms of what treatment outcomes can be expected from BDIs of eight-week (or similar) duration. Indeed, treatment plans are likely to benefit by

8. Other interpretations of 'sukha' typically depict it as a 'blissful' state—particularly in association with Theravada jhana practice.

factoring in regular meditation booster sessions as well as progressively more advanced meditation or mindfulness training. Likewise, instructors of BDIs may wish to consider the merits of receiving prolonged training in meditation so as to be able to impart an embodied authentic transmission of the subtler aspects of meditation practice (Shonin et al., 2013d). Of vital importance in this respect, is that clinicians who utilise Buddhist techniques in client-patient contexts understand that the Buddhist approach to spiritual transmission is one that encourages the individual to investigate and experience the potency of the Buddhist teachings for themselves, and to awaken and then rely on the 'teacher within'. This is consistent with the Buddha's dying words as recorded in the Mahaparinivana sutra (Digha Nikaya sutra 16):

> "Therefore, Ananda, be a lamp unto yourself, be a refuge to yourself. Take yourself to no external refuge. Hold fast to the Truth as a lamp; hold fast to the Truth as a refuge."—Buddha (as cited in Walshe, 1995).

Integration issues are an inevitable consequence of the migration of Buddhist practices from Eastern to Western cultures, and from spiritual to clinical domains. Indeed, Buddhist practice traditionally takes place in the context of spiritual development whereby enlightenment, a state of total liberation and omniscience, is the ultimate goal. Therefore, one obvious concern that Buddhist teachers are likely to have regarding the ongoing integration of Buddhist practices into clinical psychology is that rather than being employed for the purposes of eliciting favourable treatment outcomes for patients with psychological disorders, the Buddhist teachings could actually be used to help patients achieve much more of their full human potential.

Evidently, there is a degree of confusion within the clinical and psychological literature relating to the appropriate usage of certain Buddhist terms and practices. Consequently, there

is a need for greater dialogue between experienced Buddhist teachers and psychopathology clinicians and researchers in order to establish robust operational foundations for BDIs. There is also a need for greater interdisciplinary dialogue so that clinicians and researchers adopt a unified and structured approach towards the clinical implementation of Buddhist practices. Such dialogues will not only be paramount in safeguarding the ethical values, efficacy, and credibility of BDIs, but will also help to preserve the authenticity of the Buddhist teachings more generally.

Chapter 3

Buddhist-derived Loving-kindness and Compassion Meditation for the Treatment of Psychopathology: A Systematic Review

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Abstract

Although clinical interest has predominantly focussed on mindfulness meditation, interest into the clinical utility of Buddhist-derived loving-kindness meditation (LKM) and compassion meditation (CM) is also growing. This chapter follows the PRISMA (*preferred reporting items for systematic reviews and meta-analysis*) guidelines and provides an evaluative systematic review of LKM and CM intervention studies. Five electronic academic databases were systematically searched to identify all intervention studies assessing changes in the symptom severity of *Diagnostic and Statistical Manual of Mental Disorders* (text revision fourth edition) Axis I disorders in clinical samples and/or known concomitants thereof in sub-clinical/healthy samples. The comprehensive database search yielded 342 papers and 20 studies (comprising a total of 1,312 participants) were eligible for inclusion. The *Quality Assessment Tool for Quantitative Studies* was then used to assess study quality. Participants demonstrated significant improvements across five psychopathology-relevant outcome domains: (i) positive and negative affect, (ii) psychological distress, (iii) positive thinking, (iv) interpersonal relations, and (v) empathic accuracy. It is concluded that LKM and CM interventions may have utility for treating a variety of psychopathologies. However, to overcome obstacles to clinical integration, a lessons-learned approach is recommended whereby issues encountered during the (ongoing) operationalisation of mindfulness interventions are duly considered. In particular, there is a need to establish accurate working definitions for LKM and CM.

Introduction

Buddhist-derived meditation practices are increasingly being employed in the treatment of psychopathology. Throughout the last two decades, clinical interest has predominantly focussed on mindfulness meditation, and specific mindfulness interventional approaches are increasingly being advocated and/or employed in the treatment of psychiatric disorders (see, for example, APA [2010] and NICE [2009a] practice guidelines for the treatment of depression). However, in the last ten years, there has also been a growth of interest into the clinical utility of other Buddhist meditative techniques (Shonin, Van Gordon, & Griffiths, 2014b). Of particular significance are novel interventions that integrate meditative techniques known as loving-kindness meditation (LKM) and compassion meditation (CM). Studies of LKM and CM interventions have demonstrated a broad range of psychopathology-related salutary outcomes that include improvements in (for example): (i) schizophrenia symptomatology (Johnson et al., 2011), (ii) positive and negative affect (May, Weyker, Spengel, Finkler, & Hendrix, 2012), (iii) depression, anxiety, and stress (Van Gordon et al., 2014a), (iv) anger regulation (Carson et al., 2005), (v) personal resources (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008), (vi) the accuracy and encoding of social-relevant stimuli (Mascaro et al., 2013a), and (vii) affective processing (Desbordes et al., 2012).

CM is described in the psychological literature as the meditative development of affective empathy as part of the visceral sharing of others' suffering (Shamay-Tsoory, 2011). LKM is more concerned with the meditative cultivation of a feeling of love for all beings (Lee et al., 2012). Depending on whether they are practising LKM or CM, the meditation practitioner first establishes themselves in meditative absorption and then intentionally directs either compassionate (CM) or altruistic/loving (LKM) feelings towards a specific individual, group of individuals (that can also include sentient beings in general), and/or situations, and has conviction that they are tangibly enhancing the wellbeing of the person or persons

concerned (Shonin, Van Gordon, & Griffiths, 2014c). Although CM and LKM interventions in clinical contexts are typically delivered using a secular format (i.e., without the explicit use of Buddhist terminology), the manner in which CM and LKM techniques are operationalised in clinical settings is still reasonably closely aligned with the traditional Buddhist model.

Buddhist Construction of Loving-kindness and Compassion

As discussed in Chapter 2, within Buddhism, loving-kindness (Sanskrit: *maitrī*) is defined as the wish for all sentient beings to have happiness and its causes (Bodhi, 1994). Compassion (Sanskrit: *karunā*) is defined as the wish for all sentient beings to be free from suffering and its causes. In conjunction with 'joy' (Sanskrit: *muditā)* and 'equanimity' (Sanskrit: *upeksā)*, loving-kindness and compassion make up what are collectively known as the 'four immeasurable attitudes' (Sanskrit: *catvāri brahmaviharas*). Although in Buddhist meditation the four immeasurable attitudes are often generated and then emanated to other sentient beings one at a time, each attitude is deeply connected to, and reliant upon, the others. For example, the immeasurable attitude of 'joy' highlights the Buddhist view that genuine loving-kindness and compassion can only develop in a mind that is 'well-soaked' in meditative bliss, and that has transmuted both gross and subtle forms of ego-attachment (Khyentse, 2007; Shonin et al., 2014b)). Likewise, given the objective is to distribute loving-kindness and/or compassion in equal and unlimited measures to all sentient beings, the immeasurable attitude of 'equanimity' emphasises the need for total impartiality in one's regard for others (for a detailed discussion of the four immeasurable attitudes, see Nanamoli, 1979).

While the practices of compassion and loving-kindness are integral to all Buddhist traditions, this is particularly the case in Mahayana Buddhist schools (Shonin et al., 2014c). One of the fundamental principles of Mahayana Buddhism is the concept of '*bodhichitta'.* Bodhichitta is a Sanskrit word that means the 'mind of awakening' and it refers to the discipline

and attitude by which spiritual practice is undertaken with the cessation of others' material and spiritual suffering as the ultimate aim (for a discussion of the different types of suffering in Buddhism, see Van Gordon, Shonin, Griffiths, & Singh, 2015b). Buddhist practitioners who adopt and act upon such an attitude are known as bodhisattvas (for a more detailed description of bodhichitta and the bodhisattva's way of life, see Shantideva, 1997). According to Shonin et al. (2014c), dedicating one's life (and future lives) to alleviating the suffering of others represents a 'win-win' scenario because it not only helps other beings both materially and spiritually, but it also causes the meditation practitioner to assume a humble demeanour that is essential for: (i) dismantling attachment to the 'self', and (ii) acquiring spiritual wisdom (for a discussion of the meaning of wisdom in Buddhism, see Shonin et al., 2014b). According to Buddhist thought, the wisdom deficit or ignorance that arises from being attached to an inherently existing self is the under-lying cause of all forms of suffering, including the entire spectrum of psychological disorders (Shonin et al., 2014b).

One of the most common CM/LKM techniques employed in clinical settings derives from the Tibetan *lojong* (meaning *mind training*) Buddhist teachings (Shonin et al., 2014c). The *lojong* teachings are practiced within each of the four primary Tibetan Buddhist traditions (i.e., the Nyingma, Gelug, Kagyu, and Sakya) and include instructions on a meditation technique known as *tonglen* (meaning *giving and taking* or *sending and receiving*). Tonglen involves synchronising the visualisation practice of taking others' suffering (i.e., compassion) and giving one's own happiness (i.e., loving-kindness) with the in-breath and out-breath respectively (Sogyal, 1998). In this manner and according to Buddhist theory, the regular process of breathing in and out becomes spiritually productive and functions as a meditative referent that facilitates the maintenance of meditative and altruistic/compassionate awareness throughout daily activities (Shonin et al., 2014c).

As elucidated above, compassion and loving-kindness help to foster spiritual wisdom,

but their effective cultivation is also dependent upon it. In other words, compassion and loving-kindness facilitate wisdom acquisition and wisdom, in turn, facilitates the development of compassion and loving-kindness (Dalai Lama, 2001). This spiritual wisdom or insight that develops in conjunction with compassion and loving-kindness is believed to play a vital role in bringing the meditation practitioner to the understanding that while compassion and loving-kindness arise from the wish for others to have happiness and be free of suffering, the prospect of an individual permanently eliminating the suffering of another individual is a fundamental impossibility (Van Gordon et al., 2015b). Indeed, Buddhism asserts that individuals must take responsibility for their own spiritual development and that an enlightened or saintly being can only play a supporting/guiding role (Shonin & Van Gordon, 2015a).

Thus, as stated by the Buddha in his teaching on *The Four Noble Truths*, 'suffering exists' (the first noble truth) and the only means by which an individual can bring about the cessation of suffering (the third noble truth), is by walking the path (the fourth noble truth) that acts upon its causes (the second noble truth). Therefore, true compassion and loving-kindness towards others arises due to the realisation that unless individuals make the choice to enter the spiritual stream, not only will they suffer for an indefinite period, but there is actually nothing that can be done to prevent them from experiencing and reaping the consequences of their actions (known in Buddhism as their *karma*) (Van Gordon et al., 2015b). It is when compassion and loving-kindness are cultivated as part of this panoramic perspective that the meditation practitioner truly begins to take responsibility for their own and others' spiritual wellbeing, and they understand that any (so-called) compassionate act that does not directly or indirectly serve to guide others towards entering or progressing along the spiritual path, is actually unproductive (Van Gordon et al., 2015b). Accordingly, exercising compassion and loving-kindness towards others in order to help them spiritually evolve might on certain occasions actually necessitate behaving in ways that others interpret as firm or unkind.

Previous Reviews of Loving-kindness and Compassion Meditation

Hofmann et al. (2011) provided an impressive general review of LKM and CM exploring emotional-response, neuroendocrine, neurobiological, and treatment perspectives. However, this review was: (i) narrative (i.e., as opposed to systematic), (ii) not intended to focus exclusively on intervention studies and therefore did not include all LKM or CM intervention studies published at the time the review was conducted (examples of omitted studies are: Johnson, Penn, Fredrickson, & Meyer, 2009; Sears & Kraus, 2009; Williams et al., 2005), and (iii) encompassing of some compassion techniques that were not explicitly based on meditation (e.g., Compassion Focussed Therapy [Gilbert & Procter, 2006]). Likewise, the scope of Hoffman et al.'s review did not extend to include an assessment of study quality using a standardised assessment measure.

More recently, Galante, Galante, Bekkers, and Gallacher (2014) conducted a systematic review and meta-analysis of RCTs comparing the effects of 'kindness-based meditation' on health and wellbeing in adult participants. A total of 22 studies (n = 1,747) were included in the meta-analysis which reported that kindness-based meditation was moderately effective in improving: (i) self-reported depression (Hedges' g = 0.6), (ii) mindfulness (Hedges' g = 0.61), (iii) self-compassion (Hedges' g = 0.45), and (iv) positive emotions (Hedges g = 0.42). Although the meta-analysis provided a robust estimate of the efficacy of kindness-based meditation and thus complimented the earlier narrative review by Hofmann et al., it inevitably only provided a selective account of the overall findings from LKM and CM intervention studies as well as the types of LKM/CM interventions that have been employed as psychopathology treatments. More specifically, the meta-analysis by Galante et al. did not take into account: (i) children or adolescent populations, (ii) studies that did not follow an RCT design (e.g., non-randomised controlled trials, longitudinal studies, uncontrolled intervention studies, etc.), and (iii) studies published since March 2013.

Furthermore, although Galante et al's delineation of 'kindness-based meditation' was fitting for the purposes of their study, it was rather broad and in several respects incongruous with the traditional Buddhist interpretation of LKM and CM. For example, as part of their construction of kindness-based meditation, Galante et al. included both Buddhist and non-Buddhist (e.g., Christian) meditative approaches. Although, as outlined by the authors, loving-kindness and compassion are qualities central to the core values of most spiritual traditions, the manner in which the Buddhist teachings embody these qualities and the values Buddhism assigns to different states of psychological arousal (including feelings of loving-kindness and compassion) varies from other religious and/or spiritual systems (Tsai, Miao, & Seppala, 2007). Indeed, in addition to the existence within Buddhism of an extensive body of practice literature that is specifically concerned with mobilising loving-kindness and compassion as meditative techniques, loving-kindness and compassion are considered to be distinct properties. Thus, where (for example) Galante et al. define compassion meditation as "*a special form of loving-kindness meditation*" (p.2), this no longer accurately captures the Buddhist interpretation.

It is also worth mentioning that in addition to providing limited details on the design and format of the various interventions utilised, almost one third (31.8%) of the studies included in Galante et al.'s meta-analysis involved a single-dose exposure to LKM or CM that lasted for less than half an hour. The present author would argue that rather than measuring the effectiveness of a course of psychotherapy or carefully formulated treatment plan, such studies are more akin to a one-off experimental design and are assessing state rather than trait changes in outcomes.

Objectives of the Current Systematic Review

Notwithstanding the growth of interest into the clinical utility of LKM and CM, a robust

systematic review specifically focusing on studies of Buddhist-derived LKM and CM interventions for all age groups has not been undertaken to date. Likewise, a review providing an in-depth assessment of clinically relevant integration and rollout issues is yet to be undertaken. The purpose of this chapter is therefore to conduct an evaluative systematic review of LKM and CM intervention studies that follows (where applicable) the PRISMA (*preferred reporting items for systematic reviews and meta-analysis*) guidelines (Moher et al., 2009) and that: (i) specifically focuses on LKM and CM interventions that are based on the Buddhist model of compassion and/or loving-kindness, (ii) includes both randomised and non-randomised study designs, (iii) encompasses both adult and non-adult populations, and (iv) undertakes an assessment of clinical integration issues for LKM and CM interventions.

Method

Literature Search

A comprehensive literature search using *MEDLINE, Science Direct, ISI Web of Knowledge, PsychInfo,* and *Google Scholar* electronic academic databases was undertaken for studies published up to August 2014. These five electronic databases were selected in order to achieve the most effective balance between the comprehensiveness of literature coverage and instances of duplicate records being returned. Reference lists of retrieved articles and review papers were also examined for any further studies not identified by the initial database search. The search criteria used were *compassion**, OR *mind-training*, OR *loving-kindness*, OR *metta* (Pāli for loving-kindness) in combination with (AND) *meditation*, OR *therapy*, OR *treatment*, OR *program*, OR *intervention*, OR *training*.

Selection of Studies and Outcomes

The inclusion criteria for further analysis were that the paper had to: (i) have been published in

a peer-reviewed journal in the English language (unpublished studies were excluded on the assumption that if a study's design, method of data analysis, and standard of reporting met the criteria required for publication in peer-reviewed academic journals, then a version of the manuscript will eventually appear in published form), (ii) report an empirical intervention study of an LKM and/or CM technique that was based on a Buddhist model of loving-kindness or compassion, (iii) include pre- and post-intervention measures of dependent variables with adequate statistical analysis, (iv) measure outcomes utilising suitably validated self-report questionnaires, clinician-rated checklists, and/or standardised laboratory test procedures, and (v) assess changes in the symptom severity of Diagnostic and Statistical Manual of Mental Disorders (text revision fourth edition; DSM-IV-TR) Axis I disorders in clinical samples and/or known concomitants thereof in sub-clinical/healthy samples (the DSM-IV-TR was the current DSM version [i.e., rather than the DSM-V] at the time the included studies were undertaken). Papers were excluded from further analysis if they: (i) contained no new empirical data (e.g., a theoretical and/or descriptive review paper), (ii) followed a single-participant design, (iii) reported only qualitative data, (iv) assessed non-psychopathology-relevant outcomes, (v) utilised a meditation technique in which compassion and/or loving-kindness were not central components (due to the fact that 'self-compassion' represents a separate arm of the theoretical and empirical literature on the interventional use of Buddhist compassion [and given that self-compassion and compassion are actually very different practices], studies utilising interventions that were primarily based on self-compassion techniques were excluded from the current review), (vi) evaluated interventions that were not primarily meditation-based, and (vii) followed a single-dose experimental/non-treatment design that measured only state (i.e., and not trait) changes in dependent variables.

Outcome Measures

The primary considered outcome measure was a change in the symptom severity of a DSM-IV-TR Axis I disorder. Secondary outcomes were known concomitants and risk factors for psychopathology such as emotional dysregulation, thought suppression, psychological distress, and psychopathology biomarkers (e.g., cortisol, C-reactive protein, salivary alpha-amylase, cytokines, etc.). Acceptable outcome assessment tools were suitably validated self-report psychometric tests, clinician-rated checklists, and/or standardised laboratory test procedures for measuring psychopathology biomarkers.

Data Extraction and Synthesis

Abstracts were identified, retrieved, assessed, and shortlisted by the present author. A research colleague then audited the initial shortlist process for the purposes of validating the rationality of the present author's selection criteria. The same two assessors independently undertook a full-text review of all shortlisted abstracts. Disagreements relating to study eligibility were reconciled via discussion between the two assessors, and a 100% consensus was reached in all cases.

Data were extracted from the included studies based on recommendations by Lipsey and Wilson (2001). Extracted data items included sample size, control-group design (e.g., wait-list, treatment-as-usual, comparative intervention, purpose-made active control condition, etc.), diagnosis (where applicable), intervention description, outcome measures, and pre-post and follow-up (where applicable) findings. Extracted data items were then compiled to form a brief description of each study (see 'Results' section), and a qualitative and quantitative assessment of study quality was then undertaken (see 'Quality Scoring' sub-section for details of the quantitative assessment of study quality and see 'Results' section for findings from both the qualitative and quantitative assessment arms). Finally, eligible studies were stratified into

LKM, CM, and mixed-LKM and -CM interventions.

A meta-analysis was deemed to be inappropriate due to heterogeneity between study designs, participant age and clinical status, intervention types, and target outcomes (Shonin, Van Gordon, Slade, & Griffiths, 2013a). Furthermore, as previously discussed, a meta-analysis based exclusively on RCTs has recently been conducted (see Galante et al., 2014).

Quality Scoring

The *Quality Assessment Tool for Quantitative Studies* (QATQS; National Collaborating Centre for Methods and Tools, 2008) was used to assess the quality of the included studies. The QATQS is a manualised tool that can be used to gauge study quality across a range of interventional study designs (e.g., RCTs, non-randomised controlled trials, cohort study, case-control study, uncontrolled studies, etc.). The QATQS assesses methodological rigour across the following six domains: (i) *selection bias* (e.g., sample representative of the target population), (ii) *design* (e.g., randomisation, appropriate randomisation, suitable control group, etc.), (iii) *confounders* (e.g., significant differences between groups on baseline demographic or health-based variables, etc.), (iv) *blinding* (i.e., researcher blinding), (v) *data collection method* (e.g., appropriateness of assessment tools), and (vi) *withdrawals and drop-outs* (i.e., numbers of and reasons for). A quality score of 1 to 3 is awarded for each domain (i.e., 1 = *strong*, 2 = *moderate*, 3 = *weak*). Individual scores are then transposed onto a rating table and a global score is then calculated. An overall quality score of 1 (*strong*) is assigned for no weak ratings, 2 (*moderate*) for one weak rating, and an overall score of 3 (*weak*) is assigned if there are two or more weak ratings.

For each of the rated domains, the QATQS uses a series of questions in order to maximise objectivity and scoring consistency. For example, to assess study quality for the 'confounders' component, the QATQS includes the following questions in order to guide the

assessor: 1. *Were there important differences between groups prior to the intervention (in race, sex, marital/family status, age, socio economic status, education, health status, and/or pre-intervention score on outcome measure*)? and 2. *If yes, indicate the percentage of relevant confounders that were controlled (either in the design (e.g. stratification, matching) or analysis)—possible response options: (i) 80 – 100% (most), (ii) 60 – 79% (some), (iii) less than 60% (few or none),* or (iv) *Can't Tell.* In the current study, the QATQS scoring was independently conducted by the present author and a research colleague, and any discrepancies were reconciled by discussion. A 100% agreement was reached in all cases.

Results

Search Results

The initial comprehensive literature search yielded a total of 342 papers. After the review of the papers' abstracts, 288 studies were found to be ineligible based on the pre-determined inclusion and/or exclusion criteria outlined above. Following a full-text review of the remaining 54 papers, a total of 20 studies met all of the inclusion criteria for in-depth review and assessment. Figure 3.1 shows the PRISMA flow diagram for the paper selection process.

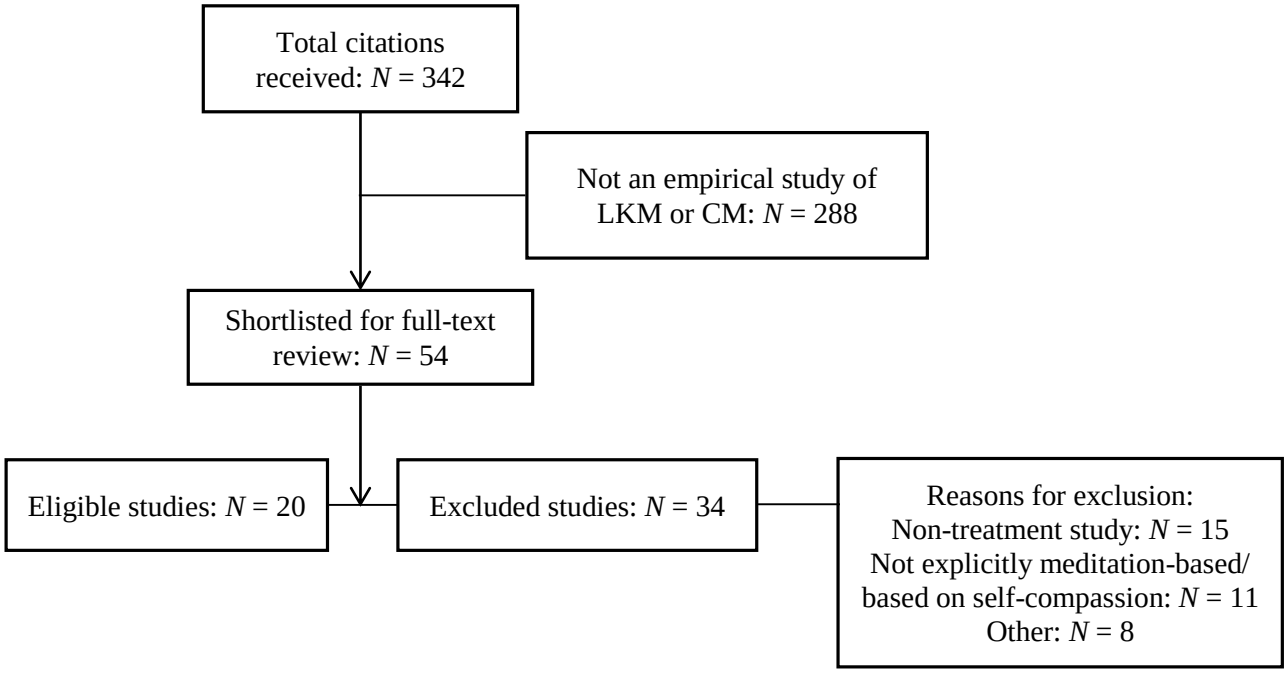

Figure 3.1 PRISMA flow diagram of the paper selection process

Primary Reasons for Exclusion

Of the 54 papers that underwent a full-text review, the five most common reasons for exclusion were that the study: (i) featured a single-dose adapted LKM or CM experimental test rather than training as part of a programme of psychotherapy (e.g., Barnhofer, Chittka, Nightingale, Visser & Crane, 2010; Crane, Jandric, Barnhofer & Williams, 2010; Engström & Söderfeldt, 2010; Feldman, Greeson, & Senville, 2010; Hutcherson, Seppala & Gross; 2008; Lee et al., 2012; Logie & Frewen, 2015), (ii) utilised an intervention integrating loving-kindness and/or compassion techniques that was not based on meditation (e.g., Gilbert & Procter, 2006; Leiberg et al., 2011; Mayhew & Gilbert, 2008; Oman, Thoresen, & Hedberg, 2010), (iii) was not designed to explicitly assess changes in the symptom severity of DSM-IV-TR Axis I disorders in clinical samples and/or known concomitants thereof in sub-clinical/healthy samples (e.g., Condon, Desbordes, Miller & DeSteno, 2013; Hunsinger, Livingston & Isbell, 2013; Mascaro, Rilling, Negi & Raison, 2013b; May et al., 2011; Weng et al., 2013), (iv) was primarily based

on self-compassion techniques (e.g., Albertson, Neff & Dill-Shackleford, 2015; Neff & Germer, 2013; Shapira, & Mongraina, 2010), or (v) was not published in a peer-reviewed journal (e.g., Humphrey, 1999; Kleinman, 2011; Law, 2012; Templeton, 2007; Weibel, 2008).

Characteristics of Included Studies

The 20 papers that met all of the inclusion criteria comprised eight studies of LKM interventions, seven studies of CM interventions, and five studies of interventions that utilised both LKM and CM techniques. The mean QATQS quality score for the 20 included studies was 1.80 (*SD* = 0.70), indicating a moderate level of study quality. Fourteen studies employed an RCT design, three studies employed other controlled designs (e.g., non-randomised controlled trial), and three studies did not employ a control condition. Two studies included adolescent participants at-risk for psychopathology and the remaining 18 studies included adult participants of clinical, sub-clinical, or healthy diagnostic status. The total number of participants across all 20 studies was 1312 (*M* = 65.60, *SD* = 47.45). Seven studies received a strong quality score, ten studies received a moderate quality score, and three studies received a weak quality score. Table 3.1 shows how the QATQS score was compiled for each study included in the in-depth analysis as well as a description of study characteristics.

Table 3.1 Description and quality assessment of included studies

Study	Participants	Intervention description	Outcomes	QATQS quality score (1 = *Strong*, 2 = *Moderate*, 3 = *Weak*)
		Loving-kindness meditation		
Carson et al., 2005	Patients with chronic lower back pain and associated psychological distress (aged 26-80 years). 31 LKM, 30 standard-care controls. (US)	8-week manualised LKM intervention. Weekly classes of 90-minutes duration with 10-30 minutes daily self-practice.	Meditators demonstrated significant reductions in pain intensity and psychological distress that were maintained at 3-month follow-up. Daily practice-time predicted reductions in back pain that day as well as reductions in anger the following day.	Selection bias: 2 Design: 1 (RCT with standard-care control) Confounders: 2 Blinding: 1 Data collection: 1 Attrition: 1 Global rating: *Strong*
Williams et al., 2005	Patients with acquired immunodeficiency syndrome (mean age in LKM group = 45.08 years). 13 LKM, 16 massage, 13 LKM + massage, 16 treatment as usual. (US)	4-week LKM intervention comprising (i) initial 90-minute session with the course facilitator, (ii) 15 minutes daily self-meditation practice using a CD of guided meditation, (iii) weekly meetings with the instructor.	Compared to the other allocation conditions, participants in the combined LKM and massage group demonstrated significant improvements in quality of life. No significant differences for standalone LKM or massage therapy compared to treatment as usual.	Selection bias: 2 Design: 1 (Four-arm RCT with standard-care control) Confounders: 2 Blinding: 2 Data collection: 1 Attrition: 1 Global rating: *Strong*
Fredrickson et al., 2008	Healthy adults employed at a computer company who were interested in	6-week LKM program. 60-minute weekly sessions with 20-30 participants per group.	Compared to controls, meditators demonstrated significant improvements in levels of positive	Selection bias: 1 Design: 1 (RCT with wait-list control)

	reducing their levels of general stress (mean age = 41 years). 102 LKM, 100 wait-list controls. (US)		emotions (e.g., love, joy, gratitude, interest, etc.). These improvements were associated with increases in personal resources that, in turn, predicted increased quality of life and reductions in depression.	Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Sears & Kraus, 2009	Nonclinical university student sample (mean age = 22.8 years). 24 mindfulness, 20 LKM, 20 mindfulness + LKM, 10 non-meditating controls. (US).	Mindfulness and LKM training programs of 7-12 weeks duration. Weekly group sessions of 15-120 minutes duration.	No significant main effect of group or time across a range of outcomes assessing psychosocial functioning. Participants in the mindfulness + LKM group demonstrated significant within-group improvements in anxiety, negative affect, and hope—that were mediated by changes in cognitive distortions.	Selection bias: 2 Design: 2 (non-randomised four-armed cohort controlled study) Confounders: 3 Blinding: 1 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Johnson et al., 2009	Patients diagnosed with a schizophrenia-spectrum disorder ("*young adult to middle-age"*—exact age not reported). 3 meditating participants. (US)	6-week LKM program. Weekly classes of 1-hour. Review/booster session six weeks after therapy termination.	Significant improvements in asociality, blunted affect, self-motivation, interpersonal relationships, and relaxation capacity. Positive outcomes were mediated by mindfulness practice.	Selection bias: 3 Design: 3 (uncontrolled study) Confounders: 3 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Weak*
Johnson et al., 2011	Outpatients with a schizophrenia disorder	6-week LKM program. Weekly classes of 1-hour. Review/booster	Significant pre-post improvements in anhedonia, asociality, intensity of	Selection bias: 2 Design: 3 (uncontrolled

	with persistent negative symptoms (mean age = 29.4 years). 18 meditating participants. (US)	session six weeks after therapy termination.	positive emotions, consummatory pleasure, environmental mastery, self-acceptance, and satisfaction with life—that were maintained at three-month follow-up.	study) Confounders: 3 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Weak*
May et al., 2012	Healthy adult sample of university students (mean age not reported). 16 LKM, 15 concentrative meditation. (US)	5-week self-practice LKM or concentration meditation program. Initial training session consisting of a 20-minute guided meditation. 15-minutes meditation practice on three days per week.	Significant increases in mindfulness for both meditation groups. Significant post-intervention improvements in positive and negative affect for the LKM group but not the concentration meditation group.	Selection bias: 2 Design: 2 (two-arm comparison study with randomisation) Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Shahar et al., 2014	Individuals with high levels of self-criticism (aged 18-65 years). 19 intervention, 19 control. (Israel)	7-week LKM program. Weekly classes of 90-minutes. CD of guided LKM meditations to facilitate at-home practice.	LKM group demonstrated significant improvements over controls in self-criticism, depressive symptoms, self-compassion, and positive emotions. Therapeutic gains were maintained through to three-month follow-up.	Selection bias: 2 Design: 1 (RCT with wait-list control) Confounders: 1 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
		Compassion meditation		
Pace et al., 2009	Healthy adults (aged 17 – 19 years). 45 CBCT, 44	6-week adapted Cognitively-based Compassion Training (CBCT). Bi-	Meditation practice was significantly correlated with reductions in innate	Selection bias: 2 Design: 1 (RCT with

	health discussion controls. (US)	weekly classes of 50-minutes duration with daily self-practice.	immune (as measured by plasma concentrations of interleukin-6) and distress responses to psychosocial stress.	appropriate randomisation) Confounders: 2 Blinding: 1 Data collection: 2 Attrition: 1 Global rating: *Strong*
Pace et al., 2010	Healthy adults (aged 17-19 years). 30 CBCT. (US)	6-week adapted CBCT program. Bi-weekly classes of 50-minutes duration with daily self-practice.	No correlation was found between time spent meditating and stress responsivity.	Selection bias: 2 Design: 3 (uncontrolled study) Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Weak*
Pace et al., 2013	Adolescents (aged 13-17 years) in foster care with high rates of early life adversity. 37 CBCT, 34 wait-list controls. (US)	6-week adapted CBCT program. Bi-weekly classes of 1-hour duration with 30-minutes daily self-practice.	Significant reductions in salivary concentrations of C-reactive protein (a health-relevant inflammatory biomarker for psychopathology).	Selection bias: 2 Design: 1 (RCT with wait-list control) Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Reddy et al., 2013	Adolescents (aged 13-17 years) in foster care with	6-week adapted CBCT program. Bi-weekly classes of 1-hour	Significant reductions in depression for both CBCT and wait-list control	Selection bias: 2 Design: 1 (RCT with

	high rates of early life adversity. 37 CBCT, 34 wait-list controls. (US)	duration with 30-minutes daily self-practice.	participants. No significant effects for all other psychosocial outcomes (e.g., anxiety, self-injurious behaviour, personal agency, emotion regulation, and childhood trauma).	wait-list control) Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Mascaro et al., 2013a	Healthy adults (aged 25-55 years). 16 CBCT, 13 health discussion controls. (US)	8-week CBCT program. Weekly sessions of 2-hours duration with 20-minutes daily self-practice.	Significant increases for CBCT participants over controls in empathic arousal and neural activity (in the inferior frontal gyrus and dorsomedial prefrontal cortex).	Selection bias: 2 Design: 1 (RCT with active control) Confounders: 2 Blinding: 1 Data collection: 1 Attrition: 1 Global rating: *Strong*
Desbordes et al., 2012	Healthy adults (aged 25 – 55 years). 12 CBCT, 12 mindfulness training, & 12 health discussion controls. (US)	8-week CBCT program. Weekly classes of 2-hours duration with 20-minutes daily self-practice.	CBCT participants demonstrated increases in right amygdala responses to negative images that were significantly correlated with reduced levels of depression.	Selection bias: 2 Design: 1 (three-arm RCT with active control) Confounders: 2 Blinding: 1 Data collection: 1 Attrition: 1 Global rating: *Strong*
Koopmann-Holm et al.,	Healthy female students (mean age = 21.13 years).	8-week compassion meditation program. Weekly classes of 2-hours	Significant increase in meditating participants (mindfulness and	Selection bias: 2 Design: 1 (Four-arm

2013	19 mindfulness, 17 compassion, 16 improvisational theatre class, 22 no class. (US)	duration.	compassion meditation) over control group participants in the value placed on 'low arousal positive states'. No significant differences between mindfulness and compassion meditation in ideal affect or subjective wellbeing.	RCT with active control) Confounders: 2 Blinding: 2 Data collection: 1 Attrition: 1 Global rating: *Strong*
		Mixed loving-kindness and compassion meditation		
Van Gordon et al., 2014a	Sub-clinical sample of university students with issues of stress, anxiety, and low-mood (aged 20-42 years). 14 MAT, 11 wait-list controls. (UK)	8-week Meditation Awareness Training intervention. Weekly classes of 2-hours duration with daily self-practice and one-to-one support sessions in weeks 3 and 7 of the program.	Significant improvements for meditating participants over controls in levels of emotional distress (stress, anxiety, & depression), positive and negative affect, and dispositional mindfulness.	Selection bias: 2 Design: 2 (non-randomised controlled trial) Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Shonin et al., 2014d	Office managers wishing to reduce levels of work-related stress (aged 18 – 65 years). 76 MAT, 76 active control. (UK)	8-week Meditation Awareness Training intervention. Weekly classes of 90-minutes duration with daily self-practice and one-to-one support sessions in weeks 3 and 7 of the program.	Significant improvements for meditating participants over controls in levels of work-related stress, job satisfaction, psychological distress, and employer-rated job performance.	Selection bias: 2 Design: 1 (RCT with active control) Confounders: 1 Blinding: 2 Data collection: 1 Attrition: 1 Global rating: *Strong*
Wallmark et	Healthy adult participants	8-week LKM and CM intervention	Significant improvements for	Selection bias: 2

al., 2013	(aged 22-57 years). 21 intervention, 29 wait list control. (Sweden)	based on 'the four immeasurable attitudes' and tonglen meditation. Weekly sessions of 75 minutes duration.	meditation participants over controls in perspective taking, self-perceived stress, self-compassion, and mindfulness.	Design: 1 (RCT with wait-list control) Confounders: 2 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Jazaieri et al., 2013	Healthy adults (mean age in intervention group = 41.98). 60 CCT, 40 wait-list control. (US)	Eight week group Compassion Cultivation Training program. Weekly two-hour group sessions (plus orientation session) and 15-30 minutes daily self-practice using pre-recorded guided meditations.	CCT participants demonstrated significant improvements over control group participants in fear of compassion and self-compassion.	Selection bias: 2 Design: 1 (RCT with wait-list control) Confounders: 1 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*
Jazaieri et al., 2014	Healthy adults (mean age in intervention group = 41.98). 60 CCT, 40 wait-list control. (US)	Eight week group Compassion Cultivation Training program. Weekly two-hour group sessions (plus orientation session) and 15-30 minutes daily self-practice using pre-recorded guided meditations.	CCT participants demonstrated significant improvements over control group participants in levels of mindfulness, worry and emotional suppression.	Selection bias: 2 Design: 1 (RCT with wait-list control) Confounders: 1 Blinding: 3 Data collection: 1 Attrition: 1 Global rating: *Moderate*

Loving-kindness Meditation Intervention Studies (n = 8)

Of the eight LKM intervention studies that met all of the inclusion criteria, five studies followed an RCT design, one study followed a non-randomised controlled design, and two studies did not employ a control group. The overall programme duration of the eight eligible LKM studies ranged from 4-12 weeks, and the length of weekly group sessions ranged from 10-120 minutes.

The first eligible LKM study was an RCT that investigated the effects of a manualised LKM intervention on patients with chronic lower back pain and associated psychological distress (Carson et al., 2005). Patients (mean age = 51.5 years, range = 26-80 years) were randomly assigned to the intervention (n = 31) or a standard-care control group (n = 30). The 8-week intervention comprised 90-minute weekly group sessions facilitated by experienced clinicians. Patients were taught throughout successive weeks to direct feelings of love and kindness firstly towards themselves, then towards a neutral person (e.g., the postman), then towards a person who was a source of difficulty (e.g., a disrespectful former boss), and finally towards all living beings. Compared to controls, meditating participants demonstrated significant pre-test post-test and follow-up (3-month) reductions in pain intensity (McGill Pain Questionnaire [Melzack, 1975]) and psychological distress (Brief Symptom Inventory [Derogatis & Melisaratos, 1983]). Furthermore, daily practice-time predicted reductions in back pain *that day* as well as reductions in anger the *following day*.

Whilst the study was methodologically robust, it could have been strengthened further by the inclusion of an intent-to-treat analysis. This would have provided a better indication of the overall ease of completion of the LKM intervention that suffered substantial attrition (of > 40%)—an amount that was significantly higher than the attrition rate for the control intervention (b = 1.28, p = .04). A further limitation was the poorly defined control condition whereby the authors simply stated that: "*patients in this condition received the routine care*

provided through their medical outpatient programme" (p.292). Thus, it is not possible to determine whether salutary effects experienced by the meditation group were due to non-specific factors (such as therapeutic alliance, psycho-education, etc.) that were absent from the control condition.

Another RCT evaluated the independent and interactive effects of LKM and massage on quality of life in individuals with acquired immunodeficiency syndrome (Williams et al., 2005). Participants (n = 58, mean age in LKM group = 45.08 years, SD = 2.20) were assigned to one of the following groups: (i) LKM, (ii) massage (five massages per week for a four-week period), (iii) LKM plus massage, or (iv) treatment as usual. Meditation group participants received a 90-minute introductory session lead by an experienced meditation teacher. Following this, participants were required to practice a guided LKM meditation (involving mind focussing and phrase repetition) at least once a day for a period of four weeks. Meditation participants met with the meditation instructor on a weekly basis to discuss any issues with the training. Following completion of the intervention and compared to the other allocation conditions, participants in the combined LKM and massage group demonstrated significant improvements in quality of life (Missoula-VITAS Quality of Life Index [Byock & Merriman, 1998]). There were no significant differences for standalone LKM or massage therapy compared to treatment as usual.

In addition to the small sample sizes (only 13 participants commenced the LKM intervention—of which 7 were lost to follow-up), the study was limited by the fact that: (i) adherence to practice data was not assessed, and (ii) the control condition was 'treatment as usual' which meant that a possible Hawthorne Effect could not be ruled out (i.e., where participant behaviour changes simply because they are being observed).

A further RCT assessed the effects of a six-week LKM intervention on positive emotions and associated changes in psychosocial resources (e.g., agency thinking,

environmental mastery, social support given and received, etc.) and psychosomatic wellbeing (Fredrickson et al., 2008). Healthy adults (mean age = 41 years; *SD* = 9.6 years) employed at a computer company who were interested in reducing their levels of general stress were allocated to a wait-list control group (*n* = 100) or the intervention (*n* = 102). Approximately one in three participants dropped out of the study (with no significant variance between allocation conditions) or were disqualified (e.g., due to not attending the minimum number of weekly sessions). Meditating participants attended six one-hour group sessions (20-30 participants per group) that were facilitated by a stress management specialist. The weekly meditation workshops were structured into three distinct phases (each of 20 minutes duration): (i) guided group meditation, (ii) didactic presentation, and (iii) question and answer sessions. A CD of guided meditations was provided to facilitate daily self-practice. Compared to control group participants, meditating participants demonstrated significant improvements in levels of positive emotions (e.g., love, joy, gratitude, interest—as measured by the Modified Differential Emotions Scale [Fredrickson, Tugade, Waugh, & Larkin, 2003]). These improvements were associated with increases in personal resources that, in turn, predicted increased satisfaction with life (Satisfaction With Life Scale [Diener, Emmons, Larsen, & Griffin, 1985]) and reductions in depression (Center for Epidemiological Studies—Depression Measure [Radloff, 1977]).

While the study was well-conceived and adequate detail was provided regarding the intervention and study design protocol, it could have been strengthened further by: (i) including a long-term follow-up assessment (e.g., at three- or six-months post intervention) to assess maintenance effects, (ii) providing information on worker profile (e.g., professional, managerial, skilled, unskilled, etc.) with an assessment of whether the intervention was more effective for different types of worker, and (iii) utilising an active rather than a wait-list control (i.e., to control for factors such as group engagement, therapeutic alliance, change of work

routine, team building, etc.).

In a non-randomised cohort controlled study (Sears & Kraus, 2009) involving healthy college students (mean age = 22.8 years, *SD* = 6.7 years), four different study groups were generated: (i) mindfulness training (*n* = 24), (ii) LKM training (*n* = 20), (iii) adjunctive mindfulness with LKM training (*n* = 20), and (iv) non-meditating control group (*n* = 10). Participants in the first two groups attended group meditation sessions (10-15 minutes duration) once a week for a period of 12 weeks. The group receiving adjunctive mindfulness with LKM training attended two-hour weekly group sessions for a period of seven weeks. The dropout rate was below 25% for both the mindfulness and LKM groups, but was 45% for the mixed-training group. The mean reported amount of at-home practice was 25 minutes (*SD* = 39 minutes) with no significant difference between any of the meditating groups. No significant main effect of group or time was found across a range of outcome measures assessing psychosocial functioning (i.e., anxiety, positive and negative affect, irrational beliefs, coping styles, and hope). However, participants in the mixed-meditation group demonstrated significant within-group improvements in anxiety (Beck Anxiety Inventory [Beck, Epstein, Brown, & Steer, 1988]), negative affect (Positive and Negative Affect Scale [Watson, Clark, & Tellegen, 1988]), and hope (Hope Scale [Snyder et al., 1991]), which were mediated by changes in cognitive distortions (Irrational Beliefs Scale [Malouff & Schutte, 1986]).

The study was limited by a number of design issues: (i) differences between the number and duration of weekly sessions between meditation groups makes it difficult to draw reliable inferences regarding their relative effectiveness, (ii) participants were (seemingly) not provided with a CD of guided meditations to facilitate at home practice which increases the likelihood of deviations from the prescribed mode of meditative practice, (iii) post-intervention assessments were taken at different time points which makes it difficult to account for university term-related stressors (e.g., exams, coursework deadlines, etc.), and (iv) group sizes

were small (i.e., 10-15 completing participants per group) and therefore may not generalise to larger samples.

An uncontrolled study exploring the effects of a secularised LKM intervention on the negative symptoms of schizophrenia met the criteria for inclusion in the systematic review (Johnson et al., 2009). Patients (n = 3) of young adult to middle age (exact age not reported) diagnosed with a schizophrenia-spectrum disorder attended one-hour weekly group sessions for six weeks followed by a review/booster session six weeks after completion of the intervention. The sessions comprised discussion and clinician-guided meditation exercises. Patients were asked to practice LKM on a daily basis (and a guided meditation CD was provided as a support resource). Participants demonstrated significant improvements in asociality, blunted affect, self-motivation, interpersonal relationships, and relaxation capacity (pre- and post-intervention assessments were conducted by a clinician however details of the assessment instruments were not provided).

Obviously, the very small sample size considerably limits the generalisability of these findings as does the fact the authors did not provide a sufficient level of quantitative data regarding the assessments that took place pre- and post- intervention. Furthermore, it is difficult to determine to what extent improvements were due to LKM practice as opposed to therapeutic alliance or other therapeutic conditions (e.g., unconditional positive regard, active listening, accurate empathy, etc.) established during the weekly sessions.

More recently, the same authors (Johnson et al., 2011) replicated these findings in a slightly larger sample of outpatients (n = 18; mean age = 29.4 years, SD = 10.2 years) with a schizophrenia disorder (comprising persistent negative symptoms). The study was conducted on an intent-to-treat basis with data for non-completers (n = 2) substituted on a last-observation-carried-forward basis. The session attendance rate was 84% with participants practicing LKM for an average of 3.7 days per week and an average of 19.1 minutes per

individual practice session (*SD* = 14.6 minutes). Significant improvements in baseline to end-point scores were demonstrated across a range of outcomes including: (i) anhedonia and asociality (Clinical Assessment Interview for Negative Symptoms [Blanchard, Kring, Horan, & Gur, 2011]), (ii) intensity of positive emotions (Modified Differential Emotions Scale [Fredrickson et al., 2003]), (iii) consummatory pleasure (Temporal Experience of Pleasure Scale [Gard, Gard, Kring, & John, 2006]), (iv) environmental mastery and self-acceptance (Scales of Psychological Well Being [Ryff, 1989]), and (v) satisfaction with life (Satisfaction with Life Scale [Diener et al., 1985]). All intervention gains were maintained at the three-month follow-up assessment and qualitative feedback attested to the acceptability and perceived utility of the intervention.

Similar to the earlier LKM study by the same authors (i.e., Johnson et al., 2009), the above study was limited by the small sample size and the absence of a control condition. Furthermore, the inclusion of mindfulness exercises as part of the LKM intervention made it difficult to establish whether LKM was in fact the active ingredient underlying the therapeutic change.

A longitudinal study was conducted to assess the effects of both LKM and concentrative meditation on mindfulness and positive/negative affect (May et al., 2012). Healthy adult student participants (mean age not reported) were randomly assigned to practice either concentrative meditation (n = 15) or LKM (n = 16) for a period of five weeks. Both groups attended an initial training session consisting of a 20-minute guided meditation. Participants were instructed to practice meditation for 15-minutes on three days each week. Whilst practicing meditation, participants in both groups experienced significant improvements in levels of mindfulness (Freiburg Mindfulness Inventory [Walach, Buchheld, Buttenmuller, & Kleinknecht, 2006]). However, after completion of the five-week intervention, mindfulness levels significantly decreased for the concentrative meditation group but not for the LKM

group. A similar pattern was observed for affect where the concentrative meditation group demonstrated reductions in positive affect after the meditation training, whilst levels of positive affect in the LKM group continued to improve (Positive and Negative Affect Scale [Watson et al., 1988]). The LKM group also demonstrated significant reductions in negative affect in the post-meditation period whereas no significant changes were observed for the concentrative meditation group.

Although findings suggest that LKM may give rise to more enduring salutary effects than concentrative meditation, there were a number of potentially confounding factors. These mostly relate to the relatively unstructured manner in which the two different forms of meditation were delivered, as well as apparent similarities between meditation techniques. For example, although participants received an initial 20-minute training session featuring a guided meditation, it appeared that no further formal instruction or guided meditation CD was provided. Based on such a small amount of instruction, it is possible that participants' meditation practice will have deviated from the technique they were assigned to follow. Furthermore, although one group of participants were assigned to practice concentrative meditation and the other group LKM, both meditation conditions employed a significant amount of concentrative meditation. Indeed, a concentration-based body scan was taught as part of both meditative techniques, and the LKM group also included visualisation/imagining tasks that are likewise heavily reliant upon meditative concentration.

In a further eligible study that utilised an RCT design, participants with high levels of self-criticism were randomly allocated to an LKM programme (n = 19; mean age = 28.68, SD = 10.37) or a wait-list control condition (n = 19) (Shahar et al., 2014). Participants attended seven weekly 90-minute group sessions that were led by an experienced meditation teacher. Participants began by directing warmth and compassion towards themselves, and in subsequent weeks the focus of their meditation changed from friends, to neutral individuals, to persons

with whom they had experienced relationship difficulties. The weekly session comprised various discussion components and participants were provided with a CD of guided LKM meditations to facilitate at-home practice. Compared to control-group participants, individuals in the LKM group demonstrated significant improvements in self-criticism (Dysfunctional Attitude Scale [Weissman & Beck, 1979]; Form of Self-Criticism and Self-reassurance Scale [Gilbert, Clarke, Hempel, Miles, & Irons, 2004]), depressive symptoms (depression subscale of the 'Depression Anxiety Stress Scale – 21' [Henry & Crawford, 2005]), self-compassion (Self-Compassion Scale [Neff, 2003]), and positive emotions (Positive and Negative Affect Scale [Watson, Clarke, & Tellegen, 1988]). Therapeutic gains were maintained through to three-month follow-up.

Although the intervention was described as LKM, limited information was provided about the meditation technique that was simply described as the process of directing warmth and compassion to others. Given that this account appears to resemble features of compassion meditation, it is difficult to establish whether participants were actually practising, LKM, CM, or a combination of both. Further limitations of the study were the fact that: (i) the sample size was very small, (ii) participant practice-adherence data was not elicited, (iii) an active control condition was not employed (i.e., to control for non-specific factors), and (iv) only self-report (i.e., rather than objective) assessment tools were utilised.

Compassion Meditation Intervention Studies (n = 7)

Of the seven CM intervention studies that met all of the criteria for inclusion in the systematic review, six studies followed an RCT design and one study did not employ a control group. The overall programme duration of the seven eligible CM studies ranged from 6-8 weeks, and the length of weekly group sessions ranged from 50-120 minutes.

The first eligible RCT assessed the effects of Cognitive-based Compassion Training

(CBCT) on stress reactivity in 89 healthy adults (aged 17-19 years; mean age = 18.5 years, *SD* = 0.62 years) (Pace et al., 2009). Participants attended twice-weekly group meditation classes (of 50-minutes duration) for a total of six weeks. Of the 33 participants that completed the meditation training (n = 45 at baseline), the class attendance rate was 90%. The average number of self-practice meditation sessions was 2.8 per week (mean session duration = 20 minutes). Participants in the control group attended health-based discussion workshops taught by graduate students. No significant pre-post differences were observed for meditating participants versus controls. However, a within-group association was identified for time spent meditating and reductions in innate immune (as measured by plasma concentrations of interleukin-6) and distress responses to psychosocial stress as induced by a standardised laboritory stressor (Trier Social Stress Test [Kirschbaum, Pirke, & Hellhammer, 1993]). Although the study included pre- and post-intervention assessments of some of the dependant variables, a major limitation of the study was the fact that the stress test was administered only after the intervention. Thus, it is difficult to attribute any reduction in stress reactivity to time spent meditating because participants with lower baseline stress response levels may have been more able to practice meditation.

To overcome this limitation, the same authors (Pace et al., 2010) conducted a follow-up uncontrolled study using the same sample frame (n = 30) in which the stress test was administered at baseline. All 30 participants completed the six-week CBCT programme and no correlation was found between time spent meditating and stress responsivity. Findings from this smaller follow-up study suggest that the significant inverse associations reported in the original study (i.e., Pace et al., 2009) were not confounded by differences in participant pre-intervention stress reactivity levels.

While outcomes from both of the abovementioned studies (Pace et al., 2009, 2010) indicate that CBCT may exert a protective influence over psychosocial stress, there were a

number of limitations that are likely to restrict the generalisability of findings. Of particular note was the design of the active control condition utilised in the original study. Although well matched in terms of total intervention hours, degree of psycho-education, group interaction, and an at-home practice element, the control intervention was delivered by graduate students. This is in contrast to the CBCT intervention that was delivered by a senior Buddhist monk who is likely to have more experience in delivering meditation-based interventions.

A more recent RCT (n = 71) of CBCT (two one-hour weekly sessions for six weeks) assessed the effects of CM on adolescents (aged 13-17 years) with high rates of early-life adversity due to foster care placement (Pace et al., 2013). Participants were randomised to a six-week CBCT programme (n = 37) or to a wait-list control group (n = 34). Dropout rates were relatively similar between groups (approximately 20% in each group). The primary measured outcome was changes in salivary concentration of C-reactive protein—an inflammatory biomarker for psychopathology. No significant improvements were observed for meditating participants versus controls. However, C-reactive protein levels in the CBCT group were negatively correlated with the number of meditation practice sessions attended. The authors interpreted these findings as an indication that CBCT exerts a protective influence over inflammation (and therefore psychopathology) caused by early life adversity.

Using the same sample of foster-care adolescents, another eligible RCT assessed the effects of CBCT on psychosocial outcomes including depression, anxiety, hope, self-injurious behaviour, personal agency, emotion regulation, and childhood trauma (Reddy et al., 2013). Similar to the inflammatory biomarker study, no significant main effect of meditation was observed for any of the dependent variables. However, meditation practice time frequency was significantly associated with increased hopefulness (Children's Hope Scale [Snyder et al., 1991]). As part of an embedded qualitative arm, 62% of CBCT participants reported that the programme was very helpful for coping with daily life. In addition to limited statistical power

(i.e., due to small sample sizes), the two adolescent CBCT studies were also limited by the use of a wait-list control condition that did not account for an effect of peer-interaction (or other non-meditative therapeutic effects) that may have confounded the findings.

A further RCT investigated the effects of CBCT on empathic accuracy in healthy adult participants (Mascaro et al., 2013a). Participants (age range = 25-55 years, *M* = 31.0 years, *SD* = 6.0 years) were randomised to either an eight-week CBCT programme (*n* = 16) or a health-discussion (*n* = 13) control group. The CBCT programme consisted of weekly 2-hour classes and participants were instructed to practice meditation at home for 20-mintutes per day (and a CD of guided meditations was provided to facilitate at-home practice). Participants received functional MRI scans whilst completing an image-based empathic accuracy test (Reading the Mind in the Eyes Test [Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001]) that involved the deciphering of subtle social cues. Following the intervention, participants who completed the meditation programme (*n* = 13) showed significant improvements over controls in empathic accuracy as well as increased neural activity in the inferior frontal gyrus and dorsomedial prefrontal cortex—areas of the brain associated with empathic accuracy and emotional-state processing (Mascaro et al., 2013a). In addition to the small sample sizes, the study was limited by the fact the meditation intervention was administered by two purpose-trained experienced meditators whilst the control programme was facilitated by relatively inexperienced graduate students. A further limitation was the fact the comparator condition (i.e., the health discussion programme) did not control for all non-specific factors because it omitted an at-home practice element. Furthermore, fidelity of intervention implementation was not assessed which meant that any deviations from the intervention delivery protocol were not controlled for.

Another eligible study followed a three-arm RCT design and assessed the effects of compassion meditation on amygdala response to emotional stimuli (Desbordes et al. 2012). Healthy adults (*n* = 51) aged 25-55 years (*M* = 34.1 years, *SD* = 7.7 years) were randomised to

one of three 8-week programmes: (i) a mindfulness intervention, (ii) CBCT, or (iii) a non-meditating active control group featuring health-based discussions. Each allocation condition consisted of two-hour weekly sessions (i.e., 16-hours total intervention time) with no significant differences in total meditation practice time for the mindfulness and CBCT groups. Functional MRI brain scans during an image-based emotion-eliciting task were taken pre- and post-intervention. Following the eight-week programme, CBCT participants showed increases in right amygdala responses to negative images that were significantly correlated with reduced levels of depression. These outcomes were not observed in the mindfulness or control groups. This suggests that CM can lead to enduring changes in brain function and emotion regulation that are maintained outside periods of formal meditation practice.

Findings from the study should be considered cautiously due to the small sample sizes (i.e., only 12 completing participants per allocation condition). A further limitation was the fact that gender was not evenly matched across allocation conditions. This is particularly pertinent given that differences in amygdala activation have been observed between males and females during emotion eliciting tasks (e.g., Derntl et al., 2010, Proverbio, Adorni, Zani, & Trestianu, 2009). Furthermore, fidelity of intervention delivery was not assessed which meant that any deviations from the intervention delivery plan were not controlled for.

In a four-arm RCT investigating the effects of meditation on ideal affect (how people would actually like to feel), female students (n = 96, mean age = 21.13 years, SD = 3.49) were randomly assigned to one of the following groups: (i) mindfulness meditation, (ii) compassion meditation (based on Tibetan Buddhism), (iii) active control (instructor-led eight-week improvisational theatre class), or (iv) no intervention (Koopmann-Holm, Sze, Ochs, & Tsai, 2013). Participants in the two meditation groups were without prior meditation experience and attended an eight-week guided meditation programme. Weekly sessions lasted for two hours and all meditating participants received a CD of guided meditation to facilitate self-practice.

At the end of the eight-week intervention, participants in both mediation groups (i.e., mindfulness meditation and compassion meditation) valued 'low arousal positive states' (e.g., feeling calm) significantly more so than control group participants (Affect Valuation Index [Tsai & Knutson, 2006]). However, there were no significant differences between any of the groups in how participants valued other affective states (e.g., high arousal positive [e.g., excitement], low arousal negative [e.g., dullness], high arousal negative [e.g., fear]) or in levels of subjective wellbeing (Satisfaction With Life Scale [Diener et al., 1985]).

In addition to the small sample size (the average number of participants per allocation condition completing end-point assessments was just 19), the study was limited by the absence of (i) a follow-up assessment to determine maintainance effects and (ii) objective measures of outcome variables (i.e., only self-report measures were employed).

Mixed Loving-kindness and Compassion Meditation Intervention Studies (n = 5)

Of the five mixed-LKM and -CM intervention studies that met all of the criteria for inclusion in the systematic review, four studies followed an RCT design and one study employed a non-randomised controlled trial design. The programme duration of each of the five eligible mixed-LKM and CM studies was eight weeks and the length of weekly group sessions ranged from 75-120 minutes.

The first eligible mixed-meditation technique study was a non-randomised controlled trial that assessed the effectiveness of an 8-week group-based Meditation Awareness Training (MAT) programme for improving stress, anxiety, and depression in a sub-clinical sample of 25 university students (Van Gordon et al., 2014a). MAT is a secular intervention delivered by experienced meditators with a minimum of three years supervised meditation training. As discussed in Chapter 2, the programme follows a more traditional approach to meditation in which participants receive training in both LKM and CM, as well as in other forms of

meditation (e.g., mindfulness and insight meditation) and other Buddhist-derived practices (e.g., ethical awareness, patience, generosity, etc.). Participants (mean age = 30.3 years, *SD* = 8.6 years) attended weekly group sessions (120-minute duration) and received a CD of guided meditations to facilitate daily self-practice. The weekly sessions comprised three distinct phases: (i) a taught/presentation component (approximately 35 minutes), (ii) a facilitated group-discussion component (approximately 25 minutes), and (iii) a guided meditation and/or mindfulness exercise (approximately 20 minutes). In weeks three and seven of the programme, participants attended one-to-one therapeutic support sessions (50-minutes duration) with the programme facilitator. Meditating participants (completers = 11; dropouts = 3) demonstrated significant pre-post improvements compared to a wait-list control group (*n* = 11) in levels of (i) depression, anxiety, and stress (Depression, Anxiety, and Stress Scale [Lovibond & Lovibond, 1995]), (ii) positive and negative affect (Positive and Negative Affect Scale [Watson et al., 1988]), and (iii) dispositional mindfulness (Mindful Attention & Awareness Scale [Brown & Ryan, 2003]).

Although the intervention and control groups were appropriately matched on years of education and other demographic variables, outcomes may have been inflated due to differences in base-line levels of psychological distress between the two groups. In addition to the small sample size, a further limitation of the study was the absence of an active control group that meant that potential confounders such as therapeutic alliance and group-engagement were not controlled for.

More recently, an RCT (*n* = 152) was conducted to assess the effects of MAT on work-related stress and job performance in office managers (Shonin, Van Gordon, Dunn, Singh, & Griffiths, 2014d). Participants followed the same intervention format as described above except the weekly sessions lasted for 90 instead of 120 minutes. Compared to a non-meditating active control group that received an eight-week psycho-education programme, meditating

participants (mean age = 40.14 years, *SD* = 8.11) demonstrated significant improvements in levels of (i) work-related stress (HSE Management Standards Work-Related Stress Indicator Tool [HSE, n.d.]), (ii) job satisfaction (Abridged Job in General Scale [Russel et al., 2004], (iii) psychological distress (Depression, Anxiety, and Stress Scale [Lovibond & Lovibond, 1995]), and (iv) employer-rated job performance (Role-Based Performance Scale [Welbourne, Johnson, & Erez, 1998]).

The RCT was limited by the fact the sample exclusively comprised highly motivated managers aspiring towards higher-hierarchy lifestyles and career roles (annual salary range = £40,000 – £65,000). Consequently, findings may not generalise to individuals fitting different occupational profiles (e.g., semi-skilled workers, skilled workers, etc.). Likewise, participants were essentially 'treatment-seeking' workers interested in learning meditation in order to overcome work-related stress. Thus, findings may not generalise to individuals with an indifferent or negative attitude towards meditation.

A further eligible RCT investigated the effects of a mixed-LKM and -CM intervention on empathy and personal distress (Wallmark, Safarzadeh, Daukantaite, & Maddux, 2013). Healthy adult participants (*n* = 50, mean age intervention group = 32, *SD* = 11, range = 22-57) were allocated to a wait list control group or an eight-week meditation intervention. Each weekly session (75-minutes duration) of the meditation programme comprised the following phases: (i) lecture (30 minutes), (ii) mindful movements (10 minutes), (iii) guided meditation (20 minutes), and (iv) question and answer (15 minutes). Throughout the eight-week period, participants received training in meditation that was based on the four immeasurable attitudes (i.e., joy, compassion, loving-kindness, and equanimity), and in weeks seven and eight participants practised guided tonglen exercises. The intervention was delivered by experienced meditators and participants received a CD of guided meditation to facilitate self-practice. Compared to the non-meditating control group, individuals that received the meditation

intervention demonstrated significant improvements in: (i) perspective taking (Interpersonal Reactivity Index [Davis, 1983]), (ii) stress (Perceived Stress Scale [Cohen, Kamarck, & Mermelstein, 1983]), (iii) self-compassion (Self-Compassion Scale [Neff, 2003]), and (iv) mindfulness (Five-Facet Mindfulness Questionnaire [Baer Smith, Hopkins, Krietemeyer, & Toney, 2006]).

In addition to the small sample size, the above RCT was limited by the absence of a follow-up assessment and an active control condition (i.e., to control for non-specific effects). Furthermore, the convenience sampling method employed meant that all participants (most of which were educated to degree level) were highly motivated to learn meditation. Consequently, findings may not generalise to other (i.e., less motivated) population groups.

Another RCT assessed the effects of Compassion Cultivation Training (CCT) on different indices of compassion (Jazaieri et al., 2013). Healthy adult participants (n = 100) were allocated to CCT (n = 60; mean age = 41.98, SD = 11.48) or a waitlist-control group (n = 40). Participants attended eight weekly two-hour group sessions (plus orientation session) and were required to practice meditation at home for 15-30 minutes each day (participants were provided with pre-recorded guided meditations). Each weekly group session comprised: (i) pedagogical instruction, (ii) group discussion, (iii) guided group compassion and loving-kindness meditations, and (iv) exercises designed to prime feelings of open-heartedness and connection to others (e.g., poetry reading). The intervention was delivered by experienced meditators and no deviations from the CCT protocol were reported. CCT participants demonstrated significant improvements over control group participants in fear of compassion (Fears of Compassion Scales [Gilbert, McEwan, Matos, & Rivis, 2010]) and self-compassion (Self-Compassion Scale [Neff, 2003]). Participants practised meditation for an average of 101 minutes each week and there were no significant differences between allocation conditions in attrition (51 out of 60 CCT participants completed the programme).

Using the same RCT population and in addition to outcomes of fear of compassion and self-compassion, separately reported outcomes of mindfulness, affect, and emotion regulation were also assessed (Jazaieri, McGonigal, Jinpa, Doty, Gross, & Goldin, 2014). CCT participants demonstrated significant improvements over non-meditating participants in levels of mindfulness (Kentucky Inventory of Mindfulness Skills [Baer, Smith, & Allen, 2004]; Experiences Questionnaire [Fresco et al., 2007]), worry (Penn State Worry Questionnaire [Meyer, Miller, Metzger, & Borkovec, 1990]), and emotional suppression (Emotion Regulation Questionnaire [Gross & John, 2003]).

The RCT by Jazaieri et al. (2013, 2014) was limited by the absence of (i) a follow-up assessment to determine maintenance effects, (ii) an active control condition to rule-out non-specific effects (e.g., group interaction, therapeutic alliance, etc.), and (iii) objective measures of compassion (i.e., as opposed to reliance on self-report inventories).

Discussion

A systematic evaluative review of LKM and CM intervention studies focussing on psychopathology-relevant outcomes was conducted. Over 65% of the studies included in the review were published within the last three years, suggesting that clinical interest into LKM and CM is steadily increasing. The use of slightly broader inclusion criteria in the current review (i.e., greater range of study designs, adult and non-adult populations, etc.) meant that at least 50% of the studies evaluated here were not included in the previous reviews of LKM and CM by either Hofmann et al. (2011) or Galante et al. (2014).

Taken as a collective, the findings of the studies reviewed here suggest that Buddhist-derived LKM and CM interventions may have applications in the prevention and/or treatment of a broad range of mental health issues including (but not limited to) (i) mood disorders, (ii) anxiety disorders, (iii) stress (including work-related stress), (iv) schizophrenia-spectrum

disorders, (v) emotional suppression (including supressed empathic response), (vi) fear of self-compassion, and (vii) self-disparaging schemas. Findings also indicate that LKM and/or CM interventions may be acceptable to individuals of different age groups (i.e., adolescents, students, and adults), as well as clinical (including sub-clinical) and healthy populations. A further noteworthy observation is that it appears that LKM and CM techniques can be taught within a relatively short period of time—just a single 20-minute training session (followed by self-practice) in the case of the study by May et al. (2012). Outcomes from the included studies also indicate that salutary effects can be derived after attending weekly (or biweekly) sessions for periods of just 3-12 weeks.

No obvious benefits were identifiable for LKM versus CM techniques. However, in the study by Sears and Kraus (2009), the adjunctive practice of LKM with mindfulness meditation out-performed standalone LKM practice (based on outcomes of anxiety, negative affect, and hope). This finding appears to support the Buddhist operationalisation of LKM and CM that are traditionally practiced as part of a comprehensive and multifaceted approach to meditation. Within Buddhism, the more passive and open-aspect attentional set engaged during mindfulness practice helps to build concentrative capacity and meditative stability (e.g., Dalai Lama, 2001). This meditative stability acts as a platform for subsequently cultivating the more active or person-focussed attentional set utilised during LKM or CM practice. Likewise, Buddhism asserts that effective mindfulness practice is reliant upon LKM and CM proficiency because a meditator cannot expect to establish full mindfulness of their thoughts, words, and deeds, without an in-depth awareness of how such actions will influence the wellbeing or suffering of others (Shonin et al., 2013a). This symbiotic relationship that exists between mindfulness and LKM/CM has also been identified in studies of mindfulness involving clinical populations where (for example) increases in compassion and self-compassion have been observed in patients with severe health anxiety (hypochondriasis) following treatment using

MBCT (Williams et al., 2011).

Although numerous psychopathology-relevant variables were assessed in the reviewed studies, significant improvements were most frequently observed across the following five outcome domains: (i) positive and negative affect, (ii) psychological distress, (iii) positive thinking, (iv) interpersonal relations, and (v) empathic accuracy. From a mechanistic perspective, increased neural activity in brain areas such as the anterior insula, post-central gyrus, inferior parietal lobule (including the mirror-neuron system), amygdala, and right temporal-parietal junction has been shown to enhance regulation of neural emotional circuitry (Keysers, 2011; Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008). This improved regulatory capacity appears to have a direct effect on ability to modulate descending brain-to-spinal cord noxious neural inputs (Melzack, 1991). This might explain why some patients/participants experience reductions in pain intensity and pain tolerance following LKM and/or CM practice.

In addition to mechanisms of a neurobiological nature, the increases in implicit and explicit affection towards others following LKM and CM has been shown to improve social-connectedness and prosocial behaviour (Hutcherson et al., 2008; Leiberg, Olga, & Tania, 2011). In conjunction with the growth in spiritual awareness that can arise following LKM and CM practice, greater social-connectedness can exert a protective influence over life-stressors as well as feelings of loneliness, isolation, and low sense of purpose (Shonin et al., 2013b). Likewise, by encompassing the needs and suffering of others into their field of awareness, it appears that meditation practitioners are better able to add perspective to their own problems and suffering. According to Gilbert (2009), this more compassionate perspective can help to dismantle self-obsessed maladaptive cognitive structures and self-disparaging schemas. As individuals progress in their LKM and CM training and become less self-obsessed and more other-centred, findings from the current review suggest that these positive thinking patterns

begin to undermine the tendency to engage in negative thought rumination—a known determinant of psychopathology (Davey, 2008).

In addition to the obvious clinical applications and consistent with observations by Hofmann et al. (2011), findings from the current review also suggest that LKM and CM techniques may have utility in offender settings and/or for the treatment of anger control issues. Indeed, reductions in levels of anger were explicitly observed in Carson et al's (2005) LKM study with chronic lower back pain patients. Similarly, Hutcherson et al. (2008) demonstrated that practising LKM for durations as short as seven minutes can lead to greater levels of implicit and explicit positivity towards strangers. Proposals advocating the utilisation of LKM and CM interventions in forensic settings (e.g., Shonin et al., 2013c) are consistent with the Buddhist view that a mind saturated with unconditional love and compassion is transformed of negative predilections and is incapable of (intentionally) causing harm (Dalai Lama, 2001; Khyentse, 2007).

Clinical Integration Issues

Issues that may impede the successful clinical integration of LKM and CM interventions are likely to be similar to the types of operational complications encountered as part of the (ongoing) roll-out of mindfulness-based interventions. The operationalisation of mindfulness meditation has been hindered by difficulties in defining the mindfulness construct (Chiesa, 2013), and it is probable that confusion in terms of what actually constitutes LKM and CM practice will generate similar problems. Indeed, although loving-kindness and compassion are traditionally regarded as two distinct constructs, several of the studies included in this systematic review utilised the two terms interchangeably. For example, in the intervention utilised by May et al. (2012) that the authors described as LKM, in addition to directing feelings of happiness towards a known other (i.e., a loving-kindness practice), participants were also

instructed to cultivate the wish for others to "*be free from suffering*" (i.e., a compassion practice) (p.3). Thus, based on the information provided by the authors, rather than just LKM, it appears that participants were actually being instructed in both LKM and CM techniques. Although there is nothing wrong with combining LKM and CM techniques within a single intervention, different interpretations of Buddhist/meditational terminology leads to operational complications and obfuscates any comparisons that might be made between different intervention types.

In addition to issues arising from inconsistent delineations of LKM and CM, there are also issues that relate to the inclusion of mindfulness techniques as part of LKM and CM practice (and vice versa). For example, Johnson et al. (2009) describe LKM as a technique that "*involves quiet contemplation, often with eyes closed or in a non-focussed state and an initial attending to the present moment*" (p.503) in which participants are instructed to "*non-judgementally redirect their attention to the feeling of loving-kindness when attention wandered*" (p.504). Based on such descriptions, it is difficult to discern where mindfulness practice ends and LKM (or CM) practice begins. Similarly, loving-kindness and mindfulness meditation techniques are often amalgamated together in the delivery of eight-week mindfulness-based interventions such as MBSR (Van Gordon et al., 2014a). Thus, there is a need to establish clear and accurate working definitions for LKM and CM that allow them to be clearly delineated from one another, and from other Buddhist-derived meditation techniques more generally.

Other factors that may impede the integration of LKM and CM techniques as acceptable clinical interventions relate to the challenges of assimilating Eastern contemplative techniques into Western culture (see, for example, Lomas, Cartwright, Edginton, & Ridge, 2015). Of particular bearing is the proficiency and training of LKM and CM instructors and trainers who may not have the experience to impart an embodied authentic transmission of the subtler

aspects of meditation practice (Van Gordon at al., 2014a). Likewise, LKM and CM instructors that have not undergone extensive meditation training may not be appraised of the potential pitfalls of meditation that are alluded to throughout the traditional meditation literature. Examples of adverse effects traditionally associated with poorly-administered meditation instruction are: (i) asociality, (ii) nihilistic and/or defeatist outlooks, (iii) dependency on meditative bliss, (iv) a more generalised addiction to meditation, (v) engaging in compassionate activity beyond one's spiritual capacity (and at the expense of psychological wellbeing), (vi) psychotic episodes, and (vii) spiritual materialism (a form of self-deception in which rather than potentiating spiritual development and subduing selfish or egotistical tendencies, meditation practice serves only to increase ego-attachment and narcissistic behaviour) (e.g., Chah, 2011; Gampopa, 1998; Shapiro, 1992; Shonin, Van Gordon, & Griffiths, 2014e; Trungpa, 2002; Tsong-Kha-pa, 2004; Urgyen, 1995).

A further clinical integration issue for LKM and CM interventions is the risk of compassion fatigue (i.e., due to patients 'taking upon themselves' the suffering of others prematurely). This risk seems to be quite real when considered in light of some of the descriptions of six-to-eight week-long LKM and CM interventions. For example, according to the description of CBCT as provided by several of the papers included in this review, "*the meditation training culminates in the generation of active compassion: practices introduced to develop a determination to work actively to alleviate the suffering of others*" (e.g., Desbordes et al., 2012; p.5).

However, in the traditional Buddhist setting, prior to viscerally sharing others' suffering (and acting unconditionally to ameliorate that suffering), meditation practitioners typically train for years-on-end in order to generate meditative and emotional equanimity within themselves, as well as a full awareness of the nature of their own suffering (Dalai Lama, 2001; Urgyen, 1995). Consistent with this Buddhist approach, studies involving trauma patients have

shown that higher levels of self-compassion and mindfulness lead to reductions in post-traumatic avoidance strategies (e.g., Follette et al., 2006; Thompson & Waltz, 2008). Thus, to encourage potentially emotionally unstable patients to "*actively alleviate the suffering of others*" after a total of just 16-hours meditation instruction (i.e., eight 2-hour sessions) could lead to deleterious outcomes. Caution, competence, and discernment are therefore required in the delivery of 3-12 week-long LKM and CM interventions.

Limitations of the Current Evidence Base

Although findings from the studies included in this systematic review attest to the clinical utility of LKM and CM interventions, a rating of *moderate* for the mean quality score (based on the QATQS assessment) of the included studies suggested that there were a number of design issues and limitations. Sample sizes across the 20 included studies were relatively small—an average of 66 participants were included in each study and in the case of 17 studies, these participants were distributed across two or more allocation conditions. Few of the studies assessed fidelity of implementation and therefore did not control for deviations from the intervention delivery plan. In a number of cases, participant adherence to practice data was not elicited which means that factors unrelated to participation in the LKM and/or CM intervention may have exerted a therapeutic influence and confounded the findings. A further limitation was an over-reliance on self-report measures that may have introduced errors due to recall bias and/or deliberate over or under reporting. Additional quality issues were the non-justification of sample sizes and poorly defined control conditions that did not account for non-specific factors. Furthermore, few of the studies included a follow-up assessment to evaluate maintenance effects.

Potentially limiting factors may also have been introduced by the eligibility criteria employed in the current systematic review. More specifically, only English language studies

were included, which, given the popularity of Buddhist-derived meditation techniques in Eastern-language countries, may have resulted in the omission of relevant empirical evidence. Likewise, unpublished and non-peer reviewed papers were not included in the review meaning that further potentially relevant evidence may have been disregarded.

Conclusions

From this systematic evaluative review, it is concluded that LKM and CM interventions may have utility for treating a broad range of mental health issues in both clinical and healthy adult (and non-adult) populations. In particular, the empirical evidence suggests that LKM and CM can improve: (i) psychological distress, (ii) levels of positive and negative affect, (iii) the frequency and intensity of positive thoughts and emotions, (iv) interpersonal skills, and (v) empathic accuracy. However, there is a need for replication of these preliminary findings with larger-sized samples and utilising more methodologically robust study designs. In order to overcome operational issues that may impede the effective clinical integration of LKM and CM interventions, a lessons-learned approach is recommended whereby issues encountered as part of the (ongoing) rollout of mindfulness-based interventions are given due consideration. In particular, there is a need to establish accurate working definitions for LKM and CM that allow them to be clearly delineated from one another, and from other Buddhist-derived meditation techniques more generally.

Chapter 4

Mindfulness and Wellbeing: Towards a Unified Operational Approach

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Abstract

Successive Westernised models of mindfulness have invariably failed to consider the cooperating or mechanistic role of other meditative and spiritual-practice agents, and the fact that rather than a tool for treating psychological and/or somatic illness, mindfulness was traditionally practised to facilitate a realisation of a person's full human potential and capacity for unconditional wellbeing. This chapter complements the broader theoretical discussion of BDIs in Chapter 2 by specifically focussing on mindfulness and providing: (i) an account of how mindfulness is interpreted and contextualised in specific Pāli canon discourses, (ii) an assessment of how traditional Buddhist depictions of mindfulness differ from contemporary psychological interpretations, and (iii) a model and definition of mindfulness that, whilst still applicable to secular mindfulness interventional approaches, is more congruent with the traditional Buddhist understanding.

Introduction

"Upon a heap of rubbish in the road-side ditch blooms a lotus, fragrant and pleasing. Even so, on the rubbish heap of blinded mortals the disciple of the Supremely Enlightened One shines in resplendent wisdom"

— (Buddha, as cited in Buddharakkhita, 1986, p. 23 [*Dhammapada*, 4, 58-59]).

In terms of its treatment applications, the most convincing evidence exists for the use of mindfulness in the treatment of depression and anxiety. As discussed in Chapter 2, meta-analytic studies assessing the efficacy of mindfulness as a treatment for these two disorders have typically reported effect sizes in the moderate-strong to strong range (Hofmann et al., 2010; Vøllestad et al., 2012). However, due to incorporating a large number of uncontrolled trials as well as RCTs with an inactive comparison condition, such meta-analytic studies have often failed to control for a placebo effect. Therefore, it is unsurprising that meta-analyses with more stringent inclusion criteria report more modest outcomes. For example, a recent meta-analysis (involving 36 RCTs of mindfulness, each with active control conditions) reported effect sizes in the small-moderate range (Cohen d=0.3-0.38) for the treatment of depression or anxiety after completion of eight-weeks of mindfulness training, with a reduction in effect size (d=0.22-0.23) at 3-6 months follow-up (Goyal et al., 2014). These more modest outcomes are comparable with results that would be expected from utilising antidepressants in a primary care population, but without the associated toxicity (Goyal et al., 2014).

Thus, while there certainly exists evidence to support specific treatment applications for mindfulness, there is arguably a tendency for some individuals (in both the scientific community and the public more generally) to be influenced by the popularity of mindfulness, and to over-estimate its effectiveness. For example, mindfulness has recently been included in the practice guidelines of the *Royal Australian and New Zealand College of Psychiatrists*

(RANZCP) as a non-first-line treatment for binge eating disorder in adults (Hay et al., 2014). However, such a recommendation is based upon just a handful of (mostly methodologically poor quality) RCTs, and research investigating the effectiveness of mindfulness for treating eating disorders remains largely under-developed. In fact, with the exceptions of depression and anxiety (and possibly specific pain disorders), there is arguably insufficient high quality evidence at present to support the efficacy of mindfulness as a treatment for psychological or somatic illnesses.

Due to the aforementioned 'popularity effect', rather than health improvements arising from practising mindfulness, the growing popularity of mindfulness amongst the general public could mean that study outcomes are influenced by participants' belief that they are receiving a 'fashionable' and/or 'proven' psychotherapeutic technique. This is a difficult confounding variable to control for because it is almost impossible to blind patients from the fact they are utilising therapeutic mindfulness techniques. Such methodological issues are consistent with concerns raised by an increasing number of researchers, clinicians, and Buddhist teachers/scholars over the rapidity at which mindfulness has been removed from the traditional Buddhist setting and integrated into clinically-focussed mindfulness interventions (e.g., Carrette & King, 2005; Howells et al., 2010; McWilliams, 2011, 2014; Rosch, 2007; Shonin et al., 2014b; Singh, Lancioni, Winton, Karazsia, & Singh, 2014a; Van Gordon et al., 2014a).

One of the primary concerns raised by such individuals is that mindfulness was originally practised within the context of spiritual development, in which unconditional wellbeing (i.e., the complete liberation from suffering) was the ultimate goal, and where principles such as ethical awareness, compassionate outlook, and right intention underlay and supported the mindfulness practitioner's spiritual development (see Shonin et al., 2014b). This is obviously different than the use of mindfulness in most contemporary MBIs where emphasis is placed more on relieving psychological and/or somatic distress. This chapter complements

the broader theoretical discussion of BDIs in Chapter 2 by specifically focussing on mindfulness and providing: (i) an account of how mindfulness is interpreted and contextualised in specific Pāli canon discourses, (ii) an assessment of how traditional Buddhist depictions of mindfulness differ from contemporary psychological interpretations, and (iii) a model and definition of mindfulness that, whilst still applicable to secular mindfulness interventional approaches, is more congruent with the traditional Buddhist understanding.

Mindfulness in the Pāli Canon

In its current form, Buddhism comprises a diverse range of different practice traditions and there exist slight (and in some cases major) differences in how these traditions interpret and practice the Buddha's teachings (see Chapter 2 for a discussion of the key differences between Buddhist practice traditions). Consequently, there are numerous constructions and interpretations of mindfulness within the wider collection of traditional and contemporary Buddhist works. However, the authenticity of the Buddha's teachings on mindfulness as recorded in the Pāli Canon (the original collection of Buddhist scriptures comprising three categories or 'baskets' [Pāli: *pitaka*] of teachings covering: (i) discipline [*Vinaya Pitaka*], (ii) discourses on spiritual practice [*Sutta Pitaka*], and (iii) philosophy/metaphysics [*Abhidhamma Pitaka*]) is accepted by all Buddhist traditions, and the Pāli Canon serves as an authoritative source for anybody wishing to understand the principles and characteristics of mindfulness as embodied by the Buddhist model.

Although there are numerous references to mindfulness throughout the Buddhist Pāli Canon, arguably the most important discourses include the *Ānāpānasati Sutta (*Majjimma Nikāya [MN] 118), *Satipaṭṭhāna Sutta* (MN 10), *Mahasatipaṭṭhāna Sutta (*Dīgha Nikāya [DN] 22), and *Kāyagatāsati Sutta* (MN 119). The *Ānāpānasati Sutta* (literally the discourse on mindfulness of breathing in and out) outlines a meditative technique by which the breath is

used to ‘tie the mind’ to the present moment whilst awareness is directed, in turn, to 16 different meditative focus points (Shonin et al., 2014b). These 16 focus points occur in groups of four (i.e. tetrads) and each tetrad corresponds to one of the following four frames of reference: (i) body, (ii) feelings, (iii) mind, and (iv) phenomena (or mind-objects).

As documented in the *Ānāpānasati Sutta*, meditatively observing the breath whilst bringing awareness to each of these frames of reference was taught by the Buddha as a means of cultivating the *Four Establishments of Mindfulness*. Understanding and cultivating the *Four Establishments of Mindfulness* (which likewise correspond to the four reference frames of body, feelings, mind, and phenomena) is the subject of the *Satipaṭṭhāna Sutta* (literally the discourse on the establishment of mindfulness) and the *Mahasatipaṭṭhāna Sutta* (literally the great discourse on the establishment of mindfulness). Having followed the instructions recorded in the *Ānāpānasati Sutta* of how to use the breath as an attentional referent, the *Satipaṭṭhāna Sutta* and *Mahasatipaṭṭhāna Sutta* provide in-depth instructions on the intricacies of mindfulness practice and the process by which mindfulness—when correctly practised—fulfils the requirements for cultivating the *Seven Enlightenment Factors* that lead to total knowledge and release:

> “And how, Bhikkhus [monks], do the Four Foundations [i.e., Establishments] of Mindfulness, developed and cultivated, fulfil the Seven Enlightenment Factors? Bhikkhus, on whatever occasion a bhikkhu abides contemplating the body as a body, ardent, fully aware, and mindful, having put away covetousness and grief for the world—on that occasion unremitting mindfulness is established in him. On whatever occasion unremitting mindfulness is established in a bhikkhu—on that occasion the mindfulness enlightenment factor [the first of the Seven Factors of Enlightenment] is

aroused in him, and he develops it, and by development, it comes to fulfilment in him" **(**Ñanamoli & Bodhi, 2009, p. 485; MN 118).

In terms of their context within the wider body of teachings expounded by the Buddha, the aforementioned discourses on mindfulness comprise one aspect of the *Noble Eightfold Path* to enlightenment. The *Noble Eightfold Path* is the path referred to by the Buddha in the first (and arguably the most important) teaching that he gave after attaining enlightenment. The first teaching given by the Buddha is known as the *Discourse that Sets the Wheel of Dharma in Motion (Dhammacakkappavattana Sutta***,** Saṃyutta Nikāya, 56:11) and it was also during this teaching that the Buddha expounded the *Four Noble Truths*. In their condensed form, the *Four Noble Truths* are that (i) suffering exists, (ii) there is a cause to suffering, (iii) there is cessation of suffering (i.e., liberation), and (iv) there is a path that leads to the cessation of suffering. The *Noble Eightfold Path*, of which 'right mindfulness' constitutes the seventh aspect, is the path referred to in the last of the *Four Noble Truths* outlined above (i.e., that there is a path that leads to the cessation of suffering).

Thus, within the overall collection of the Buddhist teachings, mindfulness comprises part of the path that leads to the cessation of suffering. The cessation of suffering, which in Buddhism is basically what is implied by the term 'liberation', is the ultimate goal of the Buddhist path and is a state believed to be characterised by qualities or capabilities such as: (i) omniscience, (ii) deathlessness, (iii) dwelling in emptiness, (iv) unconditional blissful abiding, (v) freedom to take rebirth in any realm according to the needs of beings, (vi) great compassion, and (vii) command over animate and inanimate phenomena (Van Gordon et al., 2015b).

As indicated by the above description of the ultimate goal of mindfulness and Buddhist practice, the Buddhist delineation of wellbeing and happiness is one that stops nothing short of total spiritual liberation. Any other form of wellbeing, such as the wellbeing associated with

material gain, favourable renown, good health, and other transitory circumstances, is considered by Buddhism to expose individuals to circumstances where it is easy to succumb to attachment—the primary cause of suffering referred to in the second of the abovementioned *Four Noble Truths* (Van Gordon et al., 2015b). Undertaking mindfulness (and other Buddhist practices) with the firm objective to attain spiritual liberation (and of helping others to do the same) is deemed in Buddhism to be a prerequisite for effective spiritual development and is referred to as *right intention* (Van Gordon et al., 2014a).

Right intention is the second aspect of the *Noble Eightfold Path* and the present author has made a point of referring to it above in order to highlight a key principle of the *Noble Eightfold Path* (and of Buddhist practice more generally). As explained by the Buddha in the *Mahãcattãrisaka Sutta* (*The Great Forty Sutta*; MN 117), although the *Noble Eightfold Path* comprises eight individual elements (of right view, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration), these elements should be practised and embodied as a single path. Indeed, just like the individual strands of a rope that have limited utility on their own but have strength and functionality when woven together, Buddhism asserts that spiritual practice is most effective when all of the individual aspects of the path are implemented in unison (Van Gordon et al., 2015b). In other words, all authentic Buddhist teachings take their place as part of a cohesive whole, and isolating and/or exclusively focussing on just one minuscule facet of the Buddhist path—such as mindfulness—will inevitably yield a result that falls short of the intended goal of enduring unconditional wellbeing (i.e., wellbeing that is not reliant upon external factors and that does not abate with time).

Differences between Contemporary and Traditional Perspectives of Mindfulness

Compared to teaching mindfulness in the traditional Buddhist setting, there is obviously a range of additional factors that need to be considered when attempting to introduce and teach

mindfulness to clinical populations. Of course, this is not to say that there is inherently something wrong with introducing individuals to the mindfulness teachings in a manner and context fundamentally different than that employed for over 2,600 years by Buddhist practitioners and teachers. However, it does mean that there is a risk of aspects traditionally deemed to be prerequisites for effective mindfulness practice being overlooked or underrepresented in contemporary mindfulness interventional approaches. Consequently, the remainder of this section discusses: (i) what the present author deems to be the key differences between the manner in which mindfulness is constructed, practiced, and taught within Buddhist versus clinical settings, and (ii) the implications of these differences for mindfulness research and practice.

1. *Differences relating to intention for practising mindfulness*: In general, participants of MBIs choose or are referred to receive mindfulness training for the primary purposes of alleviating psychological/somatic distress, or, as is the case in certain occupation-focussed MBIs, for improving work effectiveness and professional skills more generally (Van Gordon et al., 2014a). As referred to earlier in this chapter (see discussion on 'right intention'), this is fundamentally different than the Buddhist approach where mindfulness is undertaken with the intention of attaining liberation from suffering and helping others to achieve the same. The right intention required for effective mindfulness practice has been described by Buddhist teachers in the following manner:

> "It is because people don't have the right intention that their spiritual practice fails to bear fruit. Some people sit in meditation for hours each day and/or they diligently study the teachings for many decades. But right intention is something

that comes from within—it can be learned but it is actually quite intuitive. You either really want to evolve spiritually or you don't. You're either willing to subdue your ego or you're not. It is quite simple. In a nutshell, right intention means that due to knowing all phenomena are impermanent and our time here is limited, we are ready to work hard in order to leave suffering behind" (Shonin & Van Gordon, 2014a).

2. *Differences relating to when to practice mindfulness*: Although certain MBIs (e.g., MBSR and MBCT) have been shown to be effective in the treatment of various different health conditions, there is a tendency for MBIs to be developed for the purposes of treating specific mental and/or somatic illnesses or complaints (e.g., stress, depression, eating disorders, addiction disorders, childbirth- and parenting-related issues, etc.). Consequently, many of the mindfulness exercises utilised in MBIs are specifically focussed on cultivating mindfulness in response to specific symptoms (e.g., somatic pain, distressing emotions, mental craving, etc.) and/or whilst engaging in specific behaviours (e.g., eating, gambling, work, etc.). This represents a departure from the Buddhist approach where far fewer divisions are made in terms of the different types of situations that warrant the spiritual practitioner to engage a mindful attention set. Indeed, as explained in the *Ānāpānasati Sutta*, Buddhism teaches that there is basically just one type of mindfulness to be practised which should be maintained at all times and in whatever situation a person finds themselves:

> "Again, bhikkhus, a bhikkhu is one who acts in full awareness when going forward and returning; who acts in full awareness when looking ahead and looking away; who acts in full awareness when flexing and extending his limbs;

> ... who acts in full awareness when eating, drinking, consuming food, and tasting; who acts in full awareness when defecating and urinating; who acts in full awareness when walking, standing, sitting, falling asleep, waking up, talking, and keeping silent" (Nanamoli & Bodhi, 2009, p. 147**;** MN 10).

3. *Differences in the way importance is assigned to mindfulness practice*: Buddhism teaches that the spiritual practitioner should strive to ensure that they are continuously aware of the present moment and should regard mindfulness practice not as an optional endeavour, but as a matter of life or death (Shonin et al., 2014b). However, at the same time as educating others in the principles and importance of mindfulness, the Buddha taught that spiritual practitioners should ensure that they do not become attached to their practice:

> "He who clings to nothing of the past, present and future, who has no attachment and holds on to nothing—him do I call a holy man" (Dhammapada, 26, 421; Buddharakkhita, 1986, p. 165).

Remaining unattached to spiritual practice relates closely to the need to cultivate a 'right view' (the first aspect of the *Noble Eight Fold Path*) that basically refers to the ability to perceive and apprehend the absolute or 'empty' nature of reality. By realising that phenomena originate in dependence upon each other and that they (therefore) lack intrinsic existence, Buddhism asserts that spiritual practitioners avoid the trap of perceiving the world in dualistic terms (Dalai Lama & Berzin, 1997). In the context of mindfulness practice, a dualistic perception means to regard mindfulness as an 'object' that is practised by an 'subject' (i.e., the self). Perceiving mindfulness practice in

'subject-object' terms creates a separation between the practitioner and the present moment that they are supposed to be observing. This is problematic from the Buddhist perspective where relating to mindfulness in a dualistic manner is understood to distance the spiritual aspirant from the realisation that they are deeply interconnected with, and inseparable from, the 'here and now' (Shonin & Van Gordon, 2014b).

Due to teaching mindfulness in isolation of core Buddhist principles such as 'right view' and 'emptiness', there is inevitably a greater tendency in MBIs for participants to become attached to the need to regard the present moment (and mindfulness practice) as something separate from themselves. This scenario has previously been referred to as the difference between 'being aware of the present moment' (i.e., the approach advocated in MBIs) and the arguably more spiritually profound position advocated by Buddhism of simply 'being the present moment' (Shonin & Van Gordon, 2014b).

4. *Differences relating to mindfulness teacher competencies*: Some concerns have been raised by scholars in the academic literature regarding the credibility and competance of MBI programme instructors (e.g., Shonin et al., 2013b, Van Gordon et al., 2014a). These concerns principally relate to the fact that—in some cases—MBI instructors can have as little as 12 months' mindfulness practice and teaching experience following completion of a single eight-week course (MHF, 2010). As discussed in Chapter 2, although efforts are underway to disseminate best-practice and assessment guidelines for MBI teachers (see Crane et al., 2011; Crane et al., 2013), the relatively short training period followed by some MBI instructors constitutes a major departure from traditional Buddhist values and conventions concerning mindfulness teaching (Shonin et al., 2014b).

Within Buddhism, meditation teachers typically train for many decades before they are deemed to have acquired the necessary experience for effectively instructing and guiding others in meditation practice (Van Gordon et al., 2014a). However, it is important to emphasise that rather than years spent in training or being able to claim receipt of a recognised Buddhist practice lineage, arguably the most important factor that qualifies an individual to teach Buddhism and/or meditation is the extent to which they have accumulated authentic spiritual realisation:

> "If a person has genuine spiritual realisation, they are authorised to transmit the spiritual teachings. All titles, held-lineages, endorsements, acclamations, life accomplishments, life mistakes, and years spent in training are irrelevant…If a person is without genuine spiritual realisation, they have no such authority. All titles, held-lineages, endorsements, acclamations, life accomplishments, life mistakes, and years spent in training are irrelevant…Ultimately, true authorisation to transmit the spiritual teachings comes from awaking to the timeless truth of emptiness. It seems that some form of spiritual guide is required to effectuate this awakening" (Shonin & Van Gordon, 2013a).

According to the *Canki Sutta* (MN 95), the Buddha explained that in order to be considered authentic, a meditation and/or Dharma teacher's actions and behaviour must not in any way be influenced by greed, hatred, or delusion (Ñanamoli & Bodhi, 2009). This also appears to be the position of the 15th century Tibetan Buddhist saint Tsong-kha-pa who used words such as 'thoroughly pacified', 'serene' and 'disciplined' to describe the qualities of a suitable meditation instructor (Tsong-Kha-pa, 2004). Thus, in relation to contemporary interventional mindfulness approaches, it is argued that

Buddhism places much greater importance on the experience and effectiveness of the meditation teacher—particularly in terms of the extent to which they can impart an embodied authentic transmission of the mindfulness teachings.

5. *Differences relating to the use of judgment and discernment:* The following definition of mindfulness, formulated and introduced by Kabat-Zinn, is arguably the most commonly employed definition of mindfulness in the scientific literature. He defines mindfulness as *"paying attention in a particular way: on purpose, in the present moment, and non-judgmentally"* (1994, p.4). The term 'non-judgemental' was probably employed in this definition in order to refer to the need for the mindfulness practitioner to accept (i.e., rather than reject or ignore) present-moment experiences. However, it has been previously argued that 'non-judgemental' could also be interpreted as meaning that mindfulness requires an attitude of indifference or even unresponsiveness to life situations and events (Shonin et al., 2014b). Consequently, from the Buddhist perspective, assigning non-judgemental awareness as a key facet of mindfulness is unsatisfactory because it appears to contradict core Buddhist principles relating to the need for the spiritual practitioner to apply discernment during all of their interactions (i.e., in order to ensure that they respond with compassion, wisdom, and ethical awareness).

6. *Differences in interpreting the meaning of concentration and insight meditation:* As referred to above, 'right mindfulness' (Pāli**:** *sammā-sati*), which appears as the seventh aspect of the *Noble Eightfold Path*, cannot be separated from, and is essential to the maintenance of, each of the other aspects of the *Noble Eightfold Path*. Nevertheless, the fact that in the *Noble Eightfold Path* mindfulness appears immediately prior to 'right

concentration' (Pāli*: sammā-samādhi*) is significant because it implies that mindfulness is actually distinct from meditative concentration. Indeed, the Buddhist teachings explain that meditative concentration is basically the process of resting awareness on a given meditative object (e.g., the breath, a visualisation, or even the mind or present moment more generally) with the intention of effectively calming and introducing tranquillity into the mind (Shonin et al., 2014b).

However, the Buddhist teachings explain that because the tranquillity associated with meditative concentration can be so blissful and inviting, it can actually trigger a loss of meditative concentration (Dalai Lama & Berzin, 1997). Therefore, the purpose of mindfulness is essentially to watch over the concentrating mind and make attentional adjustments as required in order to ensure that meditative concentration remains at its optimum. The reason why Buddhism asserts that this is important is because meditative concentration is a prerequisite for the development of insight/wisdom and what is known as 'right view' (Pāli: *sammā-ditthi*) (Nanamoli, 1997; Khyentse, 2007). Spiritual wisdom or right view is basically the ultimate goal of Buddhist meditation because unlike the bliss associated with meditative concentration that provides only temporary relief from *Dukkha* (the Buddhist and Pāli equivalent of the terms suffering and unsatisfactoriness), spiritual wisdom (Pāli: *paññā*) severs the causes of suffering at their roots (Shonin et al., 2014b).

Thus, mindfulness effectively regulates the breadth and intensity of meditative concentration and therefore plays a vital role in the cultivation of meditative insight. However, according to the Buddhist model and for the reasons already outlined, mindfulness itself is distinct from meditative concentration as well as the meditative insight that it yields. Consistent with the literal meaning of the Pāli word *sati*, mindfulness is the process of 'remembering' to keep concentration placed in and on the

present moment (or another meditative object) such that there is a constant arising and extraction of spiritual wisdom as the meditator attends with awareness to their daily duties and activities. This represents a fundamental departure from the way in which mindfulness is conceptualised in the contemporary scientific literature where, as discussed in Chapter 2, mindfulness has been (incorrectly) described as either being a form of (i) concentrative meditation, (ii) insight meditation (also known as Vipassana mediation—vipassna translates from the Pāli as clear seeing or superior seeing), or (iii) both concentrative and insight meditation (Shonin et al., 2014b).

7. *Differences relating to the integration of death awareness:* Each of the (previously referred to) principle Buddhist suttas on mindfulness emphasise the importance of cultivating mindfulness of death and impermanence. For example, the *satipaṭṭhāna sutta*, *mahasatipaṭṭhāna sutta*, and *kāyagatāsati sutta* each contain the *Nine Charnel Ground Contemplations* (contemplations involving seeing oneself as a decaying corpse—an inevitable outcome for the body), and the 13th exercise of the *ānāpānasati sutta* is specifically concerned with cultivating an awareness of impermanence. Impermanence is known in Buddhism as a 'mark of existence' and Buddhism asserts that without exception, phenomena are subject to dissolution (Khyentse, 2007). The Buddha taught that by infusing their spiritual and meditative practice with the realisation that they and everything around them are transient occurrences, individuals can begin to intuit the ultimate nature of reality and weaken their attachment to the belief in an inherently existing self (Shonin, Van Gordon, & Griffiths, 2013b). Therefore, it is the view of the present author that the vital role that impermanence and death awareness play in supporting and optimising mindful awareness is an additional factor that has been overlooked in the majority of clinically-focussed MBIs.

An Alternative Model and Definition of Mindfulness

In this section, an alternative model of mindfulness is explicated that, whilst still appropriate for use in public healthcare contexts, is intended to lessen some of the disconnect between traditional Buddhist and contemporary-secular mindfulness interpretations. However, given that mindfulness is studied and utilised by individuals from a broad range of backgrounds (e.g., Buddhist teachers, Buddhist practitioners, clinicians, health service providers and practitioners, academics, etc.), it is unlikely that there will ever be a definition and model of mindfulness that meets with universal acceptance. Therefore, readers should understand that the definition and discussion that follows is provided in the vein of attempting to advance understanding and debate concerning mindfulness and to work alongside (i.e., rather than substitute) existent theoretical and operational models.

The present author recently proposed that mindfulness can be defined as: *The process of engaging a full, direct, and active awareness of experienced phenomena that is (i) spiritual in aspect and (ii) maintained from one moment to the next* (Shonin, Van Gordon, & Griffiths, 2015c). The principles and meaning of the key aspects of the proposed definition can be understood as follows:

1. *Full awareness* refers to the fact that mindfulness is all-embracing and requires the individual to be accepting of all physiological and psychological experiences. This is the passive aspect of mindfulness. However, implicit within the meaning of this term is that the mindfulness practitioner's awareness should extend beyond their immediate environment and keep in mind the fact that phenomena are (i) impermanent, (ii) absent of intrinsic existence, and (iii) a cause of suffering if they become the object of attachment. Thus, the term 'full awareness' also accounts for the encompassing aspect of mindfulness.

2. *Direct awareness* means that there should not be a gap or delay between the experiencing of phenomena and awareness of this experience. In other words, mindfulness is not concerned with the remembering of past events, but involves being intricately aware—in real time—of all psychological and somatic experience. Direct awareness also implies that there should not be any separation between the individual and the object or objects of their mindful attention. This is the insight aspect of mindfulness.

3. *Active awareness* refers to the fact that mindfulness requires and facilitates the capacity to respond with skill, compassion, and discernment in any given situation. In other words, mindfulness not only involves observing the present moment, but it requires an active participation in it. Active awareness is the compassionate and ethical aspect of mindfulness.

4. *Experienced phenomena* means that mindfulness does not require excessive effort or the need to 'find' things to be mindful of. It means that 'experience now' is taken as the object of mindful awareness. This includes awareness of physiological, psychological, and environmental phenomena. This is the effortless or spontaneous aspect of mindfulness.

5. *Spiritual in aspect* refers to the traditional Buddhist meditation literature where mindfulness is contextualised as a spiritual (but not necessarily a religious) practice. It also refers to the fact that: (i) mindfulness involves one aspect of consciousness observing another aspect of consciousness, and (ii) mindfulness was traditionally

intended to facilitate a realisation of a person's full human potential and capacity for unconditional wellbeing. This is the transpersonal aspect of mindfulness.

6. *Maintained from one moment to the next* means that the mindfulness practitioner should try to maintain an unbroken flow of present moment awareness throughout the day. *Maintained from one moment to the next* is used in order to distinguish mindfulness from a practice that is only undertaken at certain times of day or during formal seated meditation practice. This is the enduring aspect of mindfulness.

Whilst it is unlikely that the above definition of mindfulness will meet with unanimous approval, the present author believes that compared to existent delineations of mindfulness employed in the academic literature, it more accurately captures and embodies the Buddhist interpretation. It is probably fair to say this newer definition also accurately captures the meaning of mindfulness as it is utilised in what have been termed 'second generation' MBIs. The introduction and early-stage empirical evaluation of second generation MBIs—such as the eight-week secular intervention MAT (Van Gordon et al., 2014a)—has occurred in recent years as a remedy to the apparent deficiency of spiritual and Buddhist foundations in the first generation of MBIs. According to Singh et al (2014a), one of the primary purposes and achievements of first-generation MBIs (such as Mindfulness-Based Stress Reduction [Kabat-Zinn, 1990] and Mindfulness-Based Cognitive Therapy [Segal et al., 2002]) was to gain acceptance of the mindfulness construct within Western clinical and scientific domains. However, given the rapidity at which mindfulness has been integrated into Western research and public healthcare settings, it was perhaps inevitable that questions would arise regarding the extent to which this pioneering work accurately embodies the Buddhist construction of mindfulness, and that alternative formulations and methods of practising mindfulness would

be proposed accordingly.

Conclusions

Scientific and public interest into the applications of mindfulness—particularly as a means of improving psychological wellbeing and mental health—has increased significantly over the last decade (Shonin et al., 2014b). However, as has been repeatedly emphasised in this chapter, the traditional Buddhist teachings explicate that mindfulness can only remain intact where it enters into a process of cross-fertilisation with various other meditative and spiritual practice agents (e.g., right view, right intention, right concentration, etc.). Therefore, in Westernised interventional approaches that treat mindfulness as a standalone spiritual or non-spiritual technique, it is questionable whether such interventions are in fact still teaching a method that can be accurately described as 'mindfulness' in the traditional sense.

The intention of Western science to operationalise mindfulness as a means of alleviating human suffering is admirable. However, the rapidity at which this process is unfolding and the fact that in most instances mindfulness is taught to effectuate what (relative to the Buddhist approach) might be seen as short-term reductions in psychological/somatic pain, means that concerns and compatibility issues are inevitably going to arise. Indeed, from the traditional Buddhist perspective, unless an intervention targets suffering at its causes and therefore helps the individual to advance along the path towards enduring unconditional wellbeing (i.e., the complete and irreversible cessation of suffering), its utility becomes questionable (Van Gordon et al., 2015b).

As discussed above, some academic scientists and Buddhist scholars have alleged or implied that contemporary Western psychological constructions of mindfulness reflect a superficial account of this 2,600-year old contemplative practice. Consequently, the mindfulness research agenda appears to be undergoing a slight shift in direction with a greater

number of researchers seeking to formulate and empirically evaluate mindfulness models and interventions that more closely align with the traditional Buddhist approach. However, perhaps of greater significance, concerns over the authenticity of Western models of mindfulness may actually prompt the scientific and medical community to raise expectations in terms of the conceivable outcomes of psychological interventions. What is being referred to here is a scenario whereby rather than take an Eastern spiritual technique and assess its effectiveness according to Western parameters of wellbeing, the technique is evaluated according to how it fosters 'wellbeing' based on how this term is interpreted by Eastern systems of contemplative practice. More specifically, if a better understanding of the Buddhist model of wellbeing, suffering, and meditative/spiritual practice can make the total liberation of suffering (i.e., enlightenment) a more credible and acceptable notion within Western science, then the introduction of mindfulness to the West can undoubtedly be regarded as a success.

SECTION B

CONTRIBUTION TO RESEARCH:

EVALUATING THE UTILITY OF BUDDHIST PRACTICES IN MENTAL HEALTH AND APPLIED PSYCHOLGICAL SETTINGS

SECTION B: PART 1

THE APPLICATION OF BUDDHIST PRACTICES AND PRINCIPLES IN THE TREATMENT OF PSYCHOSIS

Chapter 5

Do Mindfulness-based Therapies have a Role in the Treatment of Psychosis?

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Abstract

Consistent with evidence supporting the utility of mindfulness meditation in the treatment of mood and anxiety disorders, clinical attention has recently begun to focus on the role of mindfulness for treating other psychopathologies, including psychotic disorders. Given that meditation can be challenging and confusing even for people of 'healthy' clinical status, the question arises whether it is prudent to utilise a meditation-based recovery model for individuals with psychosis. To date, empirical evidence relating to this question has differed considerably. This chapter provides: (i) a concise review and appraisal of empirical findings supporting or opposing the operationalisation of mindfulness for the treatment of psychotic disorders, (ii) a discussion of whether mindfulness should be deployed as a treatment for psychosis, and (iii) recommendations for practice and research.

Introduction

The practice of mindfulness is fundamentally concerned with developing an open and unbroken awareness of present moment cognitive-affective and sensory experience. According to Shonin et al (2013d), mindfulness effectuates a greater perceptual distance from distorted cognitive and affective processes, and this meta-awareness facilitates the regulation (i.e., via the non-reactive observance) of habitual maladaptive responses. Consistent with evidence supporting the utility of mindfulness meditation in the treatment of mood and anxiety disorders, clinical attention has recently begun to focus on the role of mindfulness for treating other psychopathologies, including psychotic disorders.

Psychotic experiences are typified by different degrees of reality distortion as well as deficits in orientating response (e.g., circumstance, place, and identity) and perceptual skills (Chadwick, Newman-Taylo, & Abba**,** 2005). Meditation is a subtle process in which, whether effectuated by direct means (i.e., meditative analysis) or indirect means (i.e., present-moment observance), the meditattor is ultimately compelled to question not only the nature of reality, but also their ontological stance (i.e., how, or even whether the 'self' actually exists) (Shonin et al., 2013b). Given that this subtle process can be extremely challenging and confusing even for people of 'healthy' clinical status, the question arises whether it is prudent to utilise a meditation-based recovery model for people with psychosis. To date, empirical evidence relating to this question has differed considerably. This chapter provides: (i) a concise review and appraisal of empirical findings supporting or opposing the operationalisation of mindfulness for the treatment of psychotic disorders, (ii) a discussion of whether mindfulness should be deployed as a treatment for psychosis, and (iii) recommendations for practice and research.

Literature Search

A literature search using *MEDLINE, Science Direct, PsychInfo,* and *Google Scholar* electronic databases was undertaken. The search criteria employed were 'meditation', OR 'mindfulness' AND 'psychosis', OR 'psychotic', OR 'schizo*'. Included studies were those published in refereed academic journals that reported a clinical and/or empirical assessment (quantitative or qualitative) of the effects of mindfulness meditation on psychosis-related outcomes in participants with or without a history of psychiatric illness. Studies where the meditation technique was not clearly specified but appeared to be similar to mindfulness were also included. However, studies of interventions (e.g., Acceptance and Commitment Therapy) that integrate mindfulness meditation as an adjunct to more traditional dialogue-based therapeutic techniques were excluded. Likewise, studies of meditation techniques that are not explicitly mindfulness-based (e.g., Transcendental Meditation, Qigong, etc.) were excluded.

Psychosis Induced by Meditation

An early study by Walsh and Roche (1979) reported three cases of individuals with a history of schizophrenia that, whilst participating in meditation retreats, experienced acute psychotic episodes. Garcia-Trujillo, Monterrey, and Gonzalez de Riviera (1992) described a further two cases of acute psychosis precipitated by meditation in individuals previously diagnosed with schizotypal personality disorder. A further three cases of individuals with a psychiatric history presenting with meditation-induced psychotic symptoms were reported by Chan-ob and Boonyanaruthee (1999). Yorston (2001) illustrated the case of a 25-year old female graduate student in which delusional episodes accompanied by both violent outbursts and inappropriate laughter were precipitated by meditation. Psychotic episodes induced by meditation were also reported in two individuals without a history of psychiatric illness (Sethi & Subhash, 2003). More recently, the case of a male patient who developed an acute and transient psychosis with

polymorphic symptomatology following meditation was also reported (Kuijpers, van der Heijden, Tuinier, & Verhoeven, 2007).

These abovementioned case study findings appear to suggest that caution may be warranted in the meditation-based treatment of psychotic disorders. However, outcomes should be considered in light of the many limitations of these studies including the fact that: (i) they all utilised low participant number uncontrolled designs, (ii) most of the participants had a history of psychiatric illness, (iii) participants had invariably been exposed to intensive meditation practise (i.e., involving up to 18 hours of meditation per day with prolonged periods of fasting and/or silence), (iv) most of the studies provided inadequate information regarding the full range of meditation techniques employed, and (v) participants were attending open meditation retreats rather that practicing meditation within a clinical framework setting.

Psychosis Treated by Meditation

The first study to utilise mindfulness meditation as the primary mechanistic agent for treating psychosis was conducted by Chadwick et al. (2005). Participants (n = 11) with unremitting psychotic experiences that were diagnosed with a schizophrenia-spectrum disorder attended 90-minute weekly group mindfulness sessions for six weeks. The sessions comprised a ten-minute guided mindfulness exercise in conjunction with psycho-education and guided discovery components. Lengthy periods of silence were avoided and all participants received an audiotape of guided meditations. Significant pre-post improvements were demonstrated in general clinical functioning, and participants' ability to respond mindfully to distressing thoughts and images increased by 36.6%. These clinical gains were replicated in a small (n = 22) RCT (with wait-list control) of a ten-week mindfulness intervention (Chadwick, Hughes, Russell, Russell, & Dagnan, 2009).

A further small-scale wait-list controlled RCT (n = 23) was conducted by Langer, Cangas, Salcedo, and Fuentes (2012). Patients with a schizophrenia-spectrum disorder received an eight-week mindfulness intervention (weekly sessions of 60-minute duration) and a CD of guided meditations was provided to facilitate daily self-practice. The mindfulness group demonstrated significant improvements over controls in their ability to respond mindfully to distressing thoughts and images.

More recently, a larger-scale RCT was conducted by Chien and Lee (2013). They assessed the effectiveness of a mindfulness-based psycho-education programme for Chinese outpatients (n = 96) with schizophrenia. Compared to a treatment-as-usual control group, patients who received the mindfulness intervention demonstrated significant long-term improvements in psychotic symptom severity, psychosocial functioning, and frequency of rehospitalisation. Another recent (uncontrolled design) study found that patients (n = 16) recovering from their first psychotic episode demonstrated significant reductions in agoraphobic symptoms and psycho-neuroticism following completion of a four-week (twice-weekly) mindfulness-based intervention (MBI) (van der Valk, van de Waerdt, Meijer, van den Hout, & de Haan, 2013).

Utilising the same intervention protocol as Chadwick et al's (2005) aforementioned pilot study, Abba, Chadwick, and Stevenson (2008) conducted a grounded theory analysis of the treatment experiences of schizophrenia patients (n = 16) with prominent positive symptoms. Mindfulness was shown to improve delusion-related regulatory capacity and modify participants' perception of psychotic experiences via a three-stage process: (i) becoming centred and stable in the awareness of psychotic experiences, (ii) allowing psychotic episodes to come and go without attempting to modify them, and (iii) empowerment through acceptance and non-judgemental awareness of self and symptoms.

A further qualitative study analysed the experiences of outpatients (n = 15) with co-

occurring schizophrenia and anxiety who had recently completed an eight-week mindfulness intervention (Brown, Davis, LaRoccod, & Strasburger, 2010). Participants attended weekly classes of one-hour duration and participant numbers were limited to five participants per cohort. Participants practiced meditation for an average of 25 minutes per day and attended 88% of classes. Analysis of semi-structured interviews yielded themes of increased relaxation capacity, reductions in psychiatric (including psychotic) symptoms, and cognitive-attentional changes.

Ashcroft, Barrow, Lee, and MacKinnon (2012) conducted a qualitative study to assess the suitability of an MBI as an early intervention for psychosis. Participants (n = 9) with persistent positive symptoms and/or anxiety symptoms attended weekly one-hour sessions that included a ten-minute guided meditation. Participants found the mindfulness intervention to be acceptable and reported experiencing increased levels of self-acceptance. Participants also felt more empowered and in control when they stopped trying to avoid or modify psychotic symptoms. These findings were consistent with those of two small-scale feasibility studies (n = 8 [Jacobsen et al., 2011]; n = 2 [Taylor et al., 2009]), and were replicated in a more recent small-scale qualitative investigation involving outpatients (n = 3) experiencing distressing auditory hallucinations (Dennick, Fox, & Walter-Brice, 2013).

Although the aforementioned studies in this section indicate that mindfulness meditation appears to ameliorate psychotic symptoms, the generalisability of findings is limited by factors such as: (i) small sample sizes, (ii) poorly defined or inactive control conditions (i.e., there was no control for potential confounding factors such as therapeutic alliance, etc.), (iii) intervention heterogeneity (i.e., there were differences in overall treatment duration, facilitator contact hours, etc.), and (iv) fidelity of implementation and/or adherence to practice were not assessed. Furthermore, considering there is currently debate regarding how to define the mindfulness construct, variations are likely to exist in terms of how different MBIs teach and

operationalise mindfulness (Shonin et al., 2013). An aspect of this debate relates to whether or not contemporary mindfulness therapies continue to embody the 'essence' of mindfulness practice as per its traditional Buddhist construal. In other words, it should be acknowledged that there are important differences between the more traditional contextualisation of mindfulness and its use within MBIs. Accordingly, for a given patient population, treatment outcomes for individual MBIs (e.g., MBSR) may not necessarily generalise to other MBIs, nor to more traditional forms of mindfulness meditation.

The Utility of Mindfulness for the Treatment of Psychosis?

Based on the studies highlighted here, there is some small-scale clinical evidence suggesting that meditation techniques with integrated mindfulness components may induce psychotic episodes in individuals with and without a psychiatric history. However, this evidence stems from case reports with very low participant numbers (including single cases) and relates to individuals that have engaged in intensive meditation retreats. For the participants of these studies, practicing meditation for up to 18 hours per day under conditions of silence and/or fasting most likely represented an abrupt alteration to their daily routine. Within the Buddhist meditative tradition in particular, a philosophy of quality and not quantity of meditation is widely advocated, and practicing meditation in an extreme and potentially stressful manner is discouraged (Shonin et al., 2013d). This accords well with the clinical consensus that stress is influential in the onset of psychosis (Brown et al., 2010). Therefore, irrespective of the participant's clinical history, it is perhaps unsurprising that intensive meditation practice precipitated psychotic episodes in some individuals.

Furthermore, the uncontrolled nature of these studies makes it difficult to conclusively pinpoint mindfulness (i.e., as opposed to other meditation techniques or environmental stressors such as lack of food, etc.) as the source of the psychotic episodes. This is particularly

important because numerous reports of adverse effects exist for non-mindfulness variants of meditation such as Transcendental Meditation and Qigong. Examples are panic attacks, musculoskeletal pain, addiction (i.e., to meditation), anti-social behaviour, impaired reality testing, dissociation, guilt, uncomfortable kinaesthetic sensations, despair, suicidal feelings, and exhaustion (Perez-De-Albeniz & Holmes, 2000; Yorston, 2001). Therefore, whilst techniques such as mindfulness meditation, Transcendental Meditation, and Qigong can be broadly grouped together as modalities of 'meditation', it is important to highlight that these techniques reflect fundamentally different approaches. For example, Transcendental Meditation is a commercial technique introduced in the 1950s by Maharishi Mahesh Yogi that includes mantra recitation and derives from Hinduism. Conversely, mindfulness meditation is a 2,600-year-old Buddhist practice that does not include chanting or mantra recitation but primarily focuses on breath and present-moment awareness.

Although small in quantity (n = 11) and not without their (previously outlined) limitations, comparatively speaking, studies that indicate an application for mindfulness meditation in the treatment of psychosis appear to constitute a more reliable empirical evidence base. Furthermore, in addition to the more methodologically robust designs of these studies (i.e., controlled studies, RCTs), they were transparent in terms of whether non-mindfulness-based meditative techniques were also practiced.

Unlike more analytical meditative methods (that belong to a form of meditation known as *vipassana*), mindfulness meditation constitutes a more passive procedure. This means that on a meditation continuum with poles of analytical meditation and concentrative meditation, mindfulness would sit somewhere in middle. The attentional set engaged during mindfulness practice is one of open acceptance to the present moment, and concentration is invariably 'anchored' to the present moment by meditatively attending to the natural flow of the in and out breath. This combined attentional strategy (i.e., non-judgemental open awareness anchored

by breath observance) has not only been shown to increase perceptual distance from cognitive and affective processes, but also begets reductions in stress due to decreased autonomic and psychological arousal (Shonin et al., 2013b). Therefore, for individuals experiencing psychosis, mindfulness may confer the capacity to: (i) "*allow unpleasant psychotic experiences to come into awareness*", (ii) avert a conflict-inducing response (e.g., avoidance strategies, negative self-judgement, dysphoric moods, etc.), and (iii) accept both the psychotic experience and oneself (Chadwick et al., 2009, p. 410).

It is concluded that mindfulness meditation, when delivered within a clinical framework setting, appears to have a beneficial role to play in the treatment of psychosis. However, consistent with the extant empirical data relating to the clinical utility of MBIs for treating various other psychopathologies (i.e., substance use disorders, post-traumatic stress disorder, behavioural addictions, eating disorders, etc.), these promising findings are not yet sufficient to demonstrate a clear treatment effect for MBIs. Thus, taking into account the risks associated with other (i.e., non-mindfulness) meditational modalities, and given the highly vulnerable nature of the patient group concerned (i.e., people with psychosis), both caution and further controlled empirical investigation utilising larger samples are clearly required.

In order to mitigate the risk of mindfulness meditation actually inducing psychotic episodes (or other deleterious symptoms), the following recommendations are proposed for delivering MBIs to people with psychosis: (i) utilise short duration guided meditations (i.e., ≤ 15 minutes), (ii) avoid prolonged periods of silence, (iii) provide additional instruction in basic anchoring techniques (e.g., counting the breath, body scanning, etc.), (iv) use smaller group sizes (e.g., ≤ 10 participants per facilitator) with time for one-to-one discussion where required, (v) avoid the use of explicitly analytical/insight-based (i.e., *vipassana*) meditation techniques, (vi) employ facilitators/clinicians with at least three-years of supervised mindfulness practice and teaching experience (i.e., as opposed to current practice where clinicians sometimes have

as little as one year's mindfulness practice/teaching experience following completion of a single eight-week course) (Shonin et al., 2013d), and (vii) utilise treatments of greater length than those reviewed in this chapter (which ranged from just four to twelve weeks) for individuals with persistent/severe symptoms.

Chapter 6

Cognitive Behavioural Therapy (CBT) and Meditation Awareness Training (MAT) for the Treatment of Co-occurring Schizophrenia and Pathological Gambling: A Case Study

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Abstract

There is a paucity of interventional approaches that are sensitive to the complex needs of individuals with co-occurring schizophrenia and pathological gambling. Utilising a single-participant design, this study conducted the first clinical evaluation of a novel and integrated non-pharmacological treatment for a participant with dual-diagnosis schizophrenia and pathological gambling. The participant underwent a 20-week treatment course comprising: (i) an initial phase of second-wave cognitive behavioural therapy (CBT), and (ii) a subsequent phase employing a meditation-based recovery model (involving the administering of an intervention known as Meditation Awareness Training). The primary outcome was diagnostic change (based on DSM-IV-TR criteria) for schizophrenia and pathological gambling. Secondary outcomes were: (i) psychiatric symptom severity, (ii) pathological gambling symptom severity, (iii) psychosocial functioning, and (iv) dispositional mindfulness. Findings demonstrated that the participant was successfully treated for both schizophrenia and pathological gambling. Significant improvements were also observed across all other outcome variables and positive outcomes were maintained at three-month follow-up. An initial phase of CBT to improve social coping skills and environmental mastery, followed by a phase of meditation-based therapy to increase perceptual distance from mental urges and intrusive thoughts, may be a diagnostically-syntonic treatment for co-occurring schizophrenia and pathological gambling.

Introduction

Approximately 10-18% of individuals with schizophrenia exhibit maladaptive gambling behaviour (Cunningham-Williams, Cottler, Compton, & Spitznagel, 1998; Desai & Potenza, 2009). This compares with a prevalence estimate of less than 1% (UK) to 2.5% (US and Canada) for problem gambling in the general population (Chou & Afifi, 2011; Wardle et al., 2011). According to Echeburúaa, Gómezc, and Freixac (2011)**,** there exists a negatively perpetuating bi-directional relationship between schizophrenia and problem/pathological gambling because the positive symptoms of schizophrenia (e.g., hallucinations, delusions, intrusive thoughts, etc.) tend to obscure risk perception. In turn, obscured risk perception (i.e., (judgement bias) increases the risk of gambling-related losses/debts and associated anxiety-induced acute psychotic episodes (Borras & Haguelet, 2007). Furthermore, dysphoric mood states associated with schizophrenia tend to fuel addictive behaviours due to the individual engaging maladaptive avoidance strategies (Desai & Potenza, 2009). In fact, individuals with a dual diagnosis of schizophrenia and pathological gambling are more likely to utilise outpatient services, derive reduced gains from dedicated schizophrenia treatments, and are at increased risk for relapse or premature therapy termination (Echeburúaa et al., 2011).

Despite the higher incidence rates of problem and pathological gambling in schizophrenia populations, individuals with a dual-diagnosis of schizophrenia and pathological gambling represent an under-researched population. To date, the results of only three treatment studies have been published. The first two of these were clinical case studies that employed serotonin/dopamine antagonist treatment with adjunctive cognitive behavioural therapy (CBT) (i.e., Borras & Huguelet, 2007; Potenza & Chambers, 2001). The third study utilised a small-sample pilot design (n = 23 intervention participants; n = 21 control participants) and assessed whether participants responded better to CBT plus treatment as usual (TAU: consisting of antipsychotics and mood stabilisers) versus TAU (Echeburúaa et al., 2011). Although each of

these studies reported favourable outcomes at the post-intervention assessment stage, a follow-up assessment to determine maintenance effects was either not conducted, or demonstrated that participants had relapsed to pre-intervention levels of gambling involvement.

The CBT modality employed in these three studies belongs to the 'second wave' of CBT approaches. Second-wave CBT advocates the intentional controlling and modification of maladaptive cognitions (Wells, 1997), and is recommended for the treatment of both single-diagnosis schizophrenia and pathological gambling (NICE, 2009b; Rickwood, Blaszczynski, Delfabbro, Dowling, & Heading, 2010). Despite this, second-wave CBT is not an acceptable treatment for all schizophrenia or pathological gambling patients. Indeed, relapse and rehospitiliation rates following treatment by CBT can be as high as 75% (Hodgins et al., 2007; Jones, Hacker, Cormac, Meaden, & Irving, 2013). Thus, there is a need for dedicated and novel interventional approaches that are sensitive to the complex range of factors that underlie the co-occurring schizophrenia and pathological gambling condition.

To overcome some of the limitations of second-wave CBT approaches and in order to offer alternative treatments to service-users, over the course of the last two decades, a 'third-wave' of CBT interventions have been formulated and clinically deployed. Unlike second-wave CBT, third-wave CBT techniques operate via a mechanism of transformative meditative awareness and perceptual re-distancing (Shonin et al., 2013c). Third-wave CBT techniques have their roots in Buddhist practice and involve training patients to accept and become fully aware of present moment events and experience.

Preliminary findings indicate that third-wave CBT approaches may be effective treatments for problem/pathological gambling (see reviews by: de Lisle, Dowling, & Allen, 2012; Shonin, Van Gordon, & Griffiths, 2013b). However, the case for utilising third-wave techniques as schizophrenia interventions is less clear. Indeed, although there is some standalone evidence for the utility of third-wave CBT techniques as schizophrenia treatments

(e.g., Brown et al., 2010), due to the inherently subtle nature of meditation practice, caution is advocated prior to exposing people with schizophrenia to meditative training (Shonin et al., 2014e). Furthermore, vis-à-vis second-wave CBT and as a standalone practice, meditation does not entail the same range of techniques (e.g., role plays, exposure exercises, life skill acquisition, assertiveness training, goal setting, etc.) that are specifically designed to enhance social and/or environmental coping skills.

Symptoms such as thought rumination, fantasising, dissociation from the present moment, and reward-directed behavioural disturbance are common to both schizophrenia (Potenza & Chambers, 2001; Renard, Pijnenborg, & Lysaker, 2012) and pathological gambling (e.g., Griffiths, Wood, Parke, & Parke, 2006). Given that meditation has been shown to reduce these symptoms (Shonin at al., 2013d), it is hypothesised that meditation-based therapy (i.e., based on third-wave CBT principles) could be an acceptable and effective treatment for patients with co-morbid schizophrenia and pathological gambling. To overcome concerns regarding the use of meditation for people with schizophrenia, it is also hypothesised that such a phase of meditative training could lead to lasting therapeutic gains if administered following an initial phase of second-wave CBT (i.e., that focussed on augmenting social coping skills, environmental mastery, and resilience to psychotic episodes). Thus, the purpose of this study is to conduct the first single-case assessment of a treatment combining phases of both second-wave and third-wave CBT for a patient with dual diagnosis schizophrenia and pathological gambling.

Case Vignette and Assessment

Clinical History

'Maria' (a pseudonym) is a 32-year old single white female without dependants, and with a history of moderate depressive episodes that lasted for a period of approximately 12 months

(ending in early 2011). In mid-2011, Maria experienced several acute psychotic episodes and was subsequently diagnosed with Schizophrenia, Paranoid Type, Episodic with no Inter-episode Residual Symptoms, With Prominent Negative Symptoms (DSM-IV-TR code 295.30). In early-2012, Maria began to exhibit pathological gambling behaviour (mostly related to online slot-machine gambling) and was thus further diagnosed with Pathological Gambling (DSM-IV-TR code 312.31).

Maria's medical history showed no prior episode or complaint of mental illness beyond the most recent 42 months. For the first year of this 42-month period, Maria had followed a prescription of orally administered anti-depressants (paroxetine) that appeared to reduce her depressive symptoms to normative levels of severity. However, since the onset of psychotic symptoms (i.e., in mid-2011), Maria refused further pharmacotherapy. In early 2012, Maria commenced a course of CBT (second-wave) but missed several appointments and discontinued the therapy after nine weeks.

Case History

Occupational history: Maria was employed as an ante-natal nurse and had worked at several hospitals. She had been on long-term sick leave since mid-2011 but had not actually worked since the beginning of 2011. This was because Maria's sick leave immediately followed a six-month period where she was suspended from her post due to being implicated in an alleged case of professional misconduct (involving the death of a new-born baby). Whilst the investigation cleared Maria of any negligence, it left her feeling angry, betrayed, and totally disillusioned after having dedicated more than ten years of her life to the nursing profession. Maria reported that although formal proceedings were now closed, she felt estranged from many of her former colleagues whom she stated had "*distanced themselves*" during the investigation.

Family history: Maria was raised by her biological mother and father who were married and are now approaching state retirement age. Maria's mother worked part-time as an office receptionist and Maria's father was employed fulltime as a skilled labourer. Maria stated that her parents showed a great deal of concern and were supporting her emotionally. She reported that she was close to both parents and "*could not ask for anything more*". Maria had a younger brother who worked for a mobile phone operator in London and visited her regularly. Maria found such visits to be uplifting.

Educational history: Maria's education was by way of state schooling where she achieved average grades. After completion of her general exams at a basic level (i.e., General School Certificates of Education), Maria completed a vocational qualification followed by further training to become a nurse.

Social history: Maria had been socially active for the major part of her adult life. In her mid-20s, she enjoyed being on the steering committee of a local swimming club and up until 2011, she met with friends on a biweekly basis. However, since then, Maria had gradually withdrawn socially. She explained that this was because she felt "*frightened that people might recognise me and know that I was suspended from work*". Maria used to enjoy a regular routine of attending fitness classes but had not attended any in the 12 months prior to treatment. She had been involved in several short-term (i.e., 3-9 months) relationships with various male partners with the most recent relationship ending in 2010.

Behavioural Observations

At her initial assessment, Maria seemed to be slightly overweight. Her appearance was

unkempt and her hair appeared to be unwashed and unbrushed. Whilst not overtly noticeable, upon closer inspection it was apparent that Maria's jumper had been put on inside out. Maria's communication seemed to shift from phases of communicating in a forthcoming and coherent manner, to phases of mildly incoherent and lethargic speech that would often follow a long delay in responding. During such phases (which generally lasted for no more than five minutes), Maria would often respond verbally in an emotionless and expressionless manner, and whilst using a monotonous voice tone.

At the start of the initial assessment, Maria seemed to be cognisant as to person, place, time, and circumstance. However, as the consultation progressed, Maria's alertness deteriorated and she began to exhibit signs of disassociation. Maria experienced three episodes of heavy crying during her initial assessment although she could not identify what had triggered them. Verbal assertions such as "*I know I'm useless*", "*I'm losing my mind*", and "*I'm never going to get back on my feet*" were expressed. Maria appeared to be agitated and stated that she felt "*exhausted*" but at the same time found it *"impossible to relax*".

Maria appeared to struggle to remember details about her activities during the few days immediately prior to the initial assessment. She was administered a three-object recall test but indicated no impairment in short-term memory functioning (this was consistent with findings from a recent neuropsychological examination that had ruled-out any neurodegenerative impairment). Maria showed a lack of interest in world affairs and towards events happening in her family life. For example, when talking of the recent birth of her nephew, she stated that babies are born all the time and "*I don't see what everybody is so happy about*".

Presenting Complaints

Maria stated that she had experienced several episodes of moderately intense auditory hallucinations, with the most recent episode occurring three months prior to the initial

assessment. This most recent episode occurred whilst Maria was engaging in her normal thought rumination concerning the situation at work when she later realised that unfamiliar voices had been in the conversation. Maria confirmed that the voices were distinct from her own thoughts and had not occurred during hypnagogic or hypnopompic phases. Maria described the voices as worrisome and "*annoying*" but did not find them to be excessively persecutory. She indicated that the hallucinations did not seem to significantly impair her general levels of awareness or cognitive functioning. Maria denied any further episode of memorable hallucination, delusion, or flashback, but admitted prolonged and excessive daydreaming and thought rumination. She also denied any homicidal or suicidal ideations and denied any substance or alcohol dependency.

Maria stated that she frequently experienced difficulty sleeping. She recounted that when trying to go to sleep, she would often see visions of online slot machines, and/or would fantasise about a jackpot win. Maria implied that her sleeping difficulties were also due to worrying about her financial situation, and she attributed this worry as the cause of recurring migraines. Maria explained that over the course of the last six months, the average amount of time spent gambling at online sites had increased from 20 minutes to three hours per day. Maria's typical gambling spend was in the region of £200 every week. However, Maria admitted that on several occasions, she had spent up to £125 in a single two-hour session due to trying to recoup gambling losses. Maria disclosed that her parents were assisting with paying off gambling-related debts but she changed subject whenever she was asked about the extent of the debts. Maria stated that during the previous year, she had managed to refrain from gambling on three separate occasions with each abstinence period typically lasting ten days. Maria also stated that although her gambling activities were a major cause of anxiety, her hallucinatory episodes and overall levels of psychological distress seemed to intensify during phases of gambling abstinence.

Diagnostic Impression

Maria exhibited a mild-to-moderate degree of disorganised behaviour (such as frequent crying and confusion as to dress sense) coupled with chronic negative schizophrenia symptoms (e.g., apathy, avolition, anhedonia, flat affect, etc.) that occurred in conjunction with several hallucinatory episodes. However, Maria's current clinical picture was without prominent positive symptoms and therefore merited an anchoring diagnostic impression of Schizophrenia, Residual Type, With Prominent Negative Symptoms (DSM-IV-TR 295.6). A diagnosis impression of Mood Disorder with Psychotic Features (295.2) was discounted because Maria's psychotic episodes had occurred outside phases of exacerbated mood disturbance. Maria met more than five of the DSM-IV-TR maladaptive gambling behaviour criteria, suggesting that her previous diagnosis of Pathological Gambling (212.31) was still current.

Treatment Outcome Measures

The 18-item Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962) was administered to assess changes in the severity of psychiatric symptoms. Items on the BPRS are rated on a seven-point Likert scale (1 = not present, 7 = extremely severe) and responses are based on the previous seven-day period. Global scores range from 18-126. A global score of 31 corresponds to a 'mild' level of psychiatric illness, a score of 41 corresponds to 'moderately ill', and a score of 53 corresponds to 'markedly ill' (Leucht et al., 2005). Maria's score at baseline was 57.

The 12-item Gambling Symptom Assessment Scale (G-SAS) (Won Kim, Grant, Potenza, Blanco, & Hollander, 2009) was used to assess changes in pathological gambling symptom severity. Items on the G-SAS are rated using a five-point Likert scale (0 = none, 4 = extreme) and responses are based on the previous seven-day period. Total scores range between 0 (no symptoms) and 48 (extreme) and G-SAS scores correspond to the following levels of

symptom severity: 8-20 = *mild*, 21-30 = *moderate*, 31-40 = *severe*, > 41 = *extreme*. Maria's baseline score was 40.

The Global Assessment of Functioning Scale (GAF) (American Psychiatric Association, 2000) was used to assess changes in psychosocial functioning. Scores on the GAF range between 0-100 (higher scores reflect superior levels of functioning) and are subdivided into ten ranges of functioning. Working from the top level downwards, the decile that best reflects the individuals symptom severity or functioning is identified, and a specific score (i.e., that falls within the 10-point range) is then determined. Maria's GAF score on intake was 40 (indicating impairment in reality testing and communication or major impairment in areas such as work, family relations, judgment, thinking, and/or mood).

The 15-item Mindful Attention and Awareness Scale (MAAS) (Brown & Ryan, 2003) was used to determine changes in levels of dispositional mindfulness. Scoring is frequency-based and comprises a six-point Likert scale (ranging from 'almost always' to 'almost never'). Scores range from 15 to 90, with higher scores reflecting greater degrees of dispositional mindfulness. Maria's baseline score was 38.

Changes in gambling frequency, duration, and spend were assessed using daily dairy keeping by Maria. Maria's baseline scores (based on the preceding seven-day period) were as follows: gambling spend = £210 a week, gambling duration = 20 hours a week, gambling frequency = 26 episodes a week.

The Goal Attainment Scale (GAS) (Kiresuk & Sherman, 1968) was administered to assess treatment goal attainment. The GAS allows for a series of goals to be agreed between client and therapist. Behavioural descriptions of functioning are then used to determine the level of goal achievement. Scores range from -2 (regression) through 0 (expected outcome attained) to +2 (expected outcome exceeded) for each of the agreed goals. Scores for individual goals are totalled and then the GAS conversion key for equally weighted scales is used to

calculate an overall score. In this study, five equally weighted goals were formulated. A score of 50 indicates an expected level of goal achievement (higher scores indicate greater levels of goal achievement).

The aforementioned measures were administered at four separate time points: (i) baseline (*t*1), (ii) mid-treatment (*t*2 [week 10]), (iii) therapy termination (*t*3 [week 20]), and (iv) three-month follow-up (*t*4). All of the above scales are well-established measures with excellent levels of reliability and validity.

Case Formulation

Maria's assessment indicated distorted and negative perceptions of self and environment that were heavily influenced by faulty cognitive processing. Thus, following informed consent, Maria's treatment was conceptualised based upon Beck's (1995) cognitive-behavioural formulation. According to cognitive theory, the manner in which an individual interprets and responds to a particular situation or stimuli is heavily influenced by underlying core beliefs. Activating events give rise to automatic thoughts that, if negatively orientated, have the effect of reifying any underlying detrimental schemas and thus perpetuating maladaptive cognitive, emotional, and behavioural responses (Beck & Emery, 1985). Faulty cognitive processing is thought to play a significant role in the aetiology of both schizophrenia (Wilson, Diamond, & Factor, 1990) and pathological gambling (Davey, 2008).

Predisposing Factors and Core Beliefs

Prior to her history of psychiatric complaint, Maria's functioning was psychosocially adaptive. Maria's parents were financially comfortable and had provided her and her only sibling with a secure and supportive family environment. However, Maria's relatively 'sheltered' upbringing had prevented her from acquiring the coping skills to effectively manage being on the receiving

end of a professional negligence complaint of such magnitude. Indeed, when talking about the situation at work, Maria stated that: "*things like this don't happen to me*" and "*the complaint came completely out of the blue*".

Although not a high-achiever *per se*, Maria had become accustomed to a steady level of career progression and her job had become increasingly important to her. Maria believed that her "*career was going well until it happened*" and had formulated a core belief about herself that she was "*somebody who doesn't fail*". Whilst such underlying beliefs were likely the very same drivers that motivated her to take her job seriously, they became maladaptive when they gave rise to intermediate assumptions such as: "*if people think I have failed they will reject me*" and "*people who are successful do not have significant setbacks*".

When suddenly implicated in professional negligence proceedings, these underlying schemas played a pivotal role in initiating an unremitting sequence of catastrophising automatic thoughts such as "*whatever happens now is going to ruin my career and my life*" and "*even if I'm cleared, people will still think I did something wrong*". Such negatively orientated thinking served to strengthen Maria's core construct that others perceiving her to have failed would render life pointless. She automatically assumed that the complaint would cause her work colleagues and friends to reject her. Even when Maria's peers offered their support (e.g., by extending an invitation to meet for lunch), Maria believed that "*it's all pretence, they don't care really*".

Consequently, Maria progressively withdrew from potentially protective interpersonal interactions. This probably left Maria's co-workers feeling unwelcome and resulted in a 'reciprocal interaction' (Beck, Rush, Shaw, & Emery, 1979) that further reified Maria's belief that she had been rejected by her peers. This led to Maria becoming increasingly more withdrawn, and she began to avoid situations requiring any level of social aptitude. Over the course of several months, Maria's coping resources rapidly diminished and she began to feel

"*exhausted*" and "*easily stressed out*".

As a result of diminishing personal resources, Maria began to feel worthless and experienced increasing difficulty in transmuting negative affective states. Maria fell into a 'depressive interlock' (Clark, Beck, & Alford, 1999) and began to feel resentful towards her employer. For example, notwithstanding the fact that it was normal protocol in such a situation, the decision of Maria's employer to suspend her made Maria feel that "*they treat me like I'm just a part that needs replacing*" and "*I've wasted the last ten years of my life for those clowns*".

Maria's perspective on life became increasingly contracted and phases of thought rumination increased in frequency and duration. Coupled with the traumatising effect of being accused of professional negligence, this chronic negatively-orientated thought rumination likely predisposed Maria to low intensity positive and negative schizophrenia symptoms. Maria's hallucinatory episodes typically followed periods of social interaction with a family member. The most intrusive hallucination occurred after Maria had finished a long telephone conversation with her mother during which she was informed of the birth of her brother's child. Sensory and emotional overload when coupled with pre-existent negative symptoms have been identified as a risk-marker for hallucinatory episodes (Hemsley, 2005).

The onset of psychotic symptoms and declining overall levels of psychological wellbeing prompted Maria to look for a means of escaping her psychological environment. Consequently, she developed an obsession for online slot machine playing which she found particularly attractive due to the absence of any requirement for social interaction. Maria became myopically focussed on gambling rewards and her capacity for self-control rapidly deteriorated. Financial problems swiftly followed, and attempts to refrain from gambling left Maria feeling irritable and disorientated.

Maria's almost routine-like gambling behaviour appeared to help regulate the frequency and severity of hallucinatory episodes. However, this coping strategy was

maladaptive and resulted in increased personal conflict (e.g., negative affective states, self-blame, impaired relaxation ability, etc.) and gambling using progressively larger amounts of money in order to support sensation-seeking behaviour. Although Maria's gambling problem was ultimately maladaptive, it helped to convince Maria that by modifying her behaviour, it was actually possible to regulate the occurrence of hallucinatory episodes. At this point, Maria experienced a renewed motivation to recover which appeared to coincide with her entering the residual phase of schizophrenia.

Residual-type schizophrenia (RTS) is generally regarded as a transitory state between full-blown psychotic episodes and remission (Davey, 2008). However, without successful treatment, RTS can be continuously present for many years (American Psychiatric Association, 2000). During the residual period, reductions in psychosocial functioning, deficits in perceptual and memory skills, and encumbered verbal fluency are symptomatic impairments (e.g., Park & Holzman, 1992; Riley, McGovern, Mockler, & Doku, 2000; Slaghuis & Curran, 2001). Maria was aware that she had reached a pivotal stage in which she could easily relapse to further and more severe psychotic episodes. Maria acknowledged: "*if I don't get my head together now, I know that things are going to get much worse*".

Protective and Problematic Factors

Whilst Maria's failure-averse core belief was maladaptive, if directed towards the achievement of therapeutic outcomes it could avail itself as a protective feature. Furthermore, although Maria had been disillusioned by her work situation, she still demonstrated some desire to revive her career. Coupled with a general motivation to improve her overall levels of wellbeing, this would likely constitute a further protective factor.

Maria's parents supported her both emotionally and financially. The absence of any immediate financial pressure helped provide Maria with a stress-limited environment

conducive to therapeutic recovery. However, in the longer term, this could undermine Maria's impetus to return to work and could therefore become an obstacle to recovery.

Intervention

Consistent with NICE (2009b) guidelines for the treatment of schizophrenia, Maria had previously commenced a six-month programme of CBT. However, Maria missed several sessions and discontinued the treatment after approximately two months. When initially presenting for therapy, Maria had expressed a wish to try meditation, and more specifically, to receive an intervention known as Meditation Awareness Training (MAT) (that she had read about in the newspaper).

Given that Maria had already commenced a course of CBT, it was felt that a further period of second-wave CBT would help to consolidate Maria's understanding of cognitive and behavioural processes. Consistent with the aforementioned recommendations to exercise caution when using meditation to treat schizophrenia, an initial phase of second-wave CBT was likewise deemed to be prudent in order to reduce the risk of latent positive schizophrenia symptoms resurfacing whilst Maria was undergoing meditative training. Furthermore, in light of Maria's tendency to not see commitments through to their fruition, it was felt that it would be beneficial for her to attempt to reach certain therapeutic milestones utilising the therapeutic approach that she had formerly discontinued (i.e., second-wave CBT).

Thus, following informed consent, Maria received a 20-week course of treatment that was divided into two distinct stages: (i) an initial stage employing second-wave CBT principles (weeks 1–10), and (ii) a subsequent stage utilising a meditation-based recovery model (weeks 11–20). Maria attended one session each week and each weekly session lasted for either 50 minutes (weeks 1–10, 19 and 20) or 90 minutes (weeks 11–18). Sessions began with the setting of an agenda that was agreed between therapist and client, and all of the therapy was delivered

by the present author (a senior psychotherapist and meditation teacher).

Stage I (Early phase CBT: Weeks 1-4)

The early interventional phase focussed on the establishment of therapeutic alliance that is known to play a particularly important role in augmenting outcomes from behavioural schizophrenia interventions (Frank & Gunderson, 1990). Core therapeutic conditions such as active listening, unconditional positive regard, accurate empathy, reflective statements, respect, and genuineness were consistently employed (Wells, 1997). Self-disclosure was used to normalise situations and encourage discussion of sensitive topics. An example was the therapist sharing with Maria his mutual interest in swimming that helped to strengthen connection and make the issue of discussing Maria's non-attendance at her local health centre more approachable.

Psycho-education was important during this phase as a means of reinforcing Maria's understanding of the principles of CBT and to establish rationale behind goal formulation. Using real life examples, Ellis's (1970) ABC model was used to explain cognitive processing. Furthermore, a normalisation-destigmatisation process was used to explain schizophrenia aetiology, prevalence, and symptom course (Kingsom & Turkington, 1994).

During the early treatment phase, five GAS compatible goals were agreed: (i) reduction of gambling spend to below £30 a week, (ii) returning to work on a part-time basis for 12-hours a week, (iii) developing social support systems, (iv) starting to drive again, and (v) reuptake of a regular exercise routine. During this stage, Maria was also introduced to Beck's (1984) Weekly Activity Schedule (WAS) as a way of addressing the disruption and loss of structure she had experienced whilst being absent from work. The WAS was also used to enable Maria to identify possible environmental and behavioural stressors (i.e., activating events) as well as a means to help her understand her reactions to them.

Stage I (Mid-phase CBT: Weeks 5-10)

The mid-intervention phase focussed upon the identification of distorted underlying beliefs and resultant automatic thoughts, as well as the implementation of reformative strategies. One of Maria's primary maladaptive core beliefs was that she had failed, and that this 'failure' could not be used as a catalyst for personal growth. Guidelines for the use of CBT for the treatment of schizophrenia recommend that rather than directly challenging assumptions that are not reality-based, 'guided discovery', 'logic reasoning', and 'Socratic questioning' should be used to steer the client towards testing the validity of flawed assumptions (Turkington, Kingdon, & Weiden, 2006).

Weekly collaborative review of the Dysfunctional Thought Diary (DTD) (Abramovich, 2006) that Maria was requested to complete on an ongoing basis, provides a good example of how these guidelines were implemented in the current study. During the early-interventional phase, Maria had received a letter from her employer inviting her to consider returning to work on a two-day per week basis (i.e., as a step-up to normal duties). However, due to the automatic thought "*I cannot return to work because everybody thinks I'm incompetent*", Maria chose not to respond. During a review of the DTD in the mid-interventional phase, the therapist posed questions such as "*How do you know everybody thinks that you are incompetent?*" and "*Is there any evidence that supports this view?*" Following deliberation of these questions, Maria realised that cognitions such as "*my employer does in fact want me to return*", "*in actual fact it is impossible for me to accurately know what other people are thinking*", and "*so far in my career I have actually been very competent*" would have constituted a more proportionate and adaptive response.

Personalising and selective abstraction during social interactions were major sources of stress for Maria. The vulnerability-stress model (Zubin & Spring, 1977) was used to help Maria comprehend her resilience deficit towards social stressors. Maria was then re-exposed to social

interaction by way of various roleplays in which a fellow therapist partook. One such role play included an assertiveness rehearsal exercise to build resilience in the eventuality of somebody inquiring about Maria's involvement in the negligence investigation.

An interest inventory was used to identify some of Maria's former hobbies and interests. Following several weeks of gentle encouragement, in the ninth week of the therapy Maria decided to recommence practicing the guitar and visited her local health centre to request a schedule of swimming-based fitness classes. As Maria's competence and range of activities slowly began to expand, 'mastery and pleasure ratings' (Bradshaw, 1998) were assigned to individual activities to determine proficiency and to identify any maladaptive thought processes that inhibited enjoyment. Behavioural experiments such as attending a creative arts class were likewise employed in order to build self-efficacy and to test Maria's assumptions that she was worthless and lacked creativity.

A key milestone in Maria's treatment (and indication that she was ready to progress to the meditative-phase of her treatment) was in the tenth week of therapy when she stated "*although easier said than done, major set-backs happen to everybody and can actually help you learn more about yourself*".

Stage II (MAT: Weeks 11-18)

Meditation Awareness Training (Van Gordon et al., 2014a; Shonin et al., 2013a) is a secular intervention generally delivered over an eight-week period. Unlike existent mindfulness-based interventions, MAT follows a more comprehensive and traditional approach to meditation and incorporates practices that would be traditionally followed by Buddhist practitioners. These include (for example) techniques aimed at cultivating generosity, ethical awareness, patience, and compassion, as well as insight into subtle concepts such as impermanence.

Participants of MAT receive a programme booklet and a CD comprising guided

meditations in order to encourage them to introduce meditation practice into their normal daily routine. MAT is generally delivered as a group intervention and so Maria followed a modified version of the programme. Key modifications included a reduction in the duration of individual sessions (from 120 to 90 minutes), and an integration of the one-to-one therapeutic component (normally administered as two 50-minute sessions in weeks 3 and 7 of the group programme) into Maria's weekly 90-minute sessions. Each weekly session attended by Maria comprised three phases: (i) discussion with the therapist (approximately 35 minutes), (ii) a taught component (approximately 25 minutes), and (iii) a guided meditation (approximately 20 minutes). A short break (5-10 minutes) was scheduled immediately prior to the guided meditation.

Maria responded well to the meditative phase of treatment and commented that she enjoyed practicing meditation. Maria stated that meditation "*makes me feel calmer, more caring, and more able to watch what the mind is getting up to*". Maria also commented that meditation helped her to feel "*more spiritual and at-home*", and to understand that "*thoughts and feelings have to dissolve—so I just relax the mind and don't hold on—then they start to go away on their own*".

Stage II (Therapy Termination: Weeks 19-20)

The late phase of treatment concentrated on preparing Maria for termination. Whilst Maria felt that her overall levels of psychological wellbeing had considerably improved, towards the end of the treatment she expressed concerns over relapse due to loss of therapeutic support. With such concerns in mind and in order to maximise the maintenance of any salutary outcomes, Maria was asked to continue with her daily practice of meditation and to keep a daily register of stress levels, sleep patterns, diet, and exercise. Following a review of treatment and progress, coping strategy cue cards were formulated that Maria agreed to refer to on a bi-weekly basis.

Finally, a procedure for emergencies was discussed, dates and times for planned telephone contact were agreed, and three 50-minute booster sessions were arranged for Maria to attend at monthly intervals.

Outcomes

Maria attended a diagnostic interview (utilising DSM-IV-TR diagnostic criteria) immediately following completion of the 20-week therapeutic course (i.e., *t*3) and exhibited clinically significant levels of change (i.e., to below the diagnostic threshold) in schizophrenia and pathological gambling symptomatology. These diagnostic impressions remained unchanged at three-month follow-up (*t*4).

Maria's changes in psychometric test scores over time (i.e., the BPRS, GAF, G-SAS, & MAAS) are shown in Figure 6.1. During the CBT phase of the therapy (i.e., *t*1-*t*2), Maria exhibited moderate levels of improvement in BPRS and GAF scores but no change in scores on the G-SAS or MAAS. However, at the end of the MAT treatment phase (i.e., *t*3), Maria demonstrated significant baseline-to-endpoint (i.e., *t*1-*t*3) improvements in all outcome variables. These improvements were maintained at follow-up, with a trend towards further improvements (i.e., *t*3-*t*4) in levels of dispositional mindfulness (MAAS) and psychosocial functioning (GAF). Maria's *t*3 and *t*4 scores on the BPRS were within the normative range. Maria did not demonstrate any reductions in gambling spend, duration, or frequency during the CBT phase of the treatment. However, Maria achieved abstinence after completion of MAT, and this was maintained at three- month follow-up.

At the end of the 20-week intervention, Maria had returned to work on a two-day a week (i.e., 16 hours) basis. Her post-treatment GAS score of 77 indicated achievement across all goal fronts, and was over and above the expected level. Maria had substantially increased her level of social engagement with peers, friends, and family members. She had resumed a

routine of regular exercise and evinced greater self-efficacy in respect of work and household tasks. Maria's post-intervention (i.e., *t*3 & *t*4) GAF score of >70 indicated only a mild level of impairment in psychosocial functioning.

Maria attended every single one of the 20 weekly sessions and her completion rate on the DTD was 85%. Since commencing MAT in the eleventh week, Maria had maintained a daily practice of meditation and her average daily practice time was 76 minutes. Maria adhered to a strict programme of meditation practice consisting of four 20-minute meditation sessions a day: (i) when first awaking in the morning, (ii) at mid-day immediately after lunch, (iii) early-evening before evening meal, and (iv) late evening just before going to bed.

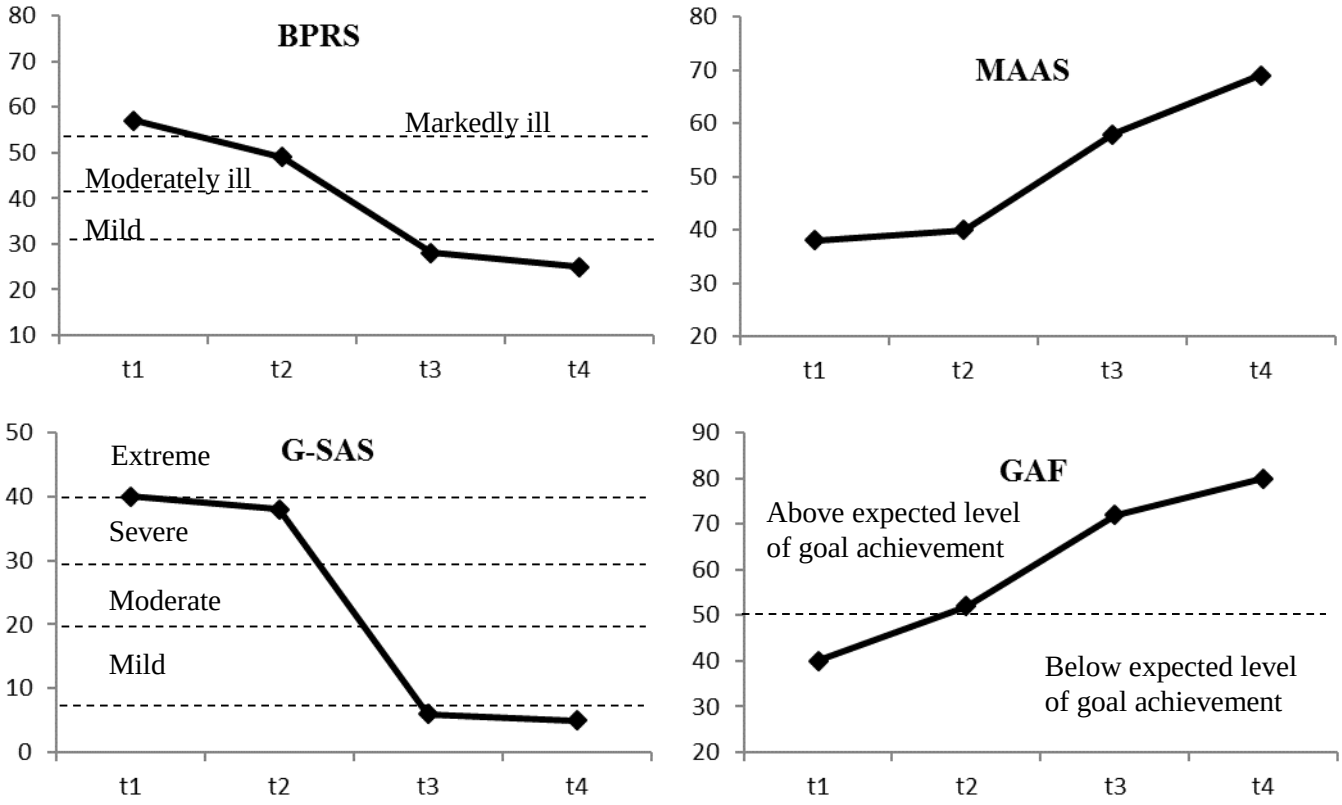

Figure 6.1 Change in outcome variable scores over time. t1 = baseline, t2 = week 10 [end of CBT phase / start of MAT phase], *t*3 = week 20 (therapy termination), *t*4 = 3-month follow-up.

Discussion

The purpose of this chapter was to illustrate the case of an adult female ('Maria') with co-occurring schizophrenia and pathological gambling who was treated via an initial phase of second-wave CBT followed by a phase of MAT. Findings demonstrate that by the end of the 20-week treatment course, Maria no longer met DSM-IV-TR diagnostic criteria for either schizophrenia or pathological gambling. In addition to significant reductions in overall levels of psychiatric impairment and problem gambling, Maria exhibited significant improvements in levels of dispositional mindfulness, and psychosocial functioning. Positive outcomes were maintained at three-month follow-up.

Whilst Maria demonstrated a certain degree of improvement in psychiatric symptoms and psychosocial functioning during the initial 10-week CBT treatment phase, the greatest progress in her overall recovery was observed during the subsequent phase of meditation-based therapy. Interpreting these findings is not as simple as concluding that Maria responded more favourably to MAT than CBT as there are numerous factors that need to be considered. The initial CBT phase was incorporated into Maria's treatment in order to (i) establish therapeutic alliance, (ii) provide a grounded understanding of cognitive and emotional processes, (iii) improve social coping skills and environmental mastery, and (iv) reduce the risk of further hallucinatory episodes. Thus, although this preparatory treatment phase did not convert into significant therapeutic gains, it helped to improve Maria's functionality to a level where she would derive the maximum benefit from the inherently more subtle meditative approach. Of course, an alternative explanation of this finding is that having already commenced a programme of CBT and not finished the therapeutic course, Maria was more motivated to try meditation as a novel alternative. However, this latter line of interpretation does not accord with qualitative feedback provided by Maria, nor with the therapist's impression.

The relationship between schizophrenia and pathological gambling is complex and poorly understood, and people with this dual-diagnosis represent a unique psychiatric population with specific treatment needs. In general, the successful treatment of schizophrenia is considered to be contraindicated by maladaptive gambling behaviour. However, Maria's case was distinctive in this respect because although detrimental in several other remits of functionality, Maria's gambling problem appeared to exert a protective influence over positive schizophrenia symptoms. To the author's knowledge, this represents the first reported instance of this interaction which may have important implications for the treatment of people with comorbid schizophrenia and pathological gambling. For example, if the 'daily structure' and cognitive involvement that result from pathological gambling serve to alleviate paranoid-type psychotic features, then consistent with the formulation of Maria's treatment in the current study, the focus of therapeutic efforts to reduce gambling involvement may be better reserved for the mid/latter phase of recovery (i.e., subsequent to an initial period targeting any prominent schizophrenia symptoms).

Maria demonstrated significant reductions in pathological gambling symptomatology during the latter phase of her treatment (i.e., whilst undergoing MAT). Recently, Shonin et al (2013b) proposed various mechanisms by which Buddhist-derived forms of meditation may ameliorate problem gambling severity. These include: (i) a greater capacity for meditative absorption leading to reductions in autonomic and psychological arousal, (ii) increased awareness of the impermanent nature of life and phenomena resulting in reductions in salience and myopic focus on reward (i.e., owing to better understanding that all that is won must ultimately be lost), (iii) increased levels of loving-kindness, compassion, and self-compassion that facilitates the dismantling of maladaptive shameful and self-disparaging schemas, (iv) an undermining of the intrinsic value and 'authenticity' that problem gamblers assign to the gambling experience, (v) increased levels of meditative-born patience leading to reductions in

impulsivity and frustration, and an improved capacity to defer gratification, and (vi) spiritual nourishment that attenuates feelings of loneliness and low sense of purpose.

An additional mechanism of action proposed in the same paper by Shonin et al. (2013b) is that of 'bliss substitution'. According to Shonin et al., bliss and tranquillity are frequently reported outcomes of certain concentrative forms of Buddhist meditation. Based on the same premises that underlie the current use of substitution techniques in problem gambling treatments (e.g., see Jackson, Francis, Byrne, & Christensen, 2013), bliss substitution may reduce the risk of relapse and temper withdrawal symptoms due to the individual developing a 'positive addiction' towards meditation. Although in the current study 'addiction to meditation' was not explored as an outcome *per se*, Shonin et al.'s theory seems to be consistent with Maria's unremitting adherence to a strict routine of daily meditation practice.

Findings from the current study demonstrated that a multi-modal treatment formulation consisting of an initial phase of second-wave CBT followed by MAT led to the successful treatment of an adult female with dual-diagnosis schizophrenia and pathological gambling. The initial CBT phase focussed on reducing the risk of relapse to further hallucinatory episodes, and on targeting the negative symptoms of schizophrenia via the augmentation of social coping skills and personal resources. The subsequent phase of meditative-based therapy focussed on the development of a greater perceptual distance towards intrusive thoughts, emotions, and gambling urges. Based on qualitative feedback, the meditative phase also appeared to instil a greater sense of spiritual awareness, a compassionate regard for self and other, and insight into the impermanent nature of life and phenomena.

Whilst findings indicate that an initial period of second wave CBT followed by a phase of third-wave CBT may be an acceptable treatment for people with co-occurring schizophrenia and pathological gambling, they should be considered cautiously due to a number of limitations that are inherent to the case study design. Particularly noteworthy amongst these was the

absence of a control condition and the fact that Maria's response to treatment may not be typical of all people with comorbid schizophrenia and pathological gambling. For example, Maria's motivation to recover, willingness to adhere to the treatment plan, and capacity/readiness to monitor and report symptom changes, are all predictors of a successful response to behavioural interventions (Foa & Emmelkamp, 1983). People with more pronounced psychiatric symptoms and/or individuals who do not meet these favourable prognostic criteria may therefore respond less favourably to the challenges of this 20-week multimodal treatment approach. Similarly, in addition to more conventional therapeutic techniques such as diary keeping, behavioural experiments, goal setting, and psycho-education, the intervention employed a broad range of meditation exercises and meditation-based dialogue techniques that may exert specific training (and therefore time) demands on the part of the therapist. Other notable limitations were the absence of a longer-term follow-up period and the utilisation of a preceding seven-day period for measuring gambling involvement (i.e., that does not control for short-term contextual factors such as availability of money). Thus, further clinical evaluation using both single-participant and controlled larger-sample designs is required in order to replicate these findings.

SECTION B: PART 2

BUDDHIST-DERIVED INTERVENTIONS FOR WELLBEING AND EFFECTIVENESS AT WORK

Chapter 7

Meditation Awareness Training (MAT) for Work-Related Wellbeing and Job Performance: A Randomised Controlled Trial

This chapter (whether in full or in part) was adapted for publication and was subsequently published as:

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Abstract

Due to its potential to concurrently improve work-related wellbeing (WRW) and job performance, occupational stakeholders are becoming increasingly interested in the applications of meditation. The present study conducted the first randomised controlled trial to assess the effects of meditation on outcomes relating to both WRW and job performance. Office-based middle-hierarchy managers (n = 152) received an eight-week meditation intervention (Meditation Awareness Training; MAT) or an active control intervention. MAT participants demonstrated significant and sustainable improvements (with strong effect sizes) over control-group participants in levels of work-related stress, job satisfaction, psychological distress, and employer-rated job performance. There are a number of novel implications: (i) meditation can effectuate a perceptual shift in how employees experience their work and psychological environment and may thus constitute a cost-effective WRW intervention, (ii) meditation-based (i.e., present-moment-focussed) working styles may be more effective than goal-based (i.e., future-orientated) working styles, and (iii) meditation may reduce the separation made by employees between their own interests and those of the organisations they work for.

Introduction

Work-related stress (WRS) accounts for 40% of all work-related illness (Health and Safety Executive [HSE], 2012) and approximately 20% of British adults are stressed as a result of their work (Houdmont, Cox, & Griffiths, 2011). Between mid-2011 and mid-2012, 10.4 million working days were lost in Great Britain due to WRS (HSE, 2012), which in conjunction with other work-related mental health issues costs the British economy up to £26 billion per year (Sainsbury Centre, 2007). Comparatively higher figures are reported for America where 69% of employees report that work is a significant source of stress and 41% of employees typically feel stressed out during the workday (American Psychological Association, 2009). WRS has serious detrimental health and socioeconomic consequences including psychopathology, somatic illness, work-related injury, mortality, reduced productivity, absenteeism, presenteeism, high staff turn-over, unsafe driving, and employee compensation claims (Cox & Griffiths, 2010; Manocha, Black, Sarris, & Stough, 2011; Wu**,** Fox**,** Stokes, & Adam, 2012; Van Gordon et al., 2014a).

Interventions that can be empirically shown to reduce WRS—especially those with the potential to concurrently improve employee levels of work performance—are of particular interest to occupational stakeholders (e.g., employees, employers, occupational physicians and psychologists, human resource specialists, trade unions, regulatory bodies, shareholders, etc.). One such interventional technique currently of interest to occupational stakeholders in this respect is that of meditation (Allen & Kiburz, 2012; Dane, 2010; Ho, 2011; Malarkey, Jarjoura, & Klatt, 2013; Monocha et al., 2011; Van Gordon et al., 2014a). The recent growth of interest into the utility of meditation within occupational settings is likely to have been influenced by the ongoing roll-out and operationalisation of meditation-based interventions by allied healthcare disciplines. Indeed, MBIs have been shown to be effective in treating a broad range of psychological disorders and somatic illnesses including mood disorders, anxiety disorders,

substance use disorders, behavioural addictions, eating disorders, sleep disorders, chronic pain, fibromyalgia, irritable bowel syndrome, and cancer (Arias, Steinberg, Banga, & Trestman, 2006; Chiesa & Seretti, 2011; Hofmann et al., 2010; Shonin et al., 2013b; Singh et al., 2008a). Furthermore, certain MBIs are now advocated by NICE and the APA for the treatment of specific forms of depression in adults (APA, 2010; NICE, 2009a). In addition to applications within clinical and sub-clinical populations, MBIs have also been shown to facilitate significant improvements in cognitive function and task performance in healthy adults (see review by Chiesa et al., 2011).

Within both clinical and occupational contexts, the meditation modalities that have received the greatest empirical attention are those that derive from the Buddhist tradition (Singh et al., 2008a). Within Buddhism, meditation is construed as a spiritual and introspective practice that involves elements of both concentration and analysis as part of a process of becoming aware of, and of training, the mind (Dalai Lama, 2001). A primary objective of Buddhist meditation is to effect reductions in selfish behaviour and related attachment to the ego and the 'I' (Dalai Lama, 2001). According to Shonin et al. (2013d), meditation effectuates a greater perceptual distance from cognitive and affective processes, and this 'transcognitive' awareness facilitates the regulation of habitual maladaptive and/or aptitude-limiting responses. Although numerous modalities of Buddhist meditation (e.g., mindfulness meditation, loving-kindness meditation, compassion meditation, and insight meditation) have been developed into intervention formats, such interventions are generally presented in a secular arrangement in order to make them more palatable within non-religious (i.e., clinical, organisational, educational, etc.) settings (Shonin et al., 2014b).

Notwithstanding the on-going assimilation of MBIs by mainstream healthcare operators, and notwithstanding the growth of interest within occupational psychology into the work-related applications of meditation, there is a scarcity of methodologically robust research

focussing on the health benefits of MBIs for the working population (Monocha et al., 2011). Research evaluating the effects of meditation on work performance is likewise underdeveloped (Dane, 2011). In fact, to the author's knowledge, a controlled and large sample-sized (i.e., $n >$ 100) efficacy study investigating the effects of meditation on outcomes relating to both wellbeing at work (e.g., WRS) and job performance has yet to be undertaken.

The objective of the present study was to undertake an empirical investigation to evaluate the effect of a secular Buddhist-derived MBI known as Meditation Awareness Training (MAT; Van Gordon et al., 2013) on work-related wellbeing and job performance in full-time employees. Office-based middle-hierarchy managers were the focus of the current study for a number of reasons: (i) middle managers are considered to be particularly at-risk for WRS due to striving to access hierarchically-higher lifestyles, with success in this respect being heavily dependent upon the results and performance of their lower-ranking team members (McConville & Holden, 1999), (ii) middle managers are exposed to both upwards and downwards management demands and frequently find themselves acting as a 'buffer' between top-level decision-makers and non-management employees (McConville & Holden, 1999; Peter & Siegrist, 1997), (iii) a single intervention study (whether controlled or uncontrolled) focussing on the effects of meditation on this specific worker population has never before been undertaken, and (iv) the methodological preference to maximise sample homogeneity with regards to job roles, demands, and salaries. It was hypothesised that compared to a non-meditating active control group, office-based full-time employed middle managers that received MAT would demonstrate significant improvements in both work-wellbeing and job performance outcomes, and that these gains from the MBI would be maintained at three-month follow-up.

Method

Design

An RCT compared MAT with an active control condition. *Consolidated Standards of Reporting Trial*s (CONSORT; Boutron, Altman, Schulz, & Ravaud, 2008; Schulz et al., 2010) guidelines for non-pharmacological interventions were followed where applicable.

Participants

Male and female full-time office-based employees with middle management responsibility were randomly allocated to either MAT or the control condition. Participants were recruited via: (i) press releases (and subsequent newspaper articles), (ii) posters and flyers located at strategic sites in three cities in the East Midlands (UK), (iii) the client database of local meditation practice centres (limited to individuals who had expressed an interest in receiving meditation training but had not yet done so), and (iv) presentations made by the researcher to personnel of key local employers. Participation was completely voluntary and individuals were not rewarded for their involvement in the study (although all participants received a certificate upon completion of the training). As an ethical consideration and to aid recruitment, participants allocated to the control condition were prioritised for acceptance onto a subsequent delivery of MAT that was scheduled to take place immediately after the last assessment phase.

Eligibility Criteria

The inclusion criteria for participation in the study were as follows: (i) in full-time employment (> 30 hours per week), (ii) not currently absent from work (e.g., due to leave of absence, maternity leave, sickness, etc.), (iii) management responsibility for ≥ 1 salaried direct report (excluding secretaries or personal assistants), (iv) reporting to a line manager, (v) annual salary between £40,000 and £65,000 per annum (i.e., a salary range was applied in order to maximise

homogeneity in terms of career profile and role demands), (vi) being office-based for at least 50% of working hours, (vii) ≥ 18 years of age, (viii) not currently undergoing formal psychotherapy, (ix) not currently practicing meditation, and (x) no changes in psychopharmacology (type or dosage) one-month prior to intervention (although stable prescription medication was permitted). Participants were excluded from the study if they were: (i) currently diagnosed (based on self-reports) with a psychotic disorder, personality disorder, bipolar disorder, neurological disorder, or substance/alcohol use disorder, or (ii) unable to confirm their availability to complete the eight-week MAT intervention and three-month follow-up assessment.

Randomisation and Blinding

The present author (who was also the trial coordinator) was responsible for recruitment and participant screening. Following the screening process, eligible participants were assigned participant pseudonyms (comprising computer-generated randomly-designated five-digit codes). The document linking participant demographic and screening results to their pseudonyms was stored in a sealed opaque envelope in a lockable unit within the office of the trial coordinator, and all other members of the research team were blinded as to its contents. A list of eligible participant pseudonyms, grouped by sex, was then passed by the trial coordinator to another research team member who subsequently conducted the randomisation procedure. On a sex-strata basis, participant pseudonyms were placed into a bowl, and then selected one at a time and inserted alternately into two separate envelopes. Randomisation occurred prior to participants completing any baseline assessments, and the trial coordinator was not involved in the randomisation process. Participants were blinded as to allocation condition until after completion of baseline assessments.

Sample Size Calculation

Statistical power calculations (*GPOWER Software*; Faul & Erdinger, 1992) indicated a total sample size of 128 participants (assuming an equal distribution between allocation conditions) would be required for an effect size of 0.5, an alpha of 0.05, and 80% power. Attrition was estimated at 20%, and an over-recruitment margin was applied accordingly. Prior to being shortlisted, all interested participants were required to attend a one-hour meditation taster session to reduce the likelihood of drop-out.

Programme Description

Existent mindfulness-based therapies tend to teach mindfulness 'out of context' and in isolation of enabling meditative agents (Shonin et al., 2013a). To overcome this limitation, MAT is an eight-week secular intervention that follows a more traditional and comprehensive approach to meditation. Although mindfulness is an integral component of MAT, it is not the exclusive focus. In addition to mindfulness and as shown in Figure 7.1 below, MAT incorporates meditation techniques that are specifically intended to engender: (i) citizenship, (ii) perceptive clarity, (iii) ethical and compassionate awareness, (iv) meditative insight (e.g., into subtle concepts such as non-self and impermanence), (v) patience, (vi) generosity (e.g., of one's time and energy), and (vii) perspective. These practices are taught via seminars and/or workshops and are integrated into a graded-series of guided meditations. Participants attend eight x 90-minute workshops and receive a CD of guided meditations to facilitate daily self-practice. Weekly sessions comprise three distinct phases: (i) a taught/presentation component (approximately 35 minutes), (ii) a facilitated group-discussion component (approximately 25 minutes), and (iii) a guided meditation and/or mindfulness exercise (approximately 20 minutes). A short break (5-10 minutes) is always scheduled immediately prior to the guided meditation.

On a four-weekly basis, each participant is invited to attend a one-to-one support session (of 50-minutes duration) with the programme facilitator. The support sessions provide an opportunity to discuss individual progress or problems with the meditation training. Rather than prescribe participants with a fixed set of answers, the facilitator's role in the one-to-one sessions is more one of aiding a process of 'guided discovery' (Wells, 1997). Consistent with a traditional (Buddhist) approach to meditation instruction, the objective during the one-to-one sessions is to elicit a co-produced form of insight that can be shared by facilitator and participant alike (Van Gordon et al., 2014a). Thus, although the one-to-one dialogues are not explicitly designed as psychotherapy sessions *per se*, they inevitably exert a therapeutic effect and inherently integrate many of the conditions employed during contemporary psychotherapeutic modes (e.g., conditions of active listening, unconditional positive regard, accurate empathy, genuineness, and congruence; Wells 1997).

In addition to the one-to-one sessions, a further unique attribute of MAT is that participants are not assigned a specified amount of daily meditation practice time. Rather, participants are encouraged to adopt a dynamic meditation routine and are guided on an individual basis to find the optimum frequency and duration of meditation sessions. According to Van Gordon et al (2014a), this avoids divisions being formed between meditation during formal sitting settings and practising meditation (or mindfulness) whilst engaging in tasks and activities. In other words, participants are less likely to become dependent on a fixed routine of formal seated meditation sessions and are thus able to conduct their practice in a manner that is adaptive to the demands of contemporary work and living environments. Attendance at at-least seven of the eight weekly sessions is a prerequisite for course completion. Prior to receiving MAT, all participants are asked to confirm they understand and agree to the level of commitment required. In the current trial, MAT was delivered by a research team member with ten years psychotherapy and meditation teaching experience. The present author (thirty years

psychotherapy and meditation teaching experience) provided supervision in order to assess any deviations from the standard intervention format.

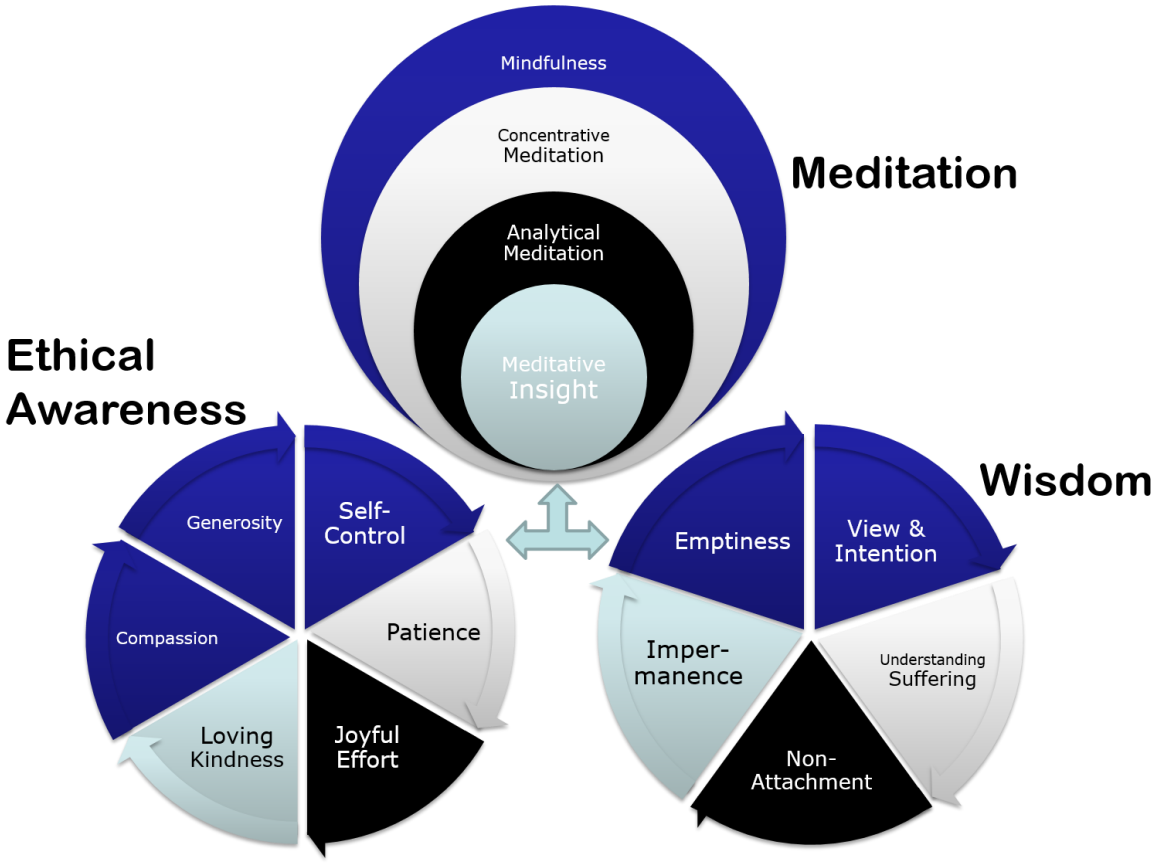


Figure 7.1 The MAT model

Control Condition

The control condition was a group programme involving educating participants in cognitive-behavioural theory and principles. The programme was devised with reference to guidelines by MacCoon et al (2012) for the development of suitable control groups for specific forms of meditation-based interventions. The control condition was identical to the intervention

condition on all non-specific factors such as overall course length, individual session duration, group and one-to-one discussion component, and inclusion of an at-home practice element. Weekly sessions comprised: (i) a taught presentation component (35 minutes), (ii) a facilitated group discussion component (25 minutes), and (iii) guided discovery educational exercises (20 minutes). The sessions were explicitly education-focussed and did not include any form of meditative practice or discussion of meditation theory. To control for a facilitator effect and ensure consistency of didactic style, the control group sessions were delivered by the same research team member who delivered the MAT intervention. To assess any differences in the facilitator's levels of enthusiasm between groups, participants in both the intervention and control groups were asked to rate (on a 1 to 5 Likert scale) the facilitator's levels of planning and motivation.

Outcome Measures

Psychometric tests were administered and scored by an independent analyst and comprised the following:

HSE Management Standards Work-Related Stress Indicator Tool (WSIT [HSE, n.d.]): The WSIT is a 35-item measure of WRS and assesses the following seven work-stress domains: (i) demands (e.g., workload and work patterns), (ii) control (e.g., level of work autonomy), (iii) managerial support (e.g., employer-derived encouragement and support), (iv) peer support (e.g., peer-derived encouragement and support), (v) relationships (e.g., promotion of positive working), (vi) role (e.g., clarity of the employees role), and (vii) change (e.g., how organisational change is managed and communicated). The WSIT is typically utilised by organisations as an indicator of employee psychosocial working conditions. However, given the WSIT assesses multiple sources of stress at work and is completed by the employee, it was

administered in the current study as an indicator of self-perceived stress at work (see *Discussion* section for additional rationale and the implications of using the WSIT). The WSIT uses a five-point Likert scale (1 = never, 5 = always) and higher scores reflect lower levels of WRS. The WSIT has excellent levels of reliability (internal reliability α = .92) and validity. A confirmatory factor analysis by Edwards, Webster, Van Laar, and Easton (2008) (n = 26,382 participants across 39 organisations) demonstrated that the instrument has a hierarchical factor structure in which seven first-order factors (i.e., the seven work-stress domains) each test distinct dimensions of work-stress, whilst a single second-order factor confirms that each subscale also taps aspects of the same underlying work-stress construct (Edwards et al., 2008). The combined score of each work-stress domain provides a global indication of WRS.

Abridged Job in General Scale (AJIGS [Russel et al., 2004]): The AJIGS is an eight-item measure of global job satisfaction and forms part of the Job Description Index. The scale contains the following adjectives or short phrases: *"makes me content", "better than most", "good", "disagreeable", "excellent", "enjoyable", "poor",* and *"undesirable"*. For each item, respondents are asked if they agree ("*yes*"), aren't sure ("*?*"), or disagree ("*no*"). A score of 3 is assigned for "*yes*", 1 for "*?*", and 0 for "*no*". Individual items are summed to give a total score and negatively worded items are reverse-scored. Higher scores indicate greater levels of job satisfaction. The scale has excellent internal reliability consistency (α = .85) and construct validity (Russel et al., 2004).

Depression, Anxiety, and Stress Scale (DASS [Lovibond & Lovibond, 1995]): The DASS measures emotional distress and comprises three sub-scales: (i) depression, (ii) anxiety, and (iii) stress. The scale is scored on a four-point Likert scale (from: 0 = "*Did not apply to me at all"*, to 3 = *"Applied to me very much or most of the time"*) and features items such as *"I found*

it hard to wind down" and *"I felt that life was meaningless"*. The DASS is completed in respect of the foregoing seven-day period. Scores for each of the three sub-scales can be summed together to provide an overall measure of psychological distress (Van Gordon et al., 2014a). The internal consistency for the overall scale is .93 and the scale shows strong levels of test-retest reliability for non-clinical populations (Henry & Crawford, 2005). The 21-item (as opposed to the longer 42-item version) was administered because factor analysis yields a superior latent structure for the short-form measure (Henry & Crawford, 2005). A good balance between sensitivity and specificity has likewise been demonstrated (Gloster et al., 2008). According to the DASS manual (Lovibond & Lovibond, 1995), the percentile cut-offs (and corresponding mean scores) for symptom severity are as follows: 0-78 ($M \leq 13$) = *Normal*, 78-87 (M = 14-18) = *Mild*, 87-95 (M = 19-28) = *Moderate*, and > 95 ($M \geq 28$) = *Severe*.

Role-Based Performance Scale (RBPS [Welbourne, Johnson, & Erez, 1998]): The RBPS is a 20-item measure of general work performance. The RBPS is based on role theory and identity theory, and adopts a multidimensional approach to work performance. The RBPS assesses performance across five different work roles: (i) job (e.g., quantity and quality of work output, standard of internal and external customer service), (ii) career (e.g., skill development, personal career goal attainment), (iii) innovator (e.g., improving processes and routines, generating and implementing new ideas), (iv) team member (responding to others' needs in his/her work group, ensuring his/her work group succeeds), and (v) organisational citizen (e.g., working for the overall benefit of the company). Scoring is on a Likert scale (1 = *needs much improvement*, 5 = *excellent*) and each role typology contains four items. When summed together, scores for each role typology provide an overall indication of job performance. The RBPS was completed by participants' direct line manager and submitted directly to the research team. The scale has excellent reliability (α = .86 – .96) and discriminant validity.

Data Analysis

A significance level of $p<0.05$ and two-tailed tests were employed throughout. Independent samples *t*-tests (for continuous variables) and chi-square tests with Yates's correction (for categorical variables) were used to identify any significant differences between groups in demographic characteristics or baseline dependant variable mean scores. Visual inspection of frequency histograms confirmed a Gaussian distribution and so differences between allocation conditions at end-point and three-month follow-up were assessed using Analysis of Variance (ANOVA) with a 2 x 3 design (i.e., a group factor [intervention, control] and a time factor [baseline, endpoint, three-month follow-up]). Significant multivariate effects were followed by univariate analysis of each outcome variable. Effect sizes (Cohen's *d*) were estimated based on difference scores (baseline to follow-up) of each dependent variable, and showed the size of the between groups effect (absolute value) using a mean averaged standard deviation. The trial was conducted on an 'intent-to-treat' basis with missing data at end-point substituted on a last-observation-carried-forward (LOCF) basis.

Results

Recruitment and Allocation

A total of 215 individuals completed the screening questionnaire and 63 of these individuals were screened-out on the grounds of ineligibility. The main reasons for exclusion were: (i) not in full-time employment (17 individuals), (ii) annual salary below the acceptance threshold (14 individuals), and (iii) currently receiving structured psychotherapy (12 individuals). Of the 152 remaining participants, 76 were allocated to the intervention group and the same number to the control group (see Figure 7.2). MAT and the control group interventions were each delivered in three separate tranches (i.e. approximately 25 participants per tranche).

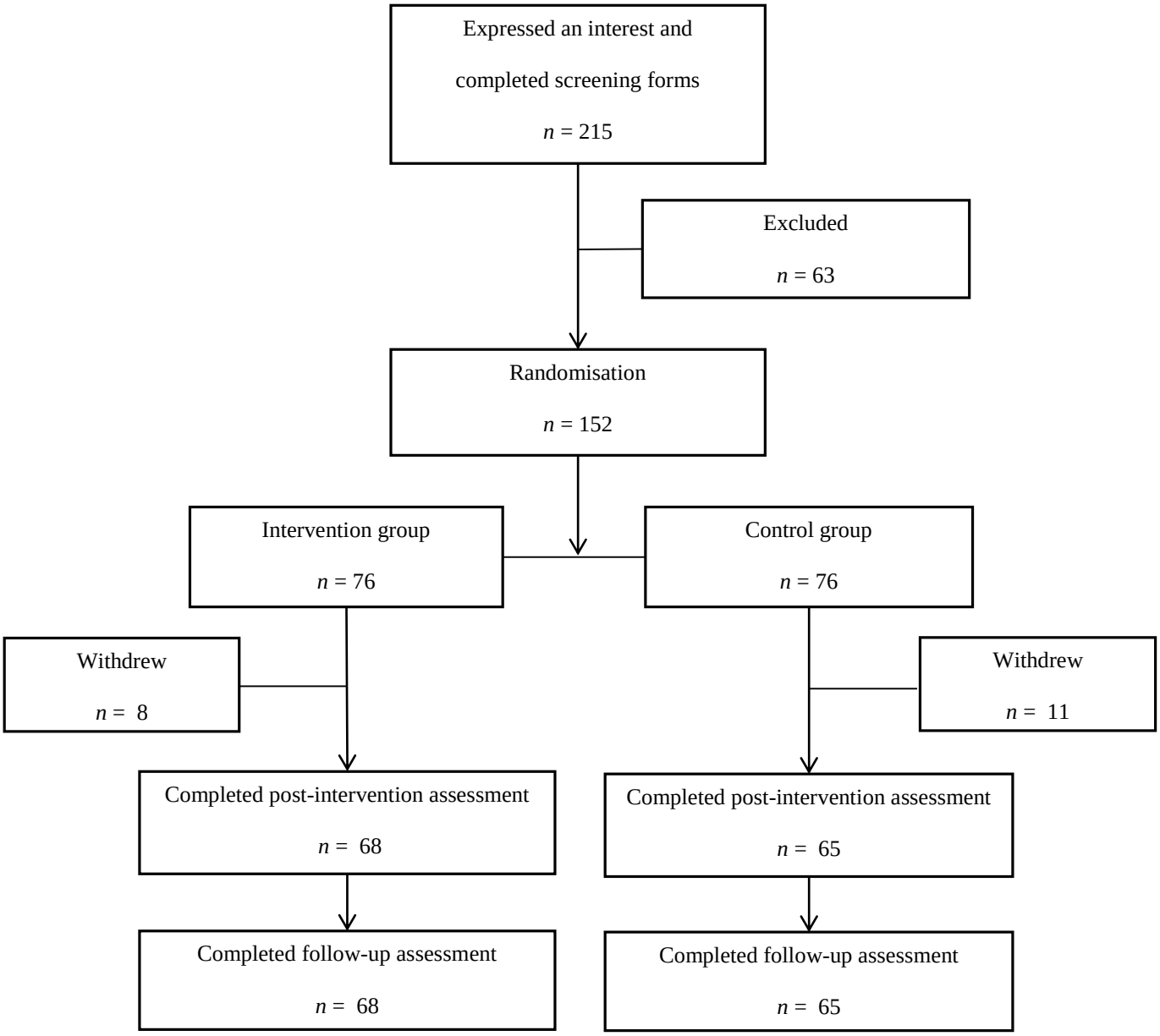


Figure 7.2 Trial profile according to the revised CONSORT statement.

Attrition, Attendance, and Fidelity of Implementation

There were no significant attrition differences between allocation conditions. Eight MAT participants (5 females, 3 males) and eleven control-group participants (6 females, 5 males)

dropped out of the study prior to completing the intervention. The main reasons for non-completion were: (i) changing job (4 participants), (ii) *"not for me"* (4 participants), (iii) vacation (3 participants), (iv) *"too busy"* (3 participants), and (v) sickness (2 participants). The response-rate for RBPS questionnaires completed by participants' line managers was approximately 90%. All participants that received MAT or the control intervention attended at least seven of the eight weekly sessions. MAT participants practiced meditation for an average of 44.47 (*SD* = 14.96) minutes per day (number of meditation sessions per day: *M* = 1.61 [*SD* = 0.51]). There were no significant differences between groups in participant ratings of the facilitator's levels of planning and motivation.

Demographic and Baseline Characteristics

Demographic information is presented separately for each allocation condition (see Table 7.1). There were no significant differences between groups in any baseline demographic characteristics (i.e., age, sex, level of education, salary, number of employees). Likewise, there were no significant differences between groups in baseline mean scores on the WSIT, AJIGS, and DASS. However, there was a significant difference between intervention group (*M* = 73.71, *SD* = 6.10) and control group (*M* = 77.71, *SD* = 6.95) in baseline mean scores on the RBPS ($t(130) = 3.57$, $p < .001$).

Table 7.1 Means and standard deviations of outcome variable scores for group and time

		WSIT		AJIGS		DASS		RBPS	
	Group	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Baseline	Intervention	88.46	28.54	12.93	3.55	10.61	3.15	73.66	6.10
	Control	89.00	20.07	13.50	2.60	10.76	2.27	77.72	6.95
Endpoint	Intervention	136.09	23.94	19.46	3.32	4.13	2.86	88.10	6.31
	Control	97.70	19.29	14.62	2.53	9.47	2.00	79.00	6.70
Follow-up	Intervention	139.36	26.96	20.21	3.21	3.72	3.00	89.19	6.96
	Control	90.76	20.09	13.59	2.64	10.41	2.48	78.55	6.64

Analysis of Outcome Measures

Owing to violation of the assumption of sphericity, Greenhouse-Geisser correction was reported for all ANOVA analyses. Results showed a significant interaction effect of group (intervention, control) and time (baseline, endpoint, three-month follow-up) for all dependant variables [WSIT ($F(1.3) = 146.21$, $p < 0.001$), AJIGS ($F(1.6) = 141.15$, $p < 0.001$), DASS ($F(1.4) = 179$, $p < 0.001$), RBPS ($F(2) = 238$, $p < 0.001$] (see Table 7.2 for all *means* and *SD*). Figure 7.3 shows plotted means with two-tier confidence intervals for each time factor (baseline, endpoint, and three-month follow-up) across groups (intervention and control). A clear and strong effect of MAT was observed for each outcome variable, suggesting that MAT improves levels of WRS, job satisfaction, psychological distress, and job performance more effectively than the control intervention.

Table 7.2 Baseline demographic characteristics for each allocation condition

Characteristic	MAT (n = 76)	Active Control (n = 76)
Age, mean (*SD*)	40.14 (8.11)	39.91 (8.67)
Female (%)	56.9	56.9
Graduated from University (%)	88.2	85.6
No. of Employees, mean (*SD*)	7.34 (6.64)	6.49 (4.80)
Annual salary (%)		
£40,000-50,000	63.1	59.2
£50,000-65,000	36.9	40.8
Marital Status (%)		
Married	56.6	59.2
Single	26.3	29.0
Divorced	14.5	10.5
Widow	2.6	1.3
Ethnicity (%)		
White (British)	49.9	53.9
White (Non-British)	14.5	15.8
Asian	14.5	11.8
Indian	7.9	7.9
Black (African)	5.3	5.3
Black (Caribbean)	5.3	5.3
Other	2.6	0

Further analysis using paired-samples *t*-tests was carried out (making adjustment for the family-wise Type I error rate) for both groups (intervention, control) to test for differences between time factors. The results demonstrated significant differences in intervention group dependent variable mean scores for all time factors: baseline vs. endpoint [WSIT ($t(75) = -16.49$, $p < 0.001$, $d = -1.89$), AJIGS ($t(75) = -16.39$, $p < 0.001$, $d = -1.88$), DASS ($t(75) = 17.65$, $p < 0.001$, $d = 2.02$), RBPS ($t(67) = -19.13$, $p < 0.001$, $d = -2.32$)], baseline vs. follow-up [WSIT ($t(75) = -14.60$, $p < 0.001$, $d = -1.67$), AJIGS ($t(75) = -14.29$, $p < 0.001$, $d = -1.64$), DASS ($t(75) = 17.37$, $p < 0.001$, $d = 1.99$), RBPS ($t(66) = -18.11$, $p < 0.001$, $d = -2.21$)], endpoint vs. follow-up [WSIT ($t(75) = -2.70$, $p < 0.001$, $d = -.30$), AJIGS ($t(75) = -2.44$, $p < 0.001$, d = -

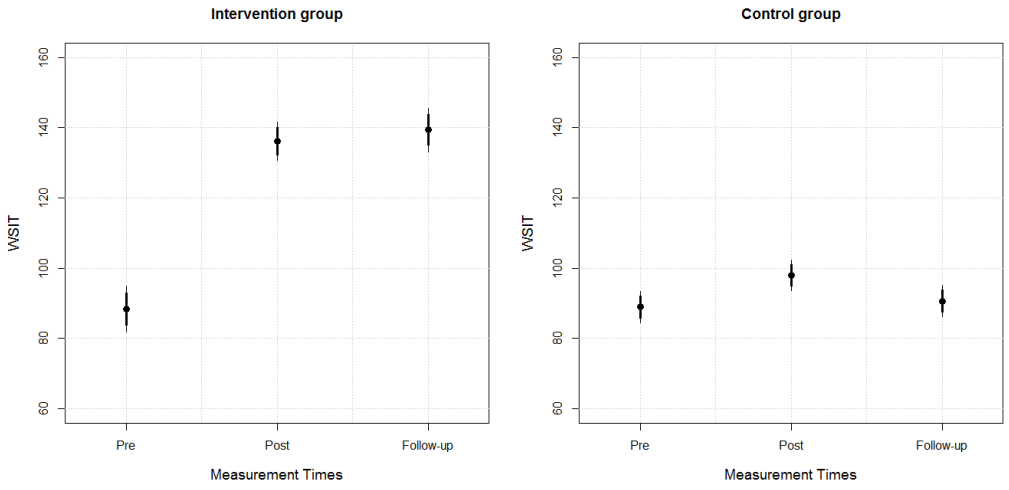
.28), DASS ($t(75) = 3.10$, $p < 0.01$, $d = 0.35$), RBPS ($t(66) = -3.54$, $p < 0.001$, $d = -0.43$)]. Combining these differences suggests the effect of MAT was sustained across all time factors.

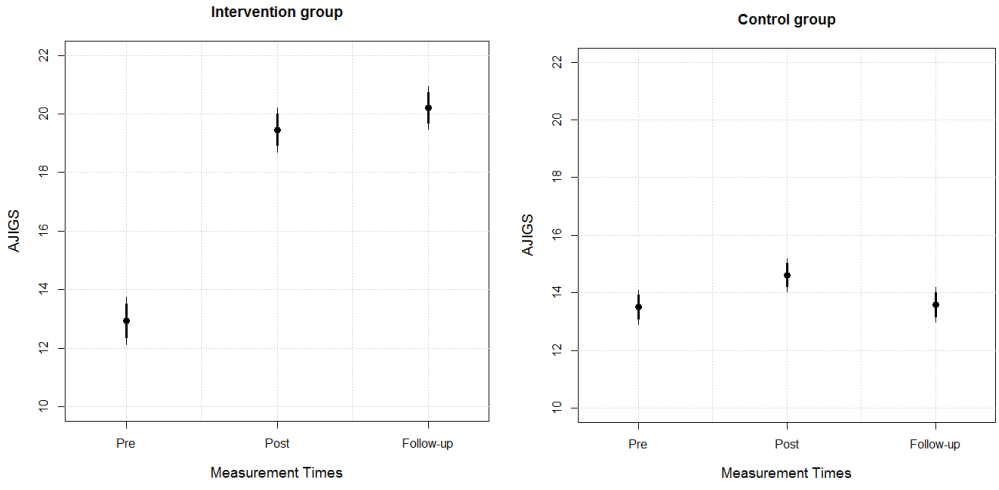
Results from *t*-test comparisons of time factors for the control group demonstrated significant baseline vs. endpoint differences for all outcome variables [WSIT ($t(70) = -7.70$, $p < 0.05$, $d = -.84$), AJIGS ($t(75) = -7.24$, $p < 0.05$, $d = -.82$), DASS ($t(75) = 7.35$, $p < 0.001$, $d = 0.84$), RBPS ($t(66) = -3.85$, $p < 0.001$, $d = -0.47$)]. Significant endpoint vs. follow-up differences were observed for the WSIT ($t(73) = 5.90$, $p < 0.001$, $d = 0.69$), AJIGS ($t(75) = 6.37$, $p < 0.001$, $d = 0.74$), and DASS ($t(75) = 2.18$, $p < 0.05$, $d = 0.25$), but not for the RBPS ($t(66) = 1.74$, $p = 0.86$). Differences between baseline and follow-up were significant for the DASS ($t(75) = -5.39$, $p < 0.001$, $d = 0.59$) and RBPS ($t(66) = -3.69$, $p < 0.001$, $d = -0.45$), but not for the WSIT ($t(71) = 1.26$, $p = 0.21$) or the AJIGS ($t(75) = -0.50$, $p = 0.61$).

The pattern of effect outlined above suggests that the control intervention had an initial positive impact on levels of WRS, job satisfaction, psychological distress, and job performance. This effect was sustained through to follow-up in the case of job performance and psychological distress, but regressed back to baseline levels for WRS and job satisfaction. However, although the control intervention appears to have a significant positive effect on psychological distress (i.e., DASS) that was sustained at follow-up, it should be noted that the direction of the means differences is tending towards baseline levels (see Figure 7.3). This was supported by inspection of effect sizes that showed a decrease from an effect of large magnitude (baseline vs. endpoint) to one of small magnitude (baseline vs. follow-up).

Finally, interaction effects were further examined by comparing time factors (baseline, endpoint, and follow-up) across each group (intervention, control). Owing to the fact that baseline differences have been tested for methodological control (see section '*Baseline and demographic statistics'*), only endpoint and follow-up comparisons are reported here. The results of *t*-test comparisons between groups (intervention, control) showed significant

differences at endpoint [WSIT ($t(146) = 10.65$, $p < 0.001$, $d = 1.78$), AJIGS ($t(150) = 10.65$, $p < 0.001$, $d = 1.64$), DASS ($t(150) = -13.33$, $p < 0.001$, $d = 2.16$), RBPS ($t(133) = 8.22$, $p < 0.001$, $d = 1.42$)] and follow-up [WSIT ($t(149) = 12.67$, $p < 0.001$, $d = 2.06$), AJIGS ($t(150) = 13.86$, $p < 0.001$, $d = 2.25$), DASS ($t(150) = 14.96$, $p < 0.001$, $d = 2.43$), RBPS ($t(132) = 9.10$, $p < 0.001$, $d = 1.56$)]. Although the mean baseline RBPS score for the control group was greater than that of the intervention group (see section '*Baseline and demographic analysis*'), it should be noted that at endpoint and follow-up, RBPS values were significantly greater in the intervention group. This suggests a superior effect for the MAT intervention that supersedes any effect due to unexpected and spurious between-group differences in baseline RBPS values.





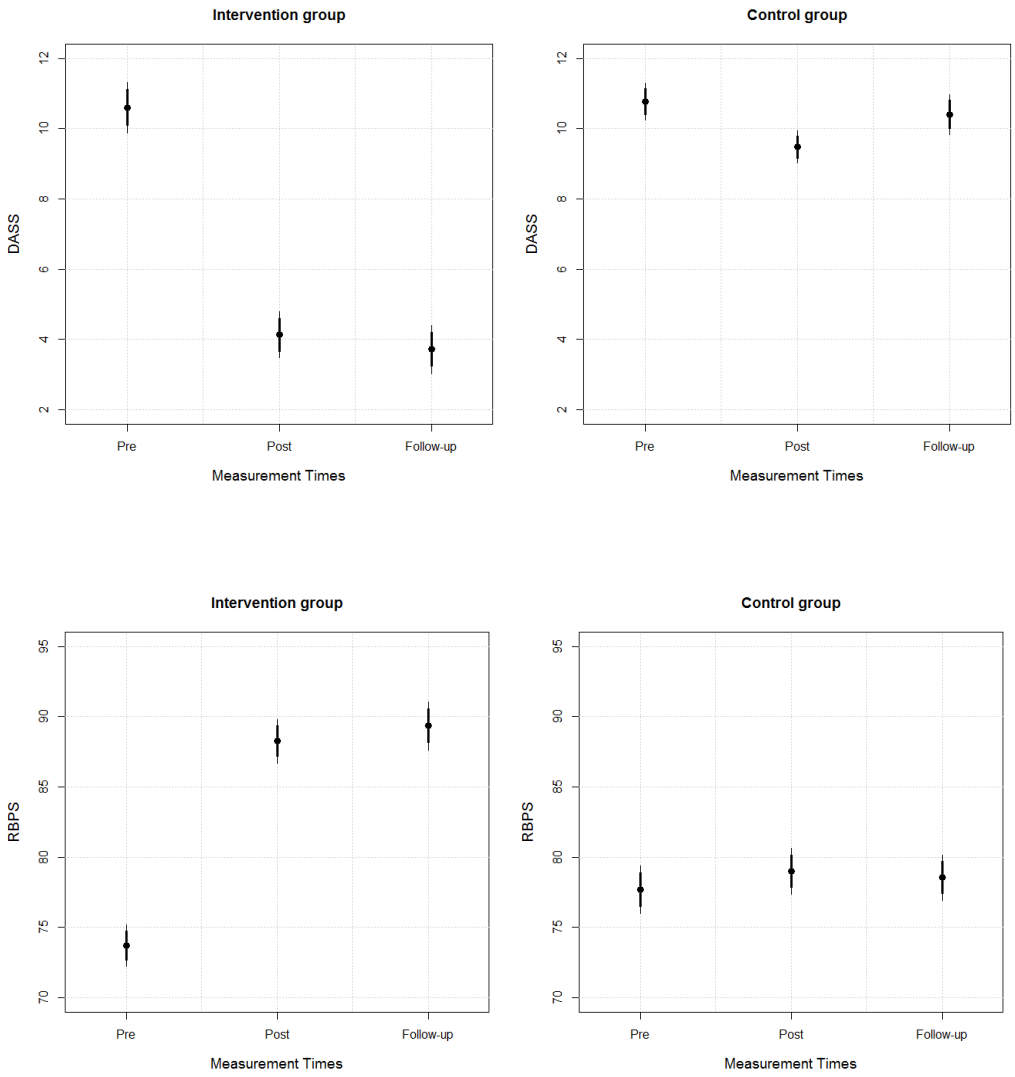


Figure 7.3 Interaction plots with two-tier confidence intervals showing the impact of time factor (baseline, endpoint, and three-month follow-up) on dependent variables across groups (intervention, control).

Discussion

An RCT was conducted to assess the effectiveness of MAT for improving work-related wellbeing and job performance. A reasonably homogeneous sample of full-time employed middle-hierarchy office-based managers were allocated to receive MAT or an active control

intervention. Outcomes were in the hypothesised direction with meditating participants demonstrating significant improvements (with strong effect sizes) compared to controls on levels of WRS, job satisfaction, psychological distress, and employer-rated job performance. These interventional gains were maintained (and slightly augmented) at three-month follow-up.

Given that the study was the first of its kind, it is impractical to draw specific comparisons with other MBI studies. However, outcomes are broadly consistent with findings from the following studies of meditation in occupational contexts: (i) a cross-sectional study by Ho (2011) that found employee meditation experience was positively associated with self-directed learning, organisational innovativeness, and organisational performance in Taiwanese technological company workers, (ii) a cross-sectional study of employed (i.e., >20 hours per week) parents by Allen and Kiburz (2012) that found trait mindfulness was positively associated with work-life balance, sleep quality, and vitality, (iii) an intervention study by Monocha et al (2011) that found following meditation training, full-time employees (of unspecified work backgrounds but with ~50% not educated beyond secondary school level) demonstrated significant reductions over control-group participants in levels of stress and depression-dejection, (iv) an intervention study by Malarkey et al (2013) that found university employees that practiced mindfulness meditation showed significant increases compared to controls in levels of mindfulness (but not in other psychometric-based indicators of psychological distress or in levels of stress biomarkers such as cortisol or interleukin-6), and (v) various studies of individuals employed in caregiver roles (e.g., primary care physicians) that have related receipt of meditation training to reductions in burnout and improvements in client-centred and empathic care (e.g., Krasner et al., 2009).

Outcomes from the present study were also consistent with the sizeable body of findings from clinical studies indicating a role for meditation in the general reduction of psychological

distress (e.g., see reviews by Arias et al., 2006; Chiesa & Seretti, 2011; Hofmann et al., 2010). The observed effect of MAT on employer-rated job performance also accords well with studies demonstrating that meditation can improve cognitive ability (see review by Chiesa et al., 2011), other-cooperation and interpersonal skills (see review by Shonin et al., 2013c), and task performance (see review by Dane, 2011).

Data from the WSIT indicated that MAT helped to reduce participant levels of WRS. The WSIT, along with the majority of established work-stress measures, is essentially based on an 'exposure environmental' model of work stress (Van Gordon et al., 2014a). In such a model, the WRS construct is intended to reflect the extent to which employees are exposed to sub-optimal working conditions. Examples of such conditions might be (i) low work autonomy, (ii) inflexible working hours, (iii) conflicting demands, (iv) overly-taxing or impractical deadlines, and (v) inadequate support infrastructure. This operational model of work-stress is process-orientated and emphasises the importance of the employee's 'external' work environment over and above their 'internal' psychological environment (Van Gordon et al., 2014a). This is a different conceptual stance than that employed by a meditational model of work-stress. From the meditator's perspective, rather than exact changes to the external work environment, the most efficacious method of reducing stress (and psychological distress more generally) is to modify the 'internal' (i.e., psychological) working environment (Van Gordon et al., 2014a).

As further elucidated below, by inducing a perceptual-shift in the mode of responding and relating to sensory and cognitive-affective stimuli, meditating employees are better able to objectify their cognitive processes and to apprehend them as passing phenomena (Van Gordon et al., 2014a). In the traditional meditation literature, this manner of transferring the locus of control for stress from external conditions to internal metacognitive and attentional resources is analogised as the difference between covering the entire outdoors with leather, versus simply

adorning the feet with a leather sole (see Santideva, 1997).

The current intervention was delivered to middle managers recruited from the general population and did not involve any organisational-level changes to work conditions (e.g., innovative appraisal and reward systems, flexible work schemes, etc.). Therefore, the fact that meditating participants demonstrated statistically significant improvements on a work-conditions-based measure of WRS (i.e., the WSIT) is particularly meaningful, and has potentially important implications that may prompt occupational stakeholders to think differently about how work-stress reduction initiatives are devised and implemented. Indeed, these findings imply that an effective work-wellbeing intervention might be one that does not entail extensive ('externally orientated') changes to human resource management systems and practices.

Consistent with the well-documented association between stress and cognitive performance (Eysenck, 2004; Fox & Georgiou, 2005), the mechanisms of action underlying the improvements in participant levels of both work-related wellbeing and job performance are likely to be closely related. As part of receiving MAT, participants were trained in two different but complementary meditative modes. Concentrative meditation techniques (also known as tranquil abiding; Sanskrit: *shamatha*) were taught to help moderate extraneous cognitive activity and to focus the mind on present moment experience. Concentrative meditation techniques typically involve the use of an attentional referent—such as observance of the breath—to aid present moment attentiveness (Nhat Hanh, 1999a). Breath observance, which is a core component of the MAT syllabus, has been shown to reduce autonomic (e.g., heart rate) and psychological arousal via increases in prefrontal functioning and Vagal nerve output (Gillespie, Mitchell, Fisher, & Beech, 2012). Thus, the primary goals of concentrative meditation are those of psychosomatic calming, mind-body synchronisation, and enhanced metacognitive awareness.

It is important to note that the use of breath observance in interventions such as MAT does not prevent other experiences entering into the attentional field (Van Gordon et al., 2014a). In other words, breath awareness is used to help anchor concentration on the present moment, and this concentration is most accurately described as being broad rather than a narrow in aspect (Dane, 2010; Singh et al., 2008b). Therefore, this form of meditative absorption allows employees to attend with due attention to whatever task they are engaged in, but without becoming so immersed or lost in that task that their situational and cognitive-affective awareness is compromised (Van Gordon et al., 2014a). This is consistent with the observed improvements in employer-rated job performance which suggest that although meditating participants were engaging more present-moment-focussed (i.e., as opposed to future orientated goal-focussed) working styles, this (presumably) did not impair goal attainment.

The second meditative mode utilised in MAT is that of insight meditation (also known as analytical meditation). Concentrative meditation helps to calm maladaptive emotional states and their related thought processes, but concentrative meditation alone does not tackle such emotions at their roots (Shonin et al., 2014b). Utilising the tranquillity cultivated during concentrative meditation as a platform, insight meditation techniques are a means of undermining the determinants of such negative affective states (Rabjam, 2002). According to 'ontological addiction theory' (a means of operationalising a meditative model of mental illness), the root cause of all distorted thoughts and feelings is an "*unwillingness to relinquish an erroneous and deep-rooted belief in an inherently existing 'self' or 'I' as well as the 'impaired functionality' that arises from such a belief*" (Shonin et al., 2013b, p.64). Via techniques that intuit a level of realisation into the impermanent, interdependent, and 'empty' nature of the self, insight meditation is basically designed to dismantle the ego entity that constantly tries to reify its own existence (Dalai Lama, 2001).

The above (necessarily succinct) elucidation of several meditative (and in particular Buddhist philosophical) principles has been necessary to provide a contextual basis for the findings of this study, and to explicate how these findings have a number of important and potentially novel implications within occupational contexts. According to meditation theory relating to psychosocial functioning, incentive to perform is essentially ego-driven and derives from a desire for recognition, career advancement, and monetary reward (Shonin et al., 2013a). Indeed, a significant proportion of employees that adopt a policy of organisational citizenship behaviour (OCB) do so primarily because they deem it to be written in their job description (known as 'in role' OCB), or because somewhere along the line, there is a possibility that they will be recognised and duly rewarded for their efforts (Morrison, 1994). However, when such recognition or benefits are not forthcoming, employees can feel undervalued and overlooked, and negative cognitive schemas inevitably ensue (Kanfer, Chen, & Pritchard, 2008). Thus, via the meditation-induced understanding that there is not a self that exists inherently, independently, or as a permanent entity, employees can begin to dismantle their emphasis on the 'I', the 'me', and the 'mine', and can better synchronise their own interests with those of the organisations (Nhat Hanh, 1999a; Shonin et al., 2014b).

By restricting the amount of 'I' involved in work activities and encounters, employees are more able to attend with 'non-dual attention' to the task at hand (Trungpa, 2003). This permits the boundary and divide between subject and object, between organisation and self, and between problem and solution to become more permeable, and facilitates the meditation-practising employee to engender an increasingly panoramic perspective (Nhat Hanh, 1999a). In this open and selfless ground state, what is known in the Buddhist literature as 'superior seeing' (Sanskrit: *vipashana*) can arise. Superior seeing, consistent with its traditional construal, implies a greater aptitude in areas such as strategic planning and decision-making, the identification and appraisal of risks and opportunities, intuiting and understanding the needs

of internal and external customers, and general capacity for managing and leading others.

The other added advantage of limiting the amount of 'I' allocated to work participation is that without the ego as their referent, maladaptive cognitive and affective states are without the nourishment they need to survive. Accordingly, 'non-attachment to self' has been shown to predict greater levels of mindfulness, acceptance, non-reactivity (e.g., to environmental/work stressors), self-compassion, positive outlook, subjective wellbeing, and eudemonic wellbeing (Sahdra, Shaver, & Brown, 2010). Furthermore, recent quantitative and qualitative meditation studies have shown that interventions employing insight meditation techniques effectuate improvements in: (i) levels of stress, anxiety, and depression, (ii) positive affect, (iii) present moment and task attentiveness, (iv) perspective, (v) satisfaction with decisions made, (vi) personal agency, (vii) sense of purpose, (viii) emotion-focussed coping strategies, and (ix) interpersonal skills (e.g., Shonin et al., 2013a; Van Gordon et al., 2014a).

Thus, findings from the present study indicate that whilst exploiting different mechanistic pathways, concentrative meditation and insight meditation techniques each appear to have utility for augmenting both work-related wellbeing and job performance. In the case of concentrative meditation, these improvements relate to a reduction of psychological and autonomic arousal as well as an increased ability to focus on the task at hand whilst not losing situational awareness. Insight meditative techniques complement concentrative techniques by questioning and undermining the validity of the 'I' construct, and this, in turn, makes work engagement more about task performance rather than the self.

Although findings from the current study indicate a number of applications for MAT in organisational settings, several factors may limit their external validity. By providing pre-intervention taster-sessions, the sample most likely comprised only those employees with an active interest in learning to meditate. Therefore, findings may not generalise to workers with an indifferent or negative attitude towards meditation practice. Consistent with the following

observations, the sample comprised relatively highly motivated middle-hierarchy managers aspiring towards higher-hierarchy lifestyles and career roles: (i) the low attrition rate, (ii) a relatively high earnings to age ratio (i.e., mean age = 40 years, annual salary range = £40,000 – £65,000), (iii) strong adherence to self-practice meditation routines (i.e., MAT participants practiced meditation for an average of 44 minutes per day), and (iv) feedback from the intervention facilitator. Consequently, further research is required in order to replicate these findings in worker populations fitting different occupational profiles (e.g., semi-skilled workers, skilled workers, etc.). A further potentially limiting factor was the fact that baseline mean scores on the DASS corresponded to the upper segment of the normal severity rating. Therefore, it is possible that the sample comprised a reasonably high number of 'treatment-seeking' participants. Accordingly, workers who enrol on MAT for exclusively non-health-related reasons (e.g., continued professional development) may demonstrate dissimilar outcomes. Finally, although the study included a three-month follow-up assessment, a longer-term assessment (e.g., six or twelve months) would have provided a better indication of MAT's longer-term impact.

Findings from the current study appeared to rebut several established systems of thought within occupational psychology regarding the determinants and mechanisms of action that underlie effective work-related wellbeing and job-performance-enhancing interventions. Firstly, organisational strategies for improving job performance tend to be heavily goal-based, which is primarily a forward-looking (i.e., future-orientated) approach. Outcomes from this study indicate that not only does job performance remain unimpaired by present-moment-focussed (i.e., mindfulness-based) working styles, but it is actually enhanced by them. Secondly, an effective intervention for improving employee levels of work-wellbeing and job satisfaction might be one that focuses on facilitating a perceptual shift in how employees relate to and experience their work and psychological environment. This is in contrast to the current

trend where organisational-level work-wellbeing interventions tend to be geared towards implementing 'externally-based' modifications to human resource management systems and practices. Finally, by reducing the amount of ego allocated to work tasks and interpersonal interactions (i.e., with team members, internal and external customers, top-level management, etc.), employees may be better able to nurture clearer, more insight-based, and strategically-focussed working styles, and to work in a manner that reduces the separation between their own interests and those of the organisations they work for. It is concluded that MAT appears to be an effective intervention for improving both work-related wellbeing and job performance in middle-hierarchy office-based managers. Future studies could perhaps use random sampling as part of an intra-organisational design in order to ascertain whether these findings are replicable for employees meeting different occupational profiles, and for employees who do not necessary have an active interest in learning to meditate.

Chapter 8

Managers' Experiences of Meditation Awareness Training

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Abstract

Due to its potential to improve work-related stress and job performance, there is growing interest into the applications of mindfulness in the workplace setting. To date, mindfulness research within occupational psychology has mostly involved *First Generation Mindfulness-Based Interventions* (FG-MBIs). However, a growing number of researchers, clinicians, and Buddhist teachers/scholars have suggested that FG-MBIs may only partially embody the full potency of mindfulness when compared with its utilisation in traditional Buddhist practice settings. Consequently, recent years have witnessed the early-stage evaluation of a number of *Second Generation Mindfulness-Based Interventions* (SG-MBIs). Although still secular, SG-MBIs are overtly spiritual in aspect and teach mindfulness within a practice infrastructure that integrates what would traditionally be deemed as prerequisites for effective spiritual and meditative development. The purpose of this study was to conduct the first qualitative investigation to analyse the experiences of employed participants receiving training in a SG-MBI. Ten participants were randomly selected from the intervention arm of an RCT assessing the effects of Meditation Awareness Training (MAT) on work-related wellbeing and job performance. Interpretative Phenomenological Analysis was used to analyse participant experiences of MAT and six themes emerged from the data-set: (i) changing attitudes towards work, (ii) improved job performance, (iii) letting go of self, (iv) phenomena feedback effect, (v) wellbeing at work, and (vi) taking responsibility for one's spiritual growth. Findings have important implications for the development of authentic mindfulness training programmes and suggest that compared to FG-MBIs, the SG-MBI approach may be tapping into different metacognitive resources.

Introduction

Empirical investigation of mindfulness during the last three decades has primarily focussed on evaluating its applications in clinical settings, and a credible (and growing) evidence base has been established accordingly. Given there is scope for transferring protocols for interventions that are demonstrably efficacious in public healthcare contexts into occupational domains (Karanika-Murray & Weyman, 2013), there is growing interest into the applications of mindfulness in the workplace setting. In particular, occupational stakeholders have expressed an interest in operationalising mindfulness as a work-related stress intervention and/or as a means of enhancing job performance (Van Gordon et al., 2014a). The growing attractiveness of mindfulness to employers and employees is unsurprising given that work-related stress affects one in five British adults (Houdmont, Cox, & Griffiths, 2011), and accounts for 10.4 million days of lost work each year in Great Britain (Health and Safety Executive, 2012).

Mindfulness research within occupational psychology has mostly involved what Singh et al (2014a) have termed *First Generation Mindfulness-Based Interventions* (FG-MBIs). FG-MBIs refer to interventions such as Mindfulness-Based Stress Reduction (MBSR) developed by Kabat-Zinn in the late 1970s and Mindfulness-Based Cognitive Therapy (MBCT) developed by Segal et al. in 2002. FG-MBIs also include the numerous adaptations of MBSR and MBCT that were developed and deployed during subsequent years (e.g., Mindfulness-Based Relapse Prevention, Mindfulness-Based Eating Awareness Training, Mindfulness-Based Childbirth and Parenting, etc.). In addition to gaining acceptance of the mindfulness construct within Western psychological and scientific regimes, one of the primary achievements of FG-MBIs has been the operationalisation of a novel and effective technique that utilises attentional processes to regulate maladaptive cognitive and affective processes (Singh et al., 2014a).

Within occupational settings, empirical studies have shown that FG-MBIs can facilitate

improvements in (for example): (i) dispositional mindfulness (Malarkey et al., 2013), (ii) burnout and empathic care (Krasner et al., 2009), (iii) work-related stress (Warnecke, Quinn, Ogden, Towle, & Nelson, 2011), (iv) anxiety and depression (Kang, Choi, & Ryu, 2009), and (v) self-perceived stress (Klatt, Buckworth, & Malarkey, 2009). Although these preliminary findings suggest that FG-MBIs can improve work-related mental health, recently, a growing number of researchers, clinicians, and Buddhist teachers/scholars have suggested that FG-MBIs may only partially embody the full potency of mindfulness when compared with its utilisation in traditional Buddhist practice settings (e.g., Carrette & King, 2005; McWilliams, 2011, 2014; Rosch, 2007; Shonin et al., 2013d, 2014b; Singh et al., 2014a; Van Gordon et al., 2014a). One of the key arguments raised by such authors is that mindfulness is originally practiced within the context of spiritual development, in which principles such as ethical conduct, compassionate outlook, and right intention underlie and guide the mindfulness practitioner's development (see Shonin et al., 2014b). This is different from FG-MBIs where recovery from somatic/psychological illness and/or improvements in personal effectiveness tend to be the primary goals (Singh et al., 2014a). Furthermore, in instances where FG-MBI instructors decide to integrate a greater spiritual component into their training programmes, this tends to occur on an individual basis. Consequently, the extent to which FG-MBIs consistently adhere to an authentic Buddhist or spiritual model of mindfulness is questionable.

Due to the suggestion that some individuals may prefer to be trained in a version of mindfulness that more closely resembles a traditional Buddhist approach, recent years have witnessed the development and early-stage evaluation of several *Second Generation Mindfulness-Based Interventions* (SG-MBIs; Singh et al., 2014a). Although SG-MBIs still follow a secular format that is suitable for delivery within Western applied settings, they are overtly spiritual in aspect and teach mindfulness within a practice infrastructure that integrates what would traditionally be deemed as prerequisites for effective spiritual and meditative

development. At the most basic (but by no means the least profound) level, such prerequisites include each element of the Noble Eightfold Path. The Noble Eightfold Path comprises each of the three quintessential Buddhist teaching and practice principles of (i) wisdom (i.e., right view, right intention), (ii) ethical conduct (i.e., right speech, right action, right livelihood), and (iii) meditation (i.e., right effort, right mindfulness, right concentration). Each of these three fundamental elements (Sanskrit: *trishiksha*—the three trainings) must be present in any path of practice that claims to expound or be grounded in authentic *Buddhadharma,* and they apply to (and form the basis of) the Fundamental or Theravada vehicle just as much as they do the Mahayana and Vajrayana Buddhist vehicles. Thus, for mindfulness practice to be effective, it must be taught as part of a rounded spiritual path and it must be taught by a spiritual guide that can transmit the teachings in an authentic manner (Shonin et al., 2014b; Shonin & Van Gordon, 2015a).

Variations in how FG-MBIs and SG-MBIs conceptualise mindfulness is perhaps best delineated by the diverse definitions formulated by some of the respective founders of these different mindfulness interventional approaches. For example, in Kabat-Zinn's widely-adopted definition of mindfulness, the term spiritual is not explicitly utilised and mindfulness is defined as *"paying attention in a particular way: on purpose, in the present moment, and non-judgmentally"* (1994, p.4). Kabat-Zinn uses the term 'non-judgementally' to emphasise the acceptance aspect of mindfulness and this term also appears to suggest that the mindfulness practitioner is mostly passive or impartial in terms of how they judge present-moment experiences. This is slightly different than the present author's own definition where mindfulness is defined as "*The process of engaging a full, direct, and active awareness of experienced phenomena that is (i) spiritual in aspect, and (ii) maintained from one moment to the next"* (Shonin et al., 2015c, p.1). In addition to the express use of the word *spiritual*, the term *active awareness* is used here in order to emphasise that mindfulness does not only entail

being open to and accepting of experiences, but also requires the practitioner to actively engage in the present moment and to use discriminative wisdom in order to discern what might be the most skilful and compassionate response in any given situation. Thus, although both of the above definitions are equally valid in their own right, they reflect the different approaches embodied by the FG-MBI and SG-MBI practice systems.

While research into the applications of SG-MBIs is at a very early stage, findings indicate that SG-MBIs may have applications within a range of applied settings, including the workplace. For example, studies have shown that SG-MBIs—such as the eight-week Meditation Awareness Training (MAT) programme—can improve: (i) workaholism (Shonin, Van Gordon, & Griffiths, 2014f), (ii) work-related stress (Shonin et al., 2014d), (iii) stress, anxiety, and depression (Van Gordon et al., 2014a), (iv) maladaptive ego-attachment constructs (Shonin et al., 2013), (v) schizophrenia (Shonin et al., 2014g), and (vi) pathological gambling (Shonin et al., 2014g). Other interventions that appear to follow the SG-MBI model have been shown to be effective as (for example): (i) a smoking cessation programme for individuals with mild intellectual disabilities (Singh et al., 2013; Singh, Lancioni, Myers, Karazsia, Winton, & Singh, 2014b), (ii) an anger regulation method for individuals with schizophrenia (Singh, Lancioni, Karazsia, Winton, Singh, & Wahler, 2014c), and (iii) a training and support programme for parents in order to reduce the aggressive and disruptive behaviour of their children/adolescents (Singh et al., 2007; Singh et al., 2014a).

Although these findings suggest that SG-MBIs may have utility for improving mental health both inside and outside the workplace, a qualitative study exploring possible mechanisms of actions and workers' experiences of SG-MBIs has not been undertaken to date. Thus, the purpose of this study was to conduct the first qualitative investigation to analyse the experiences of employed participants receiving training in an SG-MBI.

Method

Participants

Computer generated numbers were used to randomly select ten participants from the intervention arm (n = 68) of an RCT assessing the effects of MAT on work-related wellbeing and job performance. Participants were male and female full-time office-based employees with middle-management responsibility. Based on the pre-defined inclusion/exclusion criteria for the RCT, all participants were: (i) in full-time employment (> 30 hours per week), (ii) not currently absent from work (e.g., due to leave of absence, maternity leave, sickness, etc.), (iii) managerially responsible for ≥ 1 salaried direct report (excluding secretaries or personal assistants), (iv) reporting to a line manager, (v) earning an annual salary between £40,000 and £65,000 per annum, (vi) office-based for at least 50% of working hours, (vii) ≥ 18 years of age, (viii) not currently undergoing formal psychotherapy, (ix) not currently practicing meditation, (x) not undergoing changes in psychopharmacology (type or dosage) one-month prior to intervention (although stable prescription medication was permitted) and (xi) not currently diagnosed (based on self-reports) with a psychotic disorder or neurological disorder. These reasonably narrow inclusion criteria were employed in order to maximise homogeneity in terms of role responsibilities and demands on participant coping resources. Participants were recruited into the RCT from key employers based in three East Midland cities in the UK. Participant demographic and occupational characteristics are summarised in Table 8.1.

Table 8.1 Participant demographic and occupational characteristics

Participant number	Age	Sex	Education	Marital status	Ethnicity	Number of direct reports	Annual salary bracket (£1,000's)
1	42	F	Graduate	Divorced	White (British)	4	50-55
2	48	F	Graduate	Married	White (Non British)	8	50-55
3	29	F	Post graduate	Married	Black (Caribbean)	5	45-50
4	36	F	School leaver	Divorced	White (Non British)	6	40-45
5	30	M	Graduate	Single	White (British)	2	45-50
6	49	M	Post graduate	Married	White (British)	7	55-60
7	30	M	Graduate	Single	White (British)	3	40-45
8	31	M	Graduate	Married	White (British)	6	40-45
9	44	F	Graduate	Divorced	White (British)	3	45-50
10	40	F	Graduate	Married	Black (African)	2	45-50

Procedure

*Programme Description***:** Participants received the eight-week secular SG-MBI known as MAT (for a detailed description of the version of MAT delivered in the current study, see section entitled 'Programme Description' in Chapter 7).

Data Collection: Data collection (and analysis) replicated the procedure employed by Shonin et al. (2013a). The one-to-one support sessions included a semi-structured interview (SSI) designed to tap into participants' experiences of learning and practicing mindfulness/meditation along with associated changes in work-related attitudes and behaviours. The MAT instructor utilised their discretion to determine the most appropriate time to intersperse the SSI questions into the one-to-one support session dialogue. A Socratic questioning style was adopted to encourage participants to express themselves freely, and participants were prompted for additional clarification as required (Smith, 1995). The one-to-one support sessions were audio recorded and then transcribed verbatim.

Data Analysis

Interpretative Phenomenological Analysis (IPA; Smith, Flowers, & Larkin, 2009) was utilised to analyse participant responses to the SSI. Meditation is a subtle practice that, for most individuals, requires them to engage attentional skills that typically remain inactive and/or underdeveloped during normal cognitive functioning (Shonin et al., 2014b). Consequently, individuals new to meditation are invariably without a benchmark against which to test or contextualise their meditative experiences. The hermeneutic phenomenological approach followed by IPA is a suitable method for analysing meditational experiences because IPA lends itself to a rich construction of the meaning of meditators' experiences by researchers who are themselves experienced in meditation. This allows for findings to be reflexively interpreted within the context of a 2,600-year-old spiritual practice system without losing sight of the uniqueness of the participant's experience and the importance that they assign to it.

Transcripts were read several times and coded to identify outcomes that were experientially significant to the participant. Patterns of meaning were identified for each participant and transcripts were then assessed for divergence and convergence (Dennis, Larkin, & Derbyshire, 2013). The entire analytical process, from reading the raw data through to identifying themes was repeated in iterative fashion until a degree of saturation was achieved (Smith, 2004). The process of analysis was then repeated by a second member of the research team as a form of 'independent audit' (Smith, 1996). Finally, validation techniques such as grounding in examples and requesting feedback from participants on the summary of themes were also employed (Creswell, 2007; Sandelowski & Barroso, 2002; Yardley, 2000).

Results

Analysis of participant transcripts generated six themes that were closely inter-connected but also distinct and complete in their own right. Therefore, it was deemed inappropriate to utilise

a hierarchical thematic structure (i.e., with master and subordinate themes) and the final thematic structure was single-layered. A description of the six emerging themes, including illustrative verbatim excerpts, is provided below.

Theme 1: Changing Attitudes towards Work

All participants attributed participation in MAT to a radical shift in attitudes towards work. Participants explained that prior to receiving MAT, they had consciously or sub-consciously regarded work as a separate part of their lives. Accordingly, most participants employed various strategies to achieve the optimum work-life balance. Following participation in MAT, participants began to see that although compartmentalising work and life in this manner provided a degree of buffering against over-working and work-related stress, by default, it also caused them to view work as an activity separate from the rest of their lives. Participants' realised that this attitude predisposed them to potential negative thinking patterns regarding their work. Participant 4 explained this as follows:

> "We've always been taught to find the right work-life balance but when you stop and think about it, doing this sets you up for a fall because you're already seeing work as a less flavoursome activity—an inconvenience that prevents you living the life you really want to live" (Participant 4).

Participants reported that MAT helped them to change perspective and begin to loosen the divides between their work and life activities. This didn't result in participants changing the number of hours worked, or in developing unrealistic expectations about their work, but it helped participants to view work as an inseparable and important aspect of their lives, as well as a training ground for learning to flourish as human beings. This 'flourishing' had less to do

with attaining career and performance goals, and more to do with utilising all work experiences—positive or negative—as opportunities to develop both personally and transpersonally. Participants 4 and 7 described these attitudinal changes as follows:

> "I am always thinking about impressing people—including myself. Honestly though, this is actually rather boring and it becomes exhausting. When you look at work as a place to grow as a person and spiritually, then every single work encounter becomes really important. You start to take pride in everything you do—even if it's the way you respond to a rollicking by the boss. You feel in charge of your life and you start to feel alive … I think it's because you're no longer so frightened. Instead of the employer being in control, you're in control—but it's a win-win situation" (Participant 4).

> "I was really worried at first. It takes so much courage to start getting what you want from work and not just what [employer name redacted] wants. But meditation puts you in the driving seat. Now [employer name redacted] works for me as much as I work for them. The whole thing is more healthy and enjoyable" (Participant 7).

Theme 2: Improved Job Performance

Related to the above theme of changing attitudes towards work, participants made explicit reference to improvements in job performance. These improvements were invariably discussed in the context of adopting more present-moment-orientated working styles (i.e., rather than future or goal-orientated working styles):

> "I've always taught my guys [employees] to work towards goals. But I've changed that now. [Now] I tell them to keep the goal in mind but to work in the present. Let's focus

on the journey and the destination will take care of itself—you know. It makes sense when you think about it" (Participant 3).

"The funny thing is, you start to let go of self and there is nowhere left to be other than in the present moment. So mindfulness and emptiness go hand in hand. Being present and without ego means you're less caught up in the nonsense. I just get right to the point and I stay there … you work better and you feel better" (Participant 3).

"Everyone's thinking about the future—deadlines, targets, promotions … But they're missing the point. They're missing their life. I work so much better when I'm being mindful—both quality and quantity" (Participant 7).

Other accounts of improved job performance were related to enhanced people management skills that participants attributed to an increased awareness of stakeholder (i.e., employees, senior management, customers) needs, as well as a greater ability to identify and cut-through others' attempts to deflect attention or complicate work situations:

"It sounds weird but meditation makes you tougher. I've got a lot more time for people now when they're in genuine difficulty or when they're really giving you their all. But if they're playing games, you spot it much sooner. And there's just no time for it so you tell them to cut it out or be on their way" (Participant 3).

"People say I've become colder but it's really not true. I actually empathise with people much more now. But I've also got a lower tolerance for stupidity. People waste so much time by letting their ego get in the way. But we're [the participant's team] different

now—things are much more streamlined and the results show it too" (Participant 7).

"Now I don't have any hold-ups about asking people to give me everything they've got. I've never been comfortable doing this before … I'm much more grounded than I used to be and people feel it. I give them absolutely everything I've got—body and soul. But I expect them to be sincere with me too" (Participant 10).

Theme 3: Letting Go of Self

Participants commented that the insight meditation techniques utilised in the MAT syllabus helped them to broaden their understanding of what constitutes the 'self', and to reconstruct their ontological stance. More specifically, participants explained that MAT helped them to understand that "*the self simply cannot exist*" (Participant 1) and that there are no logical grounds for asserting that any phenomena – including the self – manifests independently of causes and conditions.

All participants shared their view that we are brought up to see the world as something that "*belongs to us*" (participant 1) and something that we are "*always at the centre of*" (Participants 1 and 8). They offered this as an explanation in terms of why coming to a preliminary understanding of the 'emptiness' or 'non-self' constructs left them feeling "*confused*" (Participants 3, 4, and 7), "*disorientated*" (Participants 4 and 8), or in some cases "*shocked*" (Participants 1 and 2).

The following excerpt captures participants' view that their belief in an inherently-existing self was so engrained, that leaving the 'I' out of their work tasks and work interactions required constant effort and awareness:

"Understanding emptiness is one thing, but keeping that understanding with you when you're at work is an entirely different ball game" (Participant 1).

Although participants experienced difficulties in coming to terms—both conceptually and experientially—with the notion of emptiness, all participants experienced emptiness as a positive and inviting prospect. Examples of some of the expressions that participants used to describe emptiness are "*inspiring*" (Participants 1, 4 and 10), "*nourishing*" (Participants 2 and 8) and "*a shock that you would never want to have missed*" (Participant 1).

In what might be considered a paradoxical outcome, some participants (Participants 3, 5, 9 and 10) appeared to experience emptiness as a construct that implies 'fullness'. For example, Participant 5 recounted that "*I understand now what they [the MAT instructor] mean when they say that in emptiness there is also fullness*". When prompted for additional clarification in respect of this experience, Participants 5 and 9 explained that there is fullness in emptiness because being empty of an independently existing self implies that phenomena are interconnected to (and therefore 'full of') each other.

Minimising the amount of 'I' allocated to their work engagements appeared to help participants broaden their perspective and to better align their roles with corporate strategy. Participants explained that understanding emptiness caused then to be less preoccupied with their own agenda and entitlements. According to Participant 9, internalising the principles of emptiness improved organisational citizenship and instilled a willingness to undertake tasks that would not necessarily result in immediate or widespread recognition:

"You start to see the bigger picture and you start to see just how petty people at work can be—at work it's all about the self, the whole self, and nothing but the self. But when you take the self out of the equation, you take all of the shit out of it too … So I just do what

needs to be done without making a big fuss about it, and not just for the sake of getting a big fat pat on the back" (Participant 9).

Although, according to their subjective accounts, participants experienced emptiness as something that helped to improve organisational citizenship, they were keen to clarify that this outcome served the purposes of their own interests just as much as it served the interests of their employer. For example, Participant 4 referred to this outcome as a "*win-win situation*" and Participant 9 stated that "*You kind of find yourself in the company's shoes, your own shoes, and the customer's shoes all at once*".

Theme 4: Phenomena Feedback Effect

To different extents, all participants attributed their meditation practice to the gradual development of a form of intuitive awareness that appeared to facilitate a richer quality of transaction and communication with phenomena and situations around them. Participants had difficulty in expressing this experience in words, but seemed to view it as a positive outcome that fostered confidence and decision-making aptitude:

"It's really weird and I feel silly saying this, but it's as if it [meditation] helps you to talk and communicate with situations around you. I mean, I don't mean talking with words, but there starts to be a tacit understanding between you and the situation you're in … It's as though the situation is on your side, even if it's a tough situation. You kind of start to know what to do. It's really difficult to explain" (Participant 6).

"You're playing the game, but you also designed it, so you know how to glide along with it. Do you see what I mean? It's hard to put into words" (Participant 9).

Participants 2 and 10 described similar experiences but placed greater emphasis on the immediate feedback they derived from work (and life) situations:

> "You completely tune into what's happening and you get instant feedback" (Participant 2).

> "Situations work with me now. You know straight away when you're going in the wrong direction—this generally means that I'm letting ego get in the way and sooner or later I'm going to get my fingers burnt" (Participant 10).

Other participants seemed to suggest that meditation afforded them a greater capacity to anticipate what was about to transpire. This was described more as a form of 'strategic foresight' (Participant 3) rather than any clairvoyant capacity *per se*. It was also described as an aptitude that occurred involuntarily and only during times when participants were able to maintain a heightened level of meditative awareness:

> "I've really got so far to go, but when I was able just to stop and be with myself, everything became completely relaxed. I don't mean just me, but the whole show. You sit back and observe—you start to see new angles and opportunities. It just happens. Sometimes you even know where things are going before they go there" (Participant 2).

> "You kind of begin to sense how things have to unfold. You become aware of the conditions around you. This probably sounds stupid, but a lot of the time, it's as though things happen deliberately by accident. Almost like reality has a sense of humour at the

ultimate level. And you can play and dance with it if you're tuned in enough" (Participant 7).

"Suddenly, everything slows down and you're just in the moment. You're just flowing with it. You can see clearly where things are going and you can allow them to go there if you want to. But you can also take things in a different direction … Sometimes you see that you're going to lose—but you can still allow it to happen. That's when you really start to win" (Participant 9).

Theme 5: Wellbeing at Work

Related to each of the aforementioned themes, participants reported that undergoing MAT led to improvements in work-related stress, coping skills, and psychological wellbeing. Key words/phrases utilised in this specific context were 'happier' (Participants 2, 5, 7, 9, and 10), 'healthier' (Participants 4, 5, 8, and 9), 'more balanced' (Participants 1, 4, and 9), 'doing better now' (Participants 3, 6, and 8), and 'more alive' (Participants 1, 2, and 7). All participants related these improvements to an ability to let go of and cope more effectively with stressful situations. Participant 10 explained this as follows:

"You learn not to hold onto things. Even when the shit hits the fan. You learn to deal with it but to let it go at the same time. Otherwise you suffer unnecessarily. You get attached to the situation and you suffer unnecessarily. You're no longer seeing things clearly. Stepping back and watching the breath and the mind helps so much. It centres you" (Participant 10).

Other participants attributed their improved ability to cope with potentially stressful work situations to a better understanding that all phenomena and situations are transient and are subject to impermanence:

> "Now I know that things are impermanent, my entire perspective has become much broader. I've stopped holding onto things. I still have a lot of pressure in my job and there's a great deal expected of me … but I'm much better at not letting that [pressure] turn into stress" (Participant 6).

> "It's like he [the instructor] says: because things come to be, they have to dissolve. So what's the point in clinging to them. I'm doing really well now" (Participant 2).

Theme 6: Taking Responsibility for One's Spiritual Growth

Although participants reported experiencing improvements in work-related wellbeing and psycho-spiritual functioning, all participants expressed concerns about the next step of their meditative journey. Key words utilised in this specific context were 'worried' (Participants 3, 6, 9 and 10), 'confused' (Participants 1, 4, and 8), 'anxious' (Participants 2, 4, and 5), and 'daunting' (Participants 1 and 7). However, participants clarified that such feelings did not particularly relate to a lack of know-how in terms of how to maintain their meditation practice or find additional support/tuition following completion of MAT. Rather, participants explained that their concerns related more to the implications of having glimpsed (albeit at a very elementary level) first-hand some 'spiritual truths'. Participant 1 explained this as follows:

> "Practicing with them [the MAT instructor] is a blessing. However, it might also be a curse. Once you've tasted their spiritual calm and used it to find spiritual truths and your

own spiritual potential, you can't go back. You're forced to accept that the only thing stopping you from undergoing rapid spiritual development is your own choice. Nothing more and nothing less. Honestly, it's so simple. But it can also be quite daunting. I've got no excuse now and I can't even run away—I'd be running from myself. It's on my head. Wow" (Participant 1).

For Participants 5 and 8, coming face to face with these spiritual or life *truths* sometimes resulted in some animosity towards the programme instructors:

"You desperately want to prove things can't be that simple. So you look for excuses. You even try to find faults in what they are saying or in their character. It's a way of trying to get off the hook … But you know you're just tricking yourself. Deep down, you know their right and their kindness is overpowering" (Participant 5).

"Working with [instructor] is like having a big mirror put in front of you. It just reflects your own issues right back at you. There's no hiding. Sometimes you want to smash the mirror or be self-righteous and tell them where to shove it. But you quickly give yourself a slap in the face and swallow your ego. Then you start to see clearly again" (Participant 8).

Although participants felt that they had an important and inescapable choice to make in terms of continuing with their meditative and spiritual practice, participants seemed to accept that this was not a choice that had just been given to them, but was a 'primordial choice' that had always been present. Furthermore, participants appeared to welcome being reminded of this choice and explained that it was both motivating and empowering in terms of facilitating

their ongoing personal and spiritual development:

> "It's a responsibility that is difficult to digest at first. But deep down you know it makes sense and you know it feels right. If you want lasting happiness then you have to work for it. There's no quick fix" (Participant 3).

> "There is no way I'm turning back now. I've come this far and I'm going to keep going. I've been asleep until now and I've taken things for granted … Continuing my spiritual journey is the most important thing for me" (Participant 8).

Discussion

IPA was used to analyse the experiences of ten office managers that participated in an eight-week MAT programme. Participants were randomly selected from the intervention arm (n = 68) of an RCT evaluating the effects of MAT on work-related wellbeing and job performance. All ten participants provided expressive and rich accounts of their experiences and six related but distinct themes emerged from the data-set: (i) changing attitudes towards work, (ii) improved job performance, (iii) letting go of self, (iv) phenomena feedback effect, (v) wellbeing at work, and (vi) taking responsibility for one's spiritual growth.

This study represents the first qualitative investigation of a SG-MBI within an occupational setting. Consequently, there exists no direct benchmark against which to compare and contrast participant experiences. Furthermore, to this author's knowledge, although there are a small number of qualitative studies of integrative mindfulness-encompassing approaches (e.g., Acceptance and Commitment Therapy), there exist few (if any) qualitative studies that specifically analyse the experiences of employees that have received training in an intervention that is explicitly mindfulness-based and that adheres to the FG-MBI model. Therefore, I have

chosen to contextualise the discussion of participant experiences within the literature that exists for both FG-MBI and SG-MBI qualitative studies within clinical and other applied settings, as well as the mindfulness/meditation scientific and traditional Buddhist literature more generally.

Participants reported that receiving MAT facilitated a *change in attitudes towards work* (Theme 1) that involved narrowing the divide between work and life. On initial inspection, this outcome appears contraindicative of a balanced and healthy approach towards work as poorly-established work-life boundaries are associated with work-related stress, work-family conflict, and workaholism (Griffiths & Karanika-Murray, 2012). However, in the current study, participants regarded this radical shift in attitude as a positive experience and an essential step towards broadening their life and spiritual outlook. This shift towards a more open and encompassing way of perceiving their work and life is consistent with traditional Buddhist approaches to meditation, where formulating a correct view is deemed to be both the first and last step of the meditation practitioner's journey (Huang Po, 1982).

To cultivate a right view means not to divide the whole into many and to introduce a perceptual gap that buffers against automatically perceiving life and reality in dualistic terms. According to the Buddhist teachings, although the meditation practitioner must understand that boundaries exist and are essential if society is to function effectively, realising that they exist only as 'empty' or imputed constructs is a key step towards wisdom acquisition (Shonin et al., 2014b). In the current study, this shift in attitude towards work appeared to empower participants to take greater control of their personal and spiritual development, to objectify work, and to assign it a level of importance equal to all other aspects of their lives. Consequently, participants reported that life started to become whole again—work, rest, play, and family all became equally meaningful.

As demonstrated by participants' experiential accounts, this change towards a more encompassing perspective was pivotal in their ability to accrue subsequent meditative

realisations. Indeed, findings indicate that the attitudinal shift and equalisation of importance assigned to life endeavours played an important role in the development of meditative equanimity. Previous MAT studies suggest that meditative equanimity can foster an expansive and compassionate vision as well as the ability to view situations without bias and without being limited by personal agendas (Shonin et al., 2013a, 2014f, 2014g). In the current study, participants explained that viewing situations with equanimity and perceptual distance afforded them a greater ability to *let go of self* (Theme 3) and this, in turn, promoted greater organisational citizenship.

A detailed elucidation of the science of non-self is beyond the scope of this chapter but the concept essentially implies that phenomena are absent of an intrinsically existing self and exist or originate only in dependence upon all other phenomena (see Chapter 2 for a more detailed explanation of the notion of non-self). Reducing the amount of self-allocated to work tasks and work engagements (Theme 3), and no longer viewing work as separate from life (Theme 1), appeared to improve participants' ability to regulate ego-centric cognitive and behavioural response systems. Consistent with research findings deomostrating that non-attachment to self predicts adaptive psychosocial functioning (Sahdra et al., 2010), participants in the current study associated the ability to be less self-absorbed with *improvements in wellbeing at work* (Theme 5).

Improvements in subjective wellbeing are frequently reported in qualitative studies of FG-MBIs (e.g., Cohen-Katz et al., 2005; Fitzpatrick, Simpson, & Smith, 2010; Morone, Lynch, Greco, Tindle & Weiner, 2008). However, in FG-MBIs, one of the key mechanisms by which mindfulness is believed to promote psychological wellbeing is via the acceptance and mindful observance of thoughts and feelings, and the subesequent ability to regard them as passing phenomena (Kabat-Zinn, 1994). This same mechanism appeared to underlie many of the changes experienced by managers that completed the eight-week MAT programme. However,

working in conjunction with this mechanism was the direct targeting and undermining of ego-centric attitudes and behaviours via the use of analytical meditation techniques intended to introduce the participant to concepts such as emptiness, non-self, and impermancence, as well as the need to transcend such concepts. Previous studies of MAT have demonstrated that this dual-pronged mechanistic approach can facilitate a depth of meditative and spiritual experience that is not typically observed in FG-MBIs (e.g., Shonin et al., 2013a).

Employers may be reticent to support organisational interventions that are spiritually focussed due to the fear that employees may begin to regard their work as inconsequential in the larger scheme of things. However, findings from the current study suggest that this is not the case—or at least not for SG-MBI approaches—as participants reported a greater enthusiasm towards work as well as *improvements in job performance* (Theme 2). Thus, although MAT appeared to help participants not to be limited by their work (or by the need to work), it apparently helped them to be much more present whilst at work and to employ new spiritual and/or perceptual skills that enhanced their job performance. Examples include improvements in: (i) leadership and decision-making confidence, (ii) ability to cut through confusion, office ploys, and 'strategic game playing', (iii) remaining centred and calm under pressure, (iv) strategic outlook, (v) productive thinking and working styles, (vi) sense of work autonomy, (vii) sense of pride whilst engaging in work tasks, and (viii) ability to keep attention focussed on the task in hand.

Based on participants' accounts, their increased ability to remain in the 'here and now' following receipt of MAT was a more adaptive working strategy than their previous method of primarily focussing on future goals. Although further empirical enquiry is obviously required to replicate and validate this outcome, it has important implications for organisations that advocate and/or employ goal-focussed working strategies. Techniques such as 'SMART' goal-setting are established practises for maximising personal and organisational effectiveness

(Locke & Latham, 2002). However, depending on how such techniques are implemented, they could potentially de-emphasise the importance of being fully present with the task-at-hand. Indeed, goal-based working styles may improve the likelihood of a deliverable being produced within a set period of time, but they may negatively impact upon other aspects of job performance and on the satisfaction that employees derive from their work. According to Van Gordon et al. (2014b), working with present-moment awareness does not mean that individuals lose sight of goals and deadlines, but it adds a certain richness to task engagement that allows employees to feel much more connected with their work tasks and with their work environs more generally.

In the current study, this sense of greater situational connectedness appeared to give rise to an outcome that this author has termed *phenomena feedback effect* (Theme 5). Although a greater appreciation of phenomena and the present-moment is a common outcome of FG-MBIs (e.g., Griffiths, Camic, & Hutton, 2009), to the knowledge of the present author, this is the first empirically reported instance of a sense of profound reciprocal connectivity to situations and phenomena being induced by meditation practice. Participants were keen to clarify that this experience was not a form of clairvoyance, but described it as an increased ability to anticipate how a particular situation might unfold. Based on current scientific understanding, formulating explanations for the phenomena feedback effect is problematic. However, the Buddhist literature explicates that time—and therefore the present moment—are basically imputed or relative constructs that do not exist in the absolute sense (Shonin & Van Gordon, 2014b). Thus, consistent with Buddhist thinking, participants' experiences of seeing possible outcomes more clearly could have arisen due to them letting go of notions such as time, and allowing their awareness to expand to the point that they had effectively penetrated the present moment. Of course, without a means of empirically testing such theories, one can only speculate as to the validity of Buddhist explanations of certain meditative experiences.

However, given the existence of an identifiable present moment can be disproved using simple deductive logic (see Shonin & Van Gordon, 2014b), it is at least feasible that when layers of conceptual thinking are removed during meditative analysis, an individual could intuit or begin to see the past, present and future converging at a single point.

Participants unanimously reported that participation in the MAT programme was experientially meaningful. Out of the six themes that emerged from the dataset, the first five of these related to improvements in (i) job performance and personal effectiveness, (ii) wellbeing (at work and in general), and/or (iii) spiritual awareness. Although the improvements in spiritual awareness were both empowering and welcomed, it seemed that they also created a 'positive dilemma' for participants who reported feeling much more responsible for their spiritual development (theme 6). Increases in spirituality (e.g., Roth & Stanley, 2002; Mackenzie, Carlson, Munoz, & Speca, 2007) as well as dilemmas/challenges relating to practising mindfulness (e.g., Williams et al., 2011) have both been previously observed in FG-MBI studies. However, the development following mindfulness practice of a profound sense of responsibility for spiritual growth is a further example of an outcome from the current study that has not been observed in studies of FG-MBIs. These novel outcomes—all of which related to spiritual experiences and insights—suggest that compared to FG-MBIs, the SG-MBI approach may be tapping into different metacognitive resources.

As with all qualitative studies, this study was never designed to assess efficacy and/or to allow findings to be generalised beyond the original sample frame (i.e., the 68 participants that received MAT). Indeed, given that participants were healthy career-mobile and career-motivated adults (of which 90% possessed a higher education degree) working in demanding but well-remunerated roles, it is questionable whether other worker groups or clinical samples would respond as favourably. Likewise, irrespective of efforts to minimise potential biases and allow the raw data to 'speak for itself', the nature of qualitative analysis means that there can

never be absolute certainty that any disconnect between participants' experiences and their subsequent interpretation has been removed.

Nevertheless, despite these limitations, findings from this study have important implications not just in terms of the potential applications of SG-MBIs in applied settings, but for advancing scientific understanding regarding the essential components of effective and authentic mindfulness training programmes. Both FG-MBIs and SG-MBIs enrich the field of mindfulness, both are equally valid approaches, and they target overlapping outcomes for the individuals. However, there is clearly still a lot to learn in terms of how they enable and enhance the health, wellness, and spiritual development of the participants.

SECTION B: PART 3

THE ROLE OF BUDDHIST-DERIVED INTERVENTIONS IN FORENSIC MENTAL HEALTH

Chapter 9

Mindfulness and other Buddhist-Derived Interventions in Correctional Settings: A Systematic Review

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Abstract

Interest into the rehabilitative utility of Buddhist-derived interventions (BDIs) for incarcerated populations has been growing. The present chapter systematically reviews the evidence for BDIs in correctional settings. Five databases were systematically searched. Controlled intervention studies of BDIs that utilised incarcerated samples were included. Jadad scoring was used to evaluate methodological quality. PRISMA (preferred reporting items for systematic reviews and meta-analysis) guidelines were followed. The initial search yielded 85 papers, but only eight studies met the inclusion criteria. The eight eligible studies comprised two mindfulness studies, four vipassana meditation studies, and two studies utilising other BDIs. Intervention participants demonstrated significant improvements across five key criminogenic variables: (i) negative affect, (ii) substance use (and related attitudes), (iii) anger and hostility, (iv) relaxation capacity, and (v) self-esteem and optimism. There were a number of major quality issues. It is concluded that BDIs may be feasible and effective rehabilitative interventions for incarcerated populations. However, if the potential suitability and efficacy of BDIs for prisoner populations is to be evaluated in earnest, it is essential that methodological rigour is substantially improved. Studies that can overcome the ethical issues relating to randomisation in correctional settings and employ robust RCT designs are favoured.

Introduction

According to the Ministry of Justice (MOJ), 75% of the 840,975 proven offenses committed in England and Wales in 2011 were committed by repeat offenders (MOJ, 2012a). The MOJ also reports that over two-thirds of the 102,700 adult offenders receiving custodial sentences for indictable offenses in 2011 had a prior custodial sentence. Indeed, approximately 50% of incarcerated adults (in England and Wales) are proven to reoffend within 12 months of release (Prison Reform Trust; PRF, 2012). Comparative figures are also reported for America where the three-year reincarceration rate is approximately 45% (Pew Centre on the States, 2011). Reoffending is a serious problem with UK sentencing costs averaging £30,500 per custodial sentence and a further £40,000 costs per year for keeping each prisoner incarcerated (PRT, 2012). Overall, reoffending is estimated to cost the British economy between £9.5 and £13 billion per year (PRT, 2012). Excluded from this estimate are the non-quantifiable and long-term costs to victims, families (of both victims and offenders), and to society more generally.

Throughout the last two decades, 'second-wave' cognitive behavioural therapies have been at the forefront of the *What Works* approach to offender rehabilitation (Howells, Tennant, Day, & Elmer, 2010). While exact techniques vary according to offender category (e.g. violent offending, sex offending, juvenile offending), cognitive-behavioural approaches share a common mechanism of therapising via the restructuring of maladaptive core beliefs. In effect, clients are empowered to control and modify cognitive distortions and to 'self-intervene' at the level of individual thoughts and feelings.

More recently, and throughout the last decade, a credible evidence base has been established for the application of 'third-wave' cognitive behavioural approaches for the treatment of a broad range of psychopathologies. Rather than a deliberate attempt to control and modify individual cognitions (as per second wave approaches), third wave approaches are heavily influenced by Buddhist (and other Eastern) philosophies and operate via a mechanism

of ‘bare acceptance’ and transformative present-moment awareness.

Mindfulness forms the basis of a number of third wave psychotherapies and has been described in the psychological literature as purposeful, moment-to-moment, non-judgmental awareness (Kabat-Zinn, 1990). As part of the wider increase in research assessing the psychotherapeutic utility of mindfulness, there has been a growth of investigation into the rehabilitative effects of mindfulness for incarcerated populations (Howells et al., 2010). Examples of mindfulness-based interventions utilised in correctional settings are Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Relapse Prevention (MBRP). MBRP (Witkiewitz, Marlatt, & Walker, 2005) follows a similar structure to MBSR (i.e., weekly sessions typically of three hours duration, guided mindfulness exercises, yoga exercises, a CD of guided meditation to facilitate self-practice, and an all-day eight-hour silent retreat component), but it is specifically tailored for treating substance use disorders (SUDs) and integrates various cognitive-behavioural techniques designed to modify drug-related beliefs (Lee, Bowen, & An-Fu, 2011).

In addition to the abovementioned mindfulness-based approaches, in the last 10 years there has also been a steady growth of research examining the rehabilitative effects of other BDIs within incarcerated populations. A Buddhist-derived technique known as Vipassana Meditation (VM) has received significant attention in this respect. Traditionally, VM refers to a subtle form of insight-generating penetrative investigation that normally follows a period of concentrative meditation (Dalai Lama & Berzin, 1997). However, within psychological settings and as discussed in Chapter 2, the term Vipassana Meditation is often used to refer to an alternative form of mindfulness practice that was formulated by Satya Narayan Goenka. Goenka’s VM is typically taught as part of an intensive 10-day silent retreat programme involving mindfulness of breath (Pāli: *anapanasati*) and becoming aware of the impermanent (i.e., transient) nature of thoughts and feelings (Perelman et al., 2012).

Proposals that advocate BDIs for offender rehabilitation are based on the transformative aspects of Buddhist practice that have been 'tried and tested' during the philosophy's 2,600 year history. These proposals are also grounded in findings of BDI studies (from both forensic and general population/clinical settings) whereby BDIs have been shown to modulate known criminogenic agents, such as negative affective states (Day, 2009), anger (Novaco, 2007), hostility (Perelman et al., 2012), criminal thinking (Hawkins, 2003), and impulsivity and deficiencies in emotional regulation (Farrington, 2000).

Accordingly, BDIs are recommended for the rehabilitation of offenders based on the following theoretical rationale or empirical findings: (i) Buddhist teachings emphasise the uprooting of afflictive mental states (Sanskrit: *kleshas*) with particular emphasis on the transformation of anger (Howells et al., 2010), (ii) Buddhist training condenses down to the practice of 'letting-go' (Khyentse, 2006), including of any maladaptive self-blame or avoidance schemas, and Buddhist-based mindfulness practice leads to the dismantling of such strategies (Simpson et al., 2007), (iii) mindfulness reduces negative affect, reduces stress and anxiety, and improves self-esteem and psychological wellbeing (e.g., Waters et al., 2009; Samuelson, Carmody, Kabat-Zinn, & Bratt, 2007), (iv) improved self-awareness and present moment awareness are factors that reduce impulsivity (Wright, Day, & Howells, 2009), (v) greater self-awareness also corresponds to an increased ability to label and, therefore, modulate affective states (Gillespie et al., 2012), (vi) regular practice of Buddhist forms of meditation fosters inner-calm, improves sleep quality, and leads to reductions in autonomic and psychological arousal (Derezotes, 2000; Sumpter, Monk-Turner, & Turner, 2009), (vii) increased breathing awareness (a fundamental aspect of many forms of Buddhist meditation) increases prefrontal functioning and leads to increased Vagal nerve output and associated reductions in heart rate (Gillespie et al., 2012), (viii) compassion, loving-kindness, and ethical discipline represent key building-blocks of Buddhist practice and help to foster self-acceptance, tolerance, cooperation,

respect, and adaptive interpersonal skills (Dalai Lama, 2001), (ix) Buddhism teaches insight meditation techniques (Sanskrit: *vipasyana*) in order to dismantle attachment to the ego-self, and reduced 'attachment' in this respect begets reductions in avoidance, dissociation, alexithymia, and fatalistic outlook (Sahdra et al., 2010), and (x) Buddhist-based meditation improves control over mental urges and reduces substance-use (e.g., Perelman et al., 2012).

There are numerous systematic reviews of mindfulness-based interventions for the treatment of specific psychopathologies (e.g., Fjorback et al., 2011). However, few of these integrate studies based in forensic settings. Chiesa (2010) undertook a systematic review of VM but this was not limited to forensic settings and focussed on neurobiological and clinical findings. Himelstein (2010) conducted a review exploring the effects of meditation in correctional settings. However, Himelstein's review was narrative and incorporated multifarious meditation techniques including non-Buddhist methods such as Transcendental Meditation. Therefore, notwithstanding the growth of interest into the potential applications of Buddhist principles within correctional settings, a robust systematic review focussing on studies of BDIs in incarcerated populations has not been undertaken to date. The purpose of this study was to conduct such a review that follows (where applicable) the PRISMA (*preferred reporting items for systematic reviews and meta-analysis*) guidelines (Moher et al., 2009).

Methods

Literature Search

A comprehensive literature search using *MEDLINE, Science Direct, ISI Web of Knowledge, PsychInfo,* and *Google Scholar* electronic databases was undertaken. Reference lists of retrieved articles and review papers were also examined for any further studies. The search criteria used were 'meditation' (but NOT 'Transcendental'), OR 'mindfulness', OR 'Buddhis*', OR 'vipassana', in combination with (AND) 'forensic', OR 'prison*', OR

‘inmates’, OR ‘incarcerated, OR ‘correctional’, OR ‘offend*’, OR ‘reoffend*, OR ‘crim*’.

Selection of Studies

The inclusion criteria for further analysis were that the paper published had to: (i) report an empirical intervention study of a BDI, (ii) employ an active (e.g., comparative intervention) or passive (e.g., wait list) control, (iii) be written in the English language, (iv) utilise an incarcerated sample, and (v) include pre- and post-intervention measures of dependent variables with adequate statistical analysis. Papers were excluded from further analysis if they: (i) did not include new data (e.g., a theoretical and/or descriptive review paper), (ii) were qualitative studies, and (iii) employed non-Buddhist forms of meditation (e.g., Transcendental Meditation).

Outcome Measures

The primary considered outcome measure was reduction in rates of reoffending (i.e., assessed via risk of reoffending, adjudication records, or records of proven convictions). Secondary considered outcomes (all assessed via self-reports) included primary criminogenic agents such as (i) negative affective states (e.g., The Profile of Mood States Questionnaire [McNair, Lorr, & Droppelman, 1992])**,** (ii) anger and hostility (e.g., Cook and Medley Hostility Scale [Barefoot, Dodge, Peterson, Dahlstrom, & Williams, 1989]), (iii) self-esteem and optimism (e.g., Rosenberg Self-Esteem Scale [Rosenberg, 1979]), and (iv) mindfulness and relaxation capacity (e.g., Cognitive and Affective Mindfulness Scale-revised [Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007]). Additionally, reductions in psychiatric symptoms (e.g., Brief Symptom Inventory [Derogatis & Melisaratos, 1983]), and substance dependency were considered (e.g., Daily Drug-Taking Questionnaire [Parks, 2001]).

Data Extraction and Synthesis

Abstracts were identified, retrieved, assessed, and shortlisted by the present author. Another member of the research team then 'audited' the initial shortlist process for the purposes of validating the rationality of the present author's selection criteria. The same two assessors independently undertook a full-text review of all shortlisted abstracts. The *Jadad Scale* (Jadad, Moore, & Carroll, 1996) was used to evaluate the methodological quality of included studies. The Jadad Scale assesses study quality based on the following criteria: (i) presence/absence of randomisation, (ii) whether randomisation was appropriate, (iii) presence/absence of double blinding, (iv) whether blinding was appropriate, and (v) presence/absence of drop-out and withdrawal data. Consistent with a method employed by Chiesa and Serretti (2011), the scale was modified to account for the difficulties of blinding participants in psychotherapy studies. The maximum score was therefore 4 with a score of less than 3 indicating a poor quality study. Disagreements regarding study eligibility or quality were resolved via discussion between the two assessors and a 100% consensus was reached in all cases.

Data were extracted with reference to recommendations by Lipsey and Wilson (2001). Extracted data items included sample size, control type (e.g., wait-list, treatment-as-usual, comparative intervention), diagnosis (i.e., offender category), intervention description, outcome measures, and pre-post and follow-up findings. A meta-analysis was deemed to be inappropriate due to heterogeneity between intervention types and target outcomes, and so results are presented according to a narrative synthesis method. Finally, studies were stratified according to intervention-type: (i) mindfulness-based interventions, (ii) vipassana meditation interventions, and (iii) other BDIs.

Results

Search Results

The initial comprehensive literature search yielded a total of 85 papers. After the review of the papers' abstracts, 62 studies were found to be ineligible based on the pre-determined inclusion and/or exclusion criteria. Following a full-text review of the remaining 23 papers, eight studies met all the inclusion criteria for in-depth review and assessment. Figure 9.1 shows the paper selection process along with principal reasons for exclusion.

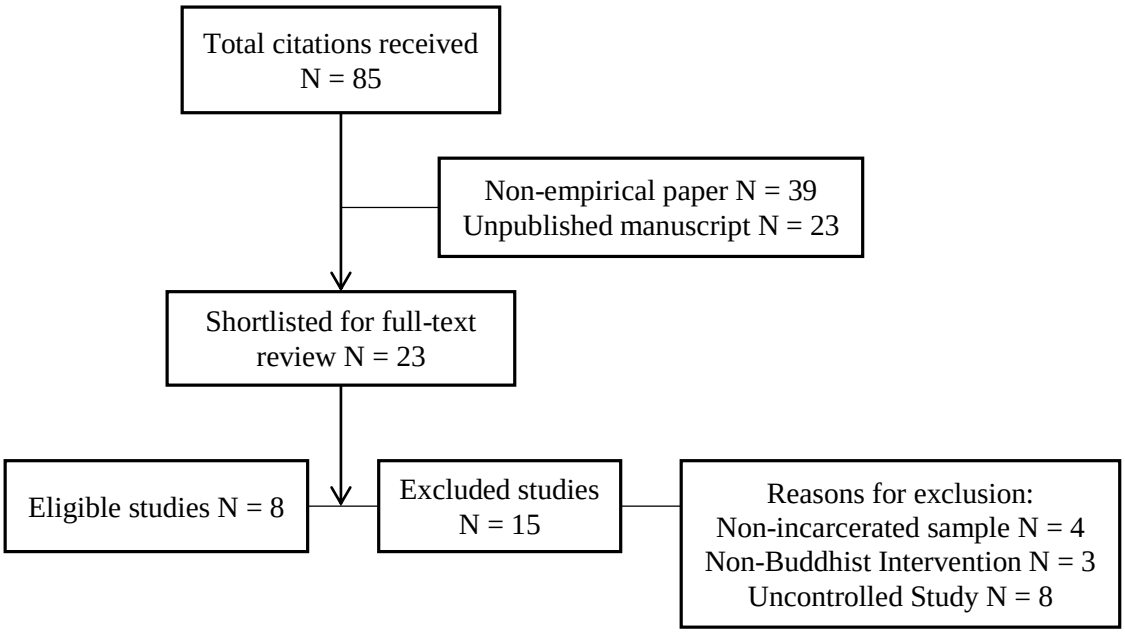

Figure 9.1 Flow diagram of review process with reasons for exclusion

Study Characteristics

The eight papers that met all the inclusion criteria comprised two mindfulness-based intervention studies, four VM studies, and two studies utilising other BDIs. Minimum, medium, and maximum-security facilities were reflected in the included studies and prisoner

sentencing profile was reasonably diverse (i.e., short-term to indeterminate sentences, violent offenders, drug-use related offenders). Two studies employed an RCT design. Participants were all adults (predominantly male). One study was based in Taiwan with the remainder based in the US. Table 9.1 outlines further characteristics of the studies that met all the inclusion criteria.

Table 9.1 Description and quality assessment of included studies

Study	Participants	Intervention	Outcomes	Quality score
		Mindfulness-based intervention studies		
Lee, Bowen, & An-Fu (2010)	Adult males serving 1-year sentences for possession of supply of illicit substances. 10 MPRP, 14 TAU controls. (Taiwan)	10 week MBRP programme. Weekly sessions of 1.5 hours duration. Delivered by clinical psychologists with two years meditation experience.	Significant increases for MBRP participants over controls in negative outcome expectancies and significant within-group improvements in depression and refusal self-efficacy.	Randomisation: yes Blinding: no Attrition: no *Jadad score*: 1
Samuelson, Carmody, Kabat-Zinn, & Bratt (2007)	Adults incarcerated for drug-related convictions. 1,953 MBSR, approximately 127 TAU controls. (US)	6-8 week MBSR programmes with 12-20 prisoners per delivery. Weekly session duration ranged from 1 to 1.5 hours. Intervention was conducted in facilities ranging from designated 'quiet rooms' to open space at the end of the prison gym.	Significant improvements for MBSR participants in hostility, self-esteem, and mood-disturbance. Women showed greater improvements than men. No significant changes were reported for controls. Effects were maintained at follow-up.	Randomisation: yes Blinding: no Attrition: no *Jadad score*: 1
		Vipassana meditation studies		
Perelman et al. (2012)	Adult Males serving long-term sentences (including life without parole) mostly for violent offences. 60 VM, 67 comparative-treatment controls. (US)	Standard 'residential' 10 day VM silent retreat programme conducted inside a prison gym where prisoners ate, slept, and meditated.	VM participants showed significant improvements over controls (that were partially maintained at follow-up) in post-intervention mindfulness, emotional intelligence, and mood disturbance.	Randomisation: no Blinding: no Attrition: no *Jadad score*: 0
Bowen et al. 2006	Minimum-security adult male and female prisoners	Gender segregated 10-day VM programme conducted in silence	Significant reductions for VM participants in alcohol, crack cocaine	Randomisation: no Blinding: no

	with a SUD. 63 VM, 242 TAU controls. (US)	and in isolation from other prisoners	and marijuana use plus less psychiatric symptomology, greater alcohol–related internal locus of control, and greater optimism.	Attrition: yes *Jadad score*: 1
Bowen, Witkiewitz, Dillworth, & Marlatt (2007)	Minimum-security adult male and female prisoners with a SUD. 57 VM, 116 TAU controls. (US)	Gender segregated 10-day VM programme conducted in silence and in isolation from other prisoners	Significant decreases in thought suppression for VM participants that partially mediated the effects of VM on post-release alcohol use.	Randomisation: no Blinding: no Attrition: yes *Jadad score*: 1
Simpson et al. (2007)	Minimum-security adult male and female prisoners with a SUD. 29 VM, 59 TAU controls. (US)	Gender segregated 10-day VM programme conducted in silence and in isolation from other prisoners	No significant associations for PTSD severity and treatment outcomes or likelihood of participating.	Randomisation: no Blinding: no Attrition: yes *Jadad score*: 1
		Other Buddhist-derived interventions		
Rhead & May (1983)	Adult males serving indeterminate sentences. 6 intervention, 5 TAU controls. (US)	2 month programme with weekly group meetings. Tibetan & Zen Buddhist meditation approaches.	Significant improvements for meditators over controls in overall psychological distress and psychopathological symptoms	Randomisation: no Blinding: no Attrition: yes *Jadad score*: 1
Sumpter, Monk-Turner, & Turner (2009)	Female adult detainees serving 20-week sentences. 17 meditators, 16 RAU controls. (US)	Seven week group-based meditation programme (weekly meetings of 2.5 hours duration). Similar to Buddhist-based mindfulness meditation.	Meditators demonstrated significant improvements in sleeping difficulties over controls.	Randomisation: yes Blinding: no Attrition: no *Jadad score*: 1

Mindfulness-based Interventions

A small-scale RCT investigated the effects of a modified programme of MBRP on various substance-use concomitants in adult males serving one-year sentences (for possession or supply of illicit substances) at a correctional facility in Taiwan (Lee et al., 2011). Prisoners (mean age 40.7 years) received MBRP (n = 10) or treatment as usual (TAU; n = 14). TAU was a substance abuse educational programme. MBRP was delivered by clinical psychologists with two years meditation experience and comprised 10 weekly sessions each of 1.5 hours duration. The dependent variables were depression (Beck Depression Inventory-II [Walter, Meresman, Kramer, & Evans, 2003]), refusal self-efficacy (Drugs Avoidance Self-Efficacy Scale [Martin, Wilkinson, & Poulos, 1995]), and drug-use outcome experiences (Drug-Use Identification Disorders Test Extended—DUDIT-E [Berman, Palmstierna, Källmén, & Bergman, 2007]). MBRP participants experienced significant improvements (78% increase) in negative outcome expectancies compared to controls (34% decrease) as well as significant within-group improvements in levels of depression and refusal self-efficacy.

The generalisability of findings for this Taiwan-based study (e.g., to Western correctional facilities) is likely to be limited. In fact, the small sample size limits the external validity more generally. Another major limitation was that attrition rate was not reported making it difficult to gauge a measure of the overall acceptability and feasibility of the modified mindfulness programme. Furthermore, the translation by one of the authors of the DUDIT-E measure (originally validated for a Western/Swedish population) into Mandarin Chinese without re-validation may have invalidated the psychometric properties of the scale.

Samuelson et al. (2007) undertook a large-scale study (n = 1,953 adults) of the effects of MBSR on prisoners incarcerated for drug-related convictions. A total of 113 MBSR courses (each of 12-20 participants) were delivered across six minimum and medium security

correctional facilities (Massachusetts, U.S.) between 1992 and 1996. Weekly session duration varied between 1 and 1.5 hours. In some cases, two sessions per week were conducted and course length ranged between six and eight weeks. In some facilities, the intervention was conducted in designated 'quiet rooms' but in other cases the course was delivered using open space at the end of the prison gym. Approximately 75% of participants were male and the completion rate was 69%. Wait-list controls (*n*~180) continued with routine as usual (RAU) involving smoking cessation training, literacy education, and exercise. Outcome measures used were hostility (Cook and Medley Hostility Scale [Barefoot, et al., 1989]), self-esteem (Rosenberg Self-Esteem Scale [Rosenberg, 1979]), and mood disturbance (Profile of Mood States [McNair et al. 1992]). MBSR participants showed significant improvements in hostility (8% reduction), self-esteem (5% increase), and mood disturbance (31% reduction). In all cases, women showed greater improvements than men (e.g., reduction of 39% in mood disturbance for female prisoners versus 28% for men). No significant changes were reported for the control condition. Effects of the intervention were maintained at six to eight weeks follow-up.

In terms of study limitations, the intervention was not homogeneously delivered (e.g., due to variances in total intervention hours) across each of the 113 MBSR cycles. Therefore, it is difficult to make comparisons with other MBSR intervention studies. Furthermore, participants were exclusively recruited from specialist drug rehabilitation units meaning that findings may not generalise to other offender groups. In fact, given that all the participants were substance dependent, the overall scope of the study was somewhat ambiguous because substance use-related outcomes were not even assessed. Additionally, adherence to practice data was not elicited and the inclusion/exclusion criteria of the study were not clearly defined. Thus, factors such as concurrent psychotherapy and/or psychopharmacology may have asserted a confounding influence.

Vipassana Meditation Interventions

Perelman et al. (2012) conducted a longitudinal study of VM at a maximum-security facility in Alabama (U.S.). Prisoners (presumably all male) already signed up to receive the intervention were invited to participate in the research. Three separate VM programmes were delivered between 2007 and 2008. The programmes followed the standard 10-day VM 'residential' silent retreat format and were conducted inside a prison gym where prisoners ate, slept, and meditated. The VM group (n = 60) and control group (n = 67) were reasonably well matched on demographic characteristics. Individuals in the control group attended a 10-week programme called Houses of Healing (HOH) that also integrated mindfulness principles. The participants' mean age was 35.4 years and approximately 80% of them were convicted for a violent offense. Most participants were serving long-term sentences and approximately one-third had a documented medical condition such as hypertension, diabetes, or SUD. Pre, post, and follow-up (one-year) data were collected for outcomes of mindfulness (Cognitive and Affective Mindfulness Scale-revised [Feldman, et al., 2007]), mood disturbance (Profile of Mood States-Short Form [Shacham, 1983]), emotional intelligence (Trait Meta-Mood Scale [Salovey, Mayer, Goldman, Turvey, & Palfai, 1995]), prison infirmary visits, and adjudication rates. Compared to controls, VM group participants showed significant improvements (that were partially maintained at follow-up) in levels of post-intervention mindfulness (increase of 9%), emotional intelligence (2% increase), and mood disturbance (8% reduction).

Although missing data were reported (and controlled for in the data analysis), the study did not report specific drop-out rates. Thus, it is impossible to determine whether missing data corresponded to participants who had completed the intervention but were simply unavailable for post-test assessment, or to participants who dropped out prior to completion. A further limitation of the study was control intervention specificity that is limited due to the HOH

intervention integrating mindfulness practice. Furthermore, fidelity of implementation was not assessed (i.e., facilitator deviations from the standard VM programme) and adherence to practice data was not reported. Approximately 23% of intervention group participants had previously completed the VM programme that may have obfuscated the extent to which findings could be generalised to individuals without prior meditation experience.

Bowen et al. (2006) assessed the salutary effects of VM on male (72.9%) and female (20.8%) adults (n = 305) incarcerated at a minimum-security facility in Seattle (U.S.). VM participants (n = 63) followed the standard 10-day VM programme that was conducted in silence and in isolation from other prisoners. A total of nine gender-segregated interventions were delivered. The control group (n = 242) received TAU comprising chemical dependency treatment and substance use psycho-education. The study suffered substantial attrition with only 29% of baseline participants (29 VM and 58 TAU) completing 3-month follow-up measures. Outcomes included alcohol use (Daily Drinking Questionnaire [Collins, Parks, & Marlatt, 1985]), drug use (Daily Drug-Taking Questionnaire [Parks, 2001]), drinking-related consequences (Short Inventory of Problems [Miller, Tonigan, & Longabaugh, 1995]), alcohol use locus of control (Drinking-Related Locus of Control Scale [Donovan & O'Leary, 1978]), psychiatric symptom severity (Brief Symptom Inventory [Derogatis & Melisaratos, 1983]), and optimism (Life Orientation Test [Scheier & Carver, 1985]). At three-month follow-up, VM participants showed significant reductions over controls in alcohol use (87% reduction), crack cocaine use (66% reduction), marijuana use (89% reduction), alcohol-related negative consequences (60% reduction), and psychiatric symptomology, as well as significant improvements in psychosocial outcomes.

Bowen, Witkiewitz, Dillworth, and Marlatt (2007) conducted a secondary data analysis (n = 81) of Bowen et al.'s (2006) aforementioned study to examine the effects of VM on

thought suppression. Data from the White Bear Suppression Inventory (Wegner & Zanakos, 1994) were included in the analysis. VM participants showed significantly greater reductions in thought suppression compared to controls that was shown to partially mediate the effects of VM on alcohol use.

Simpson et al. (2007) also (re)analysed data (*n* =88) from Bowen et al's (2006) study to assess interactions of Post-Traumatic Stress Disorder (PTSD) symptom severity on course participation and treatment outcomes. This analysis included data from the PTSD Checklist-Civilian version (Blake et al., 1995) that parallels DSM-IV criteria. No significant associations were found for PTSD severity and likelihood of volunteering for VM or treatment outcomes. This suggests that prisoners with marked PTSD symptoms are unlikely to experience diminished effects or be deterred from participating in VM programmes.

Bowen et al.'s (2006) trial and the two secondary-data studies were limited by the absence of randomisation that may have introduced selection bias. Indeed, participants self-selected to receive the programme and so the generalisability of findings to non-treatment seeking populations is likely to be limited. Additionally, the three-month follow-up assessment did not provide a balanced measure of maintenance effects because it was conducted three months following release from prison rather than three months post-course completion. An additional limitation was that the analysis excluded heroin and powder cocaine use. Therefore, the results cannot be generalised to this key offender group. Furthermore, adherence to practice data was not elicited and fidelity of implementation was not assessed.

Other Buddhist-derived Interventions

An early study by Rhead and May (1983) involved adult male prisoners (Maryland, U.S.) serving indeterminate sentences for persistent aggravated criminal behaviour. Six participants

completed the two-month meditation programme, with approximately the same number of non-completers. The intervention followed Tibetan, Zen, as well as other Buddhist and non-Buddhist meditation approaches. The weekly group meditation classes involved instruction on meditation, chanting, and experience sharing. Participants were encouraged to practice meditation and mindfulness between weekly meetings. A control group (n = 5) (matched on criteria such as race, I.Q., and age) received TAU consisting of weekly individual psychotherapy and counselling sessions. Meditators showed significant improvements over controls in overall psychological distress (Symptom Check List-90 [Derogatis, Lipman, & Covi, 1973]) and psychopathological symptoms (Clinical Analysis Questionnaire [Delhee & Cattell, 1971]). The authors reported that the high attrition rate was due, in part, to a number of participants' realising that meditation was unlikely to yield mystical experiences or be an opportunity to "*get high*" (p.109). Despite this, the authors reported that the six participants who completed the programme indicated that they would continue with their meditation practice post-intervention.

Although meditators reported maintaining their practice between weekly sessions, data relating to duration and frequency of individual practice were not elicited. Consequently, it is not possible to determine the extent to which participants adhered to the meditation practice and, therefore, whether other factors may have confounded the results. For example, the design of the control intervention did not account for non-specific factors such as a group-effect or experience of a novel intervention (i.e., change of normal routine). In addition to the small sample-size, the study was limited more generally due to a complete lack of detail regarding the design of the intervention (e.g., total intervention hours, number of weekly sessions, etc.).

A small-scale RCT assessed the effectiveness of a seven-week long meditation programme (weekly meetings of 2.5 hours duration) on reported physical and emotional

symptoms in female adult detainees (Sumpter et al., 2009). Participants were allocated to either the meditation programme (n = 17), or a control condition (n = 16). Control group participants continued with RAU consisting of exercise, free-time, reading, and/or being outside. Although the meditation programme was not described as 'Buddhist', and was not affiliated to any particular meditation tradition, it was included as an eligible study in this systematic review because the design of the intervention significantly resembled Buddhist-based mindfulness meditation. For instance, participants were instructed to "*follow the in breath and out-breath*" (including counting the breath), to practice observing and "*letting go of the thoughts that come into their minds*", and engage in walking meditation in order to "*find an inner calm*" and "*live in the present moment*" (p.57). The programme also included discussion on the wandering nature of the mind and experience sharing. Participants completed a modified version of Borysenko's (1988) 23-item Medical Symptom Checklist both pre- and post-intervention. This self-report measure assessed somatic symptoms (e.g., back and joint ache, numbness, chest pain) and emotional symptoms (e.g., guilt, anger, hopelessness, sleeping difficulties). Participants also completed an open-ended questionnaire. Meditating participants demonstrated significant improvements in sleeping difficulties over controls. Qualitative feedback indicated that meditators were more able to relax, had improved their anger management skills, and experienced increased hope about the future.

Although randomisation strengthened the study design, participants were detained for a fixed 20-week term that limits the generalisability of findings to females serving longer-term sentences. Furthermore, adherence to practice data was not elicited which means the interplay of other therapeutic agents cannot be ruled out. For instance, the correctional facility required that prisoners conducted their daily routine in silence and this may have exerted a therapeutic effect. In addition, self-reports of quantitative and qualitative outcomes may have been subject

to recall bias.

Discussion

A systematic evaluative review of controlled studies of BDIs in correctional settings was conducted. Intervention participants demonstrated significant improvements across five key criminogenic variables: (i) negative affect, (ii) drug-related attitudes and locus of control, (iii) anger and hostility, (iv) relaxation capacity, and (v) self-esteem and optimism.

Although findings across the eight studies evaluated indicate that BDIs have rehabilitative application in correctional settings, the quality of the studies that met the inclusion criteria was reasonably poor. In fact, all of the studies that were eligible for inclusion in this systematic review received a score of 'poor quality' (i.e., < 2) on the Jadad scale. Few of the studies employed random assignment and in all cases, adherence to practice and fidelity of implementation was not assessed. Therefore, factors unrelated to participation in the BDIs may have exerted a therapeutic influence and confounded the findings. Over-reliance on self-report measures was a further limitation. This is an important consideration when researching incarcerated populations as there is likely to be a pronounced risk of recall bias and/or deliberate under/over reporting (e.g., due to fear of being reprimanded by penal system authorities). Additional across-the-board quality issues were a lack of clearly described inclusion/exclusion criteria, non-justification of sample sizes, and poorly defined intervention and control conditions. Furthermore, few studies assessed actual recidivism (or risk thereof).

Taking the many limitations into account, it is noteworthy that a number of the included studies showed that BDIs were effective for treating prisoners with substance addiction issues. This finding is particularly relevant in light of the greater prevalence of substance use amongst prisoner populations compared with the general population. For instance, the Surveying

Prisoner Crime Reduction longitudinal cohort survey (*n* = 3849) reported that 81% of prisoners (sentenced in England and Wales in 2005/2006 to serve between 1-48 months in prison) reported having used drugs at some point in their lives (MOJ, 2012b). This is compared to a figure of 13% for men aged 16-59 in the general population (Fox, 2011). Coupled with improvements in concomitants such as self-efficacy and negative affective states, proposed mechanisms for the ameliorating effect of Buddhist meditation on substance addiction centre around the acceptance, non-reactive awareness, and 'unfiltered present-moment-experiencing' of mental urges (sometimes referred to as 'urge surfing'). According to Appel and Kim-Appel (2009), urge surfing regulates cravings for psychotropic states that are a means of 'escaping' from the present moment.

In addition to this more widely accepted perspective, it could be postulated that Buddhist meditation may also moderate substance use via an 'addiction substitution' mechanism. For instance, Griffiths (1996) acknowledges that meditation can be 'positively addictive', and in one of the few empirical studies examining the adverse effects of meditation, Shapiro (1992) found that 63% of meditators (*n* = 27) reported at least one adverse effect that in some cases included feeling addicted to meditation. SUDs are notoriously difficult to treat and typically require long-term multifaceted approaches due to being highly co-morbid with other psychopathologies (Davey, 2008). However, the duration of BDIs in the studies evaluated here ranged from just 10 days to 10 weeks. Thus, although reports of the addictive properties of meditation (whether in the positive or impairing sense) are relatively uncommon, the possibility of a substitution effect acting as a therapeutic mechanism should not be ruled out.

The studies evaluated as part of this systematic review primarily focussed on mindfulness and vipassana techniques. However, interventions that integrate the Buddhist practices of compassion and loving-kindness may also have utility in offender settings. As

discussed in Chapter 3, within Buddhism, loving-kindness and compassion represent two of the 'four sublime attitudes' (Sanskrit: *bhramaviharas*). As part of training in these attitudes, the practitioner enters into meditative absorption and then distributes or 'radiates' compassion and loving-kindness to all sentient beings (whether considered as friend or foe) in equal measure. According to Buddhist teachings, a mind saturated with unconditional love and compassion is transformed of negative predilections and is incapable of (intentionally) causing harm. Buddhism also asserts that this unconditional, meta-benevolent, and all-encompassing attitude radically resets maladaptive insensible core beliefs resulting in enduring psychological (and spiritual) benefit for the meditator (Dalai Lama, 2001).

Compassion and self-compassion have been shown to reduce negative affective states within clinical and general population settings (e.g., Gilbert, 2009; Neff, Kirkpatrick, & Rude, 2007). Consistent with this finding, empathic arousal has been associated with mirror neuron activation (rostral section of the inferior parietal lobule), suggesting that greater empathic awareness of thoughts and feelings may activate mirror neurons leading to increased emotion regulatory capacity (Keysers, 2011). Loving-kindess meditation has also been shown to reduce negative affect and lead to greater levels of implicit and explicit positivity towards strangers (Hutcherson et al., 2008). Furthermore, in a recent review of compassion and loving-kindness meditation interventions, Hofmann et al. (2011) specifically highlighted the suitability of these techniques for the treatment of anger control issues.

Factors that may impede the successful integration of BDIs into forensic settings relate to the transcultural difficulties of assimilating Eastern techniques into Western culture (Howells et al., 2010). Of particular bearing is the competence and training of clinicians and facilitators of BDIs who may not have the experience to impart an embodied 'authentic' transmission of the subtler aspects of meditation practice (Van Gordon et al., 2014a). A further

issue is the relative reticence by Westerners to engage in introspective or contemplative practice. In this respect, VM interventions may have reduced utility compared with other BDIs as prisoners new to meditation practice may find a 10-day silent retreat to be over-intensive. Additional integration issues relate to the therapeutic use of Buddhism in Western prisons which are mostly geared towards servicing the needs of a predominantly non-Buddhist population. For example, in a recent survey of prison chaplains spanning all 50 U.S. States (*n* > 1,400), the Pew Forum for Religion and Public Life (2012) found that 71% of prison chaplains described themselves as Protestant, 13% as Catholic, 7% as Muslim, and 3% as Jewish ('Buddhism' did not feature as a standalone religious denomination). However, working in its favour is the fact that Buddhism is more of a philosophical system rather than a religion, and it does not require adherence to a set of beliefs or worship protocol. In any event, BDIs are predominantly delivered in secularised format that renders issues relating to religiosity somewhat redundant. Furthermore, qualitative studies suggest that BDIs represent acceptable interventions for prisoner populations (e.g., Ranganathan, Bohet & Wadhwa, 2008).

Additionally, there are a number of other potentially restrictive dynamics. However, these are *de facto* applicable to all prison-based intervention studies. The transient nature of prison-life (i.e., due to transfers or parole), shortage of 'quiet space', and general security considerations are notable examples. Further constraints relate to the ethical implications of conducting RCTs within prison settings (Pont, 2008). For example, following release from prison, those participants allocated to non-treatment conditions may pose a risk to society due to not receiving a potentially efficacious treatment. Non-participating controls may also lack the freedom to pursue alternative treatment options (Ward & Willis, 2010). However, subject to resource and logistical constraints, the majority of these issues can be overcome by providing non-treatment controls with the option of participating in an identical intervention (not

necessarily conducted under research conditions).

This systematic review featured a number of limitations. Only English language studies were included, which, given the popularity of Buddhism in Eastern-language countries, may have resulted in the omission of relevant empirical evidence. Furthermore, a sizeable number of unpublished manuscripts (n = 23) were excluded from the review. It is possible that some of these were controlled BDI studies and thus further relevant and empirical evidence may have been disregarded. Non-methodological limitations relate to factors that restrict the generalisability of findings and include the fact that: (i) the majority of the studies were conducted in U.S. correctional facilities, (ii) the majority of participants were males, (iii) adolescent offender and sex offender populations were not represented, (iv) prisoners from psychiatric facilities were not represented, and (v) the sample size in seven of the eight included studies was relatively small.

Conclusions

From this systematic evaluative review, it is concluded that BDIs may be feasible and effective rehabilitative interventions for incarcerated populations. A number of uncontrolled studies (excluded from the current review) also support this view and provide preliminary evidence for the suitability of BDIs for offender populations with more specific criminogenic needs. For example, BDIs have been shown to improve the regulation of deviant sexual arousal (e.g., Singh et al., 2011) and to be appropriate for the rehabilitation of incarcerated adolescents (e.g., Himelstein, Hastings, Shapiro, & Heery, 2012; Himelstein, 2011). Despite the inevitable complications of integrating BDIs into correctional settings (e.g., due to transcultural issues, group-size security restrictions, and/or disruptions to group-continuity), group-based BDIs are likely to represent viable ‘What Works’ interventions due to their cost-effective nature (e.g., a

typical eight-week BDI requires as few as 3-4 facilitator hours per prisoner). Nevertheless, if the potential suitability and efficacy of BDIs for prisoner populations is to be evaluated in earnest, it is essential that methodological rigour is improved and that prison intervention studies begin to utilise RCT designs (Waters, et al., 2012) that follow the CONSORT (*consolidated standards of reporting trials*) guidelines (e.g., Boutron, Altman, Schulz, & Ravaud, 2008; Schulz et al., 2010).

SECTION B: PART 4

BUDDHIST PRACTICES AND PRINCIPLES FOR THE TREATMENT OF BEHAVIOURAL ADDICTIONS

Chapter 10

Buddhist Philosophy for the Treatment of Problem Gambling

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Abstract

In the last five years, scientific interest into the potential applications of Buddhist-derived interventions (BDIs) for the treatment of problem gambling has been growing. This chapter reviews current directions, proposes conceptual applications, and discusses integration issues relating to the utilisation of BDIs as problem gambling treatments. A literature search and evaluation of the empirical literature for BDIs as problem gambling treatments was undertaken. To date, research has been limited to cross-sectional studies and clinical case studies and findings indicate that Buddhist-derived mindfulness practices have the potential to play an important role in ameliorating problem gambling symptomatology. However, as an adjunct to mindfulness, other Buddhist-derived practices are also of therapeutic interest including: (i) insight meditation techniques (e.g., meditation on 'emptiness') to overcome avoidance and dissociation strategies, (ii) 'antidotes' (e.g., patience, impermanence, etc.) to attenuate impulsivity and salience-related issues, (iii) loving-kindness and compassion meditation to foster positive thinking and reduce conflict, and (iv) 'middle-way' principles and 'bliss-substitution' to reduce relapse and temper withdrawal symptoms. In addition to an absence of controlled treatment studies, the successful operationalisation of BDIs as effective treatments for problem gambling may be impeded by issues such as a deficiency of suitably experienced BDI clinicians, and the poor provision by service providers of both BDIs and dedicated gambling interventions. Preliminary findings for BDIs as problem gambling treatments are promising, however, further research is required.

Introduction

"*And what, monks, is the Noble Truth of the Origin of Suffering? It is craving …*"

— Buddha, as cited in Ñanamoli & Bodhi, (2009)

According to findings of the 2010 British Gambling Prevalence Survey (BGPS), approximately 75% of adults engage in online and/or offline gambling (Wardle et al., 2011). The BGPS (*n* = 7756) also reports that just under 1% of British adults meet DSM-IV criteria for problem gambling, a statistically significant increase from the 0.6% prevalence estimate of 2007. Higher rates are reported for the US and Canada where point prevalence estimates are in the region of 2.5% (Chou & Afifi, 2011; Kessler et al., 2008). Problem gambling is highly comorbid with various substance use disorders, mood disorders, and anxiety disorders (e.g., Griffiths, Wardle, Orford, Sproston & Erens, 2010; Lorains, Cowlishaw & Thomas, 2011). Related health problems also include sleeping disorders, intestinal dysfunction, migraines, muscular pain, and other stress-related psychosomatic symptoms such as loss of appetite (Griffiths, 2004). Furthermore, problem gamblers account for up to 30% of gambling spend and are particularly at-risk for debt and bankruptcy (Orford, Wardle & Griffiths, 2013). Problem gambling is also positively correlated with domestic violence and crime, family breakups, job loss, reduced workforce productivity, and suicide (Griffiths, 2004). Problem gambling has serious medical, social, and economic implications, with the National Council on Problem Gambling estimating $6.7 billion as the cost of problem gambling to the US economy (Nance-Nash, 2011), and *GamCare* (2012) estimating £3.6 billion as the cost to the British economy.

Second-wave cognitive behavioural therapies (CBT) have consistently been regarded as the 'intervention of choice' for the treatment of problem gambling (Rickwood et al., 2010). Cognitive-behavioural approaches share a common therapeutic mechanism of undermining

maladaptive core beliefs (Wells, 1997). In effect, patients are empowered to control and modify cognitive distortions and to 'self-intervene' at the level of individual thoughts and feelings. Whilst CBT is cautiously advocated for the treatment of problem gambling, CBT does not appear to be an effective or accessible treatment for all problem gambling patients (de Lisle et al., 2012). Furthermore, relapse rates for problem gambling can be as high as 75% (Hodgins et al., 2007), and there is a scarcity of high quality CBT trials reporting long-term follow-up data (Gooding & Tarrier, 2009).

Throughout the last two decades, various Buddhist principles have been integrated into a number of third-wave cognitive behavioural approaches (Shonin et al., 2014a). Rather than a deliberate attempt to control and modify individual cognitions (i.e., the second wave CBT approaches), third wave approaches operate via a mechanism of transformative meditative awareness and perceptual re-distancing. As part of the wider increase in research assessing the psychotherapeutic utility of Buddhist-derived interventions, in recent years there has been growing scientific investigation into the potential applications of BDIs for the treatment of problem gambling. Given the relatively recent introduction of third wave treatments as applied to behavioural addictions, this chapter provides an interpretation of the behavioural addiction construct from the Buddhist philosophical perspective and a narrative review of current directions in the utilisation of BDIs as problem gambling treatments. Conceptual applications for BDIs in problem gambling (and other behavioural addiction) populations are proposed and discussed. An assessment of roll-out and integration issues is also undertaken.

Problem Gambling and Behavioural Addiction: A Buddhist Philosophical Perspective

Buddhist practice is quintessentially concerned with the everyday application of spiritual and meditative principles as a means of transforming suffering and realising the 'Buddha nature'

(Sanskrit: *sugatagarbha*) that lies within each individual (Dewey Dorge, Dudjom, Urgyen & Chokyi Nyima, 2008). Although context and terminology differ considerably between Buddhist and psychological perspectives, Buddhist teachings present an extensive coverage of the behavioural addiction construct, along with its 'aetiology', 'classification', and 'treatment'. In order to fully appreciate some of the subtleties of Buddhist thought, in addition to the two conventionally accepted categories of substance addiction and behavioural addiction, in the current chapter a third category of addiction known as 'ontological addiction' is proposed.

Ontological addiction refers to the unwillingness to relinquish an erroneous and deep-rooted belief in an inherently existing 'self' or 'I' as well as the 'impaired functionality' that arises from such a belief. Buddhist teachings contend that due to a mistaken view of self and the absolute manner in which phenomena abide, a dualistic (i.e., self and other) outlook arises (Dalai Lama, 1997). To a large extent, Buddhist philosophy is constructed around the notions of 'non-self' (Sanskrit: *anatman*) and 'emptiness' (Sanskrit: *sunyata*). According to this ontological stance, there is no inherently existing 'self' or other phenomena that arise aside from being a mental designation (i.e., a label). The *Madhyamaka* school of Mahayana Buddhism postulates that the self is an imputed construct that cannot be identified in separation from its causes and attributes, and nor can it be found within those causes and attributes whether in singular or in sum (Nagarjuna, 1995). For example, a motor vehicle cannot be said to exist: (i) in isolation from its parts, (ii) as each part individually, or (iii) as the sum of its parts (because as a collective the component parts do not cease to be component parts but are now assigned the label of 'motor vehicle).

An alternative means of understanding emptiness is according to the *Cittamatra* (mind only) perspective. The *Cittamatra* school of Buddhism asserts that much like a dream, all phenomena are of the nature of mind and arise and dissolve within the expanse of uncontrived

mind-display (Asanga, 2001). Similar analogies for the ultimate mode of abiding of phenomena are provided in sutras such as the King of Concentration Sutra (Sanskrit: *Samadhiraja sutra*) and include a mirage, an apparition, an echo, a reflection, and a magician's illusion. In other words, for the realised being, phenomena are apprehended as empty on the one hand, but with absolute clarity on the other (Dudjom, 2005).

Rather than enact a detailed study and analysis of each of the individual sub-categories of potential behavioural addiction (e.g., gambling, gaming, sex, exercise, eating, work, etc.), Buddhism is focussed more on understanding (and transforming) the root cause of all dysfunctional addictive tendencies. To a large extent, the term 'addiction' (in relation to its operationalisation in the psychological literature) can be considered to be synonymous with the Buddhist notion of 'attachment' (Sanskrit: *raga*). Unlike its conceptualisation in Western psychology where attachment (e.g., within the context of relationships) is generally understood to be an important coping strategy, attachment within Buddhism is considered to be an undesirable quality (Sahdra, Shaver, & Brown, 2011).

Thus, Buddhist teachings assert that due to the erroneous belief in an inherently existing self (i.e., ontological addiction), the 'self' begins to crave after and becomes attached to objects and experiences that it perceives as being beneficial, and has aversion towards their opposites (Chah, 2011). Attachment in this regard is considered to be functionally maladaptive because it invariably results in the creation of 'karma' which perpetuates transmigration through the cycle of birth, suffering, death, and rebirth (Sanskrit: *samsara*). In certain respects this is analogous to the concept of Game Transfer Phenomena (Ortiz, Aronnson & Griffiths, 2011) in which some frequent video game players can experience degrees of reality distortion and exhibit signs of game play during everyday activities (e.g., impulses, reflexes, intrusive thoughts, optical illusions, dissociations, etc.). However, the key difference for the person with

ontological addiction is that rather than experiencing 'fictional' game play during 'real' life, they live out what they believe to be 'real life' whilst immersed in an illusory game. In other words, the person with ontological addiction experiences reality distortion due to playing (i.e., being born into) 'samsara's game' or the 'game of life', and then becoming attached to the illusory dream-like nature of phenomena and forgetting to apprehend them as the spontaneous movements of the mind.

Continuing with this stream of Buddhist thought, behavioural addiction (in whatever guise or modality) can be regarded as the expression of the deluded mind attempting to reify the ego-self (i.e., a form of 'self-addiction'). The deluded mind believes that happiness is to be found via the gratification of mental urges. However, as the Dhammapada reports the Buddha to have said:

> "All that we are is the result of what we have thought: it is founded on our thoughts, it is made up of our thoughts. If a man speaks or acts with an impure thought, pain follows him, as the wheel follows the foot of the ox that draws the carriage... If a man speaks or acts with a pure thought, happiness follows him, like a shadow that never leaves him" (2006, p.7).

Since attachment can be considered an impure thought (due to being based on a dualistic perspective), rather than happiness it is increased craving and dissatisfaction that ensues. Thus, at the most basic level of Buddhist reasoning, the addicted gambler can be regarded as a person suffering from spiritual malnutrition who frantically yearns for happiness, but has the wrong view (Sanskrit: *mithya drishti*) in terms of discriminating between karmically wholesome and unwholesome actions.

According to this manner of conceptualising the Buddhist teachings, the actual object

of addiction becomes less important than the need to be addicted. Indeed, Buddhist philosophy does not necessarily discriminate between forms of addiction that are conventionally accepted to impair functionality (e.g., gambling addiction) and addiction to what are termed 'mundane concerns'. Mundane concerns (which in certain Western psychological contexts might actually be considered to be psychosocially adaptive) refer to a preoccupation with advancing sensory gratification, renown, career and wealth, and/or power (Buddhism does not discourage activities such as career engagement, or the enjoying of comfortable surroundings, but simply advocates non-attachment to such undertakings/experiences). From the Buddhist perspective, this preoccupation or addiction provides a comfort zone of ignorance. The mind is self-deceived and continues to chase one meaningless dreamlike experience after another, fixed in a cycle of uncontrolled rumination *ad nauseam*, and never daring to stop in order to observe itself. Indeed, certain Buddhist teachings maintain that until the mind recognises its own 'unborn' and original nature, this discursive, restless, tormented state never ceases—not even as part of the dream and between-state (Tibetan: *bardo*) consciousness (Urgyen, 2000). (The between-state consciousness refers to the consciousness and 'mental body' that become superior after death but before rebirth).

Just as certain schools of Buddhist thought maintain that beings are endowed with 'primordial enlightenment' and that liberation is simply the process of 'breaking through' layers of adventitious karmic and habitual obscuration (Sanskrit: *vasana*) (e.g., Rabjam, 2002), it can also be argued that until such awareness dawns, the mind remains in a state of 'primordial addiction'. In effect, this is a coping strategy of the ego-self that relies upon the mind remaining in an addicted state. At the most profound level, Buddhist philosophy postulates 'addiction-addiction' (i.e., addiction to addiction itself) as the primary (and primordial) aetiological factor that maintains addictive behaviour.

Meditative strategies (including the use of mindfulness) are therefore employed as a means of taking hold of and becoming aware of the deluded mind. From the Buddhist perspective, the practice of meditation can be regarded as a risk management strategy. In this respect, Buddhist philosophy makes implicit reference to what might be termed the 'life-gamble'. The 'life gamble' refers to a basic 'universal choice' in terms of whether or not to engage in spiritual practice (irrespective of any religious label). On the one hand, the life gambler can adopt a self-centred outlook and bet 'all-in' on the belief of no afterlife and of no karmic consequence to actions in this life or beyond. The alternative is for the life gambler to 'hedge their bets' and integrate spiritual practice (in whatever guise) into their life in order to cultivate spiritual wellbeing during this life, and to prepare themselves for death. According to the Buddhist standpoint, the first scenario reflects a 'high-risk low-reward' strategy because if the life gambler is wrong and 'mind-essence' continues beyond this lifetime, then there is a strong probability of mental anguish, regret, and disorientation during the death phase transition. The second scenario therefore reflects a 'low-risk high-reward' strategy because if it transpires that there is no 'existence' after death, then there will be no stream of consciousness to experience regret due to having needlessly engaged in spiritual practice. However, if it transpires that the thread of subtle-consciousness does indeed endure throughout successive lifetimes, then the life gambler not only reaps the benefit of spiritual practice during this life, but is also better prepared for experiencing the various (and otherwise petrifying) death visions, sounds, and faints with greater confidence/awareness and for continuing their spiritual journey in subsequent lifetimes (until the attainment of liberation).

Method

A comprehensive literature search using *MEDLINE, Science Direct, ISI Web of Knowledge, PsychInfo,* and *Google Scholar* electronic databases was undertaken. Reference lists of retrieved articles and review papers were also examined for any further studies. The search criteria used were 'Buddhis*', OR 'meditation', OR 'mindfulness', in combination with (AND) 'gambling', OR 'gaming'. Given the emerging nature of the research area, inclusion criteria were set as broad as possible. Eligible studies were those that: (i) assessed problem gambling related outcomes and/or relationships in clinical or healthy adult samples, and (ii) involved the study of a Buddhist-derived intervention or meditation technique. Papers were excluded from further analysis if they (i) did not include new data (e.g., a theoretical and/or descriptive review paper), (ii) were not published in refereed journals, or (iii) were not written in the English language.

Results and Current Directions

The initial literature search yielded a total of ten papers and four papers were eligible for in-depth review and assessment. The four included studies comprised two cross sectional studies and two case studies, all of which focussed on mindfulness meditation. Lakey, Cambell, Brown, and Goodie (2007) assessed interactions between gambling severity (Diagnostic Interview for Gambling Severity [Winters, Specker & Stinchfield, 2002]) and dispositional mindfulness (Mindful Attention and Awareness Scale [Brown & Ryan, 2003]) based on a sample of undergraduate students (n = 309). Participant scores indicated a range of impulse control problems, with approximately one-third of students meeting the clinical cut-off for pathological gambling. Dispositional mindfulness was shown to predict gambling severity, with higher levels of mindfulness reflecting reduced severity of gambling involvement. The

relationship was shown to be partially mediated by better performance on two decision-making tasks that measure overconfidence and risk willingness, as well as myopic focus on reward. A further cross-sectional study comprising treatment-seeking problem gamblers (n = 103) showed that mindfulness was associated with thought suppression and that the relationship was mediated by experiential avoidance (Riley, 2014).

To date, treatment studies of mindfulness approaches for problem gambling have been limited to a small number of case studies. Toneatto, Vettese, and Nguyen (2007) undertook a case study of a male "*in his sixties*" (the exact age was not reported) who demonstrated problem gambling behaviours (relating to offline roulette playing). Mindfulness practice (45 minutes daily self-practice for several weeks) was introduced as an adjunct to CBT. The participant demonstrated superior outcomes following the introduction of mindfulness practice (compared to a prior phase of standalone CBT) and reported reductions in gambling urges as well as greater awareness and regulation of gambling-related feelings and thoughts. The study was limited by the absence of any quantifiable data (i.e., pre-post and follow-up measures) and by inadequate information regarding the nature of the mindfulness training.

A more recent study by de Lisle, Dowling and Allen (2011) presented the case of a 61-year old female problem slot machine gambler (with comorbid anxiety and depression) who received MBCT. The intervention was modified for one-to-one delivery and was delivered over an eight-week period (weekly 2-hour sessions) by an accredited MBCT instructor. Booster sessions were provided four and ten weeks after completion of the course and pre-post and follow-up measures were taken for gambling frequency, gambling expenditure, and weekly gambling duration. Following completion of the programme, the participant demonstrated abstinence that was maintained at 10-week follow-up. Clinically significant reductions were also reported for depression and anxiety.

Obviously, the single case study nature of these treatment interventions considerably limits the generalisability of findings. Furthermore, it is difficult to determine to what extent improvements were due to mindfulness practice as opposed to therapeutic alliance or other therapeutic conditions (e.g., unconditional positive regard, active listening, accurate empathy, etc.) established during the one-to-one sessions.

Conceptual Directions

In addition to mindfulness approaches, a number of other empirically established BDIs may be particularly suited for the treatment of problem gambling. The proposals that follow are grounded in findings of BDI studies (from both problem gambling and other addiction/clinical population settings) whereby BDIs have been shown to moderate key components and correlates of problem and/or pathological gambling. The following headings are therefore adopted as a means of conceptually stratifying the elucidation of the hypothetical treatment applications of BDIs in problem gambling samples: (i) sensation-seeking and escapism (e.g., dissociation, avoidance, thought suppression, fantasising, etc.), (ii) salience (e.g., risk willingness, diminished self-control, impulsivity, judgement and decision-making bias, preoccupation, myopic focus on reward, etc.), (iii) conflict (e.g., guilt, self-blame, loss-chasing, negative affective states, suicidal ideations, emotional dysregulation, impaired relaxation ability, bail-out, etc.), and (iv) tolerance (e.g., increasingly larger and more frequent wagers), withdrawal (e.g., increased moodiness, irritability, etc.), and relapse.

Sensation Seeking and Escapism: Insight Meditation Techniques

Problem gambling is positively correlated with dissociative states and avoidance strategies (e.g., Wood, Gupta, Derevensky & Griffiths, 2004; Griffiths, Wood, Parke & Parke, 2006). A

qualitative study (n = 50) by Wood & Griffiths (2007a) found that fantasising and dissociation-induced mood-modification were important coping strategies employed by problem gamblers. Interestingly, problem gamblers in this study reported engaging in gambling activities as a means of 'filling the void'. Buddhism teaches that rather than escaping the 'void' via maladaptive avoidance strategies, it is actually within the 'void' (or 'emptiness') where transformative insight can be generated. Buddhist teachings assert that through regular practice, the meditator can come to realise that at the heart of 'emptiness' exists total 'fullness' and contentment (Nhat Hanh, 1992). This is because if phenomena (including the self) are void or empty of an independent self, then they arise in interdependence with, and are therefore 'full' of, all other things. Thus, with the correct meditative training and 'ontological re-perceptualising', it is hypothesised that the feeling of 'voidness' that often underlies and maintains problem gambling behaviour can actually become the 'raw material' for meditative transformation and psychotherapeutic change.

A number of recent studies indicate that Buddhist insight meditation techniques may have utility as problem gambling interventions. A qualitative study by McCormack and Griffiths (2012) demonstrated that reduced 'authenticity' and 'realism' were key inhibiting factors for online gambling. It therefore seems plausible that the partial experiencing of 'non-self' (and emptiness) by problem gamblers who receive training in insight meditation (Sanskrit: *vipasyana*) techniques, could potentially effectuate an undermining of the intrinsic value and 'authenticity' that problem gamblers assign to the gambling experience. This postulation is supported by findings from a cross-sectional study (of 511 adults and 382 students) by Sahdra et al (2010). They found that reduced attachment to 'self' begets reductions in avoidance, dissociation, alexithymia, and fatalistic outlook. The same study also found that 'non-attachment' predicted greater levels of mindfulness, acceptance, non-reactivity, self-

compassion, subjective wellbeing, and eudemonic wellbeing. Furthermore, in a small controlled trial of Meditation Awareness Training (which integrates insight meditation techniques in conjunction with trainings in mindfulness, self-discipline, and compassion meditation), a sub-clinical sample of university students' demonstrated sizeable and significant improvements compared to controls in levels of psychological distress (Van Gordon et al., 2014a).

Salience: The 'Application of Antidotes'

Impulsivity and lack of self-control are known concomitants of problem gambling (e.g., Benson, Norman & Griffiths, 2012). Conversely, high self-control is correlated with better psychological adjustment and reduced impulse control problems across a range of psychological disorders (Tangney, Baumeister & Boone, 2004). Buddhist meditation increases control over mental urges (Perelman et al., 2012) and certain Buddhist schools advocate the application of 'antidotes' as a means of regulating craving and afflictive mental states (Sanskrit: *kleshas*) (Gampopa, 1998). An example is the cultivation of patience to overcome impulsivity, frustration, and anger. High levels of patience predict various facets of adaptive psychological and interpersonal functioning (Curry, Price & Price, 2008). Furthermore, patience in the form of 'deferment of gratification' has a strong negative predictive value for pathological gambling (Parke, Griffiths & Irwing, 2004).

The application of 'antidotes' as part of Buddhist training is similar to aspects of CBT where patients are guided to replace faulty thinking patterns with more constructive cognitions (Wells, 1997). A further 'antidote' taught as part of Buddhist training is 'impermanence' (Sanskrit: *anitya*). Impermanence refers to the transient nature of phenomena and is taught and practiced to overcome attachment to mundane concerns such as wealth and sensory

gratification. Kumar (2005) contends that impermanence awareness can produce various beneficial effects due to a "*radical acceptance*" of the transitory and precious nature of human existence (p.8). Furthermore, Bien (2006) posits that regular meditative insight into impermanance can lead to reduced self-absorbtion and a greater appreciation of the present moment. It is plausable that problem gamblers who receive training in impermamance meditation techniques may exhibit reductions in myopic focus on reward (i.e., due to better understanding that all that is won must ultimately be lost), as well as reductions in salience more generally.

In a recent study of MAT, participants were trained to integrate antidote practices (including impermanence) into their meditative training. Following course completion, participants reported a greater willingness to relinquish rigid habitual behavioural patterns as well as reductions in cognitive and emotional inflexibility (Shonin et al., 2013a). Impermanence practice may also have utility for other forms of behavioural addictions such as sex addiction. In this context, secularised BDIs could draw upon Buddhist sutras such as the Mahasattipatana sutra that include detailed meditations on the 'ugliness' of the body (i.e., the body is composed of 'foul substances' such as blood, pus, vomit, phlegm, mucus, faeces, urine, sweat, etc.) and the decomposition of the body (e.g., seeing the body in its destined form as a repulsive and rotting corpse—of interest only to scavenging animals). According to Buddhist teachings, meditations of this nature can help to reduce attachment to the body (both towards one's own and others) along with any over-exaggeration of its attractive qualities (Chah, 2011).

Conflict: Self-compassion, Compassion, and 'Spiritual Nourishment'

Problem gambling is highly comorbid with negative affective states including depression, anxiety, and suicidal ideations (e.g., Lorains et al., 2011). Neuroticism, hyper-tension, an

inability to relax, and altered patterns of autonomic arousal are all associated with behavioural addiction (e.g., Mehwash & Griffiths, 2010; Sharpe, 2004). Furthermore, findings from the National Comorbidity Survey-Replication demonstrate that almost half of individuals with problem gambling behaviour (and over two-thirds with pathological gambling behaviour) experience sleep problems (Parhami, Siani, Rosenthal & Fong, 2013).

Meditative absorption reduces psychological distress, fosters inner-calm, improves sleep quality, and reduces autonomic and psychological arousal (e.g., Rungreangkulki et al., 2011; Derezotes, 2000; Sumpter et al., 2009). Buddhist-based loving-kindness meditation increases positive affect, reduces negative affect, and improves implicit and explicit positivity towards self and others (Hofmann et al., 2011). Furthermore, increased breathing awareness (a fundamental aspect of many forms of Buddhist meditation) increases prefrontal functioning and vagal nerve output along with associated reductions in heart rate (Gillespie et al., 2012).

'Conflict' as a component of problem gambling also assimilates the negative schemas of guilt and self-blame which are symptomatic of the problem gambling condition (Parke, Griffiths, & Parke, 2007). Problem gamblers are known to engage maladaptive thought suppression strategies in order to cope with these distressing feelings (Ciarrocchi, 2002). However, whilst associations between 'conflict' and problem gambling are well reported, gamblers who employ 'positive thinking strategies' (e.g., comparative thinking, prophylactic thinking, prioritisation, resourcefulness, thoughtfulness, and fear reduction, etc.) report fewer instances of guilt compared to non-positive thinking gamblers (Parke et al., 2007).

'Positive thinking' is an integral component of Buddhist meditation and is particularly emphasised in the practices of loving-kindness and compassion meditation. Compassion (Sanskrit: *karuna*) is considered by the Dalai Lama (2001) to embody the very essence of Buddhist practice, and improves the regulation of neural emotional circuitry (Lutz et al., 2008).

Self-compassion is associated with increased life satisfaction and adaptive psychological functioning (Neff et al., 2007), and outperforms mindfulness as a predictor of quality of life and symptom severity for patients with anxiety and depression (Van Dam, Sheppard, Forsyth, & Earleywine, 2011). According to Khyentse (2006), compassion and self-compassion facilitate greater meditative awareness, which corresponds to an increased ability to label and therefore modulate affective states (Gillespie et al., 2012). Thus, consistent with the growing clinical evaluation and utilisation of compassion-focussed therapies (Gilbert, 2009; Hofmann et al., 2011), self-compassion and compassion techniques may help to dismantle problem gambler's maladaptive shameful and self-disparaging schemas.

A frequently overlooked mechanism of BDIs (including mindfulness practice) is that of transformation effectuated by spiritual development. Nevertheless, a small number of BDI studies explicitly report improvements in spiritual awareness (Mackenzie et al., 2007; Roth & Stanley, 2002; Van Gordon et al., 2014a). Indeed, Buddhist philosophy is constructed on the view that stable unconditional happiness (Sanskrit: *sukkha*) can only be achieved via spiritual practice and that all forms of addiction/attachment are maladaptive 'spiritual coping strategies'. Spirituality predicts subjective wellbeing and attainment of abstinence in persons with a diagnosis of pathological gambling (Walsh, Ciarrocchi, Piedmont, & Haskins, 2007). Spirituality also exerts a protective influence over gambling frequency and spend (Hodge, Andereck, & Montoya, 2007), and it is well known that some programmes (e.g., 12-Step programmes like Gamblers Anonymous) are constructed upon spiritual principles. Thus, BDIs may help to ameliorate problem gambling symptomatology by providing spiritual nourishment to problem gamblers and by the attenuation of feelings of loneliness and low sense of purpose.

Tolerance, Withdrawal, and Relapse: 'Bliss Substitution' and 'The Middle-Way'

Up to three-quarters of problem gamblers relapse after a period of abstinence following treatment (Hodgins et al., 2007). Problem gamblers typically evince greater levels of tolerance, and place increasingly higher wagers to derive the same euphoric effect (Griffiths, 1996). A number of Buddhist principles employed by Marlatt (2002) for the treatment of substance addiction may also have utility for the treatment of problem gambling. Marlatt (2002) utilised Buddhist 'middle-way' philosophy that discourages the behavioural extremes of both over-indulgence and total abstinence. Whilst problem gambling treatments tend to be abstinence orientated (Walsh et al., 2007), 'controlled gambling' can exert a strong preventative influence over relapse and lead to continued improvements in levels of arousal, anxiety, and depression (Blaszczynski, McConaghy, & Frankoya, 1991).

From the Buddhist middle-way perspective, total abstinence can still be considered a behavioural extreme because rather than being transformed, it could be argued that underlying 'attachments' and resultant mental urges are merely supressed by avoiding stimuli (e.g., gambling venues, online gaming sites, etc.) that induce arousal. Comparable to thought suppression which can actually increase the frequency and intensity of mental urges (de Lisle et al., 2011), abstinence-related 'behavioural suppression' could mean that addictive tendencies remain latent within the individual with a strong likelihood of resurfacing (i.e., relapse) at a future time point. High rates of relapse in problem gamblers appear to support such a proposition. Furthermore, although the Buddhist middle-way approach seems to advocate control over abstinence, it is important to clarify that 'control' in this sense arises from therapeutic targeting at the level of underlying 'core-beliefs' and attachments to self (i.e., ontological addiction), rather than at the symptom-level of promoting the suppression and/or selective indulging of gambling impulses.

Other aspects of Buddhist practice with potential utility for reducing relapse and tempering withdrawal symptoms relate to the use of substitution techniques. Substitution techniques are already used in problem gambling interventions and (for example) include recreational and social task-engagement to help moderate the risk of relapse (Jackson, Francis, Byrne, & Christensen, 2012). 'Bliss' is frequently referred to in the Buddhist literature as an outcome of certain concentrative forms of meditation (e.g., Khyentse, 2007). Based on the work of Glasser (1976), Griffiths (1996) notes that meditation can be viewed as a positive addiction and it is feasible that 'bliss substitution' could be used adjunctively with middle-way techniques to maximise the maintenance of beneficial outcomes in problem gamblers who undergo treatment using BDIs.

Integration and Roll-Out Issues

Factors that may impede the successful integration of BDIs as treatments for problem gambling relate to the transcultural difficulties of assimilating Eastern techniques into Western culture. Of particular bearing is the competence and training of clinicians and facilitators of BDIs who may not have the experience to impart an embodied 'authentic' transmission of the subtler aspects of meditation practice (Shonin et al., 2013a). A further issue is the relative reluctance of Westerners to partake in introspective or contemplative practice, as well as a reticence to engage in practices of religious descent (Shonin et al., 2013c). However, working in its favour is the fact that relative to some religions, Buddhism appears to be less worship or tenet-driven and seems to be more accurately described as a philosophy or system of fluid ideas (Van Gordon et al., 2014a).

Although there is growing evidence for the clinical utility of compassion meditation, the risk of 'compassion-fatigue' (Yoder, 2010) should not be over-looked. For this reason, prior

to engendering a more compassionate outlook, Buddhist practitioners first (or concurrently) train in cultivating emotional stability within themselves (Khyentse, 2007). Similar issues arise from the therapeutic utilisation of the Buddhist concepts of non-self, emptiness, and impermanence that are subtle, complex, and somewhat tangential to conventional Western thought. Rather than a more data-driven or academic understanding, Buddhism emphasises the need for 'intuitive understanding' or realisation as the product of regular meditation practice sustained over many years (or decades) (Shonin et al., 2013a). There are therefore risks associated with constructs such as non-self (Michalon, 2001) that if misunderstood (or incorrectly taught), could easily accentuate any avoidance/escapism strategies or give rise to defeatist, nihilistic, and/or psychosocially maladaptive beliefs (see Chapter 2 for a more detailed discussion of this issue). Due to the subtlety of such teachings, additional care may be required prior to considering such techniques as viable treatment options for problem gamblers with severe reality-distortion complexes and/or cognitive impairment.

There are also implementation issues that relate to the inadequate provision of both problem gambling interventions and BDIs by service providers. For example, only 3% of the 327 Primary Care Trusts, Foundation Trusts, and Mental Health Trusts in the United Kingdom actually provide a service (specialist or otherwise) for treating people with gambling problems (Rigbye & Griffiths, 2011). Likewise, only 20% of general practitioners report being able to access mindfulness-based interventions for their patients (MHF, 2010). The poor availability of dedicated treatments for problem gambling is likely to be one reason (amongst many others) why problem gamblers often resort to online therapies. Although there are various issues associated with online therapies for problem gambling (Griffiths & Cooper, 2003), there is some evidence that supports their effectiveness (Monaghan & Blaszczynski, 2009; Wood & Griffiths, 2007b). Furthermore, the relative cost-effectiveness of online approaches makes

them attractive to service providers (Griffiths & Cooper, 2003). Consistent with the growing popularity and operationalisation of internet-based interventions, mindfulness training is now also available in online formats (e.g., Gluck & Maercker, 2011) and may prove to be an acceptable intervention for problem gamblers who prefer to avoid traditional face-to-face therapeutic modalities.

Conclusion

In the last five years, there has been growing scientific interest into the potential applications of BDIs for the treatment of problem gambling. Research has primarily focussed on mindfulness approaches that operate via a mechanism of 'urge surfing' and the non-reactive present-moment awareness of mental urges. Although it appears that mindfulness can play an important role in ameliorating problem gambling symptomatology, findings are limited to a small number of cross-sectional studies and clinical case studies. As an adjunct to mindfulness, other Buddhist-based practices may also be particularly suited for the treatment of problem gambling. These include (i) insight meditation techniques (e.g., meditations on 'emptiness') to overcome avoidance and dissociation strategies, (ii) 'antidotes' (e.g., patience, impermanence, etc.) to attenuate impulsivity and salience-related issues, (iii) loving-kindness and compassion meditation to foster positive thinking and reduce conflict, and (iv) 'middle-way' principles and 'bliss-substitution' to reduce relapse and temper withdrawal symptoms. Consistent with recommendations to adopt an eclectic approach to studying addictive processes (Griffiths, 2005), BDIs may also have application for the treatment of other forms of behavioural addiction (e.g., gaming addiction, sex addiction, exercise addiction, game addiction, etc.). However, in addition to an absence of large scale controlled treatment studies, a number of other factors may impede the successful operationalisation of BDIs as effective treatments for

problem gambling and other forms of behavioural addiction. Of particular note are issues relating to the competence and experience of BDI clinicians and facilitators as well as the poor provision by service providers of both BDIs and dedicated problem gambling interventions. Preliminary findings for BDIs as problem gambling treatments are promising, however, further research is required.

Chapter 11

Mindfulness and the Social Media

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Abstract

Recent decades have witnessed a significant increase in the number of people engaging in and using social media. Research demonstrates that social media engagement can be life enriching and enhance communication skills, creativity, social connectedness, knowledge acquisition, and technical proficiency. However, despite these possible benefits, excessive social media usage in a minority of individuals can also incur serious negative psychosocial consequences including behavioural addiction, relationship breakdown, academic drop-out, escapism, cyberbullying and cyberharassment, sleep deprivation, and psychopathology. The attentional strategy employed when using social media is understood to be a key determinant of whether such usage becomes life enriching or life impoverishing. This chapter explores the potential applications of mindfulness as part of the ongoing assimilation of social media by users from increasingly diverse sectors of society.

Introduction

Recent decades have witnessed a significant increase in the number of people engaging in and using social media. For instance, almost three-quarters of adult internet users (73%) now use at least one social media site and 42% use multiple social media sites (e.g., *Facebook, Myspace, LinkedIn, Pinterest, Twitter, Instagram,* etc.) (Duggan & Smith, 2014). Additionally, approximately 50% of adolescents use social media sites more than once per day, and 22% log on to social media sites more than ten times per day (O'Keeffe, Clarke-Pearson, & Council on Communications and Media, 2011). Research demonstrates that social media engagement can be life enriching and enhance communication skills, creativity, social connectedness (including in offline social networks), knowledge acquisition, and technical proficiency (Ito, Horst, & Bittani, 2008). However, despite these possible benefits, excessive social media usage in a minority of individuals can also incur serious negative psychosocial consequences including (but not limited to) (i) addiction (e.g., to a specific social media site, to social networking more generally, to the internet, and/or to a fixed or portable internet device), (ii) relationship breakdown, (iii) academic drop-out and underachievement, (iv) escapism and avoidance, (v) cyberbullying and cyberharassment, (vi) dissemination of untrustworthy information, (vii) sleep deprivation, and (viii) psychopathology (Griffiths, 2013; Kuss & Griffiths, 2011; O'Keeffe et al., 2011).

Known factors that affect how social media influences an individual's wellbeing and behaviour include (for example) frequency and duration of social media usage, motivation underlying use, age, personality type, psychiatric history, and the structural characteristics of the social media software (Griffiths, 2000, 2013; Griffiths, Kuss, & Demetrovics 2014; Kuss & Griffiths, 2011). However, consistent with the findings of research investigating the role of metacognitive awareness on task engagement and psychosocial functioning, the attentional

strategy employed when using social media is arguably a key determinant of whether such usage becomes life enriching or life impoverishing. The attention-based phenomenon of mindfulness is of particular interest in this regard. This chapter assesses the potential applications of mindfulness as part of the ongoing assimilation of social media by users from increasingly diverse sectors of society.

Mindfulness for Adaptive Social Media Engagement

As already indicated above, there are numerous potential adverse effects that have been associated with excessive social media usage. However, the most commonly reported negative consequences arguably include (i) excessive/problematic use and addiction, (ii) anti-social and/or illegal behaviour (e.g., cyber-bullying, cyberharassment, sexting, etc.), and (iii) psychopathology (Griffiths, 2013; Kuss & Griffiths, 2011; O'Keefe et al., 2011). The following section briefly addresses each of these individual areas of concern and provides an evidence-based discussion of how mindfulness may be able to regulate potentially maladaptive social media usage.

Addiction

Although Internet Use Disorder was not included in the main text of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Illness* (i.e., the DSM-5), it was included in Section 3 ['Emerging Measures and Models'] indicating that online addictions (such as social media addiction, online gaming addiction, etc.) may be a valid construct for some excessive users. For example, prevalence estimates of internet addiction in adolescents vary considerably but are typically in the order of 5-18% (Wallace, 2014). Of course, social media addiction is only one possible variant of addictions on and/or to the internet (i.e., in

addition to online gambling addiction, online shopping addiction, computer game addiction, web surfing addiction, cyber-sexual addiction, etc.) and there are few reliable estimates of the proportion of individuals exhibiting internet addiction symptomatology that are exclusively addicted to social media (Kuss & Griffiths, 2011). Nevertheless, emerging evidence indicates that social media addiction can incur serious negative health consequences among a minority of users and is likely to increase in prevalence as increasingly more individuals frequent social media sites (Griffiths 2000, 2013; Kuss & Griffiths, 2011; O'Keefe et al., 2011).

Although there are few (if any) empirical studies specifically investigating the role of mindfulness in the prevention and treatment of social media addiction, it is plausible to assume that mindfulness techniques with demonstrable efficacy in the treatment of other forms of internet addiction (i.e., online gambling addiction) are likely to have utility in reducing problematic or pathological social media engagement. Indeed, based on the components model of addiction (Griffiths, 2005) the following addiction criteria are believed to occur in all forms of behavioural addiction (including social media addiction) irrespective of addiction type: (i) salience (i.e., cognitive, behavioural, and emotional preoccupation with social media usage), (ii) mood modification (i.e., social media engagement leads to a favourable change in emotional states), (iii) tolerance (i.e., ever increasing usage of social media over time), (iv) withdrawal (i.e., experiencing unpleasant physical and emotional symptoms when social media use is restricted or stopped), (v) conflict (i.e., psychological and interpersonal problems ensue because of social media usage), and (vi) relapse (i.e., individuals quickly revert back to excessive social media engagement following a period of abstinence) (Griffiths, 2013).

Despite these underlying similarities between different classes of behavioural addiction, an important clinical implication concerning social media addiction is that unlike most other forms of addiction, treatment outcomes for social media addiction cannot

realistically be focussed on total abstinence but must be orientated towards control (as trying not to access the internet in contemporary society is almost impossible) (Kuss & Griffiths, 2011). Recently, in addition to specifically highlighting the likely utility of mindfulness as a control-based treatment for social media addiction (Shonin et al., 2014a), the present author conducted a review and assessment of the particular mechanisms by which mindfulness targets each of the above outlined behavioural addiction components (Shonin et al., 2013b). Of particular mechanistic importance in this respect, is the increase in perceptual distance from sensory and cognitive-affective stimuli that is a commonly experienced outcome of mindfulness practice (Van Gordon, Shonin, Zangeneh, Griffiths, 2014b). By objectifying their cognitive and affective processes in this manner, individuals addicted to social media are better able to regulate habitual compulsive responses and adopt an observatory, non-judgmental, and non-reactive attentional-set towards mental urges (known as 'urge surfing) (Shonin et al., 2014a). Consequently, mindfulness facilitates reductions in impulsivity and salience due to individuals' understanding that their cravings are transient phenomena and are without inherent worth (Shonin et al., 2014a). Given the difficulties that online users face in creating distance from social media (e.g., due to constant audible activity alerts and notifications via their mobile phone, tablet, laptop, and/or personal computer), this ability to simply observe and not immediately react to both sensory (e.g., audible notification) and psychological (e.g., mental urges) stimuli is likely to be a particularly pertinent outcome of mindfulness practice in terms of its application as a social media addiction treatment.

Other important mechanisms of action by which mindfulness may modulate the symptoms of social media addiction include: (i) reductions in relapse and withdrawal symptoms via substituting addiction to social media with a 'positive addiction' to mindfulness/meditation (particularly the 'tranquil' states associated with certain concentrative

meditation practices) (Shonin et al., 2014a), (ii) reductions in salience and sensation-seeking by undermining the 'authenticity' that individuals assign to their involvement with social media (i.e., due to a better understanding of the 'impermanent' nature of phenomena and a re-evaluation of life priorities) (Shonin et al., 2013b), and (iii) increased patience that leads to an improved capacity to defer gratification and a reduced need to be constantly 'plugged-in' (Shonin et al., 2014).

Antisocial and Illegal Behaviour

There appears to be consensus in the scientific literature that online antisocial and illegal behaviour (e.g., cyberbullying, cyberharrassment, privacy issues, sexting, etc.) are a means by which certain users abuse social media sites to the detriment of all. Adolescent user groups are frequently implicated in this respect (O'Keefe, 2011), although such issues and behaviour are certainly not limited to non-adult populations.

Qualitative findings investigating participant experiences of MAT suggest that mindfulness (and related Buddhist-derived meditative techniques) leads to a greater awareness not only of the emotions and suffering of the participant, but also the emotions and suffering of others (Shonin et al., 2013a). Accordingly, mindfulness is associated with increases in self-compassion and compassion as well as improvements in citizenship, pro-social behaviour, and generosity (Shonin et al., 2014b). Furthermore, concepts such as 'interconnectedness' are often integrated into the curriculum for mindfulness interventions (and in particular second-generation MBIs) and there is evidence suggesting that awareness of the consequences of thoughts, words, and actions increases in line with mindfulness competency (Shonin et al., 2014b). Thus, mindfulness, which has been shown to be an acceptable intervention for multiple age groups (including adolescents), may encourage 'offending' individuals to refrain from

antisocial and illegal behaviour on social media sites and take greater responsibility for the content of their online output. A recent *Mindfulness in Practice* article published in the academic journal *Mindfulness* explains this principle further:

> "Each of our thoughts, words, and actions dictate who we are now and who we will be in the future. Those same thoughts, words, and deeds also influence who others will be in the future. Therefore, the next time you write something or create a product for other people's minds, perhaps you might like to consider how your 'mental food' will affect the wellbeing of the consumers. It should be reasonably easy to tell where somebody is writing with awareness because their words should be easily absorbed and should be alive with wisdom. Such words should effortlessly fly off the page and speak directly to your heart. Reading mindful words should leave us feeling spiritually nourished, calmer, and with a clearer perspective. Mindful words should help us to stop and be, to let go a little, and to feel bathed and refreshed by that person's compassion and awareness. Mindful words should help us to remember that we came into this world all alone, and that at some uncertain point, we will certainly have to leave this world all alone. … Perhaps we could say that words written with mindfulness provide us with all five of our spiritual five a day" (Shonin & Van Gordon, 2014c, p. 346).

Obviously, mindfulness should not be seen as a fix-all solution to antisocial behaviour on social media sites because the effective development of mindfulness requires a significant commitment on behalf of the participant (and it is probably safe to assume that there are a considerable number of users that would not consider mindfulness to be an attractive option). However, findings from a recent nationally representative survey of British adults demonstrate

that mindfulness is growing in popularity amongst the general public and that 86% of people believe that being mindful of the present moment can improve their health and happiness (Mental Health Foundation, 2010). Thus, it is not unreasonable to assert that there may be an important role for mindfulness as part of initiatives seeking to operationalise social media sites as portals for life-enrichment and more responsible cyber-interaction.

Psychopathology

Whether in relation to addiction or antisocial behaviour, or as isolated consequences, psychopathology and psychological issues are associated with problematic social media engagement. More specifically, research has correlated excessive social media usage with: (i) low self-esteem (e.g., due to receiving negative feedback from peers and/or anonymous third parties), (ii) asociality (e.g., increased physical isolation from family and peers), (iii) dysfunctional coping (e.g., escapism and avoidance), and (iv) dysphoric mood states (e.g., depression including so-called 'Facebook depression') (Griffiths et al., 2014; Kuss & Griffiths, 2011; O'Keefe, 2011)

There already exists a credible body of evidence indicating that mindfulness is effective for treating mood disorders and negative affective states (see Chapters 2 and 4 for a more in-depth discussion). Key mechanisms of action underlying the salutary treatment effects of mindfulness on mood disorders (and on psychopathology more generally) include: (i) a growth in spiritual awareness that broadens perspective and buffers against loneliness and low self-esteem (Shonin et al., 2014), (ii) transference of the locus of control for stress from external conditions to internal metacognitive and attentional resources (Van Gordon et al., 2014b), (iii) the modulation of shameful and self-disparaging schemas via the cultivation of self-compassion (Shonin et al., 2014b), (iv) reduced autonomic and psychological arousal via

conscious-breathing (Shonin et al., 2013c), and (v) a greater ability to label and therefore modulate faulty thinking patterns (Shonin et al., 2013a).

Conclusions

Recent years have witnessed a significant increase in the use of social media and many individuals derive both short- and long-term benefits from their social networking activity. However, the increasing ease at which technology allows (or encourages) access to social media means that a small minority of individuals appear to experience difficulty in moderating their online usage. Accordingly, excessive social media engagement is associated with a variety of maladaptive psychosocial outcomes, and there is a need for novel strategies that can ameliorate such deleterious effects. Emerging clinical evidence suggests that mindfulness may be an effective response in this respect, and it appears that public interest and awareness of mindfulness are also increasing. However, there is clearly a need for research specifically exploring the role of mindfulness in the prevention and treatment of maladaptive social media usage. This is in addition to the need for more methodologically robust research exploring the prevalence, aetiology, and correlates of maladaptive social media behaviour more generally.

Chapter 12

The Treatment of Workaholism with Meditation Awareness Training: A Case Study

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Abstract

There is growing consensus that workaholism is a *bone fide* behavioural addiction that exists at the extreme end of the work-engagement continuum. Specific consequences of workaholism include burnout, work compulsion, work-family conflict, impaired productivity, asociality, and psychological/somatic illness. Recent decades have witnessed a marked increase in research investigating the aetiology, typology, symptoms, prevalence, and correlates of workaholism. However, despite increasing prevalence rates for workaholism, there is a paucity of workaholism treatment studies. Indeed, guidelines for the treatment of workaholism tend to be based on either theoretical proposals or on anecdotal reports elicited during clinical practice. Thus, there is a need to establish novel and effective treatments for workaholism. The purpose of this chapter is to conduct the first clinical case study of a treatment employing a meditation-based recovery model for a workaholic.

Introduction

"When I'm working, I know who I am, and I know what I'm doing. I'm very good at what I do. But I can't switch off. I'm hurting the people I love, and I'm hurting myself"

— 'Steve' (Case Participant)

The prevalence of workaholism in Western populations is approximately 10%, although estimates vary considerably according to how 'workaholism' is defined (Sussman, Lisha, & Griffiths, 2011). There is growing consensus that workaholism is a *bone fide* behavioural addiction that exists at the extreme end of the work-engagement continuum and causes similar negative consequences to other behavioural addictions such as salience, conflict, tolerance, withdrawal symptoms, and mood modification (Griffiths & Karanika-Murray, 2012). Other more specific consequences include burnout, work compulsion, work-family conflict, impaired productivity, asociality, and psychological/somatic illness (Sussman, 2012).

Recent decades have witnessed a marked increase in research investigating the aetiology, typology, symptoms, prevalence, and correlates of workaholism. However, despite increasing prevalence rates for workaholism, there is a paucity of workaholism treatment studies. Indeed, guidelines for the treatment of workaholism tend to be based on either theoretical proposals (Sussman, 2012) or on anecdotal reports elicited during clinical practice (Robinson, 1998).

Thus, there is a need to establish dedicated and effective treatments for workaholism. A novel broad-application interventional approach receiving increasing attention by occupational and healthcare stakeholders is that of third-wave cognitive behavioural therapies (CBTs) (Shonin et al., 2013b). Third-wave CBTs integrate aspects of Eastern philosophy and typically employ a meditation-based recovery model. A primary treatment mechanism of these

techniques involves the regulation of psychological and autonomic arousal by increasing perceptual distance from faulty thoughts and mental urges (Shonin, Van Gordon, & Griffiths, 2013e). A 'meditative anchor', such as observing the breath, is typically used to aid concentration and to help maintain an open-awareness of present moment sensory and cognitive-affective experience. The purpose of this case study was to conduct the first evaluation of a treatment employing a meditation-based recovery model for a workaholic.

Case Report

Case Background

'Steve' (a pseudonym) is a director in a Blue Chip technology company. Immediately after graduating from a 'red-brick' university, Steve secured a job on a fast-track graduate training scheme. His rate of career progression was rapid and in his early thirties he was appointed to a senior management position. Now in his late thirties, hierarchically speaking, Steve is only "*two promotions away from a board-level position*". His gross annual earnings are approximately $125,000 (£80,000). Steve has a fiancé and has been married on two prior occassions (but is without dependants). Almost all of Steve's social engagements are work-related (e.g., entertaining clients/networking). He typically works in excess of 65 hours/week. Steve normally uses only 50% of his annual holiday allowance and frequently works at weekends.

Presenting complaints: Steve presented with the following complaints: (i) feeling "*worn-out but geared-up*", (ii) non-restorative sleep, (iii) frequent migraines, (iv) feeling irritable when not working, (v) work-related sensation-seeking (e.g., obsessing over winning high-value contracts), (vi) dysphoric mood episodes, (vii) work-family conflict, and (viii) impaired

concentration. Steve's medical history was without prior complaint of mental health issues.

Behavioural Observations

At his initial consultation, Steve was well presented, and his communication was clear (i.e., commensurate with his professional standing). However, when discussing future life goals, Steve's feet became restless and he would dissociate slightly. This suggested a deficiency in life purpose that was affirmed by verbal assertions such as "*there's a massive hole in my life*". Steve's interest-levels increased whenever the topic of salary was raised, and he frequently remarked that "*I'm a top earner for my age*".

Treatment

Meditation Awareness Training (MAT) (Shonin et al., 2013b; Van Gordon et al., 2014a) is an eight-week secular intervention that can be delivered in group or one-to-one format. Existent mindfulness-based therapies tend to teach mindfulness 'out of context' and in isolation of enabling meditative agents (Van Gordon et al., 2014a). To overcome this limitation, MAT follows a more traditional and comprehensive approach to meditation. Although mindfulness is an integral component of MAT, it is not the exclusive focus. In addition to mindfulness, MAT incorporates meditation techniques that are specifically intended to engender: (i) citizenship, (ii) perceptive clarity, (iii) ethical and compassionate awareness, (iv) meditative insight (e.g., into subtle concepts such as non-self and impermanence), (v) patience, (vi) generosity (e.g., of one's time and energy), and (vii) perspective. Participants of MAT receive a programme booklet and a CD comprising guided meditations in order to facilitate daily self-practice. Steve attended eight 90-minute MAT sessions (one per week) and each session comprised three distinct phases: (i) discussion with the therapist (40 minutes), (ii) a psycho-

education/taught component (25 minutes), and (iii) a guided meditation and/or mindfulness exercise (25 minutes). A short break (5-10 minutes) is always scheduled immediately prior to the guided meditation.

The 40-minute therapist discussion component is orientated towards discussing the participant's progress or problems with the meditation training. However, rather than prescribe participants with a fixed set of answers, the therapist's role during the discussion component is more one of aiding a process of 'guided discovery' (Wells, 1997). Consistent with a traditional (Buddhist) approach to meditation instruction, the objective here is to elicit a co-produced form of insight that can be shared by therapist and participant alike (Shonin et al., 2013a; Van Gordon et al., 2014a). Thus, although the one-to-one dialogues are conducted according to meditational theory and principles, they nevertheless exert a therapeutic effect and inherently integrate many of the conditions employed during contemporary psychotherapeutic modes (e.g., conditions of active listening, unconditional positive regard, accurate empathy, genuineness, and congruence, etc.) (Wells, 1997).

A further unique attribute of MAT is that participants are not assigned a specific amount of daily meditation practice time. Rather, participants are encouraged to adopt a dynamic meditation routine and are guided on an individual basis to find the optimum frequency and duration of meditation sessions. The purpose of this is to avoid separations being formed between meditation during formal sitting sessions and practising meditation (or mindfulness) whilst engaging in daily tasks and activities (Shonin et al., 2013a). In this manner, participants are less likely to become dependent on a fixed routine of formal seated meditation sessions and are thus able to conduct their practice in a manner that is adaptive to the demands of contemporary work and living environments.

Steve's treatment was administered by the present author (an experienced

psychotherapist and meditation teacher). The initial sessions focussed on establishing therapeutic alliance and on familiarising Steve with meditation principles/theory. Mindfulness techniques were introduced early on in order to build meditative concentration and awareness, and to acquaint Steve with the idea of non-reactivity to compulsive urges and maladaptive thoughts. As Steve's proficiency in mindfulness increased, more advanced meditation techniques were introduced. For example, from week four onwards, Steve was instructed to conclude each meditation session with a period of 'insight meditation'. Insight meditation techniques have been shown to instil a greater awareness of impermanence, and to undermine deep-rooted attachments to the 'ego-self' (known as ontological addiction) (Shonin et al., 2013b).

Outcomes

Steve was assessed against outcomes of (i) workaholism (Bergen Work Addiction Scale; Andreassen, Griffiths, Hetland, & Pallesen, 2012), (ii) sleep quality (Pittsburgh Sleep Quality Index; Buysse, Reynolds, Monk, Berman, & Kupfer, 1989), (iii) psychological distress (Depression, Anxiety, and Stress Scale; Lovibond & Lovibond 1995), (iv) work duration (hours per week—diary keeping), (v) work involvement during non-work hours (hours per week—diary keeping), and (vi) job performance (client account-handling satisfaction ratings). Measures were taken at baseline, therapy termination, and three-month follow-up.

Steve demonstrated significant improvements across all outcomes that were maintained at follow-up (Figure 12.1). In week eight, Steve remarked "*meditation centres the mind and helps you see more angles…but it also helps you see the human in people*".

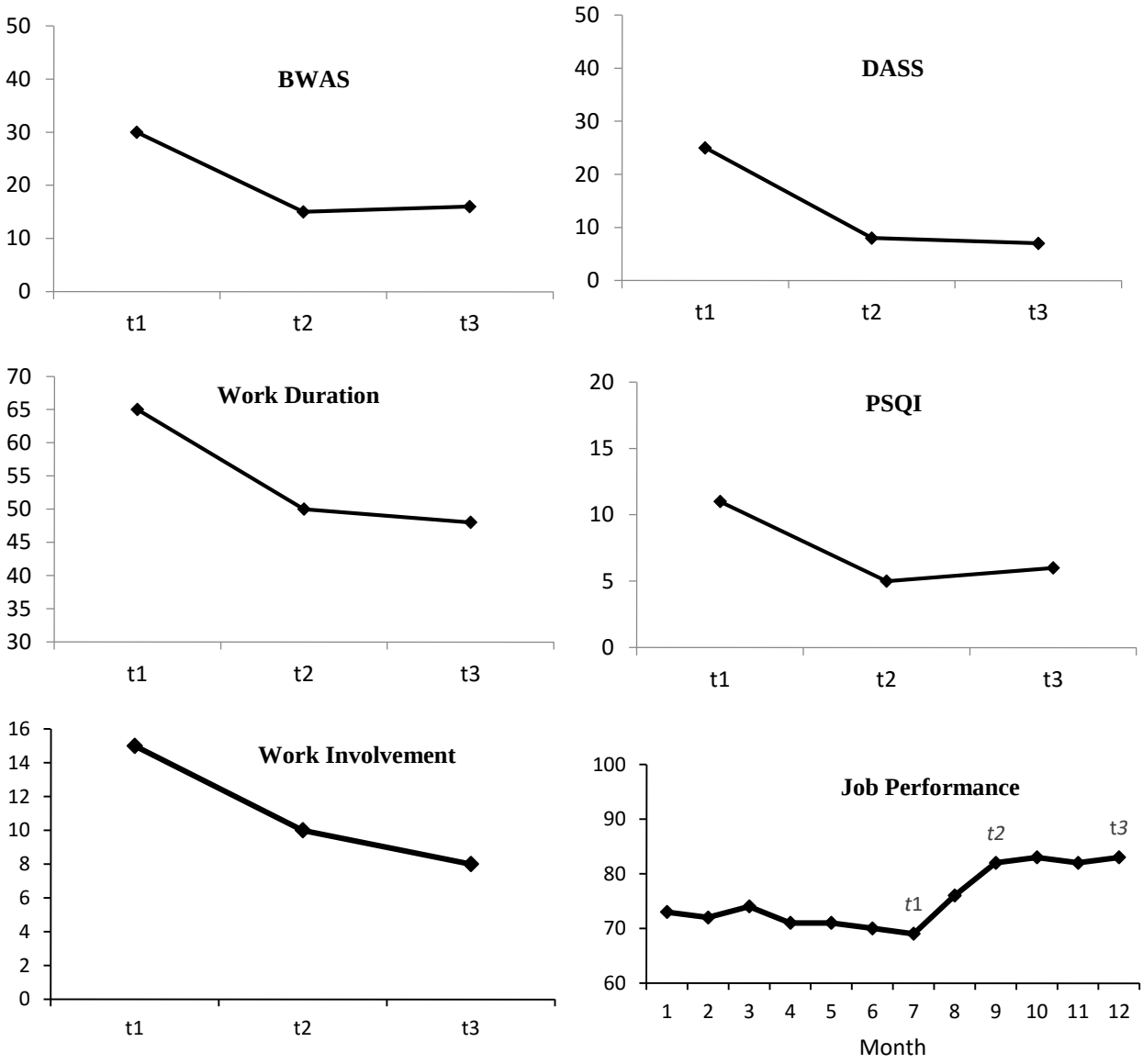

Figure 12.1 Change in outcome variable scores over time: Baseline (*t*1), Therapy Termination (*t*2), three-month follow-up (*t*3). BWAS, Bergan Work Addiction Scale; DASS, Depression, Anxiety and Stress Scale; PSQI, Pittsburgh Sleep Quality Index. Work Duration—average hours worked per week during the previous four weeks. Work Involvement—average hours worked per week during non-work hours for the previous four weeks. Job Performance—average monthly client-assessed account-handling satisfaction score (%) for the participant's ten highest value accounts.

Discussion

This chapter illustrated the case of an adult male who was successfully treated for workaholism utilising MAT. Findings also demonstrated pre-post improvements in psychological distress and job performance. Qualitative feedback suggested that the intervention was occupationally and spiritually enriching. Meditation is a non-invasive practice that can be applied 'on-the-job'. For senior-level workaholics in particular, this approach may be more realistic and cost-effective vis-à-vis treatments that require a dilution of responsibilities or segregation from the work-environment. Consistent with findings from studies of MAT involving sub-clinical populations (e.g., Shonin et al., 2013b), insight meditation techniques appeared to broaden perspective and induce a re-evaluation of life priorities. Although superficially this may appear to contraindicate job performance, a more balanced level of organisational identification is likely to be psychosocially (and commercially) adaptive. Goal-orientated versus present-moment (i.e., mindfulness-based) working styles appear to involve competing attentional resources. However, findings from the current study suggest that mindfulness may facilitate goal attainment. Although the single-participant nature of this study limits the generalisability of findings, further research is warranted to evaluate the effectiveness of MAT as a treatment for workaholism, and for its utility to improve work-related wellbeing and performance more generally.

SECTION C

CONTRIBUTION TO PRACTICE:

GUIDELINES FOR THE EFFECTIVE TEACHING AND PRACTICE OF BUDDHIST TECHNIQUES IN APPLIED PSYCHOLOGICAL SETTINGS

Chapter 13

Practical Tips for Using Mindfulness in General Practice

This chapter (whether in full or in part) was adapted for publication and was subsequently published as:

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Abstract

In a recent *British Journal of General Practice* viewpoint article, the present author discussed how both general practitioners and their patients have recently become more open to the prospect of using mindfulness meditation as a mainstream medical intervention. Following on from the abovementioned paper, this chapter provides seven practical tips for the effective use of mindfulness techniques in the general practice setting.

Introduction

In a recent *British Journal of General Practice* viewpoint article (Shonin et al., 2013e), the present author discussed how both general practitioners (GPs) and their patients have recently become more open to the prospect of using mindfulness meditation as a mainstream medical intervention. Following on from the abovementioned paper, in this chapter, seven practical tips for the effective use of mindfulness techniques in a general practice setting are provided:

1. *Use meditative anchors:* The majority of clinically-focussed mindfulness programmes begin by instructing patients how to use a meditative anchor. The most commonly taught meditative anchor is that of observing one's breath. Full awareness of the in-breath and out-breath helps patients to 'tie their mind' to the present moment and to regulate thought rumination. For patients with concentration deficits, instructing them to count their breath (i.e., from one to ten and then back down to one) is normally beneficial. Similarly, some patients find it easier if they are guided using simple and gently spoken phrases such as "*breathing in, I am fully aware of my in-breath*" and "*breathing out, I am fully aware of my out-breath*". Other examples are "*breathing in, I am here; breathing out, I am now*" and "*breathing in, there is nowhere I need to be; breathing out, I am already home*".

2. *Don't force the breath:* When using breath awareness as a meditative anchor, it is important to discourage patients from forcing their breathing. In other words, the breath should be allowed to follow its natural course and to calm and deepen of its own accord (Shonin, Van Gordon, & Griffiths, 2013f).

3. *Adopt an appropriate meditation posture:* Although the focus of mindfulness practice should be directed towards its maintenance during everyday activities, formal daily seated-meditation sessions are an essential aspect of mindfulness training. However, rather than sitting in meditation for hours on end and making the practice into an endurance exercise, shorter sessions of between five and fifteen minutes are far more effective at the beginning stages. As part of seated meditation practice, a good physical posture helps to facilitate the cultivation of a good mental posture. The most important aspect of the meditation posture is stability and this can be achieved whether sitting upright on a chair or on a meditation cushion. In the eight-week secular mindfulness intervention known as Meditation Awareness Training, the analogy used to explain the most appropriate posture for meditation is that of a mountain; a mountain has a definite presence, it is upright and stable but it is also without tension and does not have to strain to maintain its posture—it is relaxed, content, and deeply-rooted in the earth (Shonin et al, 2013f).

4. *Use mindfulness reminders:* 'Mindfulness reminders' are a strategy for maintaining mindful awareness during everyday activities. An example of a mindfulness reminder is an hour chime (e.g., from a wrist-watch or computer), that, upon sounding, can be used as a trigger by the patient to gently return their awareness to the present moment and to the natural flow of their breathing (Shonin et al. 2013f). Some individuals prefer a less sensory reminder such as a simple acronym. For example, in the aforementioned MAT programme, participants are taught to use a three-step SOS technique to facilitate recovery of meditative concentration by 'sending out an SOS' at the point when intrusive thoughts arise (Figure 13.1).

Sending out an SOS

1. **S**top
2. **O**bserve the breath
3. **S**tep-back and watch the mind

Figure 13.1 Sending out an SOS

5. *Practice what you preach:* According to Epstein, "*mindfulness is integral to the professional competence of physicians"* (Epstein, 1999, p.833). Accordingly, findings demonstrate that patients place importance on the extent to which the clinician's own thoughts, words, and actions are infused with mindful awareness (Van Gordon et al., 2014a). A clinician who is 'well-soaked' in meditation naturally exerts a reassuring presence that helps patients to relax and connect with their own capacity for cultivating meditative stability. Thus, if a person is going to instruct others on how to practice mindfulness correctly, then it is essential that they do so from an experiential standpoint. From the GP's perspective, maintaining a regular practice of mindfulness does not have to encroach into busy work schedules. In fact, rather than 'taking time out', mindfulness practice really begins when a person gets up from their meditation cushion (or chair) and continues with work and daily tasks. So the practice of mindfulness is less about finding the time to practice, and more about simply remembering to engage a mindful attention-set during whatever activity one happens to be engaged in. For example, as you read this article, are you fully aware of your breathing? Can you feel your lungs as they rise and fall with each breath in and out? Can you feel the weight of your body on the chair you are sitting on? Do you know how

you are sitting—is your posture that of somebody who is awake and fully participating in the world or are you slumped right back in your chair? Are you fully present as you read this or is your mind already jumping to whatever you will be doing next? In short, are you fully aware of each precious moment of your life as it passes you by?

6. *Integrate mindfulness into everyday life*: Although it is undoubtedly beneficial for patients to meet with the mindfulness instructor regularly, emphasis should be placed on empowering individuals to introduce mindfulness into all aspects of their lives. Many individuals find a CD of guided meditations to be invaluable in this respect. Another effective integration strategy is to work with patients to establish a routine of mindfulness practice. This author's personal preference is to do this on a case-by-case basis (i.e., rather than prescribing a blanket amount of formal meditation practice time for all people) and this author generally encourages people to try to adopt a dynamic meditation routine. In this manner, patients are dissuaded from drawing divisions between mindfulness practice during formal sitting settings and practice during everyday activities (Van Gordon et al., 2014a). The purpose of this is to reduce the likelihood of dependency on the need for formal meditation sessions.

7. *Employ psycho-educational techniques:* As with most non-pharmacological interventions, a degree of psycho-education regarding the mechanisms of action and projected hurdles to recovery is generally regarded as a means of augmenting clinician-patient trust and therapeutic alliance (Shonin et al., 2013f). Mindfulness-based interventions are no exception to this, and patients and non-patients alike generally welcome advance notice of the difficulties they are likely to encounter as their mindfulness training progresses. One such difficulty, particularly in the initial stages, is

the feeling by individuals that their mind is becoming even more discursive than before. However, rather than a reduction in levels of mindfulness, research demonstrates that such feelings generally result from a greater awareness by patients of the 'wild' nature of their cognitive processes that had hitherto remained unnoticed (Shonin et al., 2013a). Particularly within the context of mindfulness-based treatments, psycho-education should be regarded as a two-way process. In other words, in working with the patient to discuss and explore different dimensions of their mindfulness practice, a co-produced form of understanding or wisdom often emerges. This is something that both the client and clinician can benefit from and is consistent with pedagogic techniques used as part of traditional Buddhist practice.

Chapter 14

Mindfulness of Emptiness and the Emptiness of Mindfulness

This chapter (whether in full or in part) was adapted for publication and was subsequently published as:

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The final published version of this article is available at Springer:
http://www.springer.com/us/book/9783319185903

Abstract

Emptiness is a fundamental Buddhist principle that refers to the fact that phenomena are devoid of intrinsic existence. This absence of intrinsic existence refers as much to the true and absolute nature of the individual that practices mindfulness, as it does to the present moment they are supposed to be observing. Therefore, if an individual is to become accomplished at the practice of mindfulness, they must familiarise themselves with the absolute mode in which the present moment abides. Following an explication of the emptiness principle, this chapter elucidates the practice of *mindfulness of emptiness* and includes a discussion of: (i) its theoretical and scriptural provenance, (ii) how to practice *mindfulness of emptiness*, and (iii) its role in the wider context of the Buddhist path to spiritual awakening. The final part of the chapter addresses the fact that mindfulness itself is also empty of intrinsic existence, and discusses the risks associated with developing attachments to Buddhist concepts and practices.

Introduction

Emptiness (Pāli: *suññatā,* Sanskrit: *śūnyatā*) refers to the fundamental Buddhist teaching that all phenomena are devoid or 'empty' of an intrinsic self. The empty property of phenomena in Buddhism relates as much to tangible constructs such as a tree, a car, or the human body, as it does to intangible constructs such as the mind, space, or the present moment. If a primary objective of mindfulness practitioners is to become increasingly aware of the present moment, then logic dictates that at some point they must begin to apprehend the true and absolute mode in which the present moment exists. Buddhism teaches that for as long as mindfulness practitioners objectify the present moment and believe that it inherently exists, they will be prevented from perceiving the absolute nature of reality and from actualising their goal of enlightenment (Shonin & Van Gordon, 2014b). The purpose of this chapter is to draw upon various Buddhist philosophical systems of investigating reality in order to explicate the essential meaning of emptiness, and to discuss the various ways that emptiness and mindfulness cooperate in order to foster spiritual awakening.

Understanding Emptiness

One of the problems with attempting to explicate the principles of emptiness is that as soon as it is experienced as an object or construct, there occurs a betrayal of the essential meaning of emptiness and of how the Buddha intended his followers to realise and embody this teaching. This certainly does not mean that reading or listening to discussions concerning emptiness are fruitless endeavours (if this were the case the present author would not have committed the time to writing this chapter), but readers are requested to bear in mind that the only way to truly comprehend emptiness is by using a theoretical exposition (such as the one provided within this chapter) as the raw material that must be tested and transformed into insight during their

day-to-day and moment-to-moment practice of meditation.

It is the opinion of the present author that emptiness is one of the most poorly understood Buddhist teachings, and attempts by scholars or Buddhist teachers to impart an understanding of emptiness can sometimes end up creating further obfuscation as well as over-complicating what is a common sense notion. For example, the present author – in their capacity of a Buddhist teacher – often receives comments from individuals conveying the same sentiments as those expressed in the following feedback from perplexed and/or distressed academic colleagues subsequent to completion of a meditation retreat: "*Emptiness is a very scary place to be. If I do not exist then who am I and what have I been doing all of my life? I need to be certain and confident that I exist in order to move ahead*". Such feedback is consistent with recommendations that emptiness (and related Buddhist concepts such as *selflessness*) should be taught with caution and skill as well as an understanding of the individual's clinical, cultural, educational, and spiritual background (Michalon, 2001).

In essence, emptiness means that nothing exists as a discrete entity and in isolation of everything else. For example, a tree in the garden manifests in reliance upon numerous causes and conditions, without which, it would not exist. Amongst innumerable others, the causes and conditions being referred to here include the water in the earth and atmosphere, nutrients in the soil, respiratory gases carried by the wind, heat of the sun, and so forth. Thus, at the simplest level, it can be said that *interconnectedness* is a fundamental principle of emptiness. Phenomena do not exist in isolation of each other and by logical default, they are empty of an independent and inherently existing self. However, for the same reasons that phenomena are empty of an intrinsic self, they also are 'full' of everything else that exists. Therefore, in the context that emptiness is being discussed here, one could actually employ the term *fullness* in substitution of the term *emptiness*. In emptiness there is fullness, and vice versa (Shonin et al.,

2013b).

Investigating emptiness through the lens of interconnectedness is a perfectly adequate means of becoming familiar with emptiness, but other lines of reasoning can (and ideally should) be followed. Indeed, one of the limitations of relying on interconnectedness to internalise the principle of emptiness is that interconnectedness still implies that phenomena inherently exist (otherwise it would not be possible for them to be connected to each other). Therefore, although interconnectedness can help to facilitate a basic understanding of emptiness, it is nevertheless based on a dualistic manner of perceiving and constructing the world. In Buddhism, even the slightest tendency towards perceiving reality dualistically (i.e., in subject-object terms) is understood to cement an individual's belief in the inherent existence of phenomena, and to constitute a deviation from the direct path to enlightenment (Dalai Lama, 2004; Urgyen, 2000).

Now that reference has been made to the importance of maintaining a *non-dual* outlook in order to both accurately apprehend and appreciate emptiness, it is timely to include a further cautionary note regarding the potential drawbacks of formulating conceptions about emptiness. As different philosophical positions regarding emptiness and the nature of mind and reality are presented, there is a risk of reifying the inherent existence and/or supremacy of a given philosophical position. The present author has previously argued that this process of reification becomes problematic because it tends to restrict an individual's understanding of emptiness to theory rather than experience (Shonin & Van Gordon, 2014b; Shonin et al., 2014b). Indeed, any theoretical or philosophical construction of emptiness is presented according to the norms and laws of conceptual thinking, and can never accurately portray the profound nature of emptiness that exists outside the confines of conceptuality. For example, rejecting the position of duality in order to accept the position of non-duality is effectively another example of

rejecting one erroneous concept in order to replace it with another. Duality is empty of inherent existence, but the same is true for non-duality in addition to the middle position between these two opposites.

This was basically the underlying message of the Indian *Māhāyana* Buddhist philosopher and saint Nagarjuna (2nd c. AD) who is credited as giving birth to the *Mādhyamaka* school of Buddhist thought. At the surface level, Nagarjuna advocated a middle way between the extremes of *inherent existence* and *nihilism*. However, the crux of Nagarjuna's message was to reject all conceptual positions, including that of a middle-way. The reason for this is because if the extremes of existence and nihilism are both rejected, then a 'middle-way' that exists between these two contrary positions becomes an untenable notion (Shonin et al., 2014b).

In addition to Nagarjuna's *Mādhyamaka* school of Buddhist thought, an alternative means of investigating and understanding emptiness is provided by the *Yogācāra* school of *Māhāyana* Buddhism. As referred to in Chapter 2, perhaps the easiest and most effective means of understanding the *Yogācāra* school's construction of emptiness and reality is via the analogy of a dream. Various psychosomatic sleep-state symptoms including anxious arousal, shouting and/or screaming, increased respiratory amplitude, and perspiration are associated with bad dreams and nightmare disorder (Zadra & Donderi, 2000). Therefore, although common sense (and common human experience) provides adequate grounds for inferring that a dream is completely empty of intrinsic existence and constitutes an ephemeral creation of the mind, it is reasonable to conclude that dreamt phenomena that manifest during sleep are apprehended as 'real' and 'existing' by the dreamer (Shonin et al., 2014b). The *Yogācāra* school asserts that waking state reality occurs in much the same manner as a dream and that it unfolds entirely within the expanse of the mind.

Some Buddhist scholars (past and present) have asserted that the *Mādhyamaka* and *Yogācāra Māhāyana* Buddhist schools explicate conflicting constructions of reality and emptiness (for an overview of the key opposing arguments, see Williams, 2008). These assertions are primarily based on the belief that the *Yogācāra* school expounds the view that all phenomena are empty of intrinsic existence and are effectively 'mind-made', but that the mind itself does actually inherently exist. In this author's opinion, the assertion or belief that the *Yogācāra* view posits an inherently existing mind are based on a poor understanding of the *Yogācāra* philosophical system (or on the works of certain [so-called] *Yogācāra* theorists that had a poor understanding of their own ontological position), and thus constitute only a partial representation of the *Yogācāra* grounding principles. Accordingly, and consistent with the view of the 8th Century Indian Buddhist philosopher Śāntarakṣita, the present author recently demonstrated (in a fictitious and light-hearted Zen-style dialogue between a teacher and student entitled *Dream or Reality*—see below) that when the concept-belying approach of *Mādhyamaka* is followed to its conclusion, there remains no alternative, but to accept the validity of the *Yogācāra* position. As demonstrated in the *Dream or Reality* dialogue shown below (Shonin & Van Gordon, 2014d), *Mādhyamaka* reasoning ultimately validates the *Yogācāra* position that it is impossible to draw distinctions between the absolute nature of a 'mind-created dream' and that of everyday reality:

"**Student:** Professor?

Professor: Yes?

Student: Pinch me.

Professor: What are you talking about?

Student: It's just that we've been testing the *Shared Dream Inducer* (SDI) so frequently

I can't remember if I set the *Dream Terminator*.

Professor: I hope you're joking.

Student: No, seriously. I know you've told me so many times, but I just can't remember.

Professor: You mean…

Student: Yes—there's no way of knowing whether we're currently in a dream or in waking reality! If we're dreaming, the SDI could keep us here indefinitely!

Professor: Can't we remedy this situation?

Student: We could activate the SDI and try to enter a dream. If the interface allows us entry then at least we'll know whether we're awake or dreaming.

Professor: That's way too risky. If we *are* already dreaming we could get stuck in a nested dream.

Student: Okay, I have another idea. In a dream, everything is the product of the mind, right? Things appear real to the dreamer, yet everything is an illusion.

Professor: Agreed. What's your point?

Student: So all we have to do is choose some objects around us and work out if they really exist. If they're real then we're awake, otherwise we're dreaming.

Professor: Interesting idea. Here you are, you can start with my fountain pen.

Student: Well, the pen certainly writes when I press it against the paper. Yes, I think it's real. I think we're awake.

Professor: So your criteria for reality is based on the function that an object performs?

Student: Of course.

Professor: I see. Now take away all of the components of the pen, so that you're left with only the nib. Go ahead… Does the nib still write?

Student: Yes, it still works.

Professor: But the nib isn't the pen?

Student: Ah, good point. It appears my original premise was wrong. Although it performs the function of the pen, the nib is just a single pen component, and not all the parts that comprise the pen. And one thing cannot be another thing.

Professor: So is the pen real?

Student: Well, having just taken the pen apart and seen that all of its components are present, I would still conclude that the pen is real. I still think we're awake.

Professor: So you're saying that the pen exists as the sum of its component parts?

Student: Yes, that's right.

Professor: I see. But you've already said that something can't be two things at once. Yet now you seem to be saying that when the nib, cartridge, lid, and other pen components are put together, they stop being those components and become a new single entity?

Student: No, that's illogical. The component parts still exist in the pen, but the word 'pen' is used to designate the collection of individual components that together form that object.

Professor: Right, so you're saying that 'pen' is just a label?

Student: Well I guess so.

Professor: But if 'pen' is just a label then the pen doesn't inherently exist. So are you now saying that we're currently dreaming?

Student: I'm a bit confused. Irrespective of whether we're awake or dreaming, although things certainly appear to exist, there now seems no logical basis upon which to make that claim.

Professor: Therefore your idea of investigating whether or not things are real doesn't get us any closer to working out whether we're currently dreaming or awake. Have you got any better ideas?

Student: If we're currently shared-dreaming, it means the SDI is keeping our brain patterns in synchrony. We could try to disrupt them and wake ourselves up by inducing an electric shock.

Professor: If you want to stick your finger in the electric socket go right ahead, but I'm certainly not joining you… Any *more* ideas?

Student: *Hmm…* Well I don't remember ever bursting into laughter during a dream. So why don't I tell you a joke, and if it makes you laugh, that means we're not dreaming?

Professor: I'm not convinced about that: I don't think it concurs with findings from oneirology, for a start. But go ahead and tell your joke.

Student: What did the professor who always gave examples say when asked how many eggs he'd like for breakfast?

Professor: I don't know.

Student: Four eggs ample.

Professor: I thought you were going to try to make me laugh.

Student: Very funny.

Professor: Well, if you haven't got any more ideas, I have a suggestion. Let's just do nothing.

Student: I don't understand.

Professor: I built a fail-safe into the SDI so that even if the DT isn't activated, the dream automatically terminates after eight hours.

Student: What?! Couldn't you have told me that five minutes ago?

Professor: Well, haven't you learnt something?

Student: You're right, I've actually learnt a lot. A dream occurs within the expanse of the mind, and in a dream, there's the impression of coming and going, yet nothing really moves. Whilst dreaming, there is also near and far, but there is actually no distance. In a dream, although things appear, they are illusory and cannot be said to truly exist. However, composite objects perceived by the waking mind are also devoid of intrinsic existence. Are you saying that waking reality also unfolds within the expanse of the mind?

Professor: You'll have to work that out for yourself.

Student: We still haven't determined whether we're currently dreaming or awake.

Professor: Does it really matter? Can't you just relax and enjoy each moment of whichever reality you're currently in?

Student: Yes, I think I can."

The principal reasons for including the above dialogue in this chapter are to: (i) demonstrate that *Mādhyamaka* and *Yogācāra* philosophical outlooks ultimately converge at the same point, and (ii) further one of this chapter's primary objectives which is to help readers (and myself as the author) augment their understanding of emptiness. However, the *Dream or Reality* dialogue was also included to show that the process of discussing and investigating emptiness need not always be undertaken in an overly solemn manner, or in explicitly academic contexts. Indeed, as with the majority of Buddhist teachings, adopting an overly analytical or overly academic approach to investigating emptiness invariably inhibits the use and development of spiritual intellect (i.e., as opposed to cognitive intellect), and thus prevents an

accurate comprehension of emptiness from manifesting (Shonin & Van Gordon, 2014e). Furthermore, in this author's opinion, emptiness can be a wondrous, joyful, and exciting notion, and as much as the English translation of the Sanskrit term *śūnyatā* (i.e., emptiness) could provoke negative associations (e.g., voidness, nothingness, nihilism), it also (for the aforementioned reasons) implies fullness, complete liberation from suffering, and the unity of everything that exists.

In essence, this is the underlying message of the *Heart Sutra* (Sanskrit: *Prajna Paramita Hrdaya Sutra*), a key *Māhāyana* Buddhist teaching on emptiness. As demonstrated below in what is the present author's own translation of the Heart Sutra, it is by immersing themselves in emptiness (referred to in the Sutra as the *perfection of wisdom* [Sanskrit: *prajna paramita*]), that the bodhisattvas and all Buddhas of the past, present, and future are able to enter the realm of deathless abiding and permanently liberate themselves from suffering:

> The Bodhisattva Avalokitesvara,
> whilst immersed in the perfection of wisdom,
> perceived that the five aggregates are empty,
> and overcame all suffering and anguish.
>
> Listen Shariputra,
> form is identical to emptiness,
> and emptiness is identical to form.
> Form is of the nature of emptiness,
> and emptiness is of the nature of form.
> The same applies to feelings,

perceptions, mental formations, and consciousness.

Listen Shariputra,

all phenomena are sealed with emptiness.

They do not arise or dissolve,

are neither impure nor pure,

they neither increase nor decrease.

Thus, in emptiness, there is no form, feelings,

perceptions, mental formations, or consciousness.

There are no eyes, ears, nose, tongue, body, or mind.

No sight, sound, smell, taste, touch, or object of mind.

No eye consciousness and so forth until no mind consciousness.

There is no ignorance and no cessation of it,

and so forth until no old age and death.

However, there is also no cessation of old age and death.

There is no suffering, no cause of suffering,

no cessation of suffering, and no path.

There is no insight and there is nothing to attain.

The Bodhisattvas who immerse themselves,

in the perfection of wisdom,

overcome all mental obstacles,

and therefore they overcome all fear.

They are forever parted from deluded views,

and thus awake to Nirvana.

All Buddhas of the three times,

attain unsurpassed perfect enlightenment,

by immersing themselves in the perfection of wisdom.

Therefore know that the perfection of wisdom is:

the great transcendent mantra,

the great bright mantra,

the highest mantra,

the unsurpassed mantra,

and the truth that eradicates all suffering.

Thus, the perfection of wisdom mantra should be proclaimed as follows:

Gate, gate, paragate, parasamgate, bodhi svaha

Gate, gate, paragate, parasamgate, bodhi svaha

Gate, gate, paragate, parasamgate, bodhi svaha[9]

(Translated from the Digital Sanskrit Buddhist Cannon, 2014)

The claim in the Heart Sutra that '*form is identical to emptiness and emptiness is identical to form*' is a spiritually profound statement (Shonin et al., 2014b). In very clear terms, it

9 The mantra can be translated as '*Gone, gone, gone beyond, gone completely beyond, attaining the awakened mind*'

explicates that emptiness is not a mystical state of mind or an alternative non-worldly dimension, but constitutes the very nature and fabric of the reality in which we currently find ourselves (i.e., the present moment). According to Buddhist thought, when an individual awakens to this fundamental truth—that has always been right in front of their eyes—they move beyond the concept of *this* and *that*, of *existence* and *non-existence*, and they encounter their indestructible Buddha nature (Norbu & Clemente, 1999).

Mindfulness of Emptiness

Mindfulness is the process of regulating concentration and ensuring that it remains intact and does not deviate from the object of meditative placement (Van Gordon et al., 2015b). In the context that mindfulness was taught by the historical Buddha, the object of meditative placement refers to whatever primary activity the spiritual practitioner happens to be engaged in at a given point in time (Nhat Hanh, 1999a). This could be walking, talking, eating, sleeping, defecating, concentrating on a specific meditative object (such as the breath), or (at the other end of the scale) concentrating on the present moment more generally. Therefore, in literal terms, *mindfulness of emptiness* simply means that when an experience of emptiness arises in the meditator's mind stream, they should utilise mindful awareness in order to ensure that concentration remains focussed on emptiness and that recognition of the emptiness experience is prolonged for as long as possible. The type of mindfulness required to effectively prolong the experience of emptiness is one where the individual embraces and bathes in each experienced moment of emptiness but does not conceptually elaborate upon that experience (Shonin & Van Gordon, 2014b). In other words, during the practice of *mindfulness of emptiness* and as with all other forms of mindfulness practice, there should be no thought of emptiness,

no feeling of emptiness, no mental formation of emptiness, and no self or I that experiences emptiness. There should only be emptiness.

Mindfulness of emptiness corresponds to the fourth type of mindfulness referred to in the seventh Dalai Lama's *Song of the Four Mindfulnesses* (not to be confused with the *Four Foundations of Mindfulness*). The preceding three types of mindfulness explicated by the seventh Dalai Lama were mindfulness of: (i) what is embodied by the Buddha and teacher, (ii) compassion, and (iii) the divine/subtle body. After having suitably prepared their mind (by cultivating the first three types of mindfulness), the seventh Dalai Lama directs his followers to practice *mindfulness of emptiness* by "*not letting your mind stray*" from the recognition of emptiness (Gelek, 2009, p. 3). Repeated episodes of glimpsing emptiness, as well as the steady prolonging of such episodes, is understood in Buddhism to gradually lead to a stable realisation of emptiness that eventually permeates all of the meditation practitioner's thoughts, words, and actions (Dalai Lama & Berzin, 1997).

A detailed discussion of the various meditative and/or spiritual strategies elucidated in the Buddhist teachings for cultivating an experience or glimpse of emptiness is beyond the scope of the present chapter. However, the following are some of the principal methods—all of which depend on mindfulness not only to preserve the emptiness experience when it arises, but also to help bring about its manifestation:

1. *Emptiness via samatha-vipassanā meditation*: Arguably the most traditional and well-documented means of cultivating an experience of emptiness is by utilising *samatha* (Pāli, Sanskrit: *śamatha*) meditation in order to bring the mind into a state of tranquil abiding, followed by a period of *vipassanā* (Pāli, Sanskrit: *vipaśyanā*) meditation in order to perceive the underlying nature of phenomena (i.e., emptiness).

Nevertheless, it is the present author's opinion that the practice of *vipassanā* meditation is poorly understood in the contemporary Buddhist and scientific (academic and populist) literature. Indeed, some researchers, scholars, and Buddhist teachers assert that *vipassanā* meditation is either (i) identical to mindfulness meditation (e.g., Bowen et al., 2006; Chiesa, 2010), or (ii) an opening out of mindfulness in order to passively or calmly observe the three qualities that are understood in Buddhism to mark and underlie the existence of all phenomena (i.e., suffering, impermanence, and non-self; Harvey, 2015). It is this author's view that these accounts of *vipassanā* portray it as being a mostly passive process, and fail to emphasise the active and penetrative-investigative aspect of authentic *vipassanā* practice.

A degree of meditative insight will certainly arise by being mindful of the present moment in order to passively observe the coming and going (and other characteristics) of phenomena (Kabat-Zinn, 1990. 1994). However, this is very different and less potent than the ego-subduing insight that can be extracted via the practice of *vipassanā* and which can only arise when the practitioner moves beyond the idea of an identifiable present moment (Shonin & Van Gordon, 2014b; Shonin et al., 2014b). According to Trungpa (2006, p.47), *vipassanā* entails the meditation practitioner leaving behind their attachment to known concepts in order to perceive the 'fourth moment' of reality (i.e., the fourth dimension of reality that exists beyond the notions of past, present, and future).

Accordingly, as implied by the record of the Buddha's teachings in the *Mahāvacchagotta Sutta* (*Majjhima Nikāya* [MN], 73), if one truly wishes to perceive the empty nature of phenomena, one literally has to penetrate them with the piercing

wisdom induced via meditative serenity (i.e., *samatha*): *"When these two things—serenity and insight—are developed further, they will lead to the penetration of many elements"* (Ñanamoli & Bodhi, 2009, p. 600). The insight of *vipassanā requires* hard work and will not arise by simply opening up mindfulness in order to observe phenomena and their underlying characteristics. If confusion is present in the mind of the person that mindfully observes the characteristics of phenomena, they will inevitably perceive those characteristics in a distorted manner. Put simply, *vipassanā* (or indeed any other form of Buddhist meditation) does not entail the Buddhist meditator 'sitting on their backside' (both mentally and physically), becoming enthralled with (what they deem to be) the coming and going of their thoughts and feelings, and arousing conviction that they are engaged in some form of profound meditative practice. As demonstrated by the above *Dream or Reality* dialogue, in essence, phenomena exist only as mentally constructed labels. Therefore, since phenomena are the creation of the mind and are also of its nature, it follows that the mind is also the tool that must be utilised in order to actively deconstruct phenomena during *vipassanā* meditation.

Consequently, *vipassanā* involves making use of the tranquility and concentration cultivated during *samatha* meditation in order to enter into a state of meditative analysis whereby meditators actively search for an inherently existing self that resides within either themselves or another phenomenon. This is consistent with the wording of the *Mahāsuññata Sutta (Greater Discourse on Emptiness*, MN 971; Ñanamoli & Bodhi, 2009) where, having brought the mind into a state of equanimity and concentration, the Buddha explains that the meditation practitioner must engage in *vipassanā* by actively (i.e., rather than passively) "*giving attention to voidness*"

(p.972) (voidness is another word for emptiness; see below for the full excerpt from the *Mahāsuññata Sutta*).

Thus, the aforementioned claims that *vipassanā* corresponds to the practice of mindfulness meditation or an opening up of mindfulness meditation are effectively depicting practices that—whilst employing different breadths of attentional focus—are still located within the *samatha* spectrum of Buddhist meditative practice. Furthermore, the depiction of *vipassanā* as a practice that gives rise to insight via the opening up of mindfulness in order to allow the present moment to unfold *as it is*, more accurately describes the completion stage practices of certain tantric Buddhist systems (e.g., *Māhamudrā*, *Dzogchen*). The insight that arises from such tantric practices goes well beyond the meaning of *vipassanā*, requires the individual to have traversed the necessary generation-stage practices, and more closely resembles the direct perceiving of, and unification with, a state of (or very close to) Buddhahood (Dalai Lama & Berzin, 1999; Dalai Lama, 2004; Urgyen 2000).

Mindfully observing the coming and going of phenomena is a practice that still operates within the realms and limitations of duality, and it therefore prevents the meditating individual from truly letting go of self and becoming both the subject and object of their meditation (Shonin & Van Gordon, 2014f). Thus, in sequential order, *vipassanā* requires the practitioner to: (i) introduce an appropriate degree of meditative serenity into their mind (i.e., via a prior period of *samatha* meditation), (ii) meditatively penetrate a given meditative object (or objects), (iii) actively search for an inherently existing self that abides within the object, (iv) identify and eliminate each layer of conceptual thinking that supports or presupposes the existence of an inherently existing self, and (v) abide in the profound experience that apprehends that

all phenomena—including the meditating individual—are without an intrinsic self and are of a single nature and origin (Shonin & Van Gordon, 2014f).

2. *Emptiness via direct introduction*: Depending upon their level of realisation and the spiritual capacity of the student, a very small number of Buddhist teachers are able to directly introduce (an even smaller number of) students to a fully authentic experience of emptiness (Shonin & Van Gordon, 2015a). Much like a lotus bud that feeds on the debris and grows out of the murky depths of a pond, this experience of emptiness will gradually consume the student's mental poisons (e.g., greed, hatred, and delusion) and grow inside their mind stream until it defines the very essence of their being.

3. *Emptiness via renunciation and spiritual distress:* According to Buddhist thought, the average individual harbours a deeply embedded and erroneous belief that they and the world around them inherently exists (Van Gordon et al., 2015a). Consequently, as an individual enters the path of authentic Dharma practice and begins to gain insight into the ultimate nature of reality, they undergo a process of constant disillusionment. Each time a more gross aspect of ego is surmounted, a subtler aspect reveals itself and continues to corrupt their perception of reality. Despite their growing levels of spiritual insight and awareness, the mind of the aspiring Buddha has a tendency to try to position and reassure itself by forming attachments to its continuously changing understanding of reality (Trungpa, 2002).

The world (or *mandala*) created by the meditation practitioner's spiritual guide (who may or may not be in bodily form) comprises a cycle of allowing the

practitioner to build up hopes and concepts, only to have them abruptly dismantled at some future point (Trungpa, 2002). This process, which can often be quite painful or dramatic, eventually gives rise in the practitioner to the experience of a profound sense of renunciation of worldly existence. At this point, the individual knows from first-hand experience that any form of attachment to phenomena is futile and only incurs further suffering. In essence, the meditation practitioner is left with the feeling of having absolutely nowhere to go, nothing to do, nothing to accomplish, and of not needing to be somebody in particular (Shonin & Van Gordon, 2014f). To all intents and purposes, they have been forced to perfect the practice of renunciation, and have 'had their fingers burnt' so many times by forming attachments to phenomena that they default to a position of abiding in, and becoming one with, emptiness. Some of the best-documented examples of spiritual practitioners that have traversed this process and pattern of awakening are the lineage fathers of the Tibetan Kagyu Buddhist tradition (e.g., Naropa, Milarepa).

4. *Emptiness via sudden awakening*: The occurrence or practice of sudden awakening is most commonly associated with certain schools of Zen and *Vajrayāna* Buddhism (Shonin et al., 2014b). However, in truth, there are reports of individuals experiencing a sudden awakening across almost the entire collection of Buddhist practice traditions (including multiple examples throughout the *Theravāda* Pāli Canon; see, Van Gordon et al., 2015b). There are numerous scenarios and techniques that can trigger a sudden awakening including (but not limited to): (i) direct introduction by a fully realised teacher (see the third point above; Sogyal, 1998), (ii) a *koān* (a question, scenario, conundrum, or dialogue intended to shatter conceptual thinking patterns and produce

> a *satori* experience [Japanese and Zen Buddhist terminology for awakening]; Shonin et al., 2014b), (iii) a memory or situation that activates an 'awakening key' established by the practitioner or their teacher in their current or a previous lifetime (Urgyen, 1995), and (iv) locating a spiritual treasure (Tibetan: *terma*) hidden in their mind or in a physical location (similar to the forgoing technique of the 'awakening key'; Shonin & Van Gordon, 2015a). All of these methods appear to point towards the existence and feasibility of an 'instant' path to spiritual awakening. However, in such cases where awakening manifests suddenly, the breakthrough of realisation invariably reflects the coming to fruition of spiritual momentum and insights accumulated during years (or even lifetimes) of diligent day-to-day practice (Trungpa, 2006).

As discussed earlier in the chapter, the practice of *mindfulness of emptiness* involves remaining fully aware of the emptiness experience after it has been induced (i.e., by utilising a spiritual technique such as those outlined above). However, *mindfulness of emptiness* also requires additional attentional and intuitive resources on the part of the meditation practitioner. Indeed, the practice of *mindfulness of emptiness* is not restricted to simply remaining mindful of emptiness when a recognition of the emptiness of phenomena becomes manifest, but it also implies that there should be *mindfulness of emptiness* even when an experience of emptiness is not (deemed by the meditation practitioner to be) manifest in the mind.

Despite the view of certain Buddhist scholars that utilising "*memories from the past*" (e.g., Thānissaro Bhikkhu, 2012, p. 15) is a central component of mindfulness, the present author previously asserted that the recollection of past events is not a principal function of mindfulness practice (e.g., Shonin et al., 2014b; Shonin & Van Gordon, 2014b). The reason

for this is captured by the following record of the Buddha's teachings in the *Bhaddekaratta Sutta* (MN 131; Ñanamoli & Bodhi, 2009): "*Let not a person revive the past … For the past has been left behind*" (p. 1039). In other words, the past is history and life (in addition to spiritual practice) can only occur and be experienced in the present moment. In light of the present author's prior assertion, it is perhaps useful or essential at this point to clarify what is meant and implied by this author's above suggestion that the practice of *mindfulness of emptiness* requires the meditation practitioner to continuously recognise or 'recollect' the fact that phenomena are intrinsically empty of inherent existence.

When proposing that practicing *mindfulness of emptiness* involves an awareness of emptiness even when an emptiness experience is not manifest in the mind, what the present author is essentially suggesting is that the practitioner becomes aware—in real time terms—of the fact that in truth, there is never a time when an emptiness experience is not manifest in the mind. As stated in the Heart Sutra, in addition to form, each of the other aggregates (Pāli: *khandhas*; Sanskrit: *skandhas*) of feelings, perceptions, mental formations, and consciousness are also of the nature of emptiness. In fact, without exception, everything that an individual thinks, feels, or perceives is 100% empty of inherent existence. This relates as much to the object of their thoughts, feelings, and perceptions as it does to the thoughts, feelings, and perceptions themselves.

Therefore, implicit within the practice of *mindfulness of emptiness* is awareness or knowing that the moment-by-moment experience of the ordinary and so-called deluded mind is actually of the texture and nature of emptiness. Indeed, a realisation and embodiment of this very simple (but profound) principle is all that separates a fully enlightened Buddha from an ignorant sentient being that is still subject to samsaric wandering (and therefore suffering and delusion). This is very different from the practice of continuously trying to 'remember' that

mind and its contents are empty of existence. Remembrance of emptiness in this context becomes too much of a cognitive endeavour and effectively reifies emptiness into a construct that is separate from the individual that is attempting to realise it.

In essence, the practice of *mindfulness of emptiness* in the sense that the present author is currently discussing it relates closely to the Buddhist principle and practice of *right view* (Pāli: *sammā-ditthi,* Sanskrit: *samyag-drsti,*). Knowing, without necessarily having directly perceived, the *empty*, *non-self*, and *non-dual* nature of reality is a fundamental aspect of right view. Indeed, having complete faith in the intrinsic emptiness of phenomena is a prerequisite for subsequently being able to glimpse emptiness (Shonin & Van Gordon, 2015a). In turn, this glimpse or intuition augments the quality and potency of the practitioner's conviction that due to emptiness, all things exist in them and they exist in all things.

The present author is certainly not stating that there is no benefit to be derived from conceptually investigating emptiness and/or from trying to remember that phenomena are of the nature of emptiness. Indeed, such mental exertion can bring about a certain theoretical familiarity with the various principles of emptiness. However, in truth, no amount of investigation, analysis, or conceptualisation will ever bring an individual into direct and irreversible contact with emptiness. Emptiness must be known, felt, lived, and breathed. Emptiness is what is—right here and right now. Meditation practitioners must simply be emptiness, and for as long as they look for it outside of themselves, they will never find it (Norbu & Clemente, 1999).

This is one of the key premises that the Buddha was attempting to convey in the extract below from the *Mahāsuññata Sutta*. As shown, the Buddha advised his followers that when, from a point of meditative concentration, they make an effort to give rise to an experience of emptiness (translated below as 'voidness'), the very fact that they are objectifying emptiness

and straining themselves in order to realise it prevents them from attaining their goal. However, if meditation practitioners loosen their attachment to the idea of experiencing emptiness and once again rest in meditative serenity, when they decide once more to engage in *vipassanā* meditation by actively giving attention to emptiness, it is easier for them to penetrate the underlying nature of phenomena:

> "Here Ānanda, quite secluded from sensual pleasures, secluded from unwholesome states, a bhikkhu enters upon and abides in the first jhāna … the second jhāna … the third jhāna … the fourth jhāna, which has neither pain nor pleasure and purity of mindfulness due to equanimity. That is how a bhikkhu steadies his mind internally, quiets it, brings it to singleness, and concentrates it.
>
> Then he gives attention to voidness internally. While he is giving attention to voidness internally, his mind does not enter into voidness internally or acquire confidence, steadiness, and decision. When that is so, he understands thus: '*While I am giving attention to voidness internally, my mind does not enter into voidness or acquire confidence, steadiness, and decision*.' In this way he has full awareness of that. … Then that bhikkhu should steady his mind internally, quiet it, bring it to singleness, and concentrate it on that same sign of concentration as before. Then he gives attention to voidness internally. While he is giving attention to voidness internally, his mind enters into voidness internally and acquires confidence, steadiness, and decision. When that is so, he understands thus: '*While I am giving attention to voidness internally, my mind enters into voidness internally and acquires, confidence, steadiness, and decision*.' In this way he has full awareness of that" (Ñanamoli & Bodhi, 2009, p. 972-973).

The Emptiness of Mindfulness

Throughout this chapter, repeated reference has been made to the tendency of individuals to reify emptiness into a fixed construct and to form concepts regarding its nature and properties. The problem with doing so is that emptiness is also empty of inherent existence, and as such, any conceptual understanding of what constitutes emptiness will necessarily be erroneous. In addition to the fact that emptiness is empty, the individual wishing to become adept at the practice of *mindfulness of emptiness* must also (experientially) understand that mindfulness is also empty of inherent existence.

The mental faculty of mindfulness that performs the function of regulating meditative concentration arises in dependence on numerous causes and conditions. For example, for *right mindfulness* (Pāli: *sammā-sati,* Sanskrit*: samyak-smrti*) to be aroused there must also be present: (i) the faculty of right concentration (Pāli: *sammā-samādhi,* Sanskrit: *samyak-samādhi*), (ii) an animate or inanimate object upon which to focus this concentration, and (iii) a subject (i.e., a person) that decides to practice mindfulness. Other contributing factors for the arousal of right mindfulness are the experience of suffering (if the individual was already liberated from suffering they would not need to practice mindfulness and spiritual development in order to transmute it), the fact that the meditator has a body (without one they would not be able to cultivate mindful awareness), and the fact that they are breathing and alive (being dead is not conducive to practicing mindfulness). In fact, due to the law of interconnectedness, every single phenomenon in the universe (or multiverse) in some way plays a causal role in the arousal of right mindfulness (Shonin & Van Gordon, 2014g). Consequently, apart from a mentally designated label, a construct or practice called mindfulness cannot be said to exist.

Realising that mindfulness is empty of inherent existence is important for the following reasons:

1. *It helps to avoid spiritual materialism*: Trungpa (2002) utilised the term *spiritual materialism* to refer to the (common) occurrence of an individual engaging in (what they deem to be) spiritual and/or meditative practice that, rather than promote wisdom acquisition and spiritual growth, serves only to augment ego-attachment and narcissistic behaviour. Understanding that mindfulness, as with all forms of spiritual practice, does not inherently exist is consistent with the Buddhist view that emptiness is an antidote to all factors that can obstruct or derail an individual's meditative and spiritual development (Gampopa, 1998).

2. *It helps to avoid the pitfall of being 'too mindful'*: Related to the above point, the present author has previously noted that there is a tendency for individuals to either over-exert themselves in their meditation practice or develop a personality affectation due to them becoming 'too mindful' (Shonin et al., 2015c). Being too mindful refers to circumstances where a mindfulness practitioner or teacher makes excessive efforts to master the art of appearing to be mindful (e.g., adopting an overly-pious demeanor, constant and/or inappropriate smiling, etc.) without actually having any presence of mind (Shonin et al., 2015c). Understanding that the mindfulness faculty is devoid of inherent existence helps to prevent individuals from becoming caught up in the idea of being a 'meditator'.

3. *It helps to prevent 'meditation addiction'*: the present author has previously reported (via both clinical case studies and personal observation) that it is possible

for individuals to become addicted to meditation and/or mindfulness practice (e.g., Shonin et al., 2014g; Shonin et al., 2015c). *Meditation addiction* (a subcategory of what this author has previously termed *spiritual addiction*) can manifest as both the positive or negative forms of addiction. It refers to an individual becoming dependent on meditation and/or mindfulness to the extent that they satisfy all six criteria for classification as a behavioural addiction according to Griffiths' (2005) component's model of addiction:

a. Meditation/mindfulness becomes the most salient and preoccupying activity in their lives.
b. It gives rise to mood modification.
c. The individual's tolerance levels increase such that they engage in meditation for increasingly longer daily periods over time.
d. They exhibit withdrawal symptoms if unable to engage in meditation.
e. Meditation causes personal and interpersonal conflict (only in the case of a negative addiction), and intra-psychic conflict.
f. The individual relapses and meditates as much as before following periods of abstinence from meditation.

4. *It is necessary for advanced meditative practice*: There has never been, and will never be, a Buddha that practices mindfulness. The words *practicing mindfulness* implies that a subject is making a deliberate effort in order to keep its concentration fixed on a given object or objects. However, the state of Buddhahood is completely uncontrived and it transcends the limiting concepts of practicing or making effort (Norbu & Clemente, 1999). Furthermore, as referred

> to earlier in this chapter, at the ultimate level, there is absolutely no separation between subject (i.e., self), activity (i.e., mindfulness), and object (i.e., the present moment). Due to understanding that it is all things, an enlightened being knows that it does not need to isolate one part of itself so that it can be mindful of another part of itself. Progressing to the advanced stages of Buddhist meditation requires the meditation/mindfulness practitioner to be completely natural and spontaneous, and to let go of the idea that they are practicing something.

In essence, it can be argued that the ultimate purpose of mindfulness is to bring the practitioner to a point of spiritual awareness such they no longer need to practice mindfulness. In this sense, mindfulness is very much an essential tool or stepping stone for awakening an individual's Buddha nature. However, as with everything else in Buddhist practice, mindfulness must ultimately be let go of. Realising that mindfulness is empty of intrinsic existence goes hand in hand with realising that the principal subject of mindful awareness—the present moment—is also devoid of an identifiable self. Therefore, in much the same manner that any attachment to concepts such as mindfulness and emptiness must be relinquished, the aspiring Buddha must also come to an experiential understanding that there are no logical grounds upon which it can be said that the present moment inherently exists. The present author has previously explicated the empty and ultimate nature of the present moment as follows:

> "Imagine that you decide to take a trip to the countryside and have a picnic in your favourite tree-lined spot next to a river. From the time of your arrival until the time you pick up your picnic basket and start to make your way home, I am sure that it will not come as a surprise to you to hear that you have not been sitting in a static environment.

At any given instant when you found yourself gazing at the river, you were observing a dynamic and continuously flowing phenomenon. Thus, between any given instant of time and the next, the river undergoes change. However, not only does the river change between two separate instances of time, but it also changes within the same instant of time. The reason for this is because time is a relative concept; it is a man-made construct that we human beings employ to try to add structure and order to our world.

The truth is, any given moment of time can be continuously divided into ever smaller instants, and this process of division can continue ad infinitum. … not even for the most miniscule moment of time could we say that the river ever stands still. It is not just rivers that are subject to this continuous process of change, but every single phenomenon that we encounter. In many respects, we could actually view the present moment and all that it contains as one enormous flowing river: A graceful and swirling flood of interwoven mind and matter that continuously flows yet never actually goes anywhere …"

If there is never a point in time when the river stands still, how can a thing that does not ever become static undergo any change? Change implies that something changes from one state or position to another. But since phenomena never truly come to rest in a fixed state, then it is illogical to assert that such a transient and 'permanently unfixed' entity can undergo change. That which never 'is' cannot be said to change between one moment of time and the next" (Shonin & Van Gordon, 2014b, p. 105-106).

Conclusion

Emptiness, which refers to the fact that all phenomena are devoid of intrinsic existence, is a fundamental principle upon which the Buddha based his teachings. In so far as it can be said that Buddhist meditation constitutes a journey, then emptiness is the destination (but as explicated above it is also the middle and start of the journey). Indeed, without exception, each individual aspect of Buddhist practice is either directly or indirectly orientated towards bringing about an internalisation of emptiness. For example, although important competencies in their own right, the core Buddhist practices of generosity, loving-kindness, and compassion also help the practitioner to adopt a humble demeanour. Due to becoming familiar with the practice of prioritising others' needs and happiness over their own, this humble demeanour helps the meditation practitioner to loosen attachment to the belief in an inherently existing self (Shonin et al., 2014b). Attachment to the belief in an independent self-entity has been termed *ontological addiction* which is defined as "*the unwillingness to relinquish an erroneous and deep-rooted belief in an inherently existing 'self' or 'I' as well as the 'impaired functionality' that arises from such a belief"* (Shonin et al., 2013b, p.64). Emptiness is understood in Buddhism to be the most effective means for overcoming ontological addiction and for permanently transmuting the impaired functionality (i.e., suffering) that it causes.

Mindfulness is a fundamental faculty on the path to awakening. It serves to ensure that wholesome states of mind—in particular meditative concentration—are cultivated such that it becomes difficult for unwholesome states of mind (e.g., greed, hatred, delusion) to establish themselves in the mind (Thānissaro Bhikkhu, 2012). Mindfulness plays a vital role in helping to bring the meditation practitioner into intimate contact with the contents of their mind and with the happenings of the present moment. Consistent with the Buddhist teachings, research demonstrates that mindfully attending to the *here and now* introduces focus, equanimity, and calm into the mind (Chiesa et al., 2011; Eberth & Sedlmeier, 2012; Fjorback et al., 2011).

When cultivated to an adequate degree, this attentional focus and mental quietude is essential for the subsequent arousal of insight—the primary objective of *vipassanā* meditation. It is during *vipassanā* meditation that the meditation practitioner seeks to mentally penetrate the absolute nature of phenomena in order to directly encounter the profound truth of emptiness.

In addition to being a prerequisite for cultivating this experience of emptiness, right mindfulness is also essential for preserving the emptiness experience after it has arisen. However, as elucidated in this chapter, the practice of *mindfulness of emptiness* goes well beyond the cultivation and maintenance of an experience of emptiness. Indeed, the diligent spiritual practitioner should be constantly aware of the fact that not only are phenomena empty of inherent existence, but their thoughts, feelings, concepts and perceptions in relation to those phenomena are likewise devoid of inherent existence. Due to this realisation, the practice of *mindfulness of emptiness* eventually brings the spiritual practitioner to the profound and logically sound realisation that all things are of the nature of mind and that although they searched outside of themselves (for innumerable lifetimes) in order to locate it, they have never once left the domain of emptiness:

> “Like the repose that follows,
> when waking from a nightmare.
> Like the reprieve of an isolated General,
> who recognises the encroaching soldiers as his own troops.
> Like the relief that arises, when realising that the snake,
> was, all along, just a piece of old rope.
> Like the rapture of the despairing treasure hunter,
> who returns to find the riches buried beneath his own home.

Oh self who has enslaved me for so long,

now I have shed the shackles of ignorance,

and entered the non-returning blissful abode."

(Shonin & Van Gordon, 2013b)

Chapter 15. General Conclusion

Thesis Provenance and Aims

Shakyamuni Buddha expounded the Buddhist teachings in India approximately 2,600 years ago. Due to the fact the historical Buddha's oral teachings were not recorded in writing until several hundred years after his death (Gombrich, 2009), it is possible that the record of the Buddha's teachings as preserved in the various Buddhist canons has been influenced by a degree of 'memory bias'. However, an important consideration concerning Buddhism is that it is not only based on the teachings of the historical Buddha. Indeed, throughout its 2,600-year history, there are accounts of individuals that have devoted their life to spiritual and contemplative practice awakening to the state of Buddhahood (e.g., Milarepa, 1999). Given that from time-to-time, it appears that an individual awakens to its Buddha nature and—to greater or lesser extents—expounds the spiritual teachings in a manner appropriate for the population in which it finds itself, the Buddhist teachings have a way of remaining up-to-date and free of corrupting influence. The present author's use of the term 'corrupting influence' here primarily refers to corruption from within the Buddhist tradition by individuals that have difficulty in comprehending the profundity and subtlety of authentic spiritual teachings, and who thus try to categorise, theorise, and systematise that which ultimately cannot be expressed in words.

Consequently, the present author is of the view that arguably the biggest threat in terms of corrupting the integrity and efficacy of the Buddhist teachings actually comes from within Buddhism, rather than from the use of Buddhist practices by external disciplines. However, it

would appear that many Buddhist teachers and/or scholars are of a different opinion and assert that the recent assimilation of Buddhist teachings by science and psychology constitutes one of the biggest threats to preserving the authenticity of the Buddha's instructions (Monteiro et al., 2015).

This PhD thesis—conducted from within the discipline of psychology—addressed the heart of this issue and was intended to encourage dialogue between Buddhism and psychology with a view to resolving some of the issues that currently divide these different approaches of investigating and understanding the mind. Specifically, the doctoral thesis focussed on: (i) providing theoretical foundations to support the effective interpretation, classification, and operationalisation of Buddhist terms, principles, and practices within mental health settings, and (ii) empirically investigating the applications—within currently unexplored mental health settings—of authentic Buddhist practices and principles.

Both of these overriding objectives were achieved via the introduction and empirical investigation of a modality of secular meditation known as second-generation BDIs. As referred to in Chapter 4, first-generation BDIs refer to interventions such as Mindfulness-Based Stress Reduction (MBSR; developed in the 1970s) and Mindfulness-Based Cognitive Therapy (MBCT; developed in 2002), as well as the various derivatives of these that came later (e.g., Mindfulness-Based Relapse Prevention, Mindfulness-Based Eating Awareness Training). First-generation BDIs played an important role in helping to gain acceptance of Buddhist meditative principles within mental health settings (Singh et al., 2014a). The purpose of second-generation BDIs—a movement formulated, introduced, and spearheaded by the current researcher—is to make available to service-users a secular meditation-based interventional approach that more closely resembles that traditional Buddhist model of meditation practice

and that thus addresses the growing concerns regarding the apparent lack of 'spiritual authenticity' within first-generation BDIs.

MAT represents the first purposely-formulated second-generation BDI. MAT is effectively an interventional representation of the various Buddhist principles and practices that were explicated in the theoretical components of this thesis as constituting the core elements of a complete Buddhist path to spiritual awakening. Unlike first-generation BDIs that tend to be exclusively based on mindfulness meditation, MAT comprises numerous spiritual-practice elements (e.g., compassion and loving-kindness meditation, techniques intended to foster ethical awareness, emptiness meditation techniques, etc.) and is thus more closely aligned with the traditional Buddhist approach to practicing meditation (Shonin & Van Gordon, 2015b).

Separate empirical studies were undertaken involving individuals with: (i) psychotic disorders, (ii) work-related mental health issues, and (iii) behavioural addictions. The selection of these population groups was driven by specific calls in the mental health literature, as well as the need to assess the flexibility and versatility of the MAT intervention. In certain instances, rigorous evaluative systematic reviews (following the PRISMA guidelines; Moher et al., 2009) were undertaken in order to explore the clinical utility of specific Buddhist meditation techniques that are included within the MAT syllabus (e.g., loving-kindness and compassion meditation) or where it was felt that a sufficient (albeit preliminary) degree of empirical investigation had already been conducted (i.e., studies of BDIs in forensic mental health settings).

A variety of study designs were employed in this doctoral thesis including: (i) an RCT (structured according to CONSORT guidelines; Schulz et al., 2010), (ii) a qualitative investigation using interpretative phenomenological analysis (Smith et al., 2009), and (iii) two

clinical case studies—each with assessment, case formulation, and intervention components. These different study designs were selected to allow for a rounded and thorough evaluation of the potential benefits and versatility of MAT, and to compensate and control for the various limitations that are inherent within each of the abovementioned study designs. For example, the single-participant and uncontrolled design of clinical case studies can be counterbalanced by conducting a controlled intervention study using a larger sample-size in conjunction with random allocation. Likewise, the arguably reductionist approach of RCTs (Puhakka, 2015) can be offset by conducting an appropriately designed qualitative study in order to enter into the 'lifeworld' of participants.

Key Contributions to Knowledge

The empirical findings from this thesis indicate that second-generation BDIs (and more specifically MAT) may be effective treatments for a range of mental health issues including schizophrenia, pathological gambling, work addiction, and work-related stress. Findings also indicate that second-generation BDIs can lead to improvements in work effectiveness, decision-making competency, and leadership skills more generally. In conjunction with earlier investigations demonstrating that MAT can be an effective treatment for depression, anxiety, and stress (Shonin et al., 2013a; Van Gordon et al., 2014a), the various empirical components of this thesis suggest that second-generation BDIs are: (i) effective (i.e., as psychopathology treatments), (ii) versatile (i.e., they lead to salutary outcomes for a broad range of clinical and non-clinical mental health issues), (iii) accessible (i.e., individuals from a range of educational and socio-economic backgrounds can understand and relate to the training), (iv) flexible (i.e., they can be delivered in group or one-to-one format and the programme content can be tailored to suit individual needs), and (v) cost effective (i.e., a typical 8-week second-generation BDI

comprising two hour weekly sessions and two one-hour one-to-one support sessions that is delivered by one facilitator to 20 participants equates to just 2.8 hours of facilitator time per participant).

As with first-generation-BDIs, one of the mechanisms of action by which second-generation BDIs (and particularly MAT) are understood to effect therapeutic change is by increasing perceptual distance from cognitive and affective processes (Van Gordon et al., 2014b). However, findings from this doctoral thesis suggest that the following mechanistic pathways—that have not previously been identified or reported in the mental health literature—are utilised by second-generation BDIs: (i) improved regulation of ego-centric thinking patterns leading to reductions in self-preoccupation, self-disparaging schemas, and asocial behaviour, (ii) increased spirituality that exerts a protective influence over life-adversity and low self-purpose, and (iii) mobilisation of metacognitive resources—particularly those that involve 'the self' observing 'the self'—that help to regulate routine attentional and emotional processes as well as foster spiritual awareness (Shonin & Van Gordon, 2015b).

Important contributions to knowledge were likewise provided by the theoretical arm of this thesis. Examples of key findings in this respect are as follows:

- There are numerous areas of misunderstanding in the mental health literature regarding the appropriate meaning and utilisation of Buddhist terms and practices. One such frequently misunderstood Buddhist practice is mindfulness. In addition to formulating numerous other definitions of Buddhist terms intended to be digestible for the scientific community, this thesis proposed the following new (and frequently cited) definition of mindfulness that is intended to be more consistent with the traditional Buddhist approach: "*Mindfulness is the process of engaging a full, direct, and active awareness*

of experienced phenomena that is: (i) spiritual in aspect and (ii) maintained from one moment to the next (Shonin et al., 2014a)".

- First-generation BDIs are often described or advertised as being grounded in the Buddhist teachings. However, this is rarely the case and there are ethical implications in terms of providing participants and mental health service-users with misleading/inaccurate information (Shonin et al., 2014b).
- Service-users often welcome and respond favourably to an interventional approach that more closely follows traditional meditation didactic and practice techniques (Shonin & Van Gordon, 2015b). In other words, there appears to be limited justification in mental health settings of being reticent to utilise (or to not be transparent about utilising) interventions that are explicitly spiritual in nature.
- Given that in traditional Buddhist contexts meditation teachers would typically undergo intensive training for a period of many decades, it is questionable whether instructors of first-generation BDIs are equipped to impart an authentic transmission of the Buddhist teachings to individuals with mental health issues (Shonin et al., 2013d).

Limitations

Findings from this doctoral thesis need to be considered in light of their limitations that have been duly discussed throughout the main body of the thesis. Perhaps the most noteworthy of these limitations is the fact that to date there have been no head-to-head comparison studies to ascertain whether the first- or second-generation BDI approach is most effective for a given population. Consequently, second-generation MBIs could be criticised for relying too heavily on expert opinion and best-practice guidelines (i.e., according to a 2,600-year-old Buddhist meditational theory) in order to justify their necessity (Van Gordon et al., 2015a). Nevertheless,

whilst there is a lack of studies directly comparing the two approaches, this does not necessarily undermine the value of second-generation MBIs because, at the very least, they provide service-users—including those interested in (or belonging to) Eastern contemplative traditions—with a non-pharmacological treatment that more closely follows a traditional (but secular) approach to mindfulness practice. Thus, although the development of second-generation MBIs has largely been prompted by criticisms of first-generation MBIs (e.g., taking a reductionist approach to teaching mindfulness), it is entirely feasible that the two approaches can co-exist or even complement each other (Van Gordon et al., 2015a).

Implications and Future Directions

Findings from this thesis give rise to a number of important implications. Perhaps the most important of these is the fact that it is likely to be damaging to the long-term credibility of various disciplines within psychology if first-generation BDIs define, teach, and/or operationalise Buddhist practices and principles in a manner that purports to be largely consistent with the Buddhist approach when this is not the case. The same applies to the Buddhist teachings which are likely to be negatively affected if first-generation BDIs purport to embody a largely Buddhist approach when this is not actually the case. Closely related to these implications is the fact that research specifically assessing whether first-generation BDIs can induce non-salutatory health outcomes is underdeveloped. Consequently, there may be risks associated with teaching Buddhist techniques in isolation of many of the principles and practices that are traditionally assumed to underlie their effective cultivation (e.g., ethical awareness, compassionate outlook, insight into non-self, etc.). The need to investigate these risks is made even more critical given that there are a number of reported instances in the clinical literature where meditation—including some meditative modes that appear to be based

on Buddhist techniques—has induced negative health consequences such as psychotic episodes, painful kinaesthetic sensations, suicidal feelings, and even 'addiction' to meditation (Shonin et al., 2015c). Under these circumstances and given the scarcity of research assessing the long-term follow-up effects of BDIs, adhering to a practice model that is still secular but that more closely resembles the traditional meditational teachings (i.e., the second-generation of BDIs) may be a more prudent approach.

It appears that terms such as mindfulness, loving-kindness, compassion, emptiness, and non-self are—to admittedly different degrees—becoming buzzwords in (and outside of) Western psychology and mental health. As with all scientific phenomena that attract media and/or public attention, there is always the possibility that the perceived hype outweighs their utility in applied settings (Shonin et al., 2015b). However, these techniques have been 'tried and tested' by Buddhist practitioners for over 2,600 years, and many Buddhist teachers are only too happy to attest to their beneficial qualities (e.g., Nhat Hanh, 1999a). Nevertheless, if Western research and mental health disciplines truly wish to assimilate and make use of Buddhist practices and principles as part of alleviating human suffering and advancing understanding of the mind, then it is vital that future empirical investigations look beyond the superficial attributes of these spiritual practices and seek to identify the cooperating and underlying psycho-spiritual properties that are traditionally assumed to authenticate them. The Buddha's teachings were given in the context of a path to complete spiritual awakening. Perhaps it is time for science and related disciplines to give due consideration to this fact and to remain open to the possibility that Buddhist meditation—when correctly practised—can give rise to outcomes that far exceed short-term improvements in psychological wellbeing in terms of their importance and long-term utility to the individual.

References

Abba, N., Chadwick, P., & Stevenson, C. (2008). Responding mindfully to distressing psychosis: A grounded theory analysis. *Psychotherapy Research, 18*, 77-78.

Abramovich, E. (2006). Application of CBT in an inpatient setting. Case Illustration of an adult male with anxiety, depression, axis II symptoms. *Clinical Case Studies, 5*, 305-330.

Albertson, E., Neff, K., & Dill-Shackleford, K. (2015). Self-compassion and body dissatisfaction in women: A randomized controlled trial of a brief meditation intervention. *Mindfulness, 6*, 444-454.

Allen, T., & Kiburtz, K. (2012). Trait mindfulness and work-family balance among working parents: The mediating effects of vitality and sleep quality. *Journal of Vocational Behaviour, 80*, 372-379.

American Psychiatric Association (APA). (2013). *Diagnostic and Statistical Manual of Mental Disorders.* Arlington, VA

American Psychiatric Association (APA). (2000). *Diagnostic and Statistical Manual of Mental Disorders (4th ed., rev).* Washington, DC: APA.

American Psychiatric Association. (2010). *American Psychiatric Association Practice Guidelines for the Treatment of Patients with Major Depressive Disorder* (3rd ed.). Arlington, VA: American Psychiatric Publishing.

American Psychological Association. (2015). *Stress in America: Paying with our Health.* Retrieved January 10th, 2014, from Stress in America Press Room: http://www.apa.org/news/press/releases/stress/2014/stress-report.pdf

Andreassen, C., Griffiths, M. D., Hetland, J., & Pallesen, S. (2012). Development of a work addiction scale. *Scandinavian Journal of Psychology., 53*, 265-272.

Appel, J., & Kim-Appel, D. (2009). Mindfulness: Implications for substance abuse and addiction. *International Journal of Mental Health Addiction, 7*, 506-512.

Arias, A., Steinberg, K., Banga, A., & Trestman, R. (2006). Systematic review of the efficacy of meditation techniques as treatments for medical illness. *Journal of Alternative and Complementary Medicine, 12*, 817-832.

Asanga. (2001). *Abhidharma Samuccaya: The compendium of the Higher Teaching (philosophy).* (S. Boin-Webb, & W. Rahula, Trans.) Berkeley: Asian Humanities Press.

Ashcroft, K., Barrow, F., Lee, R., & MacKinnon, K. (2012). Mindfulness groups for early psychosis: A qualitative study. *Psychology and Psychotherapy: Theory, Research and Practice, 85*, 327-334.

Baer, R. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*, 125-143.

Baer, R., Smith, G., & Allen, K. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191-206.

Baer, R., Smith, G., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*, 27-45.

Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American Psychologist, 55*, 122-136.

Barefoot, J. C., Dodge, K. A., Peterson, B. L., Dahlstrom, W. G., & Williams, R. B. (1989). The Cook-Medley Hostility Scale: Item content and ability to predict survival. *Psychosomatic Medicine, 51*, 46-57.

Barnhofer, T., Chittka, T., Nightingale, H., Visser, C., & Crane, C. (2010). State effects of two forms of meditation on prefrontal EEG asymetry in previously depressed individuals. *Mindfulness, 1*, 21-27.

Baron-Cohen, S., Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The "Reading the Mind in the Eyes" test revised version: a study with normal adults, and adults with

Asperger syndrome or high-functioning autism. *Journal of Child Psychology and Psychiatry, 42,* 241-251.

Batson, C. (2011). *Altruism in Humans.* New York: Oxford University Press.

Beck, A. (1984). Cognitive approaches to stress. In R. Woolfolk, & P. Lehren, *Principles and Prractice of Stress Management* (pp. 125-155). New York: Guildford.

Beck, A., & Emery, G. (1985). *Anxiety Disorders and Phobias: A Cognitive Perspective.* New York: Basic Books.

Beck, A., Epstein, N., Brown, G., & Steer, R. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56,* 893-897.

Beck, A., Rush, A., Shaw, B., & Emery, G. (1979). *Cognitive Therapy of Depression.* New York: Guilford.

Beck, J. (1995). *Cognitive Therapy: Basics and Beyond.* New York: Guildford.

Benson, L. A., Norman, C., & Griffiths, M. D. (2012). The role of impulsivity, sensation seeking, coping, and year of study in student gambling: A pilot study. *International Journal of Mental Health, 10*, 461-473.

Berman, A. H., Palmstierna, T., Källmén, H., & Bergman, H. (2007). The self-report Drug Use Disorders Identification Test-Extended (DUDIT-E): Reliability, validity, and motivational index. *Journal of Substance Abuse Treatment, 32*, 357-369.

Bien, T. (2006). *Mindful Therapy: A Guide for Therapists And Helping Professionals.* Massachusetts: Wisdom Publications.

Bishop, M., Lau, S., Shapiro, L., Carlson, N. D., Anderson, J., Carmody, J. . . . Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice., 11*, 230-241.

Bishop, S. R. (2002). What do we really know about mindfulness-based stress reduction? *Psychosomatic Medicine., 64,* 71-84.

Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a clinician administered PTSD scale. *Journal of Traumatic Stress, 8,* 75-90.

Blanchard, J., Kring, A., Horan, W., & Gur, R. (2011). Toward the next generation of negative symptom assessments: The collaboration to advance negative symptom assessment in schizophrenia. *Schizophrenia Bulletin, 37,* 291-299.

Blaszczynski, A., McConaghy, N., & Frankoya, A. (1991). Control versus abstinence in the treatment of pathological gambling: A two to nine year follow-up. *British Journal of Addiction, 86,* 299-306.

Bodhi, B. (1994). *The Noble Eightfold Path: Way to the End of Suffering.* Kandy, Sri Lanka: Buddhist Publication Society.

Borras, L., & Hugulet, P. (2007). Schizophrenia and pathological gambling. *American Journal on Addiction, 16,* 269-271.

Borysenko, J. (1988). *Minding the Body Mending the Mind.* New York: Bantam.

Boutron, I., Altman, D., Schulz, K., & Ravaud, P. (2008). Extending the CONSORT statement to randomized trials of nonpharmacologic treatment: Explanation and elaboration. *Annals of Internal Medicine, 148,* 295-309.

Bowen, S., Chawla, N., Collins, S., Witkiewitz, K., Hsu, S., Grow, J., & Clifasefi, S. (2009). Mindfulness-based relapse prevention for substance use disorders: A pilot efficacy trial. *Substance Abuse, 30,* 295-305.

Bowen, S., Witkiewitz, K., Dillworth, T. M., & Marlatt, G. A. (2007). The role of thought suppression in the relation between mindfulness meditation and alcohol use. *Addictive*

Behaviours, 32, 2324-2328.

Bowen, S., Witkiewitz, K., Dillworth, T. M., Chawla, N., Simpson, T. L., Ostafin, B. D., . . . Marlatt, A. G. (2006). Mindfulness meditation and substance use in an incarcerated population. *Psychology of Addictive Behaviour, 20*, 243-347.

Bradshaw, W. (1998). Cognitive-behavioural treatment of schizophrenia: A case study. *Journal of Cognitive Psychotherapy: An International Journal, 12*, 13-25.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822-848.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*, 211-237.

Brown, L., Davis, L., LaRoccod, V., & Strasburger, A. (2010). Paerticipant perspectives on mindfulness meditation training for anxiety in schizophrenia. *American Journal of Psychiatric Rehabilitation, 13*, 224-242.

Buddharakkhita (Trans). (1986). *Dhammapada: A Practical Guide to Right Living.* Bangalore: Maha Bodhi Society.

Buysse, D., Reynolds 3rd, C., Monk, T., Berman, S., & Kupfer, D. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research, 28*, 193-213.

Byock, I., & Merriman, M. (1998). Measuring quality of life for patients with terminal illness: The Missoula-VITAS quality of life index. *Journal of Palliative Medicine, 12*, 231-244.

Cahn, B. R., Delorme, A., & Polich, J. (2010). Occipital gamma activation during Vipassana meditation. *Cognitive Processing, 11*, 39-56.

Carrette, J., & King, R. (2005). *Selling Spirituality: The Silent Takeover of Religion.* New York: Routledge.

Carson, J., Keefe, F., Lynch, T., Carson, K., Goli, V., Fras, A., & Thorp, S. (2005). Loving-kindness meditation for chronic low back pain: Results from a pilot trial. *Journal of Holistic Nursing, 23*, 287-304.

Chadwick, P., Hughes, S., Russell, D., Russell, L., & Dagnan, D. (2009). Mindfulness groups for distressing voices and paranoia: A replication and randomised feasibility trial. *Behavioural and Cognitive Psychotherapy, 37*, 403-412.

Chadwick, P., Newman-Taylor, K., & Abba, N. (2005). Mindfulness groups for people with psychosis. *Behavioural and Cognitive Psychotherapy, 33*, 351-359.

Chah, A. (2011). *The Collected Teachings of Ajahn Chah.* Northumberland: Aruna Publications.

Chan, W.-S. (2008). Psychological attachment, no-self and Chan Buddhist Mind Therapy. *Contemporary Buddhism, 9*, 253-264.

Chan-ob, T., & Boonyanaruthee, V. (1999). Meditation in association with psychosis. *Journal of Medical Association of Thailand, 82*, 925-929.

Chien, W., & Lee, I. (2013). The mindfulness-based psychoeducation program for Chinese patients with schizophrenia. *Psychiatric Services*, *64*, 376-379.

Chiesa, A. (2010). Vipassana meditation: Systematic review of current evidence. *Journal of Alternative and Complementary Medicine, 16*, 37-46.

Chiesa, A. (2013). The difficulty of defining mindfulness: Current thought and critical issues. *Mindfulness*, 4, 255-268.

Chiesa, A., & Malinowski, P. (2011). Mindfulness-based approaches: Are they all the same? *Journal of Clinical Psychology, 67*, 404-424.

Chiesa, A., & Serretti, A. (2011). Mindfulness based cognitive therapy for psychiatric disorders: A systematic review and meta-analysis. *Psychiatry Research, 187*, 441-453.

Chiesa, A., Calati, R., & Serretti, A. (2011). Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings. *Clinical Psychology Review, 31*, 449-464.

Chodron, P. (1996). *Awakening Loving Kindness.* Boston: Shambala.

Chou, K. L., & Afifi, T. O. (2011). Disordered (pathological or problem) gambling and Axis 1 psychiatric disorders: Results from the National Epidemiologic Survey on alcohol and related conditions. *American Journal of Epidemiology, 173,* 1289-1297.

Ciarrocchi, J. W. (2002). *Counselling Problem Gamblers: A Self-regulation Manual for Individual and Family Therapy.* San Diego: Academic Press.

Clark, D., Beck, A., & Alford, B. (1999). *Scientific Foundations of Cognitive Theory and Therapy of Depression.* New York: Wiley.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385-396.

Cohen-Katz, J., Wiley, S., Capuano, T., Baker, D., Deitrick, L., & Shapiro, S. (2005). The effects of mindfulness-based stress reduction on nurse stress and burnout: A qualitative and quantitative study, part III. *Holistic Nursing Practice, 19*, 78-86.

Collins, R. L., Parks, G. A., & Marlatt, G. A. (1985). Social determinants of alcohol consumption: The effects of social interaction and model status on the self-administration of alcohol. *Journal of Consulting and Clinical Psychology, 53*, 189-200.

Condon, P., Desbordes, G., Miller, W., & DeSteno, D. (2013). Meditation increases compassionate responses to suffering. *Psychological Science, 24,* 2125-2127.

Cox, T., & Griffiths, A. (2010). Work-related stress: A theoretical perspective. In S. Leka, & J. Houdmont (Eds.), *A Textbook of Occupational Healh Psychology* (pp. 31-56). Oxford: Wiley-Blakwell.

Crane, C., Jandric, D., Barnhofer, T., & Williams, J. (2010). Dispositional mindfulness, meditation, and conditional goal setting. *Mindfulness, 1*, 204-214.

Crane, R. S., Kuyken, W., Williams, J. M., Hastings, R. P., Cooper, L., & Fennell, M. J. (2012). Competence in teaching mindfulness-based courses: Concepts, development and assessment. *Mindfulness, 3*, 76-84.

Crane, R., Eames, C., Kuyken, W., Hastings, R., Williams, J., Bartly, T., . . . Surawy, C. (2013). Development and validation of the Mindfulness-Based Interventions—Teaching Assessment Criteria (MBI:TAC). *Assessment*, 20, 681-688.

Creswell, J. (2007). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches.* (2nd ed.). London: Sage.

Cristopher, M. S. (2003). Albert Ellis and the Buddha: Rational soul mates? A comparison of Rational Emotive Behaviour Therapy (REBT) and Zen Buddhism. *Mental Health, Religion & Culture., 6*, 283-293.

Cunningham-Williams, R., Cottler, W., & Spitznagel, E. (1998). Taking chances: problem gamblers and mental health disorders. Results from the St. Louis Epidemiologic Catchment Area Study. *American Journal of Public Health, 88*, 1093-1096.

Curry, O. S., Price, M. E., & Price, J. G. (2008). Patience is a virtue: Cooperative people have lower discount rates. *Personality and Individual Differences, 44*, 780-785.

Dalai Lama. (1995). *Essential Teachings.* London: Souvenir Press.

Dalai Lama. (1995). *The Path to Enlightenment.* New York: Snow Lion.

Dalai Lama. (2000). *Ancient Wisdom, Modern World: Ethics for the New Millenium.* London: Abacus.

Dalai Lama. (2001). *Stages of Meditation: Training the Mind for Wisdom.* London: Rider.

Dalai Lama. (2004). *Dzogchen: Heart Essence of the Great Perfection.* New York: Snow Lion.

Dalai Lama. (2005). *The Many Ways to Nirvana.* London: Mobius.

Dalai Lama, & Berzin, A. (1997). *The Gelug/Kagyu Tradition of Mahamudra.* New York: Snow Lion Publications.

Dane, E. (2010). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of Management, 37*, 997-1018.

Davey, G. (2008). *Psychopathology: Research, Assessment and Treatment in Clinical Psychology.* Oxford: BPS Blackwell.

Davis, M. (1983). The effects of dispositional empathy on emotional reactions and helping: A multidimentional approach. *Journal of Personality, 51*, 167-184.

Day, A. (2009). Offender emotion and self-regulation: Implications for offender rehabilitation programming. *Psychology, Crime and Law, 15*, 119-130.

de Lisle, S. M., Dowling, N. A., & Allen, J. S. (2012). Mindfulness and problem gambling: A review of the literature. *Journal of Gambling Studies, 28*, 719-739.

de Lisle, S. M., Dowling, N. A., & Allen, J. S. (2011). Mindfulness-based cognitive therapy for problem gambling. *Clinical Case Studies, 10*, 210-228.

de Vibe, M., Bjørndal, A., Tipton, E., Hammerstrøm, K., & Kowalski, K. (2012). Mindfulness based stress reduction (MBSR) for improving health, quality of life, and social functioning in adults. *The Campbell Collaboration*, 3, 1-127.

Delhee, K. H., & Cattell, R. B. (1971). *Manual for the Clinical Analysis Questionnaire (CAQ): Interim experimental edition.* Champaign, IL: Institute of Personality and Ability Testing.

Dennick, L., Fox, A., & Walter-Brice, A. (2013). Mindfulness groups for people experiencing distressing psychosis: An interpretative phenomenological analysis. *Mental Health Review Journal, 18*, 32-43.

Dennis, N., Larkin, M., & Derbyshire, S. (2013). 'A giant mess'—making sense of complexity in the accounts of people with fibromyalgia. *British Journal of Health Psychology, 18*, 763-781.

Derezotes, D. (2000). Evaluation of yoga and meditation trainings with adolescent sex offenders. *Child and Adolescent Social Work Journal, 17*, 97-113.

Derntl, B., Finkelmeyer, A., Eickhoff, S., Kellermann, T., Falkenberg, D., Schneider, F., & Habel, U. (2010). Multidimensional assessment of empathic abilities: Neural correlates and gender differences. *Psychoneuroendocrinology, 35*, 67-82.

Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine, 13*, 595-605.

Derogatis, L. R., Lipman, R. S., & Covi, L. (1973). The SCL-90. An outpatient psychiatric rating scale. *Psychopharmacology Bulletin, 9*, 13-28.

Desai, R., & Potenza, M. (2009). A cross-sectional study of problem and pathological gambling in patients with schizophrenia/schizoaffective disorder. *Journal of Clinical Psychiatry, 70*, 1250-1257.

Desbordes, G., Negi, L., Pace T. W. W., Wallace, B., Raison, C., & Schwartz, E. (2012). Effects of mindful-attention and compassion meditation training on amygdala response to emotional stimuli in an ordinary, non-meditative state. *Frontiers in Human Neuroscience, 6*, 292.

Dewey Dorje, C., Dujdom Rinpoche, Urgyen Tulku, & Nyima Rinpoche, C. (2008). *The Great Gate: A guidebook to the Guru's Heart practice.* (E. Pema Kunsang, Trans.) Kathmandu: Ranjung Yeshe Publications.

Digital Sanskrit Buddhist Canon. (2014). Retrieved June 10th, 2014, from Digital Sanskrit Buddhist Canon: http://www.dsbcproject.org/

Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49,* 71-75.

Donovan, D. M., & O'Leary, M. R. (1978). The Drinking-Related Locus of Control Scale: Reliability, factor structure and validity. *Journal of Studies on Alcohol, 39,* 759-784.

Dorjee, D. (2010). Kinds and dimensions of mindfulness: Why it is important to distinguish them. *Mindfulness, 1,* 152-160.

Dudjom, K. (2005). *Wisdom Nectar. Dudjom Rinpoche's Heart Advice.* New York: Snow Lion Publications.

Duggan, M., & Smith, A. (2014). *Pew Research Centre Social Media Update 2013*. Retrieved January 28th, 2013, from Pew Research Centre: http://pewinternet.org/Reports/2013/Social-Media-Update.aspx.

Duncan, L. G., & Bardacke, N. (2010). Mindfulness-based childbirth and parenting education: Promoting family mindfulness during the perinatal period. *Journal of Child and Family Studies, 19,* 190-202.

Eberth, J., & Sedlmeier, P. (2012). The effects of mindfulness meditation: A meta-analysis. *Mindfulness, 3,* 174-189.

Echeburuaa, E., Gomezc, M., & Freixac, M. (2011). Cognitive-behaioral treatment of pathological gambling in individuals with chronic schizophrenia: A pilot study. *Behavior Research and Therapy, 49,* 808-814.

Edwards, J., Webster, S., Van Laar, D., & Easton, S. (2008). Psychometric analysis of the UK Health and Safety Executive's Management Standards work-related stress Indicator Tool. *British Academy of Management Annual Conference.* Harrogate: British Academy of Management Annual Conference.

Ekman, P., Davidson, R. J., Ricard, M., & Wallace Alan, B. (2005). Buddhist and

psychological perspectives on emotions and well-being. *Current Directions in Psychological Science, 14*, 59-64.

Elias, M. (2009). *Mindfulness meditation being used in hospitals and schools.* Retrieved February 5th, 2013, from USA Today: http://usatoday30.usatoday.com/news/health/2009-06-07-meditate_N.htm

Ellis, A. (1970). *The essence of rational psychotherapy. A comprehensive approach to treatment.* New York: Institute for Rational Living.

Engström, M., & Söderfeldt, B. (2010). Brain activation during compassion meditation: A case study. *Journal of Alternative and Complementary Medicine, 16*, 597-599.

Epstein, R. (1999). Mindful practice. *Journal of the American Medical Association, 282*, 833-839.

Eysenck, M. (2004). Trait anxiety, repressors and cognitive biases. In J. Yiend (Ed.), *Cognition, Emotion and Psychopathology: Theoretical, Empirical and Clinical Directions* (pp. 49-67). Cambridge: Cambridge University Press.

Farrington, C. J. (2000). Individual differences and offending. In M. Tonry (Ed.), *The Handbook of Crime and Punishment* (pp. 241-268). Oxford: Oxford University Press.

Faul, F., & Erdinger, E. (1992). *GPOWER: A priori, post-hoc, and compromise power analysis for MS-DOS.* Bonn: Bonn University.

Feldman, G., Greeson, J., & Senville, J. (2010). Differential effects of mindful breathing, progressive muscle relaxation, and loving-kindness meditation on decentering and negative reactions to repetitive thoughts. *Behavior Research and Therapy, 48*, 1002-1011.

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and*

Behavioural Assessment, 29, 177-190.

Fitzpatrick, L., Simpson, J., & Smith, A. (2010). A qualitative analysis of mindfulness-based cognitive therapy (MBCT) in Parkinson's disease. *Psychology and Psychotherapy: Theory, Research and Practice, 83*, 179-192.

Fjorback, L. O., Arendt, M., Ørnbøl, E., Fink, P., & Walach, H. (2011). Mindfulness-based stress reduction and mindfulness-based cognitive therapy—A systematic review of randomized controlled trials. *Acta Psychiatrica Scandinavica, 124*, 102-119.

Foa, E., & Emmelkamp, P. (1983). *Failures in Behavior Therapy.* New York: Wiley and Sons.

Follette, V., Palm, K. M., & Pearson, A. N. (2006). Mindfulness and trauma: Implications for treatment. *Journal of Rational-Emotive & Cognitive-Behaviour Therapy, 24*, 45-61.

Fox, C. (2011). A new 'Compendium of reoffending statistics and analysis'. *Probation Journal, 58*, 76-78.

Fox, E., & Georgiou, G. (2005). The nature of attentional bias in human anxiety. In R. Engle, G. Sedek, U. von Hecker, & D. McIntosh (Eds.), *Cognitive Limitations in Aging and Psychopathology.* (pp. 249-274). Cambridge: Cambridge University Press.

Frank, A., & Gunderson, J. (1990). The role of the therapeutic alliance in the treatment of scizophrenia: Relationship to course and outcome. *Archives of General Psychiatry, 47*, 228-236.

Fredrickson, B., Cohn, M., Coffey, K., Pek, J., & Finkel, S. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology, 95*, 1045-1061.

Fredrickson, B., Tugade, M., Waugh, C., & Larkin, G. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social*

Psychology, 84, 365-376.

Fresco, D., Moore, M., van Dulmen, M., Segal, Z., Teasdale, J., Ma, H., & Williams, J. (2007). Initial psychometric properties of the Experiences Questionnaire: Validation of a self-report measure of decentering. *Behavior Therapy, 38*, 234-246.

Galante, J., Galante, I., Bekkers, M., & Gallacher, J. (2014). Effect of kindness-based meditation on health and well-being: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology, 82*, 1101-1114.

GamCare (2012). *Annual Review 2011*. London: Author.

Gampopa. (1998). *The Jewel Ornament of Liberation: The wish-fulfilling gem of the noble teachings.* (A. K. Trinlay Chodron, Ed., & K. Konchong Gyaltsen, Trans.). New York: Snow Lion Publications.

Garcia-Trujillo, R., Monterry, A., & Gonzalez di Riviera, J. (1992). Meditacion y psicosis. *Psiquis Revista de Psiquiatria Psicologia y Psicosomatica, 13*, 39-43.

Gard, D., Gard, M., Kring, A., & John, O. (2006). Anticipatory and consummatory components of the experience of pleasure: A scale development study. *Journal of Research in Personality, 40*, 1086-1102.

Gethin, R. (2011). On some definitions of mindfulness. *Contemporary Buddhism, 12*, 263-279.

Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in Psychiatric Treatment, 15*, 199-208.

Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-critism: Overview and pilot study of a group therapy approach. *Clinical Psychology and Psychotherapy, 13*, 353-379.

Gilbert, P., Clarke, M., Hempel, S., Miles, J., & Irons, C. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *British Journal*

of Clinical Psychology, 43, 31-50.

Gilbert, P., McEwan, K., Matos, M., & Rivis, A. (2010). Fears of compassion: Development of three self-report measures. *Psychology and Psychotherapy: Theory, Research and Practice, 84*, 239-255.

Gillani, N. B., & Smith, J. C. (2001). Zen Meditation and ABC Relaxation theory: An Exploration of Relaxation States, Beliefs, Dispositions, and Motivations. *Journal of Clinical Psychology, 57*, 838-846.

Gillespie, S. M., Mitchell, I. J., Fisher, D., & Beech, A. R. (2012). Treating disturbed emotional regulation in sexual offenders: The potential applications of mindful self-regulation and controlled breathing techniques. *Aggression and Violent Behavior, 17*, 333-343.

Glasser, W. (1976). *Positive Addiction.* New York: Harper & Row.

Gluck, T. M., & Maercker, A. (2011). A randomized controlled pilot study of a brief web-based mindfulness training. *BMC Psychiatry, 11*, 175.

Gombrich, R. (2009). *Early Buddhist Historiography: The Need for Authentication*. In Bharati Ray (Ed), *History of Science, Philosophy and Culture in Indian Civilization. v.XIV, Part 4: Different Types of History* (pp. 43-58). Delhi: Pearson Longman.

Gooding, P., & Tarrier, N. (2009). A systematic review and meta-analysis of cognitive-behavioural interventions to reduce problem gambling: Hedging our bets? *Behaviour Research and Therapy, 47*, 592-607.

Goyal, M., Singh, S., Sibinga, E. M. S., Gould, N. F., Rowland-Seymour, A., Sharma, R … Haythornthwaite, J. A. (2014). Meditation programs for psychological stress and well-being: A systematic review and meta-analysis. *JAMA Internal Medicine, 174*, 357-368.

Griffiths, K., Camic, P., & Hutton, J. (2009). Participant experiences of a mindfulness-based cognitive therapy group for cardiac rehabilitation. *Journal of Health Psychology, 14*,

675-681.

Griffiths, M. D. (1996). Behavioural addiction: An Issue for everybody? *Employee Counselling Today: The Journal of Workplace Learning, 8,* 19-25.

Griffiths, M. D. (2000). Does internet and computer "addiction" exist? Some case study evidence. *Cyberpsychology and Behavior, 3,* 211-218.

Griffiths, M. D. (2004). Betting your life on it: problem gambling has clear health related consequences. *British Medical Journal, 329,* 1055-1056.

Griffiths, M. D. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use, 10,* 191-197.

Griffiths, M. D. (2013). Social networking addiction: Emerging themes and issues. *Journal of Addiction Research and Therapy,* 4: e118. doi:10.4172/2155-6105.1000e118

Griffiths, M. D., Wood, R. A., Parke, J., & Parke, A. (2006). Dissociative states in problem gambling. In C. Allcock (Ed.), *Current Issues Related to Dissociation* (pp. 27-37). Melbourne: Australian Gaming Council.

Griffiths, M. D., & Cooper, G. (2003). Online therapy: Implications for problem gamblers and clinicians,. *British Journal of Guidance & Counselling, 31,* 113-135.

Griffiths, M. D., & Karanika-Murray, M. (2012). Contextualising over-engagement in work: Towards a more global understanding of workaholism as an addiction. *Journal of Behavioral Addiction., 1,* 87-95.

Griffiths, M. D., Kuss, D., & Demetrovics, Z. (2014). Social networking addiction: An overview of preliminary findings. In K. Rosenberg, & L. Feder (Eds.), *Behavioral Addictions: Criteria, Evidence and Treatment* (pp. 119-141). New York: Elsevier.

Griffiths, M. D., Wardle, J., Orford, J., Sproston, K., & Erens, B. (2010). Gambling, alcohol consumption, cigarette smoking, and health: findings from the 2007 British Gambling

Prevalence Survey. *Addiction Research and Theory, 18*, 208-223.

Gross, J., & John, O. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and wellbeing. *Journal of Personality and Social Psychology, 85*, 248-362.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*, 35-43.

Hall, G., Hong, J., Zane, N., & Meyer, O. (2011). Culturally competent treatments for Asian Americans: The relevance of mindfulness and acceptance-based psychotherapies. *Clinical Psychology, 3*, 215-231.

Har, D. (1999). *The Boddhisattva Doctrine in the Buddhist Sanskrit Literature.* Delhi: Motilal Banarsidass.

Harvey, P. (2015). Mindfulness in Theravāda samatha and vipassanā meditations, and in secular mindfulness. In E. Shonin, W. Van Gordon, & N. Singh (Eds.), *Buddhist Foundations of Mindfulness.* New York: Springer.

Hawkins, M. A. (2003). Effectiveness of the "Transcendental Meditation" program in criminal rehabilitation and substance abuse recovery: A review of the research. *Journal of Offender Rehabilitation, 36*, 47-65.

Hayes, S., Strosahl, K., & Wilson, K. (1999). *Acceptance and Commitment Therapy*. New York: Guildford Press.

Health and Safety Executive. (2012). *Stress and Psychological Disorders.* Retrieved August 4th, 2013, from HSE: http://www.hse.gov.uk/statistics/causdis/stress/index.htm.

Health and Safety Executive. (n.d.). *HSE Management Standards Work-Related Stress Indicator Tool.* London: Author.

Hemsley, D. (2005). The development of a cognitive model of schizophrenia: placing it in context. *Neuroscience and Biobehavioural Reviews, 29*, 977-988.

Henry, J., & Crawford, J. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*, 227-239.

Himelstein, S. (2010). Meditation research: The state of the art in correctional settings. *International Journal of Offender Therapy and Comparitive Criminology, 20*, 1-16.

Himelstein, S. (2011). Mindfulness-based substance abuse treatment for incarcerated youth: A mixed method pilot study. *International Journal of Transpersonal Studies, 30,* 1-10.

Himelstein, S., Hastings, A., Shapiro, S., & Heery, M. (2012). Mindfulness training for self-regulation and stress with incarcerated youth: A pilot study. *Probation Journal, 59,* 151-165.

Ho, L. (2011). Meditation, learning, organisational innovation and performance. *Industrial Management and Data Systems, 111*, 113-131.

Hodge, G. R., Andereck, K., & Montoya, H. (2007). The protective influence of spiritual-religious lifestyle profiles on tobacco use, alcohol use, and gambling. *Social Work Research, 31*, 211-219.

Hodgins, D. C., Currie, S. R., el-Guebaly, N., & Diskin, K. (2007). Does providing extended relapse prevention bibliotherapy to problem gamblers improve outcome. *Journal of Gambling Studies, 23*, 41-54.

Hofmann, S. G., Grossman, P., & Hinton, D. E. (2011). Loving-kindness and compassion meditation: Potential for psychological interventions. *Clinical Psychology Review, 31*, 1126-1132.

Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based

therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 78,* 169-183.

Houdmont, J., Cox, T., & Griffiths, A. (2011). Work-related stress case definitions and prevalence rates in national surveys. *Occupational Medicine, 60,* 658-661.

Howells, K., Tennant, A., Day, A., & Elmer, R. (2010). Mindfulness in forensic mental health; Does it have a role? *Mindfulness, 1,* 4-9.

Huang Po. (1982). *The Zen Teaching of Huang Po: On the Transmission of the Mind.* (J. Blofeld, Trans.) New York: Grove Press.

Humphrey, C. (1999). A stress management intervention with forgiveness as the goal. *Dissertation Abstracts International: Section B. Sciences and Engineering, 60,* 1855.

Hunsinger, M., Livingston, D., & Isbell, L. (2013). The impact of loving-kindness meditation on affective learning and cognitive control. *Mindfulness, 4,* 275-280.

Hutcherson, C. A., Seppala, E. M., & Gross, J. J. (2008). Loving-kindness meditation increases social connectedness. *Emotions, 8,* 720-724.

Ito, M., Horst, H., & Bittani, M. (2008). *Living and Learning with New Media: Summary of Findings from the Digital Youth Project.* Retrieved February 15th, 2014, from http://digitalyouth.ischool.berkeley.edu/files/report/digitalyouth-WhitePaper.pdf

Jackson, A. C., Francis, K. L., Byrne, G., & Christensen, D. R. (2013). Leisure substitution and problem gambling: Report of a proof of concept group intervention. *International Journal of Mental Health and Addiction, 11,* 64-74.

Jacobs, S. (1993). *Pathological Grief: Maladaption to Loss.* Washington, DC: American Psychiatric Press.

Jacobsen, P., Morris, E., Johns, L., & Hodkinson, K. (2011). Mindfulness groups for psychosis; key issues for implementation on an inpatient unit. *Behavioural and Cognitive Psychotherapy, 39,* 349-353.

Jadad, A. R., Moore, R. A., & Carroll, D. (1996). Assessing the quality of reports of randomized clinical trials: Is blinding necessary? *Controlled Clinical Trials, 17*, 1-12.

Jazaieri, H., Jinpa, G., McGonigal, K., Rosenberg, E., Finkelstein, J., Simon-Thomas, E., . . . Goldin, P. (2013). Enhancing compassion: A randomized controlled trial of a compassion cultivation training program. *Journal of Happiness Studies, 14*, 1113-1126.

Jazaieri, H., McGonigal, K., Jinpa, T., Doty, J., Gross, J., & Goldin, P. (2014). A randomized controlled trial of compassion cultivation training: Effects on mindfulness, affect, and emotion regulation. *Motivation and Emotion, 38*, 23-35.

Johnson, D. P., Penn, D. L., Fredrickson, B. L., Kring, A. M., Meyer, P. S., Catalino, L. I., & Brantley, M. (2011). A pilot study of loving-kindness meditation for the negative symptoms of schizophrenia. *Schizophrenia Research, 129*, 137-140.

Johnson, D. P., Penn, D. L., Fredrickson, B. L., Meyer, P. S., Kring, A. M., & Brantley, M. (2009). Loving-kindness to enhance recovery from negative symptoms of schizophrenia. *Journal of Clinical Psychology, 65*, 499-509.

Jones, C., Hacker, D., Cormac, I., Meaden, A., & Irving, C. (2012). Cognitive behavior therapy versus other psychosocial treatments for schizophrenia. *Schizophrenia Bulletin, 38*, 908-910.

Kabat-Zinn, J. (1990). *Full Catastrophe Living: Using the wisdom of your body and mind to face stress, pain and illness.* New York: Delacourt.

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness Meditation in Everyday Life.* New York: Hyperion.

Kanfer, R., Chen, G., & Pritchard, R. (2008). Work motivation: Forging new perspectives and directions in the post-millenium. In R. Kanfer, G. Chen, & R. Pritchard (Eds.), *Work Motivation: Past, Present, and Future.* (pp. 601-632). New York: Tailor and Francis.

Kang, C., & Whittingham, K. (2010). Mindfulness: A dialogue between Buddhism and clinical psychology. *Mindfulness, 1,* 161-173.

Kang, Y., Choi, S., & Eunjung, R. (2009). The effectiveness of a stress coping program based on mindfulness meditation on the stress, anxiety, and depression experienced by nursing students in Korea. *Nurse Education Today, 29,* 538-43.

Karanika-Murray, M., & Weyman, A. (2013). Optimising workplace interventions for health and wellbeing: A commentary on the limitations of the public health perspective within the workplace health arena. *International Journal of Workplace Health Management, 6,* 104-117.

Kelly, B. D. (2008). Buddhist psychology, psychotherapy and the brain: A critical introduction. *Transcultural Psychiatry, 45*(5), 5-30.

Kessler, R. C., Hwang, I., LaBrie, R., Petukhova, M., Sampson, N. A., Winters, K. C., & Shaffer, H. J. (2008). DSM-IV pathological gambling in the National Comorbidity Survey Republication. *Psychological Medicine, 38,* 1351-1360.

Keysers, C. (2011). *The Empathic Brain: How the Discovery of Mirror Neurons Changes our Understanding of Human Nature.* Chicago: Social Brain Press.

Khyentse, D. (2006). *Zurchungpa's Testament.* (Padmakara Translation Group, Trans.) New York: Snow Lion Publications.

Khyentse, D. (2007). *The Heart of Compassion: The Thirty-seven Verses on the Practice of a Bodhisattva.* London: Shambala.

Kingsom, D., & Turkington, D. (1994). *Cognitive Therapy of Schizophrenia.* New York: Guildford.

Kiresuk, T., & Sherman, R. (1968). A reply to the critique of goal attaining scaling. *Social Work Research and Abstracts, 13,* 9-11.

Kirschbaum, C., Pirke, K., & Hellhammer, D. (1993). The 'Trier Social Stress Test'– A tool for investigating psychobiological stress responses in a laboratory setting. *Neuropsychobiology, 28,* 76-81.

Klainin-Yobas, P., Cho, M., & Creedy, D. (2012). Efficacy of mindfulness-based interventions on depressive symptoms among people with mental disorders: A meta-analysis. *International Journal of Nursing Studies, 49,* 109-121.

Klatt, M., Buckworth, J., & Malarkey, W. (2009). Effects of low-dose mindfulness-based stress reduction (MBSR-ld) on working adults. *Health Education and Behavior, 36,* 601-14.

Kleinman, B. (2011). Differential effects of meditation on relationship quality. *Dissertation Abstracts International: Section B. Sciences and Engineering, 72,* 539.

Koopmann-Holm, B., Sze, J., Ochs, C., & Tsai, J. L. (2013). Buddhist inspired meditation increases the value of calm. *Emotion, 13,* 497-505.

Kongtrul, J. (1992). *Cloudless Sky: The Mahamudra Path of the tibetan Buddhist Kagyu School.* (R. Gravel, Trans.) London: Shambhala Punblications Inc.

Krasner, M., Epstein, R., Beckman, H., Suchman, A., Chapman, B., Mooney, C., & Quill, T. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *Journal of the American Medical Association, 302,* 1284-1293.

Kristeller, J. L., & Wolever, R. D. (2011). Mindfulness-based eating awareness training for treating binge eating disorder. *Eating Disorders, 19,* 49-61.

K'uan Yu, L. (1976). *Ch'an and Zen Teaching.* London: Rider and Company.

Kuijpers, H., van der Heijden, F., Tuinier, S., & Verhoeven, W. (2007). Meditation-induced psychosis. *Psychopathology, 40,* 461-464.

Kumar, S. M. (2005). *Grieving Mindfully: A Compassionate and Spiritual Guide to Coping*

with Loss. Oakland, CA: New Harbinger.

Kuss, D., & Griffiths, M. D. (2011). Online social networking and addiction: A literature review of empirical research. *International Journal of Environmental and Public Health, 8*, 3528-3552.

Lakey, C. E., Campbell, K. W., Brown, K. W., & Goodie, A. S. (2007). Dispositional mindfulness as a predictor of the severity of gambling outcomes. *Personality and Individual Differences, 43*, 1698-1710.

Langer, A., Cangas, A., Salcedo, E., & Fuentes, B. (2012). Applying mindfulness therapy in a group of psychotic individuals: A controlled study. *Behavioural and Cognitive Psychotherapy, 40*, 105-109.

Law, R. (2012). An analohue study of loving-kindness meditation as a buffer against social stress. *Dissertation Abstracts International: Section B. Sciences and Engineering, 72*, 4365.

Ledesma, D., & Kumano, H. (2009). Mindfulness-based sttress reduction and cancer: A meta-analysis. *Psycho-Oncology, 18*, 571-579.

Lee, K.-H., Bowen, S., & An-Fu, B. (2011). Psychosocial outcomes of mindfulness-based relapse prevention in incarcerated substance abusers in Taiwan: A preliminary study. *Journal of Substance Use, 16*, 476-483.

Lee, T., Leung, M.-K., Tang, J., Yin, J., So, K.-F., Lee, C.-F., & Chan, C. (2012). Distinct neural activity associated with focused-attention meditation and loving-kindness meditation. *PLoS ONE, 7*, e40054.

Leiberg, S., Klimecki, O., & Singer, T. (2011). Short-term compassion training increases prosocial behavior in a newly developed prosocial game. *PLoS ONE, 6*, e17798.

Leucht, S., Kane, J., Kissling, W., Hamann, J., Etschel, E., & Engel, R. (2005). Clinical

implications of Brief Psychiatric Rating scale scores. *British Journal of Psychiatry, 187*, 336-371.

Lindberg, D. (2005). Integrative review of research related to meditation, spirituality, and the elderly. *Geriatric Nursing, 26*, 277-327.

Linehan, M. (1993). *Cognitive Behavioural Treatment of Borderline Personality Disorder.* New York: Guildford Press.

Lipsey, M., & Wilson, D. (2001). *Practical Meta-analysis.* California: Sage Publications Inc.

Locke, E., & Latham, G. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57*, 705-717.

Logie, K., & Frewen, P. (2015). Self/other referential processing following mindfulness and loving-kindness meditation. *Mindfulness, 6*, 778-787.

Lomas, T., Cartwright, T., Edginton, T., & Ridge, D. (2015). A qualitative summary of experiential challenges associated with meditation practice. *Mindfulness, 6, 848-860.*

Lorains, F. K., Cowlishaw, S., & Thomas, S. A. (2011). Prevalence of comorbid disorders in problem and pathological gambling: systematic review and meta-analysis of population surveys. *Addiction, 106*, 490-498.

Lovibond, S., & Lovibond, P. (1995). *Manual for the Depression Anxiety Stress Scales.* Sydney: Psychology Foundation.

Lutz, A., Brefczynski-Lewis, J., Johnstone, T., & Davidson, R. (2008). Regulation of the theme neural circuitry of emotion by compassion meditation: effects of the meditative expertise. *PLoS ONE, 3*, e1897. doi:10.1371/journal.pone.0001897

MacCoon, D., Imel, Z., Rosenkranz, M., Sheftel, J., Weng, H., Sullivan, J., . . . Lutz, A. (2012). The validation of an active control intervention for Mindfulness Based Stress Reduction (MBSR). *Behavior Research and Therapy, 50*, 3-12.

Mackenzie, M. J., Carlson, L. E., Munoz, M., & Speca, M. (2007). A qualitative study of self-perceived effects of mindfulness-based stress reduction (MBSR) in a psychosocial oncology setting. *Stress and Health, 23,* 59-69.

Malarkey, W., Jarjoura, D., & Klatt, M. (2013). Workplace based mindfulness practice and inflammation: A randomized trial. *Brain, Behaviour and Immunity, 27,* 145-154.

Malouff, J., & Schutte, N. (1986). Development and validation of a measure of irrational belief. *Journal of Consulting and Clinical Psychology, 54,* 860-862.

Manocha, R., Black, D., Sarris, J., & Stough, C. (2011). A randomised controlled trial of meditation for work stress, anxiety and depressed mood in full-time workers. *Evidence-Based Complementary and Alternative Medicine,* Article ID 960583, doi:10.1155/2011/960583

Marlatt, A. G. (2002). Buddhist philosophy and the treatment of addictive behaviours. *Cognitive and Behavioral Practice, 9,* 44-50.

Martin, G. W., Wilkinson, D. A., & Poulos, C. X. (1995). The Drug Avoidance Self-Efficacy Scale. *Journal of Substance Abuse, 7,* 151-163.

Mascaro, J., Rilling, J., Negi, L., & Raison, C. (2013a). Compassion meditation enhances empathic accuracy and related neural activity. *Social Cognitive and Affective Neuroscience, 8,* 48-55.

Mascaro, J., Rilling, J., Negi, L., & Raison, C. (2013b). Pre-existing brain function predicts subsequent practice of mindfulness and compassion meditation. *NeuroImage, 69,* 35-42.

May, C., Burgard, M., Abassi, I., Bernhardt, N., Clemens, S., Curtis, E., . . . Williamson, R. (2011). Short-term training in loving-kindness meditation produces a state, but not a trait, alteration of attention. *Mindfulness, 2,* 143-153.

May, C., Weyker, J., Spengel, S., Finkler, L., & Hendrix, S. (2012). Tracking longitudinal

changes in affect and mindfulness caused by concentration and loving-kindness meditation with hierarchical linear modeling. *Mindfulness, 5*, 249-258.

Mayhew, S., & Gilbert, P. (2008). Compassionate mind training with people who hear malevolent voices: A case series report. *Clinical Psychology and Psychotherapy., 15*, 113-136.

McConville, T., & Holden, L. (1999). The filling in the sandwich: HRM and middle managers in the health sector. *Personnel Review, 28*, 406-424.

McCormack, A., & Griffiths, M. D. (2012). Motivating and inhibiting factors in online gambling behaviour: A grounded theory study. *International Journal of Mental Health and Addiction, 10*, 39-53.

McNair, D., Lorr, M., & Droppelman, L. (1992). *Profile of Mood States Text Manual.* San Diego, CA: Educational and Industrial Testing Service.

McWilliams, S. (2014). Foundations of mindfulness and contemplation: Traditional and contemporary perspectives. *International Journal of Mental Health and Addiction, 12*, 116-128.

McWilliams, S. A. (2011). Contemplating a contemporary constructivist Buddhist psychology. *Journal of Constructivist Psychology, 24*, 268-276.

Mehwash, M., & Griffiths, M. D. (2010). Online gaming addiction: the role of sensation seeking, self-control, neuroticism, aggression, state anxiety, and trait anxiety. *Cyberpsychology, Behavior, and Social Networking, 13*, 313-316.

Melzack, R. (1975). The McGill Pain Questionnaire: Major properties and scoring methods. *Pain, 1*, 277-299.

Melzack, R. (1991). From the gate to the neuromatrix. *Pain, 6 Suppl*, S121-6.

Mental Health Foundation. (2010). *Mindfulness Report.* London: Author.

Meyer, T., Miller, M., Mertzger, R., & Borkovec, T. (1990). Development and validation of the Penn State Worry Questionnaire. *Behavior Research and Therapy, 28,* 487-495.

Michalon, M. (2001). "Selflessness" in the service of the ego: Contributions, limitations and dangers of Buddhist psychology for Western psychotherapy. *American Journal of Psychotherapy, 55,* 202-218.

Milarepa. (1999). *The Hundred Thousand Songs of Milarepa: The Life-Story and Teaching of the Greatest Poet-Saint Ever to Appear in the History of Buddhism.* (G. Chang, Trans.) Boston: Shambala Publications.

Miller, W. R., Tonigan, J. S., & Longabaugh, R. (1995). The Drinker Inventory of Consequences (DrInC). In M. E. Mattson, & L. A. Marshall (Eds.), *Project MATCH Monograph Series Volume 4.* NIH Publications.

Ministry of Justice. (2012a). *Criminal Justice Statistics: Quarterly Update to December 2011.* London: Author.

Ministry of Justice. (2012b). *2012 Compendium of Re-offending Statistics and Analysis.* London: Author.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). *Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement.* PLoS Med 6: e1000097. doi:10.1371/journal.pmed1000097

Monaghan, S., & Blaszczynski, A. (2009). *Internet-based Interventions for the Treatment of Problem Gambling.* Toronto: Centre for Addiction and Mental Health.

Monteiro, L. M., Musten, R. F., & Compson, J. (2015). Traditional and contemporary mindfulness: Finding the middle path in the tangle of concerns. *Mindfulness, 6,* 1-13.

Morone, N., Lynch, C., Greco, C., Tindle, H., & Weiner, D. (2008). "I felt like a new person." The effects of mindfulness meditation on older adults with chronic pain: Qualitative

narrative analysis of diary entries. *Journal of Pain, 9,* 841-848.

Morrison, E. (1994). Role definitions and organizational citizenship behavior: The importance of the employee's perspective. *Academy of Management Journal, 37,* 1543-1567.

Nagarjuna. (1995). *The Funadamental Wisdom of the Middle Way: Nāgārjuna's Mūlamadhyamakakārikā.* (J. L. Garfield, Trans.) New York: Oxford University Press.

Ñanamoli B. (1979). *The Path of Purification: Visuddhi Magga.* Kandy (Sri Lanka): Buddhist Publication Society.

Ñanamoli, B., & Bodhi, B. (2009). *Majjhima Nikāya: The Middle Length Discourses of the Buddha* (4th ed.). Massachusetts: Wisdom Publications.

Nance-Nash, S. (2011). The high price of America's gambling addiction. *Daily Finance,* July 22. Retrieved November 10, 2012 from: http://www.dailyfinance.com/2011/07/22/the-high-price-of-americas-gambling-addiction/

National Collaborating Centre for Methods and Tools (2008). *Quality Assessment Tool for Quantitative Studies (QATQS).* Retrieved January 10, 2013, from National Collaborating Centre for Methods and Tools: http://www.nccmt.ca/registry/view/eng/14.html

National Institute for Health and Care Excellence (NICE). (2009a). *Depression: Management of Depression in Primary and Secondary Care.* London: NICE.

National Institute for Health and Care Excellence (NICE). (2009b). *NICE Clinical Guideance 82: Schizophrenia—Core interventions in the treatment and management of schizophrenia in adults in primary and secondary care.* Manchester: Author.

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2,* 223-250.

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality, 41,* 139-154.

Neff, K. D., & Germer, C. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of Clinical Psychology, 69*, 28-44.

New Local Government Network. (2007). *Reducing Re-offending: Creating the Right Framework.* London: Author.

Nhat Hanh, T. (1992). *The Sun my Heart.* London: Rider.

Nhat Hanh, T. (1999a). *Call Me By My True Names.* Berkeley: Parallax Press.

Nhat Hanh, T. (1999b). *The Heart of the Buddha's Teaching: Transforming Suffering into Peace, Joy, and Liberation.* New York: Broadway Books.

Norbu, C., & Clemente, A. (1999). *The Supreme Source. The Fundamental Tantra of the Dzogchen Semde.* New York: Snow Lion Publications.

Novaco, R. W. (2007). Anger Dysregulation. In T. A. Cavell, & K. T. Malcolm (Eds.), *Anger, Aggression, and Interventions for Interpersonal Violence* (pp. 3-54). Mahwah, NJ: Erlbaum.

Nyanaponika Thera. (1983). *The Heart of Buddhist Meditation.* London: Rider.

O'Keeffe, G. S., Clarke-Pearson, K., & Council on Communications and Media. (2011). The impact of social media on children, adolescents, and families. *Paediatrics, 127*, 800-804.

Oman, D., Thoresen, C., & Hedberg, J. (2010). Does passage meditation foster compassionate love among health professionals? A randomized trial. *Mental Health, Religion, and Culture, 13*, 129-154.

Orford, J., Wardle, H., & Griffiths, M. D. (2013). What proportion of gambling is problem gambling? Estimates from the 2010 British Gambling Prevalence Survey. *International Gambling Studies, 13*, 4-18.

Ortiz de Gotari, A., Aronnson, K., & Griffiths, M. D. (2012). Game Transfer Phenomena in video game playing: A qualitative interview study. *International Journal of Cyber*

Behavior, Psychology and Learning, 1, 15-33.

Overall, J., & Gorham, D. (1962). The brief psychiatric rating scale. *Psychological Reports, 10*, 799-812.

Pace, T., Negi, L., Dodson-Lavelle, B., Ozawa-de Silva, B., Reddy, S., Cole, S., . . . Raison, C. (2013). Engagement with Cognitively-Based Compassion Training is associated with reduced salivary C-reactive protein from before to after training in foster care program adolescents. *Psychoneuroendocrinology*, 38, *294-299.*

Pace, T., Negi, L., Sivilli, T., Issa, M., Cole, S., Adame, D., & Raison, C. (2010). Innate immune, neuroendocrine and behavioral responses to psychosocial stress do not predict subsequent compassion meditation practice time. *Psychoneuroendocrinology, 35*, 310-315.

Pace, W. W., Negi, L. T., Adame, D. D., Cole, S. P., Sivilli, T. I., Brown, T. D., . . . Raison, C. L. (2009). Effect of compassion meditation on neuroendocrine, innate immune and behavioural responses to psychosocial stress. *Psychoneuroendocrinology, 34*, 87-98.

Parhami, I., Siani, A., Rosenthal, R., & Fong, T. (2013). Pathological gambling, problem gambling and sleep complaints: An analysis of the National Comorbidity Survey: Replication (NCS-R). *Journal of Gambling Studies*, 29, *241-243.*

Park, S., & Holzman, P. (1992). Schizophrenics show spatial working memory deficits. *Archives of General Psychiatry*, *49*, 975-982.

Parke, A., Griffiths, M. D., & Irving, P. (2004). Personality traits in pathological gambling: Sensation seeking, deferment of gratification and competitiveness as risk factors. *Addiction Research and Theory, 12*, 201-212.

Parke, J., Griffiths, M. D., & Parke, A. (2007). Positive thinking among slot machine gamblers: A case of maladaptive coping? *International Journal of Mental Health and Addiction*, *5*,

39-52.

Parks, G. A. (2001). *The Daily Drug-Taking Questionnaire (DDTQ)—Version 1: A measure of typical and peak drug use.* Unpublished Manuscript, University of Washington.

Perelman, A. M., Miller, S. L., Clements, C. B., Rodriguez, A., Allen, K., & Cavanaugh, R. (2012). Meditation in a deep south prison: A longitudinal study of the effects of vipassana. *Journal of Offender Rehabilitation, 51*, 176-198.

Perez-De-Albeniz, A., & Holmes, J. (2000). Meditation: concepts, effects and uses in therapy. *International Journal of Psychotherapy, 5*, 49-59.

Peter, R., & Siegrist, J. (1997). Chronic work stress, sickness absence, and hypertension in middle managers: General or specific sociological explanations? *Social Science and Medicine, 45*, 1111-20.

PEW Centre on the States. (2011). *State of Recidivism: The Revolving Door of America's Prisons.* Washington: Author.

PEW Research Centre. (2012). *Religion in Prisons: A 50-State Survey of Prison Chaplains.* Retrieved August 20, 2012, from PEW Research Centre Forum on Religion and Public Life: http://www.pewforum.org/Government/religion-in-prisons.aspx

Ponlop, D. (2003). *Wild Awakening. The Heart of Mahamudra & Dzogchen.* Boston: Shambhala.

Pont, J. (2008). Ethics in research involving prisoners. *International Journal of Prisoner Health, 4*, 184-197.

Potenza, M., & Chambers, R. (2001). Schizophrenia and pathological gambling. *American Journal of Psychiatry, 158*, 497-498.

Prison Reform Trust. (2012). *Bromley Briefings Prison Factfile.* London: author.

Proverbio, A., Adorni, R., Zani, A., & Trestianu, L. (2009). Sex differences in the brain

response to affective scenes with or without humans. *Neuropsychologia, 47*, 2374-2388.

Puhakka, K. (2015). Encountering the psychological research paradigm: How Buddhist practice has fared in the most recent phase of its western migration. In E. Shonin, W. Van Gordon, & N. Singh (Eds.), *Buddhist Foundations of Mindfulness* (pp 217-242). New York: Springer.

Rabjam, L. (2002). *The Practice of Dzogchen.* (H. Talbot, Ed., & Tulku Thondup, Trans.) New York: Snow Lion Publications.

Radloff, L. (1977). Tjhe CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.

Ranganathan, N., Bohet, A. K., & Wadhwa, T. (2008). Beyond the prison walls: reforming through silence. *Psychological Studies, 53*, 54-63.

Reat, N. (1993). *The Shalistamba Sutra.* Dehli: Molital Baranasidas.

Reddy, S., Negi, L., Dodson-Lavelle, B., Ozawa-de Silva, B., Pace, T., Cole, S., . . . Craighead, L. (2013). Cognitive-based Compassion Training: A promising prevention strategy for at-risk adolescents. *Journal of Child and Family Studies, 22*, 219-230.

Renard, S., Pijnenborg, M., & Lysaker, P. (2012). Dissociation and social cognition in schizophrenia spectrum disorder. *Schizophrenia Research, 137*, 219-223.

Rhead, J. C., & May, G. G. (1983). Meditation in a specialized correctional setting: A controlled study. *Corrective and Social Psychiatry and Journal of Behaviour Technology Methods and Therapy, 29*, 105-111.

Rhys Davids, T. (1881). *Buddhist Suttas.* Oxford: Clarendon Press.

Rickwood, D., Blaszczynski, A., Delfabbro, P., Dowling, N., & Heading, K. (2010). The psychology of gambling. *InPsych, 32*, 11-21.

Rigbye, J., & Griffiths, M. D. (2011). Problem gambling treatment within the British National

Health Service. *International Journal of Mental Health and Addiction, 9*, 276-281.

Riley, B. (2014). Experiential avoidance mediates the association between thought suppression and mindfulness with problem gambling. *Journal of Gambling Studies, 30,* 163-171.

Riley, E., McGovern, D., Mockler, D., & Doku, e. a. (2000). Neuropsychological functioning in first episode psychosis: Evidence of specific deficits. *Schizophrenia Research, 43*(1), 47-55.

Robinson, B. (1998). The workaholic family. *American Journal of Family Therapy, 26*, 65-75.

Rosch, E. (2007). More than mindfulness: when you have a tiger by the tail, let it eat you. *Psychological Inquiry, 18*, 258-264.

Rosenberg, M. (1979). *Conceiving the Self.* New York: Basic Books.

Roth, B., & Stanley, T. W. (2002). Mindfulness-based stress reduction and healthcare utlization in the inner city: Preliminary findings. *Alternative Therapies in Health and Medicine, 8*, 60-66.

Rungreangkulkji, S., Wongtakee, W., & Thongyot, S. (2011). Buddhist Group Therapy for diabetes patients with depressive symptoms. *Archives of Psychiatric Nursing, 25*, 195-205.

Russel, S., Spitzmuller, C., Lin, L., Stanton, J., Smith, P., & Ironson, G. (2004). Shorter can also be better: The abridged Job in General Scale. *Educational and Psychological Measurement, 64*, 878-893.

Ryff, C. (1989). Happiness is everything, or is it?: Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069-1081.

Sahdra, B. K., Shaver, P. R., & Brown, K. W. (2010). A scale to measure nonattachment: A Buddhist complement to Western research on attachment and adaptive functioning. *Journal of Personality Assessment., 92*, 116-127.

Sainsbury Centre for Mental Health (2007). *Mental Health at Work: Developing the Business Case.* London: Author.

Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta Mood Scale. In J. W. Pennebaker (Ed.), *Emotion, Disclosure and Health* (pp. 125-154). Washington DC: American Psychological Association.

Sampson, E. (1999). *Dealing with Differences: An Introduction to the Social Psychology of Prejudice.* New York: Harcourt Brace College Publishers.

Samuelson, M., Carmody, J., Kabat-Zinn, J., & Bratt, M. A. (2007). Mindfulness-based stress reduction in Massachusetts correctional facilities. *The Prison Journal, 87*, 254-268.

Sandelowski, M., & Barroso, J. (2002). Reading qualitative studies. *International Journal of Qualitative Methods*, *1*, 1-46.

Santideva. (1997). *A Guide to the Bodhisattva Way of Life.* (V. A. Wallace, & A. B. Wallace, Trans.) New York: Snow Lion Publications.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcomes expectancies. *Health Psychology, 4*, 219-247.

Schulz, K., Altman, D., & Moher, D. (2010). CONSORT 2010 stastement: Updated guidelines for reporting parallel group randomized trials. *Annals of Internal Medicine, 152*, 1-8.

Sears, S., & Kraus, S. (2009). I think therefore I Om: cognitive distortions and coping style as mediators for the effects of mindfulness meditation on anxiety, positive and negative affect, and hope. *Journal of Clinical Psychology, 65*, 561-573.

Sedikides, C., & Spencer, S. (Eds.). (2007). *The Self.* New York: Psychology Press.

Segal, Z. V., Williams, J. M., & Teasdale, J. D. (2002). *Mindfulness-based Cognitive Therapy for Depression: A New Approach to Preventing Relapse.* New York: Guilford.

Segall, S. R. (2003). Psychotherapy practice as Buddhist practice. In S. R. Segall (Ed.), E*ncountering Buddhism: Western Psychology and Buddhist Teachings* (pp. 165-178). New York: State University of New York Press.

Sethi, S. & Subhash, C. (2003) Relationship of meditation and psychosis: Case studies. *Australian and New Zealand Journal of Psychiatry* 37, 382-384

Shacham, S. (1983). A shortened version of the Profile of Mood States. *Journal of Personality Assessment, 47*, 305-306.

Shamay-tsoory, S. (2011). The neural bases for empathy. *Neuroscientist, 17*, 18-24.

Shantideva. (1997). *A Guide to the Bodhisattva Way of Life.* (V. A. Wallace, & A. B. Wallace, Trans.). New York: Snow Lion Publications.

Shapira, L., & Mongraina, M. (2010). The benefits of self-compassion and optimism exercises for individuals vulnerable to depression. *Journal of Positive Psychology, 5*, 377-389.

Shapiro, D. H. (1992). Adverse effects of meditation: a preliminary investigation of long-term meditators. *International Journal of Psychosomatics, 32*, 62-67.

Sharpe, L. (2004). Patterns of autonomic arousal in imaginal situations of winning and losing in problem gambling. *Journal of Gambling Studies, 20*, 95-104.

Shonin, E., & Van Gordon, W. (2013a). *Authentic Spiritual Lineage*. March 11. Located at: http://edoshonin.com/2013/03/09/73/ Accessed 15th October 2014.

Shonin, E., & Van Gordon, W. (2013b). A close truth. Located at: http://edoshonin.com/2013/04/11/a-close-truth/

Shonin, E., & Van Gordon, W. (2014a). The *scientific Study of Buddhism and the Noble Eightfold Path: Dividing the Whole into Many*. June 21. Located at http://edoshonin.com/2014/06/21/the-scientific-study-of-buddhism-and-the-noble-eightfold-path-dividing-the-whole-into-many/

Shonin, E., & Van Gordon, W. (2014b). Searching for the present moment, *Mindfulness, 5,* 105-107.

Shonin, E., & Van Gordon, W. (2014c). The consuming mind. *Mindfulness, 5,* 345-347.

Shonin, E., & Van Gordon, W. (2014d). Dream or reality? *Philosophy Now, 104,* 54.

Shonin, E., & Van Gordon, W. (2014e). Can a person be ignorant and intelligent at the same time? Located at http://edoshonin.com/2014/06/11/can-a-person-be-ignorant-and-intelligent-at-the-same-time/

Shonin, E. & Van Gordon, W. (2014f). Using mindfulness and insight to transform loneliness. *Mindfulness, 5,* 771-773.

Shonin, E., & Van Gordon, W. (2014g). False spiritual economy: Why an "I Want it All and I Want it Now" attitude doesn't promote spiritual growth. Located at http://edoshonin.com/2014/12/12/false-spiritual-economy-why-an-i-want-it-all-and-i-want-it-now-attitude-doesnt-promote-spiritual-growth/

Shonin, E., & Van Gordon, W. (2015a). The lineage of mindfulness. *Mindfulness, 6,* 141-145.

Shonin, E., & Van Gordon, W. (2015b). Managers' experiences of Meditation Awareness Training. *Mindfulness, 4,* 899-909.

Shonin, E., Van Gordon W., & Griffiths M. D. (2013a). Meditation Awareness Training (MAT) for improved psychological wellbeing: A qualitative examination of participant experiences. *Journal of Religion and Health, 53,* 849-863.

Shonin, E., Van Gordon W., & Griffiths, M. D. (2013b). Buddhist philosophy for the treatment of problem gambling. *Journal of Behavioural Addictions, 2,* 63-71.

Shonin, E., Van Gordon W., Slade, K., & Griffiths, M. D. (2013c). Mindfulness and other Buddhist-derived interventions in correctional settings: A systematic review. *Aggression and Violent Behavior, 18,* 365-372.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013d). Mindfulness-based interventions: Towards mindful clinical integration. *Frontiers in Psychology, 4,* 194. DOI:10.3389/fpsyg.2013.00194.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013e). Meditation as medication: Are attitudes changing? *British Journal of General Practice, 63,* 654.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013f). Mindfulness-based therapy: A tool for Spiritual Growth? *Thresholds: Quarterly Journal of the Association for Pastoral and Spiritual Care and Counselling (Journal of the British Association for Counselling and Psychotherapy), Summer Issue,* 14-18.

Shonin, E., Van Gordon W., & Griffiths, M. D. (2014a). Mindfulness as a treatment for behavioural addiction. *Journal of Addiction Research and Therapy, 5,* e122. DOI: 10.4172/2155-6105.1000e122.

Shonin, E., Van Gordon W., & Griffiths, M. D. (2014b). The emerging role of Buddhism in clinical psychology: Toward effective integration. *Psychology of Religion and Spirituality, 6,* 123-137.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014c). Loving-kindness and compassion meditation in psychotherapy. *Thresholds: Quarterly Journal of the Association for Pastoral and Spiritual Care and Counselling (A Journal of the British Association for Counselling and Psychotherapy), Spring Issue,* 9-12.

Shonin, E., Van Gordon, W., Dunn, T., Singh, N., & Griffiths, M. D. (2014d). Meditation Awareness Training for work-related wellbeing and job performance: A randomised controlled trial. *International Journal of Mental Health and Addiction, 12,* 806-823.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014e). Do mindfulness-based therapies have a role in the treatment of psychosis? *Australia and New Zealand Journal of Psychiatry, 48,* 124-127.

Shonin, E**.,** Van Gordon, W., & Griffiths, M. D. (2014f). The treatment of workaholism with Meditation Awareness Training: A Case Study. *Explore: The Journal of Science and Healing, 10,* 193-195.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014g). Cognitive Behavioural Therapy (CBT) and Meditation Awareness Training (MAT) for the treatment of co-occurring schizophrenia with pathological gambling: A case study. *International Journal of Mental Health and Addiction, 12,* 181-196.

Shonin, E., Van Gordon, W., & Singh, N. N. (2015a). *Mindfulness and Buddhist Practice*. In: Shonin, E., Van Gordon W., & Singh, N. N. (Eds). *Buddhist Foundations of Mindfulness* (pp.1-6). New York: Springer.

Shonin, E., Van Gordon W., & Griffiths, M. D. (2015b). Mindfulness in psychology: A breath of fresh air? *The Psychologist, 28, 28-31*.

Shonin, E., Van Gordon W., & Griffiths, M. D. (2015c). Are there risks associated with using mindfulness for the treatment of psychopathology? *Clinical Practice, 11,* 389-382.

Sills, M., & Lown, J. (2008). The field of subliminal mind and the nature of being. *European Journal of Psychotherapy and Counselling, 10*, 71-80.

Simpson, T. I., Kaysen, D., Bowen, S., MacPherson, L. M., Chawla, N., Blume, A., . . . Larimer, M. (2007). PTSD symptoms, substance use, and vipassana meditation among

incarcerated individuals. *Journal of Traumatic Stress, 20,* 239-249.

Singh, N. N., Lancioni, G. E., Winton, A. S. W., Singh, J. Curtis, W. J., Wahler, R. G., & McAleavey, K. M. (2007). Mindful parenting decreases aggression and increases social behavior in children with developmental disabilities. *Behavior Modification, 31,* 749-771.

Singh, N. N., Lancioni, G. E., Wahler, R. G., Winton, A. S., & Singh, J. (2008a). Mindfulness approaches in cognitive behaviour therapy. *Behavioural and Cognitive Psychotherapy, 36,* 658-666.

Singh, N. N., Lancioni, G. E., Singh, A., Winton, A. S. W., Singh, J., McAleavey, K. M., & Adkins, A. (2008b). A mindfulness-based health wellness program for managing morbid obesity. *Clinical Case Studies, 7,* 327-339.

Singh, N. N., Lancioni, G. E., Winton, A. S., Singh, A. N., Adkins, A. D., & Singh, J. (2011). Can adult offenders with intellectual disabilities use mindfulness-based procedures to control their deviant sexual arousal? *Psychology, Crime and Law, 17,* 165-179.

Singh, N. N., Lancioni, G. E., Winton, A. S. W., Karazia, B. T., Singh, A. D. A., Singh, A. N. A., & Singh, J. (2013). A mindfulness-based smoking cessation program for individuals with mild intellectual disability. *Mindfulness, 4,* 148-157.

Singh, N. N., Lancioni, G. E., Winton, A. S. W., Karazsia, B. T., & Singh, J. (2014a). Mindfulness-Based Positive Behavior Support (MBPBS) for mothers of adolescents with autism spectrum disorders: Effects on adolescents' behavior and parental stress. *Mindfulness, 5,* 646-657.

Singh, N. N., Lancioni, G. E., Myers, R. E., Karazsia, B. T., Winton, A. S. W., & Singh, J. (2014b). A randomized controlled trial of a mindfulness-based smoking cessation program for individuals with mild intellectual disability. *International Journal of*

Mental Health and Addiction, 12, 153-168.

Singh, N. N., Lancioni, G. E., Karazsia, B. T., Winton, A. S. W., Singh, J., & Wahler, R. G. (2014c). Shenpa and compassionate abiding: Mindfulness-based practices for anger and aggression by individuals with schizophrenia. *International Journal of Mental Health and Addiction,* 12, 138-152.

Slaghuis, W., & Curran, C. (2001). Spatial frequency masking positive and negative symptom schizophrenia. *Journal of Abnormal Psychology, 110*, 488-493.

Smith, J. (1995). Semi-structured interviewing and qualitative analysis. In J. Smith, R. Harre, & L. Van Langenhove (Eds.), *Rethinking Methods in Psychology* (pp. 9-26). London: Sage.

Smith, J. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology and Health, 11,* 261-271.

Smith, J. (1999). *ABC Relaxation Theory: An Evidence-based Approach.* New York: Springer.

Smith, J. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology, 1*, 39-54.

Smith, J., Flowers, P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis. Theory, Method and Research. .* London: Sage Publications Ltd.

Snyder, C., Harris, C., Anderson, J., Holleran, S., Irving, L., Sigmon, S., . . . Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.

Soeng, M. (1995). *Heart Sutra: Ancient Buddhist Wisdom in the Light of Quantum Reality.* Cumberland: Primary Point Press.

Sogyal Rinpoche. (1992). *The Tibetan Book of Living and Dying.* San Francisco:

HarperCollins.

Soler, J., Valdepérez, A., Feliu-Soler, A., Pascual, J., Portella, M., Martin-Blanco, A., . . . Perez, V. (2012). Effects of the dialectical behavioral therapy-mindfulness module on attention in patients with borderline personality disorder. *Behaviour Research and Therapy, 50,* 150-157.

Sumpter, M. T., Monk-Turner, E., & Turner, C. (2009). The benefits of meditation practice in the correctional setting. *Journal of Correctional Health Care, 15,* 47-57.

Sussman, S. (2012). Workaholism: A review. *Journal of Addiction Research and Therapy, 6,* 4120.

Sussman, S., Lisha, N., & Griffiths, M. (2011). Prevalence of the addictions: A problem of the majority or the minority? *Evaluation and the Health Professions, 34,* 3-56.

Suzuki, D. (1983). *Manual of Zen Buddhism.* London: Rider.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72,* 271-324.

Taylor, K., Harper, S., & Chadwick, P. (2009). Impact of mindfulness on cognition and affect in voice hearing: Evidence from two case studies. *Behavioural and Cognitive Psychotherapy, 37,* 397-402.

Teasdale, J., Segal, Z., & Williams, J. (1995). How does cognitive therapy prevent depressive relapse and why should attention control mindfulness training help? *Behaviour Research and Therapy, 33,* 25-39.

Templeton, J. (2007). Expanding circle morality: Believing that all life matters. *Dissertation Abstracts International: Section B. Sciences and Engineering, 68,* 1342.

Thānissaro Bhikkhu. (2012). *Right Mindfulness: Memory and Ardency on the Buddhist Path.*

Retrieved June 15th, 2014, from Holy Books: http://www.holybooks.com/right-mindfulness-memory-ardency-on-the-buddhist-path/

Thompson, B. L., & Waltz, J. (2008). Self-Compassion and PTSD Symptom Severity. *Journal of Traumatic Stress, 21*, 556-558.

Toneatto, T., & Nguyen, I. (2007). Does mindfulness meditation improve anxiety and mood symptoms? A review of the controlled research. *La Revue Canadienne di Psychiatrie., 52*, 260-266.

Toneatto, T., Vettese, L., & Nguyen, L. (2007). The role of mindfulness in the cognitive-behavioural treatment of problem gambling. *Journal of Gambling Issues, 19*, 91-101.

Trungpa, C. (2002). *Cutting Through Spiritual Materialism.* Boston: Shambala.

Trungpa, C. (2003). *The Collected Works of Chogyam Trungpa: Volume Four*. Boston: Shambala.

Trungpa, C. (2006). The fourth moment. *Shambala Sun, 14*, 44-45.

Tsai, J., & Knutson, B. (2006). The Affect Valuation Index: Reliability and validity. Stanford University.

Tsai, J., Miao, F., & Seppala, E. (2007). Good feelings in Christianity and Buddhism: Religious differences in ideal affect. *Personality and Social Psychology Bulletin, 33*, 409-421.

Tsong-Kha-pa. (2004). *The Great Treatise on the Stages of the Path to Enlightenment* (Vol. 1). (J. W. Cutler, G. Newland, Eds., & The Lamrim Chenmo Translation committee, Trans.) New York: Snow Lion Publications.

Turkington, D., Kingdon, D., & Weiden, P. (2006). Cognitive behaviour therapy for schizophrenia. *American Journal of Psychiatry, 163*, 365-373.

Urgyen, T. (1995). *Rainbow Painting.* Hong Kong: Rangjung Yeshe Publications.

Urgyen, T. (2000). *As It Is.* (M. B. Schmidt, K. Moran, Eds., & E. Pema Kunsang, Trans.) Hong Kong: Rangjung Yeshe Publications.

Van Dam, N. T., Sheppard, S. C., Forsyth, J. P., & Earleywine, M. (2011). Self-compassion is a better predictor than mindfulness of symptom severity and quality of life in mixed anxiety and depression. *Journal of Anxiety Disorders, 25,* 123-130.

van der Valk, R., van de Waerdt, S., Meijer, C., van den Hout, I., & de Haan, L. (2013). Feasibility of mindfulness-based therapy in patients recovering from a first psychotic episode: A pilot study. *Early Intervention Psychiatry, 7*, 64-70.

Van Gordon, W., Shonin, E., Sumich, A., Sundin, E., & Griffiths, M. D. (2014a). Meditation Awareness Training (MAT) for psychological wellbeing in a sub-clinical sample of university students: A controlled pilot study. *Mindfulness, 5*, 381-391.

Van Gordon, W., Shonin, E., Zangeneh, M., & Griffiths, M. D. (2014b). Work-related mental health and job performance: Can mindfulness help? *International Journal of Mental Health and Addiction, 12,* 129-137.

Van Gordon, W., Shonin, E., & Griffiths, M. (2015a). Towards a second-generation of mindfulness-based interventions. *Australia and New Zealand Journal of Psychiatry, 49,* 591-591.

Van Gordon, W., Shonin, E., Griffiths, M. D., & Singh, N. N. (2015b). *Mindfulness and the Four Noble Truths.* In: Shonin, E., Van Gordon W., & Singh, N. N. (Eds). *Buddhist Foundations of Mindfulness* (pp. 9-27). New York: Springer. DOI: 10.1007/978-3-319-18591-0.

Vøllestad, J., Nielson, M., & Nielson, G. (2012). Mindfulness and acceptance-based interventions for anxiety disorders: A systematic review and meta-analysis. *British Journal of Clinical Psychology, 51,* 239-260.

Wada, K., & Park, J. (2009). Integrating Buddhist Psychology into Grief Counseling. *Death Studies, 33,* 657-683.

Walach, H., Buchheld, N., Buttenmuller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness—the Freiburg mindfulness inventory (FMI). *Personality and Indivual Differences, 40*, 1543-1555.

Wallace, P. (2014). Internet addiction disorder and youth. EMBO Reports, *15*, 12-20.

Wallmark, E., Safarzadeh, K., Daukantaite, D., & Maddux, R. (2013). Promoting altruism through meditation: An 8-week randomized controlled pilot study. *Mindfulness, 4*, 223-234.

Walsh, J. M., Ciarrocchi, J. W., Piedmont, R. L., & Haskins, D. (2007). Spiritual transcendence and religious practices in recovery from pathological gambling: Reducing pain or enhancing quality of life? *Research in the Social Scientific Study of Religion, 18*, 155-175.

Walsh, R., & Roche, L. (1979). Precipitation of acute psychotic episodes by intensive meditation in individuals with a history of schizophrenia. *American Journal of Psychiatry, 136*, 1085-1086.

Walshe, M. (1995). *The Long Discourses of the Buddha: A Translation of the Digha Nikāya.* Boston: Wisdom Publications.

Walter, L. J., Meresman, J. F., Kramer, T. L., & Evans, R. B. (2003). The Depression-Arkansas Scale: A validation study of a New Brief Depression Scale in as HMO. *Journal of Clinical Psychology, 59*, 465-481.

Ward, T., & Willis, G. (2010). Ethical issues in forensic and correctional research. *Aggression and Violent Behaviour, 15*, 399-409.

Wardle, H., Moody, A., Spence, S., Orford, J., Volberg, R., Jotangia, D., . . . Dobbie, F. (2011). *British Gambling Prevalence Survey 2010.* London: National Centre for Social Research.

Warneke, E., Quinn, S., Ogden, K., Towle, N., & Nelson, M. (2011). A randomized controlled

trial of the effects of mindfulness practice on medical student stress levels. *Medical Education, 45,* 381-388.

Waters, A. J., Raetzel, A. R., Cinciripini, P., Li, Y., Marcus, M. T., Vidrine, J. I., & Wetter, D. W. (2009). Associations between mindfulness and implicit cognition and self-reported affect. *Substance Abuse, 30,* 328-337.

Watson, D., Clark, L., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scale. *Journal of Personal and Social Psychology, 54,* 1063-1070.

Wegner, D. M., & Zanakos, S. (1994). Chronic thought suppression. *Journal of Personality, 62,* 615-640.

Weibel, D. (2008). A loving-kindness intervention: Boosting compassion for self and others. *Dissertation Abstracts International: Section B. Sciences and Engineering, 68,* 8418.

Weissman, A., & Beck, A. (1978). Development and validation of the Dysfunctional Attitude Scale: A preliminary investigation. *Paper presented at the 86th Annual Convention of the American Psychological Association.* Toronto, Ontario, Canada: Annual Convention of the American Psychological Association.

Welbourne, T., Johnson, D., & Erez, A. (1998). The Role-Based Performance Scale: Validity analysis of a theory-based measure. *Academy of Management Journal, 41,* 540-555.

Wells, A. (1997). *Cognitive Therapy of Anxiety Disorders: A Practice Manual and Conceptual Guide.* Chichester: Wiley.

Weng, H., Fox, A., Shackman, A., Stodola, D., Caldwell, J., Olson, M., . . . Davidson, R. (2013). Compassion training alters altruism and neural responses to suffering. *Psychological Science, 24,* 1171-1180.

Williams, A., Selwyn, P., Liberti, L., Molde, S., Njike, V., McCorkle, R., . . . Katz, D. (2005).

A randomized controlled trial of meditation and massage effects on quality of life in people with late stage disease: A pilot study. *Journal of Palliative Medicine, 8,* 939-952.

Williams, M. J., McManus, F., Muse, K., & Williams, J. M. (2011). Mindfulness-based cognitive therapy for severe health anxiety (hypochondriasis): An interpretive phenomenological analysis of patients' experiences. *British Journal of Clinical Psychology, 50, 379-397.*

Williams, P. (2008). *Mahayana Buddhism: The doctrinal foundations.* London: Routledge.

Wilson, W., Diamond, R., & Factor, R. (1990). Group treatment for individuals with Schizophrenia. *Community Mental Health Journal, 26*, 361-372.

Winters, K. C., Specker, S., & Stinchfield, R. S. (2002). Measuring pathological gambling with the diagnostic interview for gambling severity (DIGS). In J. J. Marotta, J. A. Cornelius, & W. R. Eadington (Eds.), *The Downside:Problem and Pathological Gambling* (pp. 143-148). Reno, NV: University of Nevada-Reno.

Witkiewitz, K., Bowen, S., Douglas, H., & Hsu, S. (2013). Mindfulness-based relapse prevention for substance craving. *Addictive Behaviors, 38*, 1563-1571.

Witkiewitz, K., Marlatt, G. A., & Walker, D. (2005). Mindfulness-based relapse prevention for alcohol and substance use disorders. *Journal of Cognitive Psychotherapy: An International Quarterly, 19*, 211-228.

Won Kim, S., Grant, J., Potenza, M., Blanco, C., & Hollander, E. (2009). The gambling symptom assessment scale (G-SAS): A reliability and validity study. *Psychiatry Research, 166*, 76-84.

Wood, R. A., & Griffiths, M. D. (2007a). A qualitative investigation of problem gambling as an escape-based coping strategy. *Psychology and Psychotherapy: Theory, Research, and Practice, 80,* 107-125.

Wood, R. A., & Griffiths, M. D. (2007b). Online guidance, advice, and support for problem gamblers and concerned relatives and friends: An evaluation of the Gam-Aid pilot service. *British Journal of Guidance and Counselling, 35*, 373-389.

Wood, R. A., Gupta, R., Derevensky, J. L., & Griffiths, M. D. (2004). Video game playing and gambling in adolescents. *Journal of Child & Adolescent Substance Abuse, 14*, 77-100.

Wright, S., Day, A., & Howells, K. (2009). Mindfulness and the treatment of anger problems. *Aggression and Violent Behaviour, 14*, 396-401.

Wu, T., Fox, D., Stokes, C., & Adam, C. (2012). Work-related stress and intention to quit in newly graduated nurses. *Nurse Education Today, 32*, 669-674.

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health, 15*, 215-228.

Yoder, E. A. (2010). Compassion fatigue in nurses. *Applied Nursing Research., 23*, 191-197.

York, M. (2007). A qualitative study into the experience of individuals involved in a mindfulness group within an acute inpatient mental health unit. *Journal of Psychiatric and Mental Health Nursing, 14*, 603-608.

Yortson, G. (2001). Mania precipitated by meditation: A case report and literature review. *Mental Health, Religion and Culture, 4*, 209-213.

Zadra, A., & Donderi, D. C. (2000). Nightmares and bad dreams: their prevalence and relationship to well-being. *Journal of Abnormal Psychology, 109*, 273-281.

Zubin, J., & Spring, B. (1977). Vulnerability: A new view on schizophrenia. *Journal of Abnormal Psychology, 86*, 103-126.