Exploring the Applications of Second-Generation Mindfulness-Based Interventions for Improving Health and Human Functioning: A Mixed-Methods Investigation

William Van Gordon, BSc, MSc

Psychology Department, Nottingham Trent University, Nottinghamshire, UK, NG1 4BU

A thesis submitted in partial fulfilment of the requirements of Nottingham Trent University for the degree of Doctorate of Psychology

December 2017

Recommended citation:

Van Gordon, W. (2017). Exploring the Applications of Second-Generation Mindfulness-Based Interventions for Improving Health and Human Functioning: A Mixed-Methods Investigation [PhD Thesis]. Nottingham: Nottingham Trent University.

Keywords:

Mindfulness, Second-Generation Mindfulness-based Interventions, Meditation, Meditation Awareness Training, Buddhist-Derived Interventions, Mindfulness-Based Interventions, Emptiness, Ontological Addiction, Buddhism, Workaholism, Work Addiction, Sex Addiction, Fibromyalgia, Psychopathology, Job Performance, Civic Engagement, Stress, Anxiety, Randomised Controlled Trial

Table of Contents

To Professor Mark Griffiths for his inspirational example and ongoing mentorship

To my teacher and dearest friend, Dr Edo Shonin

To the path of direct awareness, that carries the pure in heart across the ocean of suffering

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: (William Van Gordon)   Date: 18th December 2017

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: (William Van Gordon)   Date: 18th December 2017

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 doctoral project 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 co-author of a paper 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 controlled trials and Edo Shonin who conducted an independent audit of findings from specific analytical components.

Signed: Signed:

William Van Gordon   Mark Griffiths (Director of Studies)

Date: 18th December 2017   Date: 18th December 2017

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 may not 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 in connection with this doctoral project, but are more loosely based on 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

*Van Gordon, W., Shonin, E., Dunn, T., Garcia-Campayo, J., & Griffiths, M. D. (2017). Meditation Awareness Training for the treatment of fibromyalgia: A randomised controlled trial. *British Journal of Health Psychology, 22*, 186-206.

*Van Gordon, W., Shonin, E., Lomas, T., & Griffiths, M. D. (2016). Corporate use of mindfulness and authentic spiritual transmission: Competing or compatible ideals? *Mindfulness and Compassion, 1, 75-83.*

*Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Buddhist emptiness theory: Implications for psychology. *Psychology of Religion and Spirituality. Advance Online Publication,* DOI: 10.1037/rel0000079.

*Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Meditation Awareness Training for the treatment of sex addiction: A case study. *Journal of Behavioral Addiction*, *5*, 363-372.

*Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Meditation Awareness Training for individuals with fibromyalgia syndrome: An interpretative phenomenological analysis of participant's experiences. *Mindfulness*, 7, 409-419.

*Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Ontological addiction: Classification, etiology, and treatment. *Mindfulness, 7*, 660-671.

*Van Gordon, W., Shonin, E., Dunn, T., Garcia-Campayo, J., Demarzo, M., & Griffiths, M. D. (2016). Meditation Awareness Training for the treatment of workaholism: A non-randomised controlled trial. *Journal of Behavioral Addiction, 6,* 212-220.

*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.

*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.

*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.

*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.

Lomas, T., Etcoff, N., Van Gordon, W., & Shonin, E. (2017). The art of living mindfully: The health-enhancing potential of Zen aesthetic principles. *Journal of Religion and Health,* Advanced Online Edition, DOI: 10.1007/s10943-017-0446-5.

Van Gordon, W., Shonin, E., & García-Campayo, J. (2017). The mandala of the present moment. *Mindfulness,* Advanced Online Edition, DOI: 10.1007/s12671-017-0779-x.

Garcia-Campayo, J., Demarzo, M., Shonin, E., & Van Gordon, W. (2017). How do cultural factors influence the teaching and practice of mindfulness and compassion in Latin countries? *Frontiers in Psychology, 8*, 1-4, DOI: 10.3389/fpsyg.2017.01161.

Shonin, E., Van Gordon, W., Garcia-Campayo, J., & Griffiths, M. D. (2016). Can compassion cure health-related disorders? *British Journal of General Practice, 67,* 178-179.

Shonin, E., & Van Gordon, W., & Griffiths, M. D. (2016). Mindfulness and wellbeing: Towards a unified operational approach. In: I. Ivtzan, & T. Lomas (Eds). *Mindfulness in Positive Psychology: The Science of Meditation and Wellbeing* (pp. 280-292). Oxford: Routledge.

Shonin, E., & Van Gordon, W. (2016). Experiencing the universal breath: A guided meditation. *Mindfulness*, 7, 1243-1245.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Are contemporary mindfulness-based interventions unethical? *British Journal of General Practice*, *66,* 94-94.

Shonin, E., & Van Gordon, W. (2016). The mechanisms of mindfulness in the treatment of mental health and addiction. *International Journal of Mental Health and Addiction, 14*, 844-849.

Shonin, E., & Van Gordon, W. (2016). Thupten Jingpa on compassion and mindfulness. *Mindfulness, 7,* 279-283.

Griffiths, M. D., Shonin, E., & Van Gordon, W. (2016). Mindfulness as a treatment for gambling disorder. *Journal of Gambling and Commercial Gaming Research*, *1,* 47-52.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2015). Does mindfulness work? *British Medical Journal, 351:h6919.* DOI: 10.1136/bmj.h6919.

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

Shonin, E., Van Gordon W., & Griffiths, M. D. (2015). Teaching ethics in mindfulness-based interventions. *Mindfulness,* 6, 1491-1493.

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

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., 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.

Shonin, E., & Van Gordon, W. (2015). Mindfulness of ignorance. *Mindfulness, 6,* 1487-1490.

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). Practical recommendations for teaching mindfulness effectively. *Mindfulness, 6,* 952-955.

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.

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

Van Gordon, W., & Griffiths, M. D. (2015). For the mindful teaching of mindfulness. *The Psychologist, 28,* 514-515.

Shonin, E., & Van Gordon W., & Griffiths, M. D. (Eds). (2015). *Mindfulness and Buddhist-derived Approaches in Mental Health and Addictions*. Gewerbestrasse (Switzerland): Springer.

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* (pp. 211-244). Gewerbestrasse (Switzerland): 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* (pp. 1-8). Gewerbestrasse (Switzerland): Springer.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2015). The self and the non-self: Applications of Buddhist philosophy in psychotherapy. *RaIIS-IT, 12,* 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., & 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.

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

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). Mindfulness and the social media. *Journal of Mass Communication and Journalism*, *2014, 4: 5*, DOI: 10.4172/2165-7912.1000194.

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., & 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. (2014). Using mindfulness and insight to transform loneliness. *Mindfulness, 5*, 771-773.

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. (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.

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

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

List of Tables

List of Figures

List of Abbreviations

APA: American Psychiatric Association

AST: Authentic spiritual transmission

CBT: Cognitive behavioural therapy

CBTG: Cognitive behavioural theory for groups

CONSORT: Consolidated Standards of Reporting Trials

DLA: Deductive logical analysis

DSM: Diagnostic and Statistical Manual of Mental Disorders

FG-MBI: First-generation mindfulness-based intervention

FMS: Fibromyalgia syndrome

GP: General practitioner

IPA: Interpretative phenomenological analysis

MAT: Meditation awareness training

MBCT: Mindfulness-based cognitive therapy

MBI: Mindfulness-based intervention

MBSR: Mindfulness-based stress reduction

MN: Majjhima Nikāya

NICE: National Institute for Health and Care Excellence

OAT: Ontological addiction theory

RCT: Randomised controlled trial

SG-MBI: Second-generation mindfulness-based intervention

SN: Saṃyutta Nikāya

ToE: Theory of everything

General Abstract

Scientific and public interest into the health applications of mindfulness has increased substantially in recent decades. However, the rapidity at which mindfulness has been assimilated by Western research and applied settings has prompted concerns as to whether mindfulness-based interventions (MBIs) frame mindfulness in a manner that (i) resembles the traditional Buddhist conceptualisation of the technique, and (ii) is optimal in terms of treatment effectiveness. To address these concerns, there has recently been a growth of empirical investigation into what have been termed *second-generation mindfulness-based interventions* (SG-MBIs). SG-MBIs are distinct from *first-generation mindfulness-based interventions* (FG-MBIs) because in addition to being overtly spiritual or psycho-spiritual in nature, they typically employ (i) a greater range of (normally secularised) meditative techniques, (ii) ethics as a key component of the taught program, and (iii) an instructor training program that normally requires several years of supervised mindfulness practice. The purpose of this doctoral thesis is to advance scientific understanding regarding the health-related applications, mechanisms of action, and limitations of SG-MBIs.

Section A of the thesis (Chapters 2 to 7) provides the theoretical foundations to support the operationalisation of SG-MBIs in clinical and other applied settings. In addition to reviewing and critically appraising the relevant literature as well as outlining the conceptual underpinnings of SG-MBIs (Chapters 2-4), Section A introduces several alternative models of mental illness that integrate Buddhism's emphasis on attachment to ego as a key determinant of suffering (Chapters 5 and 6). These models explicate the principles underlying the use of SG-MBIs for improving health and human functioning. In addition to direct treatment applications, an additional focus of the thesis is to explore the effectiveness of SG-MBIs for improving civic engagement and citizenship more generally. Consequently, Chapter 7 focusses on the integration of SG-MBIs into the work setting and delineates the challenges associated

with employing mindfulness for improving work-related wellbeing and work effectiveness.

The theses continues with Section B (Chapters 8 to 11) that employs quantitative and qualitative study designs to assess the effectiveness, feasibility, and flexibility of an SG-MBI known as Meditation Awareness Training (MAT) for improving health and wellbeing in different patient groups. Chapter 8 reports findings from an active-controlled RCT that demonstrated MAT is an effective for treating fibromyalgia and for helping individuals with fibromyalgia re-engage with paid and unpaid work. A mediation analysis conducted as part of the same study also demonstrated that undermining attachment to ego asserted a role in symptom reduction. This outcome was supported by Chapter 9 which reports findings from a qualitative investigation that demonstrated that individuals with fibromyalgia experience MAT as an effective means of helping them change their relationship with pain by becoming less self-centred. A clinical case study (Chapter 10) provided an in-depth account of the assessment, case formulation, and treatment phases that were employed as part of the successful treatment of sex-addiction using MAT. A further outcome of this case study was that following completion of the MAT intervention, the study participant demonstrably strengthened their career trajectory. Finally, a non-randomised controlled trial (Chapter 11) demonstrated the feasibility and effectiveness of MAT for treating workaholism. Following the focus in Sections A and B on theory and research, respectively, Section C (Chapter 12) focusses on practice and synthesizes key findings from the aforementioned studies in order to explicate how they can improve the delivery and content of mindfulness-based approaches.

In summary, findings indicate that SG-MBIs have treatment applications across a range of pathologies and for improving adaptive psychosocial functioning more generally. The thesis contributes to the growing evidence base supporting the clinical utility of SG-MBIs and suggests that they can complement FG-MBIs by increasing the choice of MBI that are available to prospective mindfulness practitioners.

Chapter 1. General Introduction

Mindfulness derives from Buddhist practice and involves using an attentional referent, such as observing the breath, to focus awareness on the present moment (Shonin, Van Gordon, & Griffiths, 2015a). In 2015, nearly 700 scientific papers on mindfulness were published, which is more than triple the number of mindfulness papers published in 2010 (American Mindfulness Research Association, 2016). In terms of clinical applications, the most compelling evidence for mindfulness exists for its use in the treatment of depression and anxiety, where meta-analytic studies typically report effect sizes in the moderate-strong to strong range (Hofmann, Sawyer, Witt, & Oh, 2010; Vøllestad, Nielson, & Nielson, 2012). Consistent with these meta-analytical findings, specific forms of mindfulness are advocated by the *National Institute for Health and Care Excellence* (NICE; 2010) and the *American Psychiatric Association* (APA; 2009) for the treatment of recurrent depression in adults. Mindfulness is also included in the practice guidelines of the *Royal Australian and New Zealand College of Psychiatrists* (RANZCP; Hay et al., 2014) as a non-first-line treatment for binge eating disorder in adults. Furthermore, there exists evidence indicating that mindfulness may have a role in treating (for example) schizophrenia-spectrum disorders, eating disorders, addiction disorders (both chemical and non-chemical), sleep disorders, psoriasis, cancer, human immunodeficiency virus, irritable bowel syndrome, heart disease, hypertension, lung disease, diabetes mellitus, and chronic pain (Shonin et al., 2015a).

Although there appear to be clinical applications for mindfulness, the rapidity at which it has been introduced into Western research and clinical settings has led some scholars to question whether (i) findings supporting the effectiveness of mindfulness may be over-exaggerated, and (ii) the type of mindfulness being employed in applied psychological settings continues to bear any resemblance to the traditional Buddhist conceptualisation of the technique.

In terms of over estimating the effectiveness of mindfulness, it has been suggested that methodological issues – such as what has been termed the 'popularity effect' – may undermine the strength of the evidence base (Van Gordon, Shonin, & Griffiths, 2015a). The 'popularity effect' refers to the notion that rather than health improvements arising from practising mindfulness, the growing popularity of mindfulness amongst the general public means that outcomes could be influenced by participants' belief that they are receiving a 'fashionable' and/or 'proven' psychotherapeutic technique. This is a difficult confounding factor to control for because it is almost impossible to blind patients from the fact they are receiving therapeutic mindfulness techniques (Shonin et al., 2015a). Other unanswered questions pertaining to the effectiveness of mindfulness are whether: (i) there is any validity in the Buddhist position that sustainable improvements to health and wellbeing typically require daily mindfulness practice over a period of many years (i.e., they do not arise after attending just eight weekly classes of a few hours duration), and (ii) it is the spiritual or psychological aspect of mindfulness that is principally responsible for therapeutic gains.

There appears to be an empirical basis to some of these concerns because meta-analyses that feature much more stringent inclusion criteria (i.e., and only include the most methodologically robust studies such as randomised controlled trials (RCTs) with active control conditions) report effect sizes in the small-moderate range (d=0.3-0.38) for the treatment of depression or anxiety after completion of eight-weeks mindfulness training (with a reduction in effect size [d=0.22-0.23] at 3-6 months follow-up] (Goyal et al., 2014). More methodologically robust meta-analyses likewise report small-moderate effect sizes ($d = 0.33$) for the use of mindfulness in the treatment of chronic pain (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.

To address some of the concerns and unanswered questions relating to mindfulness, a

second-generation of mindfulness-based interventions (SG-MBIs) have recently been formulated and subjected to empirical investigation. Compared to FG-MBIs such as Mindfulness-Based Cognitive Therapy (MBCT) and Mindfulness-Based Stress Reduction (MBSR), SG-MBIs such as Meditation Awareness Training (MAT) are based on the assumption that mindfulness is a psycho-spiritual as opposed to a purely psychological technique. SG-MBIs generally follow a secular format and are suitable for use in applied psychological settings (Van Gordon, Shonin, & Griffiths, 2015b). However, they frame and teach mindfulness in a manner that is more congruent with the traditional Buddhist model.

Although SG-MBIs represent a key new direction in mindfulness research and practice, research into their clinical applications is still at an early stage. Consequently, there is a need to establish (i) the specific user groups and illnesses for which SG-MBIs may constitute effective treatments, and (ii) the theoretical underpinnings of SG-MBIs, including how they differ from FG-MBIs and other meditation-based interventional approaches.

Summary of Aims and Methods

This doctoral thesis makes an original contribution to knowledge by advancing scientific understanding regarding the clinical applications of SG-MBIs. There are two specific sub-aims in this respect: (i) to provide robust theoretical foundations to support the operationalisation of SG-MBIs in clinical settings, and (ii) to empirically investigate the treatment applications of SG-MBIs.

The second of the abovementioned aims was achieved by investigating the effectiveness, acceptability, and versatility of an SG-MBI known as MAT (Shonin, Van Gordon, & Griffiths, 2014a; Van Gordon, Shonin, Sumich, Sundin, & Griffiths, 2014a). The empirical component of the thesis expanded upon and developed the researcher's earlier empirical investigations into the effectiveness of MAT for treating mental health issues in

clinical and non-clinical populations (e.g., Shonin et al., 2014a, 2014b, 2014c, 2014d; Shonin, & Van Gordon, 2015a; Van Gordon et al., 2014a).

The fact that SG-MBIs constitute a new direction in non-pharmacological intervention research means that there essentially exists an open book in terms of identifying suitable study populations or patient groups. Consequently, for the purposes of this doctoral thesis, the choice of study population was governed by factors such as (i) findings from preliminary studies of MAT indicating that further research with the same patient group was warranted, (ii) the need to work with different patient groups to ensure a thorough assessment of the flexibility and versatility of MAT, (iii) the fact that research examining the effects MBIs (whether belonging to the first- or second-generation modality) is disproportionately weighted towards anxiety and mood-spectrum disorders within outpatient settings, and that there exist population groups (e.g., individuals suffering from behavioural addictions or psycho-somatic conditions such as fibromyalgia) that have been specifically highlighted as requiring additional empirical enquiry (Shonin et al., 2014e), and (iv) logistical considerations (e.g., ease of access to a given population).

In order to conduct a rounded and rigorous evaluation of the potential benefits of MAT, a mixed-methods design was employed. Separate studies recruited adults in the community setting (i.e., to avoid the need to access hospital or general practitioner patient records) suffering from (i) fibromyalgia, (ii) sex addiction, and (iii) work addiction. Several controlled trials (including an RCT) were conducted using MAT. CONSORT (Consolidated Standards of Reporting Trials) guidelines for non-pharmacological interventions were followed where appropriate (Boutron, Altman, Schulz, & Ravaud, 2008; Schulz, Altman, & Moher, 2010). A qualitative component (using *interpretative phenomenological analysis;* Smith, Flowers, & Larkin, 2009) was embedded in the RCT to facilitate a better understanding of the mechanisms by which patients derive benefit from SG-MBIs. A clinical case study was also conducted to

allow for a detailed evaluation of the treatment process at the assessment, case formulation, and intervention phases of clinician-patient engagement. The case study involved administering training in a version of MAT modified for one-to-one/small-group delivery.

Chapter Summary

Chapters of this thesis have been 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).

Section A

Section A provides the conceptual underpinnings to support the clinical operationalisation of SG-MBIs. The first chapter in Section A (i.e., Chapter 2) provides an overview of current directions in mindfulness practice and research, and outlines a number of integration and operational issues that the field of mindfulness is currently contending with. Chapter 3 provides a more in-depth assessment of some of the issues introduced in Chapter 2, and discusses how a better understanding of the Buddhist conceptualisation of mindfulness can help reconcile some of the actual and perceived incompatibility between Buddhist practice and contemporary secular mindfulness-based approaches. Based on the discussion and proposals provided in Chapter 3, Chapter 4 specifically elucidates the core components of SG-MBIs (including how they differ from FG-MBIs), and explains how SG-MBIs are well positioned to address some of the concerns relating to FG-MBIs. Chapter 5 introduces a key Buddhist principle – known as emptiness – that is deemed to assert a central therapeutic role in SG-MBIs such as MAT. The chapter explicates how an understanding of emptiness can not only challenge certain conventions of Western psychological thought, but is essential for researchers and clinicians choosing to work with Buddhist-derived approaches such as mindfulness. Chapter 7 introduces

a new psychological theory known as *ontological addiction theory*. OAT is an attempt to provide a model of mental illness that is compatible with both Buddhist and Western paradigms. Chapter 7 also delineates the key elements of the treatment model employed by SG-MBIs such as MAT.

Section B

Section B comprises the empirical component of the thesis. The first chapter in Section B (i.e., Chapter 8) is a multi-site RCT (trial no. NCT02800720) with active control condition that evaluates the effectiveness of MAT for treating fibromyalgia syndrome (study 1). The chapter integrates a second study (i.e., study 2) that employs mediation analysis to determine the mechanistic pathways utilised by MAT. Chapter 9 reports on the findings of a qualitative study arm (study 3) that was embedded within the abovementioned RCT. The qualitative study used IPA to explore patients' experiences of participating in MAT. Chapter 10 is a clinical case study of a male suffering from sex addiction that underwent a version of MAT modified for one-to-one delivery (study 4). The final chapter in Section B (i.e., Chapter 11) reports findings from the fifth study of this PhD that comprised a non-randomised controlled trial investigating the applications of MAT for treating workaholism.

A sub-theme running throughout each of the five studies reported in Section B (i.e., in addition to the primary theme of assessing the applications of MAT for treating specific pathologies) is that secondary outcomes in some way assess changes in the patient's ability to actively contribute to the welfare of society. In other words, a key objective of MAT is not only to induce clinically significant change across pre-defined diagnostic measures, but is to promote adaptive psychosocial functioning as well as civic engagement and citizenship more generally.

Section C

Following the contributions to theory and research in Sections A and B, Section C comprises Chapter 12 that delineates a Buddhist perspective on suffering (as captured by a central Buddhist tenet known as the Four Noble Truths). More specifically, Chapter 12 employs deductive logical analysis in order to establish the validity and logical soundness of the Four Noble Truths*,* and then discusses their individual and collective implications for clinicians seeking to comprehend, practice, and use mindfulness in treatment settings.

Conclusion

This doctoral thesis makes an original contribution to knowledge by advancing scientific understanding regarding the applications of SG-MBIs in clinical settings. The thesis provides theoretical foundations to support the effective clinical operationalisation of SG-MBIs, and delineates the therapeutic principles that underpin an SG-MBI-based treatment model. Outcomes from the empirical component of the thesis attest to the effectiveness of MAT for treating a range of pathologies (and for improving adaptive psychosocial functioning more generally). Furthermore, findings from the thesis build upon previous studies indicating treatment applications for MAT and contribute to the growing evidence base supporting the clinical utility of SG-MBIs.

SECTION A

CONTRIBUTION TO THEORY:

THEORETICAL FOUNDATIONS TO SUPPORT THE CLINICAL

OPERATIONALISATION OF SG-MBIs

Chapter 2

Mindfulness in Mental Health: A Critical Reflection

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

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.

The final published version of this chapter is available at Elyns Group:

http://www.elynsgroup.com/journal/j-psy-brain-stim/article/mindfulness-in-mental-health-a-critical-reflection

Abstract

Empirical and clinical evidence supporting the application of mindfulness in the treatment of psychopathology has increased significantly in the last decade. Given the significant growth of interest into the clinical applications of mindfulness, this chapter provides (i) a timely and evidence-based appraisal of current trends and issues in psychopathology-related mindfulness research, and (ii) a discussion of whether the empirical evidence for MBIs merit their growing popularity and utilisation amongst mental health stakeholders.

Mindfulness derives from Buddhist practice and is fundamentally concerned with the development of present moment awareness. It is arguably one of the largest growing areas of mental health research with the last decade witnessing a tenfold increase in the number of published scientific papers concerning the applications of mindfulness in mental health contexts (Shonin et al., 2014f). A growing appreciation of the potential benefits of mindfulness to mental health and psychological wellbeing is not only developing amongst mental health clinicians and researchers, but also amongst health professionals and service users more generally. For example, one study reported that over 70% of general practitioners (GPs) in the United Kingdom now believe that patients can derive health benefits by becoming more mindful of the present moment – a view shared by more than 80% of British adults in the same study (Mental Health Foundation, 2010).

Given the significant growth of interest into the clinical utility of mindfulness, this chapter provides (i) a timely and evidence-based appraisal of current trends and issues in psychopathology-related mindfulness research, and (ii) a discussion of whether the empirical evidence for MBIs actually merits their growing popularity and utilisation amongst mental health stakeholders.

The Debate Surrounding Mindfulness Definition and Attributes

Scientific papers concerning mindfulness invariably include a statement to the effect that: *there is currently a lack of consensus in Western medicine as to exactly what defines the mindfulness construct* (Shonin et al., 2014g). However, this alleged lack of consensus amongst mindfulness experts may overshadow the fact that there are a number of key areas of scientific accord amongst researchers, clinicians, health practitioners, and Buddhist scholars regarding the attributes of mindfulness. For example, it is generally accepted in both the contemporary mental health literature and traditional Buddhist literature that mindfulness involves (i)

focussing attention on the present moment in order to regulate ruminative and maladaptive thought patterns, (ii) mind-body synchronisation (i.e., engaging a full task and situational awareness as opposed to engaging in activities without being fully conscious of so doing), (iii) observing both sensory and cognitive-affective processes, (iv) increasing perceptual distance from psychological, physiological, and environmental stimuli such that these phenomena are observed and experienced 'as they are' without conceptually adding to or subtracting from them, (v) ongoing practice throughout daily activities and not just when formally seated in meditation, (vi) the use of an attentional referent such as observing the breath, (vii) avoiding any forced breathing or other attempts to modify (i.e., rather than accept) the present moment, and (viii) the deliberate engendering of an attention-set that supersedes any dispositional mindfulness capacity (Shonin et al., 2014g).

Arguably the most popular delineation of mindfulness used in the mental health literature is the one introduced by Kabat-Zinn who defines mindfulness as *'paying attention in a particular way: on purpose, in the present moment, and non-judgmentally'* (Kabat-Zinn, 1994). However, it has been suggested that the term 'non-judgementally' may be too ambiguous and does not assimilate the discerning faculty of mindfulness that prevents the mindfulness practitioner from becoming ethically and morally 'indifferent' to situations around them (Van Gordon, Shonin, Griffiths, & Singh, 2015c).

A related area of debate concerning the various attributes of mindfulness is the extent to which mindfulness integrates meditative modes that are more concentrative in aspect, as opposed to modes more orientated towards insight generation (e.g., insight into Buddhist principles such as 'impermanence' and 'emptiness' that overlap with emerging evidence from quantum mechanics research concerning the absolute nature of reality) (O'Connell et al., 2010; Shonin et al., 2014g; Van Gordon, Shonin & Griffiths, 2016a). According to traditional Buddhist teachings, mindfulness is principally a means of regulating meditative concentration

in order to ensure that concentration remains at the optimum level for the extraction of meditative insight (Van Gordon et al., 2015c). Thus, based on the Buddhist model, mindfulness is neither concentrative meditation nor is it insight meditation – it is the attentional faculty that moderates extraneous thinking such that meditative concentration and/or insight can be cultivated (Van Gordon et al., 2015c). This represents a fundamental departure from interpretations of mindfulness in contemporary interventional approaches where mindfulness is often presented as a standalone form of meditation.

A further key issue in the mindfulness definition debate is whether mindfulness is a psychological or spiritual faculty (Shonin et al., 2014h). At present, differing academic stances exist because in the traditional Buddhist setting, mindfulness is practiced within the context of spiritual development where 'enlightenment' is the ultimate goal (Shonin et al., 2014g). This is obviously different to clinical models of mindfulness where the primary focus is on relief from psychiatric and/or somatic illness. Accordingly, as part of efforts to reduce some of the disconnect between MBIs and traditional Buddhist approaches to mindfulness, the last few years have witnessed the formulation and empirical evaluation of SG-MBIs. Unlike FG-MBIs such as MBSR and MBCT, SG-MBIs – such as the eight-week secular intervention MAT – are overtly spiritual in aspect and teach mindfulness within a practice infrastructure that integrates what are traditionally deemed to be prerequisites for effective meditative development (Shonin & Van Gordon, 2015a). An example of a mindfulness definition that is advocated and utilised by certain second generation MBIs is that: *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* (Van Gordon et al., 2015b, p.592).

Practitioner Competency in Administering Mindfulness-Based Interventions

There is growing awareness in the mental health literature of the need for mindfulness

clinicians and instructors to have in-depth personal experience of practicing mindfulness (Shonin et al., 2014g, 2014h). This is consistent with the traditional Buddhist model of mindfulness teaching where emphasis is placed more on the extent to which the teacher embodies mindfulness in their words and actions rather than their competency at providing instruction via conventional learning formats (e.g., manual-based teaching/lecturing, dialogue and psycho-education during clinician-patient sessions, etc.) (Van Gordon et al., 2015c). Recent qualitative research attests to this principle and demonstrates that participants assign importance to the mindfulness instructor's ability to impart an experientially-informed and authentic transmission of MBI learning outcomes (Shonin & Van Gordon, 2015a).

Although initiatives are underway with the intention of disseminating best-practice and assessment guidelines for MBI clinicans (Crane et al., 2012, 2013), they have been devised with a limited number of MBIs in mind (e.g., MBCT, MBSR). Furthermore, such initiatives are not necessarily sympathetic of the many subtleties that are traditionally deemed to underlie effective mindfulness practice and teaching. Given that there are reports of MBI instructors having as little as one year's mindfulness practice and teaching experience following completion of a single eight-week training course (Mental Health Foundation, 2010), there is clearly work to be done in order to ensure that mindfulness instructors working in clinical settings conform to minimum standards and competency levels (Shonin et al., 2014g).

Are There Risks Associated with Mindfulness?

In the peer-reviewed mental health literature, reports of adverse effects following mindfulness practice are scarce. However, research specifically investigating whether there are health risks associated with participation in MBIs is significantly underdeveloped (Shonin et al., 2014f). Nevertheless, there are a small number of instances where mindfulness-encompassing (but not exclusively mindfulness-based) meditation modalities have precipitated non-salutary health

outcomes. For example, a recent literature review identified six separate clinical case reports of individuals ($n = 12$) presenting with psychotic episodes following participation in meditation programs that included some mindfulness exercises (e.g., breath awareness, body scanning, etc.) (Shonin et al., 2014i). Clearly, the very small participant numbers involved here significantly limits the generalisability of these findings, as does the fact that some of the participants had previously experienced psychotic episodes.

In addition to psychotic episodes, other adverse effects of meditation reported in the empirical literature include painful kinaesthetic sensations, addiction to meditation, anti-social behaviour, impaired reality testing, dissociation, despair, and exhaustion (Perez-De-Albeniz & Holmes, 2000; Yorston, 2001). However, once again, the extent to which these findings have implications for MBIs is questionable because the design of these studies makes it difficult to apportion any negative (or positive) outcomes to mindfulness as opposed to other meditative modes (e.g., Transcendental Meditation, QiGong, etc.) (Shonin et al., 2014i). Similarly, factors completely unrelated to meditation may also have exerted a confounding effect (e.g., environmental stressors such as lack of food or social contact during meditation retreats).

Although the reliability of evidence indicating possible risks of mindfulness is highly questionable, the matter certainly warrants further investigation because the traditional Buddhist scriptures and commentaries specifically caution against the incorrect teaching and practice of meditation and/or mindfulness (Shonin et al., 2014g). Such recommendations may not have been subject to rigorous empirical evaluation, but they have been subject to more than 2,500 years of testing and positive experience by Buddhist adepts and practitioners (Shonin et al., 2014f). Examples of some of the risks traditionally associated with incorrect meditation/mindfulness teaching and practice include: (i) asociality and nihilistic outlook, (ii) developing an excessively-pious personality affectation (where mindfulness practitioners or teachers go to great lengths in order to appear to 'be mindful' [e.g., constant/inappropriate

smiling, talking/moving excessively slowly in the presence of others, etc.] without actually having any presence of mind), (iii) addiction to the tranquil states associated with meditative concentration, (iv) compassion burnout, and (v) psychological and/or somatic discomfort due to trapped 'spiritual wind' – a potential consequence of forced/incorrect meditative breathing (Shonin et al., 2014f, 2014i).

Does the Evidence Match The Momentum?

Empirical and clinical evidence supporting the application of MBIs in the treatment of psychopathology has increased significantly in the last decade. The most convincing evidence – based on meta-analytic studies – exists for the utilisation of mindfulness in the treatment of mood and anxiety disorders (Hofmann et al., 2010). As a consequence of these findings, both the APA (US) and NICE (UK) advocate the use of MBCT in the treatment of recurrent depression in adults (Van Gordon, Shonin, Zangeneh, & Griffiths, 2014b). There is also preliminary evidence that supports the use of MBIs in the treatment of a broad range of mental health issues including (but not limited to) schizophrenia-spectrum disorders, addiction disorders (both chemical and behavioural), bipolar disorder, post-traumatic stress disorder, eating disorders, and anger dysregulation (Shonin et al., 2014g).

However, despite these promising findings, when taken collectively, the evidence-base for MBIs is limited by various factors including (but by no means limited to) a paucity of long-term follow-up studies coupled with poorly-designed control interventions (Van Gordon et al., 2015a). Furthermore, it is difficult for MBI (and other non-pharmacological) intervention studies to implement blinding protocols to the same extent that might be employed in pharmacological efficacy trials. This is a particularly important consideration for mindfulness interventions because the current popularity of mindfulness amongst the general public may introduce a form of intervention or performance bias that inflates therapeutic outcomes over

short periods of time.

The aforementioned performance bias issue warrants much more consideration that it currently receives in the empirical literature because in addition to what might be seen as 'impressive' therapeutic gains over very short periods of time (e.g., after just 4-8 weekly two-hour sessions), there are an increasing number of arguably surprising claims being made in the mindfulness clinical literature regarding the levels of meditative development being made by MBI participants. For example, it has recently been suggested that participants of eight-week group MBI interventions can demonstrate levels of insight and meditative development equivalent to that experienced by advanced Buddhist meditation practitioners (Grabovac, 2014).

Some accomplished Buddhist experts have expressed surprise at such claims because although in Buddhism's 2,500-year history there are instances of 'spiritually gifted' individuals undergoing rapid meditative development, such individuals are rare and are normally regarded as saintly beings (Shonin et al., 2014g). Indeed, even Buddhist practitioners that choose to dedicate their entire life to meditation (e.g., certain Buddhist monastics and yogis) typically have to train for decades (and under the direction of an accomplished meditation master) in order to arrive at what might be regarded as an 'advanced' level of meditative development (Shonin et al., 2014g).

Consistent with the emerging empirical evidence as well as the general consensus of clinicians, researchers, and the general public, it is concluded that MBIs have the potential to play an important role in psychiatric treatment settings as well as in applied psychological settings more generally. However, due to the rapidity at which mindfulness has been taken out of its traditional Buddhist setting, and what is possibly evidence of media and/or scientific 'hype' concerning the potency of mindfulness (Van Gordon et al., 2015a), it is recommended that future research seeks to (i) consolidate and replicate research findings, (ii) assess the

maintenance of outcomes over longer time periods, (iii) investigate potential adverse effects, (iv) fully control for potential performance bias in MBI intervention studies, (v) formulate comprehensive training and supervision curricula – that are informed by the traditional meditation literature – for secular MBI instructors, and (vi) investigate the Buddhist position that sustainable improvements to mental (and spiritual) health typically require consistent daily mindfulness practice over a period of many years (i.e., they do not arise after attending eight two-hour classes with some self-practice in between).

Chapter 3

There is Only One Mindfulness: Why Science and Buddhism Need To Work Together

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

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.

The final published version of this chapter is available at Springer:

http://link.springer.com/article/10.1007/s12671-014-0379-y

Abstract

This chapter discusses how a better understanding of the various Buddhist constructions of mindfulness may help to reconcile some of the actual and perceived incompatibility between Buddhist practice and contemporary secular mindfulness-based approaches. The chapter also critically examines the assumption that if secular mindfulness-based approaches represent a more "superficial" construction of mindfulness, then the "superior" approach embodied by present-day Buddhist teachers and traditions should be easily identifiable. More specifically, a means of conceptualising mindfulness is presented that attempts to communicate the versatility and underlying unity of the Buddha's teachings, and the fact that the scriptural, empirical, and logical grounds for asserting that secular mindfulness-based approaches offer a less authentic practice mode than mainstream Buddhist modalities are not as robust as contemporary general opinion might suggest.

There exist differences in how Buddhism and contemporary mindfulness interventional approaches interpret and contextualise mindfulness (Dunne, 2011; Kang & Whittingham, 2010; Monteiro, Musten, & Compson, 2015), but there are also differing interpretations of mindfulness within Buddhism. These apparent differences within Buddhism are arguably more noticeable when making comparisons across Buddhist vehicles (i.e., *Theravada*, *Mahayana*, *Vajrayana*), but to a lesser extent intra-vehicular differences can also be said to exist (i.e., differences between Buddhist traditions of the same vehicle). This chapter investigates the validity of some of these different Buddhist constructions of mindfulness, and then discusses how a better understanding of their scriptural and conceptual soundness (or lack thereof) may help to reconcile some of the actual and perceived incompatibility between Buddhist practice and contemporary secular mindfulness-based approaches.

The chapter also critically examines the assumption that if secular mindfulness-based approaches represent a more "superficial" construction of mindfulness, then the "superior" approach embodied by present-day Buddhist teachers and traditions should be easily identifiable. More specifically, a means of understanding mindfulness (and related Buddhist meditative principles) is presented that attempts to communicate the versatility and underlying unity of the Buddha's teachings, and the fact that the scriptural, empirical, and logical grounds for asserting that secular mindfulness-based approaches offer a less authentic practice mode than mainstream Buddhist modalities are not as robust as contemporary general opinion might suggest.

One Path

Based on a comprehensive review and analysis of descriptions provided in both the academic and popular contemporary literature, terms typically employed to describe a Buddhist and/or

authentic construction of mindfulness can be categorised into five different types of meditation and/or awareness:

i.   *Concentrative meditation* – whether as synonymous with or a central component of mindfulness (e.g., *sustained attention* [Bishop et al., 2004], *absorption* [McGarvey, 2010], *focussed attention* [Kabat-Zinn et al., 1998; Lutz, Slagter, Dunne, & Davidson, 2008]).

ii. *Shamatha meditation* (e.g., Mipham, 2002; Trungpa, 2004)

iii. *Insight/vipassana meditation* (e.g., Bowen et al., 2006; Chiesa, 2010; Kabat-Zinn, 1982; Sills & Lown, 2008)

iv. *Mindfulness meditation* – typically contextualised as a distinct form of meditation in and of itself but sometimes referred to utilizing terms such as *present moment awareness* or *moment-by-moment awareness* (e.g., Kabat-Zinn, 1982, 1990, 1994; Horowitz, 2010; Manocha, 2000).

v.   *Open awareness* (e.g., *bare attention* [Brown, Ryan, & Creswell, 2007; Kabat-Zinn, 1982; Nyanaponika, 1962], *choiceless awareness* [Krishnamurti, 2009], *unconstructed awareness* [Kang & Whittingham, 2010], *non-judgemental awareness*, *detached observation* [Kabat-Zinn, 1982]).

Despite these various interpretations and descriptions of mindfulness by scholars, researchers, and Buddhist teachers, the present author argues that, in actual fact, the Buddha taught only one type of mindfulness. Indeed, there is little (if any) ambiguity in the original teachings expounded by the Buddha in terms of how mindfulness should be interpreted and practiced. According to the record of the Pāli Canon *Sutta Pitaka*, the Buddha's first reference to mindfulness was during his *Discourse that Sets the Wheel of Dharma in Motion (Dhammacakkappavattana Sutta, Saṃyutta Nikāya* [SN], 56:11; Bodhi, 2000) that is believed

to represent the first teaching he gave (to the five ascetics) after attaining enlightenment. In this and subsequent discourses, mindfulness was introduced as the seventh aspect of the *Noble Eightfold Path*. The Noble Eightfold Path corresponds to the path referred to by the Buddha in the fourth of the *Four Noble Truths* – the path that leads to the cessation of suffering (Van Gordon, Shonin, Griffiths, & Singh, 2015d).

As noted by Monteiro et al (2015), all Buddhist traditions acknowledge the importance of the Noble Eightfold Path. The reason for this is simple; the Noble Eightfold Path is a fundamental teaching that is repeatedly referred to and featured in the Pāli and Chinese Buddhist Canons (and to a lesser extent the Tibetan Buddhist Canon). There are inevitably some differences in how texts within these respective Buddhist canons refer to and explicate the Noble Eightfold Path (the *Ekottara Āgama* of the Chinese Canon [*Taishō Tripiṭaka* 125] being an example of a notable outlier), but for the most part the basic meaning and principles of the Noble Eightfold Path remain the same in each of the established Buddhist canonical collections. Consequently, although some researchers, scholars, and Buddhist teachers might claim that there exist versions of the Noble Eightfold Path that capture more accurately the intended meaning of the Buddha, the authenticity of the Buddha's Noble Eightfold Path teachings as recorded in, for example, the *Sutta Pitaka* of the Pāli Canon, cannot not disputed (i.e., disregarding any loss of accuracy arising due to the passage of time between the expounding and subsequent recording of the Buddha's teachings).

Although the Noble Eightfold Path should be regarded as a single (albeit multi-faceted) path (Shonin et al., 2016), the fact that *right mindfulness* (Pāli: *sammā-sati,* Sanskrit*: samyak-smrti*) was included in addition to and separate from *right concentration* (Pāli: *sammā-samādhi,* Sanskrit: *samyak-samādhi*) implies that the Buddha believed that mindfulness and meditative concentration were two distinct faculties. Indeed, had the Buddha believed or personally experienced that mindfulness and meditative concentration were the same construct, then it is

logical to assume that in place of the Noble Eightfold Path, he would have expounded the *Noble Sevenfold Path* (i.e., in which right mindfulness and right concentration were condensed into a single path element). Furthermore, perhaps of greatest bearing for the purposes of the present commentary, the placement by the Buddha of right mindfulness immediately prior to right concentration indicates that mindfulness is an important (arguably the most important) moderating agent in the cultivation and maintenance of right concentration.

Meditative concentration is the process of focussing attention on a given meditative object (e.g., the breath, a visualisation, the mind, or even the present moment more generally) with the primary intention of introducing focus and tranquillity (a wholesome mental factor known as *samatha* [Pāli, Sanskrit: *shamatha*]) into the mind (Shonin et al., 2016). *Samatha*, in turn, facilitates the deepening and stabilisation of *samadhi,* and the interplay and reciprocal feedback between *samadhi* and *samatha* (i.e., concentration and tranquillity) provides the optimum conditions for the subsequent cultivation of meditative insight (Shonin et al., 2014g). However, for various reasons and to varying degrees, the mind of the unaccomplished meditation practitioner has a tendency to be distracted from its object of placement (Chah, 2011; Dalai Lama & Berzin, 1997). One of these reasons is the fact that the tranquillity associated with meditative concentration can be so blissful and absorbing, it can trigger a loss of meditative concentration (Tsong-Kha-pa, 2004). Accordingly, mindfulness performs the primary function of surveying the concentrating mind so that attentional adjustments can be made as required in order to ensure that meditative concentration remains at its optimum level (i.e., neither too constricted nor too loose) (Shonin et al., 2016).

Thus, mindfulness regulates the breadth and intensity of meditative concentration, but mindfulness itself is not – and was never explicated by the Buddha as being – meditative concentration (i.e., *samadhi*). As already indicated, in addition to the Theravada *Sutta Pitaka* discourses referred to above, this same interpretation of mindfulness – as a faculty that regulates

meditative concentration – appears in the core texts of both the Mahayana and Vajrayana Buddhist vehicles. For example, in the Tibetan Buddhist (but principally Mahayana) text known as the *Great Treatise on the Stages of the Path to Enlightenment* (Tibetan: *lam rim chen mo),* the 14th century Tibetan Buddhist Saint Tsong-kha-pa explicitly described mindfulness as being the function that prevents attention from wandering from the object of meditation. Likewise, in the principally Vajrayana text known as the *Song of the Four Mindfulnesses* (not to be confused with the *Four Foundations of Mindfulness*), the seventh Dalai Lama directs Buddhist followers to place their mind on four different objects of placement. These objects include: (i) admiration and respect (for the Buddha and/or teacher), (ii) compassion, (iii) the divine/subtle body (that the meditation practitioner possesses), and (iv) emptiness. He then instructs monastic and lay practitioners to practice mindfulness by "*not letting your mind stray*" from these four meditative objects and by "*making your attention unforgetful*" (Gelek, 2009, p. 3-5). Therefore, consistent with the Theravada position, Mahayana and Vajrayana Buddhist perspectives clearly depict mindfulness as a faculty that is separate from, but essential to the maintenance of, meditative concentration.

The exact same argumentation applies to claims – often with Mahayana (including Zen) and Vajrayana Buddhist connotations – that mindfulness can be likened to a state of "*natural, uncontrived, spontaneously arisen awareness that is inseparable from every moment of experience*" (Kang & Whittingham, 2010, p.169), *bare attention* (Brown, Ryan, & Creswell, 2007); Nyanaponika, 1962), *choiceless awareness* (Krishnamurti, 2009) *unconstructed awareness* (Kang & Whittingham, 2010), or *non-judgemental awareness/detached observation* (Kabat-Zinn, 1982). Such descriptions of mindfulness do not accurately reflect the aforementioned fundamental teachings of the Buddha in, for example, the Noble Eightfold Path, and they assign levels of meaning and profundity to mindfulness that have no scriptural basis in any of the canonical Buddhist collections (Rosch, 2007). This is not to say that profound

states of mind are not described or attainable in Buddhist practice, but such states should not be confused with the concentration-regulating faculty of mindfulness. The exact same principle and counter-argument applies to assertions that mindfulness is *insight/vipassana meditation*, *samatha meditation*, or a form of meditation in and of itself (i.e.*, mindfulness meditation*). At no point did the Buddha state or imply that the term mindfulness (i.e., *sati* or *smrti*) can be used interchangeably with these meditative states or modes.

In terms of referring to mindfulness as insight meditation or *vipassana* meditation, it might be argued that in the *Ānāpānasati Sutta (Majjhima Nikāya* [MN] 118; Ñanamoli & Bodhi, 2009), the final tetrad of the sixteen mindfulness of breathing exercises are specifically concerned with the cultivation of insight. This statement is perfectly true because after having performed the first twelve *Ānāpānasati Sutta* exercises that specifically relate to cultivating awareness of bodily and psychological phenomena (i.e., whilst utilizing the breath as a meditative anchor), the Buddha then instructs the meditation practitioner to foster awareness of various insight elements and/or spiritual truths (e.g., impermanence, relinquishment of suffering, nirvana, etc.). However, the instructions provided by the Buddha in the final tetrad of the *Ānāpānasati Sutta* are not inconsistent with any of his previous or subsequent mindfulness teachings. In the *Ānāpānasati Sutta*, the subject of each of the sixteen exercises (e.g., breath, body, rapture, mental formations, mind, impermanence, etc.) are introduced as meditative objects, and mindfulness is the regulatory process of ensuring that concentration remains placed on the object in question (Shonin et al., 2014g).

Consistent with the traditional *samatha-vipassana* meditation model, and with the delineation of *anapanasati* (i.e., mindfulness of breathing) in the *Vissuddhimagga* (Nanamoli, 1976), by meditatively concentrating on the various objects of the first twelve *Ānāpānasati Sutta* exercises, the necessary conditions are fulfilled for the cultivation of tranquil abiding (i.e., *samatha*). As noted above, tranquil abiding is one of the prerequisites for the cultivation of

vipassana (which translates from the Pāli as *clear seeing* or *superior seeing*; Shonin et al., 2014g). There is debate amongst Buddhist scholars and teachers as to whether the shift in meditative mode from *samatha* to *vipassana* is something that happens naturally, or whether it requires purposeful effort on the part of the meditator. However, irrespective of which position is favoured (the latter position best reflecting the view and experience of the present author), the point is that in the Buddha's original *anapanasati* teachings, mindfulness serves to ensure that concentration remains focussed on whichever *samatha* and/or *vipassana* experience is manifest in the mind.

One Emptiness

There appears to be a commonly held view that the notion of *non-duality* is primarily a Mahayana/Vajrayana construct that is incompatible with the Theravada Buddhist framework of viewing existence through the dualistic lens of *samsara* (i.e., suffering) and *nirvana* (i.e., liberation) (Monteiro et al., 2015). This relates closely to the popular belief that *non-self* (Pāli: *anattā*, Sanskrit: *anātman*) is primarily a Theravada construct that is distinct from the Mahayana/Vajrayana principle of *emptiness* (Pāli: *suññatā,* Sanskrit: *śūnyatā*). In essence, within Mahayana/Vajrayana Buddhism, non-duality is another means of referring to and explicating the concept of emptiness. If a subject-object divide is not imposed on an individual's mode of perceiving, this means that a 'subject self' that exists separately from an 'object other' is no longer apprehended. Consequently, the experience of oneness, emptiness of self, and emptiness of other arises (Shonin et al., 2013a). In the opinion of the present author (and in much the same vein as the previous assertion that the Buddha taught only one type of mindfulness), there exists (and the Buddha taught) only one type of emptiness, that is identical to – and encompassing of – the experiential meaning of both the terms non-self and non-duality.

There are numerous lines of reasoning upon which this assertion is made. The first is that

emptiness is explicitly and frequently referred to and taught throughout the Theravada Pāli Canon. For example, in the *Majjhima Nikāya,* amongst various other direct and indirect references to emptiness, there appears both the *Shorter Discourse on Emptiness* (*Cūḷasuññata Sutta*, MN 121) and the *Greater Discourse on Emptiness* (*Mahāsuññata Sutta*, MN 971). Emptiness (also translated as *voidness*) is likewise directly referred to in core Theravada texts such as the *Dhammapada* (that appears in the *Khuddaka Nikāya* of the *Sutta Pitaka):*

> He whose cankers are destroyed … whose object is the void, the unconditioned freedom – his path cannot be traced, like that of birds in the air (*Dhammapada*, 7, 93; Buddharakkhita, 1986, p. 37).

Furthermore, the *Mahavedalla Sutta* (MN 43) appears to directly indicate that the Buddha deemed that emptiness/voidness and non-self were equivalent constructs:

> Here a bhikkhu, gone to the forest or to the root of a tree or to an empty hut, reflects thus: 'This is void of a self or of what belongs to a self'. This is called the deliverance of mind through voidness (Ñanamoli & Bodhi, 2009, p. 394).

Even without the direct references to and discourses on emptiness in the Theravada Pāli Canon, the primary reason for asserting that there are limited grounds for assigning emptiness and non-duality as non-Theravadan constructs rests on a matter of both scientific and logical fact. All phenomena, without exception, originate and exist only in dependence upon innumerable causes and conditions. Consequently, as phenomena do not exist independently, by default, they lack an intrinsically existing self (Shonin et al., 2013a). In other words, emptiness is a truth that pervades the strata of existence – it constitutes the underlying fabric of

reality. Not only can this assertion be validated via deductive logical analysis (Shonin & Van Gordon, 2013, 2014a), but according to Van Gordon et al. (2016a), there is also preliminary empirical evidence – mostly from the field of quantum mechanics – that attests to the truth and all-pervading presence of emptiness.

The Buddha is understood by all Buddhist traditions to have tapped into this liberating truth of emptiness and to have attempted – using various means – to guide others to do the same. However, irrespective of how it is referred to or interpreted, and as explicated in the *Cūḷasuññata Sutta*, the Buddha only ever taught that there exists one type of emptiness:

Ananda, whatever recluses and Brahmins in the past entered upon and abided in pure, supreme, unsurpassed voidness, all entered upon and abided in the same pure, supreme voidness [repeats for recluses and Brahmins of the present and those of future, who will all enter upon and abide in this same, supreme unsurpassed voidness] (Ñanamoli & Bodhi, 2009, p. 970).

Despite the number of competing assertions that could be made about its properties, water will always behave in the same manner under identical conditions. Likewise, emptiness remains a single truth irrespective of the number of claims made by researchers, scholars, and Buddhist teachers about the different types of emptiness that are supposed to exist (and that are advocated by different Buddhist traditions). Indeed, if Theravada Buddhist practitioners realise the non-self of themselves, then by logical default, they realise the non-self or emptiness of everything else (because without a self there is no other). According to Shonin and Van Gordon (2015b), there is an underlying truth of emptiness, and a spiritual practitioner (Buddhist or otherwise) either begins to realise this truth, or they remain experientially ignorant of it. In the present author's opinion, it is when researchers, scholars, and Buddhist teachers remain experientially

ignorant to the truth of emptiness, they are likely to speculate and develop flawed theories about what emptiness is, how it should be practiced, and how it relates to other Buddhist teachings, such as mindfulness.

In the context of the present chapter, the purposes of highlighting the single, unchanging, and all-pervasive nature of emptiness is to further dispel the misconception that there are different types of mindfulness that vary according to how a particular Buddhist tradition constructs mindfulness, as well as how they construct and interpret other fundamental Buddhist teachings (e.g., emptiness). As referred to above, in order to meet the needs of spiritual practitioners from a broad range of backgrounds, the Buddha employed multiple methods of teaching. However, these various methods – some more direct than others – always pointed towards the existence of the same truth. In other words, there has only ever been one type of mindfulness, and there has (and will) only ever be one type of emptiness. Understanding the accurate and single nature of both mindfulness and emptiness is a prerequisite for effective spiritual growth, and the manner in which an individual practices and apprehends either one of these core Buddhist principles directly influences the extent to which they develop an accurate perception of the other (Shonin et al., 2015b).

One Purpose

There is currently debate as to whether it is appropriate for mindfulness to be utilised in military and business settings (Monteiro et al., 2015). Most of the opposing arguments are based on the belief that because mindfulness was originally taught as a means of fostering peace and spiritual awakening, it is ethically inappropriate to introduce mindfulness to the armed forces and/or commercial entities. However, as explicated below, there are also robust grounds for arguing that introducing mindfulness to military and business personnel is in keeping with traditional Buddhist values and ideals.

A core principle of Buddhist practice is generosity, and this includes generosity in the sharing of the Buddha's teachings (Gampopa, 1998). Indeed, not only does restricting the integration of mindfulness to military and business settings run contrary to the popular view – mostly held by advocates of secular mindfulness-based approaches – that mindfulness practice requires a "non-judgemental" attitude, but according to Shonin and Van Gordon (2014b), it also denies individuals the right and opportunity to encounter and practice the spiritual teachings:

> The Buddhist teachings (known as the Dharma) – which include teachings on mindfulness – are universal in their application. It does not matter if a person is rich or poor, good or bad, famous or obscure, young or old, male or female, or if they purport not to have an interest in matters of a spiritual nature – the Dharma is available for everybody to benefit from. Indeed, it is not for anybody – not even the Buddha – to decide which people should be denied spiritual teachings and which people should receive them. Each person must make that choice on an individual basis and the only way they can make an informed decision about whether a particular form of spiritual practice is right for them, is if they have the opportunity to try it first. Therefore, introducing military personnel to the mindfulness teachings brings people working in military settings into contact with the Dharma and gives them the opportunity to make an informed decision as to whether mindfulness is a practice they would like to integrate into their lives (p.1).

According to Buddhist thought, the Buddha's teachings can be likened to an all-purpose medicine (Tsong-Kha-pa, 2004). The key principles of this view are that: (i) due to their purity and potency, the inevitable outcome for an individual that receives the Buddha's teachings –

including those relating to mindfulness – is an increase in wisdom, compassion, and awareness, and (ii) in the event that such qualities do not manifest, it is because the teachings have been incorrectly taught and/or incorrectly practiced (Shonin & Van Gordon, 2014b). In essence, what is being alluded to is what the present author has previously referred to as an inbuilt natural protection mechanism of the Buddhist teachings:

> If a person comes into contact with the Dharma who is not ready to receive the teachings or who intends to use them for selfish or negative purposes, their wrong intention will prevent the teachings from taking root within their being. In fact, all that they will receive will be a theoretical and superficial account of the teachings – and even this won't be properly understood (Shonin & Van Gordon, 2014b, p.1).

In view of heightened inter- and intra-territorial tensions in the world, it seems that the majority of governments believe that an armed force is essential for acting as a deterrent to invasion, terrorist attack, and/or civil unrest. In such an uncertain and arguably hostile economic and political global climate, rather than refuse to introduce responsible military leaders to the principles of mindful awareness, the present author argues that a more rational solution is to deploy military personnel and leaders that are fully aware of the consequences of their thoughts, words, and actions, and who carry out their role with wisdom and compassion.

The Buddha's fundamental intent when deciding to expound the *Buddha-dharma* was to alleviate suffering, and he was unconditional in the manner in which he extended this invitation and opportunity to others (i.e., the Buddha only refused to teach an individual in circumstances where they had already abused his trust and kindness, and thus provided reasonable grounds for determining that it would be unprofitable to continue trying to teach them at that particular stage of their life) (Van Gordon et al., 2015d). When and where

mindfulness is correctly taught to individuals, empirical research demonstrates that not only are participants likely to experience improvements in psychological wellbeing and role competency, but – to admittedly differing degrees – they are also likely to engender a more compassionate outlook and to grow in spiritual insight (e.g., Shonin & Van Gordon, 2015a; Van Gordon et al., 2014b). However, when and where mindfulness is incorrectly taught – including where it is taught outside of a framework of ethical awareness – then the resultant construct can no longer be said to bear any resemblance to a traditional construction of mindfulness. In such circumstances, the entire issue of whether it is ethically and morally correct to introduce mindfulness into military and/or business settings becomes redundant (because what is being introduced and practiced is something other than mindfulness) (see Chapter 7 for a fuller discussion of this point).

One Teacher

Concerns that have been raised in the academic and populist literature concerning the competency of instructors of mindfulness-based interventions (Monteiro et al., 2015). Such concerns arise because in the traditional Buddhist setting, meditation teachers would typically undergo many years (and in many cases decades) of focussed daily training before being considered adequately experienced to begin teaching and guiding others in meditative and spiritual practice (Van Gordon et al., 2015a). In the present author's view, these concerns are entirely justified because there are reports of individuals teaching mindfulness following completion of just a single eight-week program (Mental Health Foundation, 2010). However, there is also a danger of vilifying secular mindfulness-based approaches and pitching them (and their respective teachers) as "superficial" versus their "authentic" Buddhist counterparts.

Compared to teachers of secular mindfulness-based approaches, it is arguably much easier for teachers of mainstream Buddhism to claim an affiliation with an authentic Buddhist

lineage. However, the act of "belonging" to a lineage provides little if any assurance as to the spiritual realisation of a particular Buddhist teacher and/or their suitability to teach meditation. As the present author has previously argued, the single most important factor when attempting to gauge the suitability and competency of a meditation teacher is the extent to which they have amassed authentic spiritual and meditative realisation (Shonin & Van Gordon, 2015b). If a secular mindfulness teacher has given rise to authentic spiritual insight and instructs others from an experientially informed perspective, then according to Van Gordon et al. (2015a), they are capable (in both practical and moral terms) of teaching mindfulness. Conversely, if a teacher – including a teacher of mainstream Buddhism – has not given rise to such insight, then irrespective of the number of lineages, titles, or endorsements they hold, they should not be considered as authentic.

According to certain systems of Buddhist thought, the current epoch corresponds to a period of spiritual degeneration (Sanskrit: *pashchimadharma*, Japenese: *mappō*) and is characterised by the widespread demise of the spiritual teachings (Marra, 1988). Consequently, almost without exception, the core texts and commentaries of the Theravada, Mahayana, and Vajrayana Buddhist approaches – which in some cases are thousands of years old – repeatedly refer to the risk of spiritual practitioners and teachers becoming knowingly or unknowingly corrupt in their embodiment of the *Buddha-dharma*, and how in future periods (i.e., present times) instances of such corruption are likely to significantly increase.

Even as long as 1,200 years ago when the Buddhist (and spiritual) teachings were at a much earlier phase of decline (known as the *Age of Semblance Dharma*; Sanskrit: *pratirupadharma*, Japanese: *zōbō*), the Chinese Zen teacher Huang Po repeatedly made reference to the prevalence of corruption and deluded views held by Buddhist teachers and practitioners. He estimated that only five out of every ten thousand practitioners that were focussed on attaining enlightenment would be able to substantiate a claim to authentic spiritual

realisation (Huang Po, 1982). Twelve centuries later, when the Buddhist teachings are believed to be at a more advanced state of degeneration (Marra, 1998), it is logical to assume that Huang Po's estimate would need to be significantly revised (e.g., five out of every hundred thousand, million, or even ten million diligent Buddhist practitioners attaining at least a moderate degree of lasting and authentic spiritual insight). However, given that Huang Po's estimate referred only to those individuals that had set their intentions firmly on attaining enlightenment (e.g., monks, nuns, diligent lay practitioners, etc.), and given, in all likelihood, that the majority of individuals and teachers practising meditation at present time would not meet Huang Po's criteria of being a focussed/diligent practitioner, the present author would envisage that the number of Buddhist teachers with authentic spiritual realisation is significantly less than most Buddhist and non-Buddhist spiritual practitioners may have been led to believe.

Therefore, although the underlying truths of existence that the Buddha attempted to introduce to others are incorruptible (Norbu & Clemente, 1999), claims by some researchers, scholars, and Buddhist teachers that Buddhism "is in the right" and secular mindfulness-based approaches are "in the wrong" are in certain instances likely to be examples of such individuals demonstrating the same piousness and superficiality that they aver is embodied by the recent secular mindfulness movement. The crux of the matter is that if a teacher of either Buddhism or a secular mindfulness-based approach is sincere in their meditation practice and has touched or tapped into emptiness (and thus made inroads into undermining their ego), then recipients of their teachings – whether in Buddhist or secular (e.g., clinical) contexts – are likely to derive lasting benefit from their participation (Shonin & Van Gordon, 2015b). A small body of empirical qualitative research supports this assertion and suggests that sincerity and experience on behalf of the mindfulness teacher are key determinants of successful intervention outcomes (e.g., Shonin et al., 2014d; Shonin & Van Gordon, 2015a; Van Gordon, Shonin, & Griffiths, 2016b).

One Mindfulness Community

Even when Shakyamuni Buddha was still alive, certain recipients of his wisdom felt the need to systematize, categorize, and conceptualise the various teachings that he imparted. Although the Buddha encouraged questioning and investigation of his teachings, he was clear right from the outset with his followers that the various truths he was attempting to convey could only be realised as a result of sustained effort and practise, and that over-conceptualisation of these truths was an unprofitable endeavour (e.g., *(Dhammacakkappavattana Sutta,* SN 56; Bodhi, 2000). However, some 2,500 years after the Buddha's death, it is clear that for the most part, his message of simplicity and the importance of arriving at an experiential (rather than theoretical) understanding of his teachings has not been heeded. Within contemporary society, there exist numerous different traditions of Buddhism, each with their own interpretation of the Buddha's teachings, and each with their own view regarding the extent to which other Buddhist traditions deviate from the Buddha's original and intended meaning. Arguably, the most obvious example of this division in the Buddhist teachings occurs when comparing the Theravada perspective with that of either the Mahayana or Vajrayana Buddhist vehicles. Obviously, the manner in which Buddhism evolves will vary according to the receptivity, culture, and existing beliefs of the population in which it finds itself (Dunne, 2011). Nevertheless, as repeatedly emphasised and demonstrated throughout this chapter, the Buddha was entirely consistent in his teachings, and any alleged differences in the meaning of his instructions ultimately arise as a result of conceptual elaborations that, in general, are often of limited scriptural or logical soundness.

Reading and understanding the works of any genuinely accomplished Buddhist practitioner should lead an individual to the realisation that divisions in the Buddhist teachings are ultimately "man-made". For example, the present author would argue that any experienced

Buddhist scholar would have difficulty in denying the strong Vajrayana undercurrent that runs throughout the works of the Theravada Buddhist teacher Rājvudhācāriya (see, for example, Rājvudhācāriya, 2010). Likewise, in the Theravada Pāli Canon, there are numerous examples of individuals (such as *Añña Kondañña* [Bodhi, 2000] and *Upāli* [Ñanamoli & Bodhi, 2009]) undergoing a sudden awakening (normally associated with Mahayana [particularly Zen] and Vajrayana Buddhism) upon hearing even the most fundamental of Buddhist teachings (e.g., the Four Noble Truths).

Although, in the present chapter, it has been argued that some of the terms utilised by researchers, scholars, and Buddhist teachers to refer to mindfulness (and other Buddhist principles) have been employed with limited scriptural or logical soundness, it needs to be remembered that in the context these definitions were offered, they may not necessarily represent erroneous explications. For example, if Trungpa's (2004) aforementioned depiction of mindfulness as (rather than an integral part of) *shamatha* meditation brought recipients of his teachings to an accurate and/or experiential understanding of mindfulness (and/or *shamatha*), how can it be argued that contextualizing mindfulness in such a manner was inappropriate? In a similar vein, although (to a much greater extent) there are differences between how mindfulness is taught and practised in both Buddhist and secular mindfulness-based approaches, if secular approaches offer an efficacious means of alleviating suffering – and the evidence suggests that they do (e.g., Hofmann et al., 2010) – then the value of critically highlighting the means by which they deviate from a traditional or contemporary Buddhist contextualisation becomes somewhat questionable.

The present author would argue that concerns regarding the extent to which contemporary mindfulness-based approaches are compatible with the traditional Buddhist model have been comprehensively raised, and are duly noted by both the scientific and Buddhist community. Consequently, in the spirit of both Buddhist and contemporary secular

mindfulness teaching ideals, perhaps an appropriate point has been reached for the scientific and Buddhist communities to work more closely together, and as a single mindfulness community seek to develop and empirically validate interventions and/or teaching modes that are effective according to both clinical and spiritual criteria.

Chapter 4

Towards a Second-Generation of Mindfulness-Based Interventions

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

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.

The final published version of this article will be available at Sage Publications:

http://anp.sagepub.com/content/49/7/591.full.pdf

Abstract

There are growing concerns over the rapidity at which mindfulness has been extracted from its traditional Buddhist setting and introduced into psychiatric treatment settings. These concerns centre on the alleged absence within FG-MBIs of the factors that, according to the 2,500-year-old system of Buddhist meditative practice, are deemed to maximise the efficacy of mindfulness. To address these concerns, a number of SG-MBIs have recently been formulated and empirically investigated. This chapter explicates the key differences between FG-MBIs and SG-MBIs, briefly appraises key empirical findings and issues relating to SG-MBIs, and discusses the implications of the trend towards a second-generation of MBIsfor psychiatrists and service-users.

Emerging evidence suggests that MBIs have applications for treating diverse psychopathologies and disorders including addictive behaviours (e.g., pathological gambling, workaholism), PTSD, anger dysregulation, attention deficit hyperactivity disorder, pain disorders (e.g., fibromyalgia), sexual dysfunction, and psychotic disorders (Shonin et al., 2013b). However, commensurate with growing interest into the clinical (and non-clinical) applications of MBIs, there are growing concerns over the rapidity at which mindfulness has been extracted from its traditional Buddhist setting and introduced into psychiatric treatment domains (Van Gordon et al., 2014a). Specifically, these concerns centre on the alleged absence within FG-MBIs of the factors that, according to the 2,500-year-old system of Buddhist meditative practice, are deemed to maximise the efficacy of mindfulness. Simply put, some researchers, clinicians, and Buddhist scholars have suggested that mindfulness in MBIs has been altered from its traditional Buddhist construction to such an extent, that it is inaccurate and/or misleading to refer the resultant technique as 'mindfulness'.

To address these concerns, a number of SG-MBIs have recently been formulated and empirically investigated. This chapter explicates the key differences between FG-MBIs and SG-MBIs, briefly appraises key empirical findings and issues relating to SG-MBIs, and discusses the implications of the trend towards a second-generation of MBIs for psychiatrists and service-users.

Differences Between First- and Second-Generation MBIs

FG-MBIs refer to interventions such as MBSR (developed in the 1970s) and 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) (Shonin & Van Gordon, 2015a). FG-MBIs have been influential in helping mindfulness gain acceptance within psychiatric settings, and in many respects they represent a novel approach to regulating

maladaptive cognitive and affective processes (Singh et al., 2014). For example, in addition to utilising present moment awareness, FG-MBIs advocate 'letting-go' of thoughts and feelings (whether adaptive or dysfunctional) rather than attempting to modify them as in specific cognitive-behavioural approaches.

Arguably the most popular definition of mindfulness as conceptualised by FG-MBIs is that it: "*[pays] attention in a particular way: on purpose, in the present moment, and non-judgmentally*" (Kabat-Zinn, 1994: p. 4). In essence, this definition implies that mindfulness is: (i) principally an attentional faculty, and (ii) an aptitude that is not necessarily mediated by other meditative processes. A further observation of note concerning the above definition is the inclusion of the term 'non-judgementally', which appears to suggest that mindfulness requires passivity and/or impartiality towards sensory and psychological stimuli.

Although FG-MBIs and SG-MBIs both invariably follow an eight-week group-therapy format and are tailored for utilisation in Western clinical settings (e.g., they are generally secular in nature), the above-outlined FG-MBI delineation of mindfulness is fundamentally distinct from how SG-MBIs interpret and teach mindfulness. Rather than a passive or 'non-judgemental' awareness, the SG-MBI model advocates an active and discriminative form of awareness (Shonin & Van Gordon, 2015a). Indeed, in addition to moment-by-moment observance, SG-MBIs teach that mindfulness requires active participation in the here and now. The 'participating observer' notion is intended to help mindfulness practitioners understand that it is possible (and indeed essential) to observe and 'let-go' of present moment experiences, whilst concurrently discerning how to respond in an adaptive manner. This helps to avoid the scenario where the patient's or another individual's wellbeing is at risk, yet due to being 'non-judgemental' they avoid taking preventative action.

As referred to in Chapter 2, one recently proposed SG-MBI conceptualisation of mindfulness defines it 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, 2015a). In addition to advocating either an 'active' or 'non-judgemental' form of awareness, a further difference between FG-MBIs and SG-MBIs is the explicit use in the SG-MBI definition of the term 'spiritual'. This term is included to help prevent participants becoming confused (or being inadvertently misled) as to the nature of the intervention they are receiving (in fact, FG-MBIs have been criticised for being ambiguous in this respect; Van Gordon & Griffiths, 2015; Van Gordon, Shonin, & Griffiths, 2016c). A further difference between the two approaches is that SG-MBIs invariably teach mindfulness in conjunction with other meditative practices and principles (e.g., ethical awareness, impermanence, emptiness/non-self, loving-kindness and compassion meditation, etc.) that are traditionally deemed to promote effective mindfulness practice (Shonin et al., 2014g).

Issues and Key Empirical Findings

Empirical evaluation of SG-MBIs – including via the use of RCTs – has demonstrated that SG-MBIs can be effective treatments for depression, anxiety and stress, schizophrenia, pathological gambling, work addiction, work-related stress, nicotine dependence, anger dysregulation, and antisocial behaviour (Shonin & Van Gordon, 2015a; Singh et al., 2014). As with FG-MBIs, an increase in perceptual distance from cognitive and affective processes is generally accepted as being a primary mechanism of SG-MBIs. However, exploratory quantitative and qualitative studies of SG-MBIs – such as those investigating the eight-week MAT intervention – have yielded findings suggesting that SG-MBIs also utilise the following mechanistic pathways: (i) improved regulation of ego-centric thinking patterns leading to reductions in self-preoccupation, self-disparaging schemas, and asocial behaviour, and (ii) increased spirituality that exerts a protective influence over life-adversity and low self-purpose (Shonin & Van Gordon, 2015a).

Despite these promising findings, to date there have been no head-to-head comparison studies to ascertain whether the FG-MBI or SG-MBI approach is most effective for a given population. Consequently, SG-MBIs could be criticised for relying too heavily on expert opinion and best-practice guidelines (i.e., according to 2,500-year-old Buddhist meditational theory) in order to justify their necessity.

Implications for Psychiatrists and Service Users

The formulation and empirical assessment of SG-MBIs appears to reflect a current trend in mental health research and practice. However, there is clearly a need for further research in order to establish the full clinical applications and efficacy of SG-MBIs compared to FG-MBIs. Whilst there are a lack of studies directly comparing the two approaches, this does not necessarily undermine the value of SG-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.

Although the development of SG-MBIs has largely been prompted by criticisms of FG-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. However, irrespective of whether future research and clinical utilisation of mindfulness focuses on one or both approaches, the growing popularity of MBIs in clinical settings combined with the interventional use of a greater range of meditative techniques (e.g., compassion meditation, loving-kindness meditation, etc.) is likely to have professional training implications for psychiatrists. Accordingly, it is recommended that psychiatrists acquire a working familiarity of meditational theory and the factors that it attributes to the onset of mental illness.

Chapter 5

Buddhist emptiness theory: Implications for psychology

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

The final published version of this article is available at American Psychological Association:

http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=2016-13170-001

Abstract

In recent decades, there has been growing assimilation of ancient Buddhist practices and principles into Western research and applied psychological settings. One Buddhist principle that is currently receiving an increasing amount of scientific interest is emptiness. Emptiness asserts that all phenomena – including the "self" – are empty of intrinsic existence. This chapter examines how logical enquiry and evidence from diverse psychological and scientific disciplines appear to be gradually adding credence to the notion of emptiness. The chapter explicates how, if emptiness theory continues to be validated and accepted by Western psychologists, it will become necessary to re-examine some established beliefs in relation to the workings of both the psychological and physical world. Examples of how emptiness might develop and/or complement psychological and wider scientific understanding in this respect include coming to the acceptance that: (i) what is currently understood to be waking reality is effectively a shared dream, (ii) the "self" does not inherently exist, (iii) the underlying cause of mental illness is an individual's belief that they inherently exist, and (iv) maladaptive psychosocial functioning and the absence of mental illness are not necessarily mutually exclusive occurrences. It is concluded that there is a clear need for greater research into the validity and applications of emptiness. However, if supportive empirical findings relating to emptiness continue to emerge, it is possible that some of the next important scientific "discoveries" concerning mind and matter will emerge at the intersection of ancient Eastern contemplative practice, empirically-grounded Western psychological insights, and quantum mechanics.

There is growing interest among Western psychologists into the attributes, correlates, and applications of ancient Buddhist practices and principles. The most obvious example is the meditative practice of mindfulness that has received substantial scientific and public attention in recent decades. Indeed, initiatives have been implemented and research has been conducted that supports the utilisation of mindfulness in a wide range of applied psychological settings including: (i) clinical and health psychology for the treatment of psychological and somatic disorders (Van Gordon et al., 2015a), (ii) forensic psychology as a tool for reducing reoffending, modulating impulsivity, and regulating anger (Howells, Tennant, Day, & Elmer, 2010), (iii) occupational psychology for improving work-related wellbeing, work productivity, and job performance (Dane, 2010), (iv) educational psychology for improving academic performance, knowledge acquisition, quality of learning environment, and cognitive functioning (Burke, 2010), and (v) sport psychology for achieving peak performance, situational awareness, and task focus (Gardner & Moore, 2012).

Notable examples of other Buddhist practices that have attracted scientific and public interest include loving-kindness meditation, compassion meditation, and emptiness (Kelly, 2008). Loving-kindness and compassion meditation are similar to mindfulness in the sense that they are both meditative techniques and involve an element of attentional focus (i.e., combined with a spiritual intention to relieve one's own and/or others' suffering; Galante, Galante, Bekkers, & Gallacher, 2014). However, emptiness – the subject of the present chapter – can be considered as distinct from these meditative modes because although emptiness can effectively be "practiced" during meditation, it is better considered as more of a founding and defining principle of Buddhism, and of the nature of self and reality more generally (Dalai Lama, 1995). As will be explicated in greater detail below, Buddhist emptiness theory implies that there is no logical or scientific plausibility to the principles upon which an individual constructs their

self-concept, and that the notion of inherent existence (whether pertaining to the individual or phenomena more generally) is fundamentally flawed (Tsong-Kha-pa, 2004). If it is accepted that emptiness accurately reflects the manner in which individuals and reality exist, then there are significant implications for both psychological and scientific thought.

The present chapter provides: (i) an explication of a traditional Buddhist construction of emptiness, (ii) an examination of how this differs from Western psychological conventions concerning the self and how individuals perceive and interact with their world, and (iii) an assessment of relevant empirical findings relating to Buddhist emptiness theory and their implications for contemporary psychological and scientific understanding of the human mind.

Buddhist Emptiness Theory

Emptiness (Pāli: *suññatā,* Sanskrit: *śūnyatā*) refers to the fundamental Buddhist teaching that phenomena – including the self – are devoid or "empty" of intrinsic existence (Nhat Hanh, 1999). Emptiness does not explicitly occur as a theory in Buddhism. It is considered more as a truth of existence, or even as a state of being and way of life (Van Gordon et al., 2016a). However, for the purposes of the present chapter, it is fitting to refer to emptiness as a theory because: (i) Western Psychology does not currently accept the principles of emptiness and views it from an "outside" perspective, and (ii) it facilitates an objective investigation of the underlying assumptions of emptiness.

Emptiness is considered by some to be one of the most poorly understood – and perhaps poorly elucidated – Buddhist teachings (Shonin et al., 2015b). For example, there is a common misconception that *suññatā* (emptiness) is a Mahayana Buddhist concept, whereas *anattā* (Pāli; non-self) is a Theravada Buddhist concept (Mahayana and Theravada refer to different Buddhist schools; for a discussion of the differences between the major schools of Buddhism, see Shonin et al., 2014g). However, within the Theravada Pāli Canon, there exits (for example) the *Greater Discourse on Emptiness* (MN 122) and the *Lesser Discourse on Emptiness* (MN

121) – known as the *Mahāsuññata Sutta* and the *Culasuññata Sutta*, respectively.[1] Although there is a greater emphasis on emptiness in Mahayana *vis-à-vis* Theravada Buddhism, emptiness still substantially features in the Theravada discourses. Some scholars draw distinctions between "Theravada non-self" and "Mahayana emptiness" by asserting that emptiness encompasses the notion of non-self but extends beyond the "self" to include all phenomena. However, in essence, non-self and emptiness are the same thing. If there is no self, by default, there is no other. Thus, logic dictates that non-self implies that all phenomena are empty (Van Gordon et al., 2016a).

Despite these terminological issues, emptiness is a reasonably common sense notion that can be validated using simple logical deduction. There are numerous Buddhist metaphysical standpoints from which emptiness can be examined and interpreted, each with their own strengths and limitations. This chapter primarily focuses on the Mahayana Buddhist outlook because as referred to above, emptiness is more extensively referred to in Mahayana doctrine. Arguably, the three most widely propagated Mahayana dialogues on emptiness are viewing it through the lens of: (i) *interconnectedness*, (ii) the *Mādhyamaka* view of a middle-way between extremes, and (iii) the *Yogācāra* supposition that all phenomena are dreamlike and of the nature of mind.

Interconnectedness is perhaps the most elementary of these three ontological standpoints. It refers to the notion that phenomena are intricately interconnected and that they arise in dependence upon each other (Nhat Hanh, 1999). For example, a flower manifests in dependence upon the water and air in the atmosphere, heat of the sun, seed from which it grew, nutrients in the soil, insects and animals that died and decomposed in order to produce those nutrients, etc. Consequently, the flower does not exist in isolation of all other phenomena and it is empty of an independent and inherently existing self. Although investigating emptiness via the concept

---

[1] A search for the term *emptiness* in modern translations of the Theravada scriptures may prove ineffective because *suññatā* has often been translated (e.g., by Ñanamoli & Bodhi, 2009) as 'voidness*'.*

of interconnectedness can help foster a basic understanding of emptiness, this system of thought is not without its limitations. The most obvious limitation being that by asserting phenomena are connected to each other, the premise that they are empty of inherent existence is automatically negated (because phenomena cannot be connected to each other if they do not inherently exist) (Shonin et al., 2015b). Consistent with this line of reasoning, another translation of the Sanskrit word *śūnyatā* is *boundlessness*, which is based on the assumption that it is impossible to draw absolute boundaries between one phenomenon and another.

The second of the aforementioned methods of interpreting emptiness is based on the work of the Indian *Māhāyana* Buddhist philosopher and saint Nāgārjuna (2nd c. AD), who founded the *Mādhyamaka* (meaning "middle-way") school of Buddhist thought. Nāgārjuna asserted that any given object 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 nonetheless assigned a label that by convention denotes an entirely new phenomenon) (Garfield, 1995). Nāgārjuna advocated a "conceptual" middle way between the extremes of *inherent existence* and *nihilism*. The term "conceptual" is employed because at no point did Nāgārjuna explicitly posit that a middle way actually exists. In other words, the notion of a middle way was introduced more for didactic purposes because if it is shown and/or accepted that the two poles of a continuum are untenable, then it is also untenable that there is a middle-way that exists between them (Shonin et al., 2014g).

Nāgārjuna's rejection of nihilism is as equally significant as his rejection of inherent existence, and was intended to dispel the erroneous view that emptiness and non-existence are interchangeable terms. Although all phenomena manifest in reliance upon causes and conditions and are thus devoid of an inherent self, this does not negate the fact that phenomena appear and can be perceived by an onlooker. It is for this reason that the *Heart Sutra* (Sanskrit: *Prajna Paramita Hrdaya Sutra*) – a fundamental *Māhāyana* Buddhist teaching on emptiness –

asserts that "*form does not differ from emptiness, emptiness does not differ from form*" (Soeng, 1995, p.1). The purpose of this statement is to explicate the Buddhist view that: (i) form (i.e., appearances and all perceived phenomena) are of the nature of emptiness, and (ii) 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) (Soeng, 1995).

The notion of phenomena being empty yet still perceptible to the human mind is explored further by the *Yogācāra* school of *Māhāyana* Buddhism (i.e., the third metaphysical standpoint referred to above). In essence, the *Yogācāra* school of thought 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. It is generally acknowledged that the *Yogācāra* Buddhist standpoint accepts that phenomena perceived by the mind are empty of intrinsic existence, but there is debate as to whether: (i) the *Yogācāra* school also accepts that the mind itself is empty of intrinsic existence, and (ii) the *Mādhyamaka* approach reflects a superior metaphysical position (Williams, 2008). However, in the present author's opinion – and consistent with the view of the 8th Century Indian Buddhist philosopher Śāntarakṣita – the assertion that the *Yogācāra* view posits an inherently-existing mind is based on a poor understanding of the *Yogācāra* approach.

At first glance, the *Yogācāra* view that waking-state reality comprises the same underlying fabric and nature of a dream may appear to be an absurd notion that contradicts accepted psychological and scientific conventions. However, as shown below (see Figure 5.1) in text extracted and adapted from a Buddhist interpretation of emptiness entitled *Dream or Reality* (Shonin & Van Gordon, 2014a), a more in-depth examination of the *Yogācāra* position demonstrates that there are actually no logical grounds upon which to distinguish between the ultimate nature of how phenomena exist in a dream, and how they exist in waking-state reality.

Figure 5.1. Dream or Reality (extracted & adapted from Shonin & Van Gordon, 2014a)

Professor: Are we awake or are we dreaming?

Student: We are awake, of course.

Professor: How can you be certain?

Student: That is easy. In a dream, everything is illusory and the product of the mind. However in waking reality things are real and exist.

Professor: So according to you we are currently awake and therefore my fountain pen really exists.

Student: That is correct. The pen writes when I press it against the paper. It is real.

Professor: So your criteria for reality is based on the function that an object performs?

Student: Of course.

Professor: Take away all of the components of the pen, so that you are left with only the nib. Does the nib still write?

Student: Yes, it still works because there is a small amount of ink remaining.

Professor: But the nib isn't the pen?

Student: 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. 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 are awake.

Professor: So you are saying that the pen exists as the sum of its component parts?

Student: Yes, that is correct.

Professor: I see. But you have already said that something cannot be two things at the 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 is illogical. The component parts still exist in the pen, but the word "pen" is employed to designate the collection of individual components that together form that object.

Professor: So you are saying that "pen" is just a label?

Student: Well I guess so.

Professor: But if "pen" is just a label then the pen does not inherently exist. So are you now saying that we are currently dreaming?

Student: I am confused now. Irrespective of whether we are awake or dreaming, although things certainly appear to exist, there is no logical basis upon which to make that claim. A dream occurs within the expanse of the mind, and in a dream, there is 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 will have to work that out for yourself.

Student: We still have not determined whether we are currently dreaming or awake.

Professor: Does it really matter? Can't you just relax and enjoy each moment of whichever reality you are currently in?

Student: Yes, I think I can.

There are various interpretations of what delineates the self in psychology. Some of these favour a more fixed self that resides at the centre of its world (e.g., Harré, 1998), whilst other elucidations – particularly from the field of social psychology – are constructed more around the notion of a dynamic and relational self (e.g., Markus, Mullally, & Kitayama, 1997; Smith & Mackie, 2007). However, irrespective of which psychological system of conceptualizing the self is preferred, the existence of a definite "self" or "I" entity is invariably explicitly or implicitly inferred in Western psychology. An obvious example is Rogers' (1959) humanistic approach in which dimensions of *self-worth*, *self-image*, and *ideal-self* are collectively understood to comprise an individual's self-concept (i.e., the set of established beliefs and perceptions an individual harbours about themselves). Compared to Freud's (1923) earlier contributions based on the *id*, *ego*, and *superego*, the humanistic approach advocated by Roger's and others is generally accepted to have greater utility in contemporary psychological settings (Kahn, 1998). Nevertheless, both Freudian and Rogerian systems of thought are constructed around the explicit acceptance of a discrete "self" entity.

The existence of a definite self is likewise explicit within Winnicott's (1965) *true self* (based on the individual's sense of "simply being") and *false self* (based on the individual's sense of doing and on societal expectation) schema. Unsurprisingly, this identification with an inherently existing self continues throughout the various developments of Winnicott's work (e.g., Kohut, 1966, 1971; Lowen, 2004; Orbach, 2009; Symington, 2003). For example, Kohut's (1966, 1971) self-psychology model is constructed around the idea of the *grandiose-exhibitionistic self* (i.e., the ideal person) and the *idealised parental imago* (i.e., the ideal parent). An intrinsically existing self is also proposed in Lewis' (1990) model of self in which two distinct dimensions of selfhood are posited: (i) the *existential self* that has a sense of being distinct from others, and (ii) the *categorical self* that understands that although it is a separate entity, it also exists within, and makes part of, the world.

Phenomenological psychology is also based on the assumption of a discrete self-entity that experiences and interacts with its world: "*The perception of the world is nothing but an expansion of my field of presence, it does not transcend the essential structures of this field, and the body always remains an agent in and never becomes an object of this field. The world is an open and indefinite unity in which I am situated*" (Merleau-Ponty, 2012, p. 318). It could be argued that the practice of *bracketing* within phenomenology enables the notion of self and the factors that condition its interpretation of the world to be transcended (Creswell, 2007). This is true to a certain degree but bracketing does not deny the existence of a self, it simply limits the influence of an analyst's selfhood in terms of how data relating to the "lifeworld" of another individual is interpreted.

It is beyond the scope of the present chapter to outline and/or appraise each of the various models of self within psychology, and the examples above are included merely to establish that an intrinsically existing self is explicit within many of the founding systems of current psychological thought. However, there are also psychological models that subscribe to a more abstract and/or holistic notion of self. Jungian theory is an obvious example in which the *Self* archetype denotes the unification of both the conscious and unconscious mind (Van Gordon, et al., 2016a). According to Jung (1981), the *Self* signifies the whole of the being and it cannot be limited or fixed to a given location in time or space. A more abstract conceptualisation of self is likewise presented in Hayes' (2002) work on *Acceptance and Commitment Therapy* (ACT), in which a *transcendent self* is favoured over a *conceptualised self* (i.e., an individual's conception [and attachment to that conception] of who they think they are).

Jungian and ACT interpretations offer a more abstract and holistic notion of self, and are arguably positioned one step closer to the Buddhist depiction of the "emptiness of self". Nevertheless, given that both of these systems imply that the processes of knowing and perception are locus-orientated, an inherently existing self is still implicitly assumed. Thus,

throughout the various psychological interpretations of self in the study of human personality, social relationships, cognitive and behavioural processes, phenomenology, and psychopathology, there is an explicit or implicit acceptance of an inherently existing "I" (Chan, 2008).

Use of the Term "Emptiness" in Psychology

In terms of Western psychology's specific usage and understanding of the term "emptiness", there are very few instances where the term has been assimilated by the psychological literature. Furthermore, when references to emptiness are made, they mostly occur within the clinical literature. Within clinical psychology, emptiness tends to be associated with feelings of hopelessness, loneliness, and isolation (Klonsky, 2008). However, an interpretation of emptiness that perhaps sits closer to the Buddhist model has been identified in schizophrenia research. For example, according to Clark (1996), "*Schizoid patients often appear bland or faintly repellent to other people and equally often describe themselves as empty and without a self. One aspect of this emptiness is defensive in nature. It is born of the desire to protect the self. Unfortunately, however, defensive emptying serves to weaken the very thing the individual is trying to protect*" (p. 153).

In the majority of cases, the feelings of emptiness experienced by some individuals with schizophrenia-spectrum disorders are likely to be maladaptive. However, if it is accepted that emptiness does in fact represent the ultimate truth of existence, then perhaps aspects of these delusions may not be as irrational as current clinical consensus might suggest. Based on this premise, a recent clinical case study involving an individual with co-occurring schizophrenia and pathological gambling successfully utilised emptiness training (in conjunction with meditation and cognitive behavioural therapy techniques) and emphasis was placed on helping the individual accrue the necessary insight and resources to understand and accept the notion

of an empty self (i.e., rather than reject it or allow it to become a cause of internal conflict; Shonin et al., 2014b). As demonstrated by this case study example, there are clearly a number of important implications for psychology if emptiness theory is accepted as valid.

Empirical Investigation of Emptiness

Based upon the assumption that the self and reality are empty of intrinsic existence, the entire canonical collection of Buddhist teachings and the commentaries upon them are in some way orientated towards undermining the belief in the intrinsic existence of phenomena. However, despite the fact that Buddhism does not subscribe to the belief in concrete self-entities, it accepts that most people do (Dalai Lama, 1995). Consequently, the Buddhist discourses can be broadly divided into: (i) teachings intended to be interpreted and practiced on the *relative* level (i.e., where reality is constructed in dualistic terms and where a *subject* exists only because there is an *object*), and (ii) those teachings that are concerned more with the *absolute* aspect of existence (i.e., the *true* or *ultimate* mode in which reality exists, which transcends the concept of duality) (Tsong-Kha-Pa, 2004). The first category of teachings are generally utilised to guide individuals through the preparatory stages of Buddhist practice such that they can subsequently apprehend the essential meaning of teachings concerning the absolute level.

Thus, a point of note concerning Buddhism is that it does not realistically expect individuals to come to a sudden and full intuitive understanding of emptiness (although there are rare reports of this happening; Sogyal Rinpoche, 1998). Indeed, according to Buddhist thought, giving rise to a full realisation of emptiness invariably takes an entire lifetime (or many lifetimes) of dedicated day-to-day spiritual and contemplative practice (Dalai Lama & Berzin, 1997). Consequently, the principles of emptiness are often taught at the very start of the meditative journey, so that they can be gradually internalised as the individual accrues spiritual and life experience.

Recent empirical findings suggest that introducing individuals to emptiness in this gradual manner can enhance different aspects of psychosocial functioning. For instance, a cross-sectional study investigating the Buddhist principle of non-attachment found that non-attachment to self and experiences predicted greater levels of acceptance, non-reactivity, mindfulness, self-compassion, subjective wellbeing, and eudemonic wellbeing (Sahdra, Shaver, & Brown, 2010). In the same study, non-attachment was negatively associated with fatalistic outlook, avoidance of intimacy, dissociation, and alexithymia (i.e., an impaired ability to identify or describe feelings). A more recent cross-sectional study showed that non-attachment to self and experience predicted prosocial behaviour in adolescents (Sahdra, Ciarrochi, Parker, Marshall, & Heaven, 2015).

An intervention study involving a six-week group therapy that taught selflessness and other related Buddhist principles demonstrated that individuals with co-occurring diabetes and depression that received the therapeutic intervention reported significant reductions in anxiety over treatment-as-usual controls (Rungreangkulkij, Wongtakee, & Thongyot, 2011). More recently, a number of studies have investigated the utility of a secular (but Buddhist-based) eight-week intervention known as MAT. A key pedagogic feature of MAT is the importance it assigns to training participants in the concept and practice of emptiness (as well as other Buddhist meditative and spiritual techniques). Findings – including from clinical case studies as well as randomised and non-randomised controlled trials – have shown that MAT can improve: (i) work-related stress, (ii) stress, anxiety, and depression, (iii) workaholism, (iv) co-occurring schizophrenia and pathological gambling, and (v) job satisfaction, organisational citizenship, and job performance (Shonin et al., 2014b, 2014c, 2014d; Van Gordon et al., 2016b; 2016d; 2017). Qualitative studies also demonstrate that MAT participants associate understanding and practicing emptiness with improvements in psychological and spiritual wellbeing, as well with the undermining of maladaptive ego-attachment constructs (Shonin &

Van Gordon, 2015a).

A closely related principle to emptiness is the Buddhist concept of *impermanence* that comprises the following three dimensions: (i) the self (and indeed all phenomena) will ultimately die and cease to be, (ii) phenomena (including the self) are constantly changing and do not remain in stasis for even the smallest scientifically meaningful moment of time (i.e., one *Planck* time [5.39×10^{-43} seconds]), and (iii) the transiency of phenomena (i.e., the fact that they are constantly changing) means that they – and anything resembling a self that intrinsically exists within them – can never be located in time and space (Tsong-Kha-pa, 2004). A number of trauma and grief treatment modalities have begun to integrate impermanence awareness training (often in conjunction with mindfulness training) as a means of helping individuals come to terms with the fact that: (i) life is uncertain and sudden loss of life and/or traumatic events can (and do) happen, and (ii) the only thing certain about life is that it will end in death (Cacciatore, & Flint, 2012; Cacciatore, Thieleman, Osborn, & Orlowski, 2014a; Cacciatore, Thieleman, Killian, & Tavasolli,, 2014b; Kumar, 2005; Wada & Park, 2009). An increased acceptance of the impermanent nature of existence may help to facilitate the earlier-onset of the recovery and restorative phases of the grieving process (Wada & Park, 2009).

Examples of other empirical evidence indicating applications for emptiness in applied psychological settings are provided – albeit in a less direct manner – from studies of Buddhist compassion and loving-kindness meditation techniques. Compassion meditation 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). Loving-kindness meditation is distinct from compassion meditation and involves the meditative cultivation of a feeling of love for all beings (Lee et al., 2012). Both compassion and loving-kindness meditative techniques can be described as being "other" as opposed to "self" focussed. From the Buddhist perspective, undertaking spiritual and meditative practice with the intention of alleviating the

suffering of others represents a "win-win" scenario because it not only helps other beings both materially and spiritually, but it also helps the meditation practitioner assume a humble demeanour that is essential for dismantling attachment to the belief in an inherently existing self (Shonin et al., 2014g). Studies of compassion and loving-kindness meditation have demonstrated a broad range of salutary health outcomes including improvements in (but not limited to): (i) schizophrenia symptomatology (Johnson et al., 2011), (ii) positive and negative affect (May, Weyker, Spengel, Finkler, & Hendrix, 2014), (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, Rilling, Negi, & Raison, 2013), and (vii) affective processing (Desbordes et al., 2012).

Mechanisms of Action

According to Buddhist thought, psychological suffering stems from an erroneous belief in an inherently existing self. This maladaptive core belief has been termed *ontological addiction* (Van Gordon et al., 2016f) which has been formulated as a new category of addiction (i.e., in addition to more traditional chemical 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., 2013a, p.64). Buddhism teaches that maladaptive mental states manifest as a result of the imputed self: (i) yearning for objects and/or experiences that it considers will enhance its circumstances and survival prospects, and (ii) harbouring aversion towards objects and/or experiences it considers will negatively influence its circumstances and/or threaten its sense of self (Gampopa, 1998). This process of constant craving is known in Buddhism as *attachment* and is 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" (Shonin et al., 2014g, p.126). Buddhism asserts that attachment leads to an exacerbation of ontological addiction and that practicing emptiness is the most effective means of deconstructing the erroneous belief in the inherent existence of the self (Van Gordon et al., 2016a).

In terms of attempting to explicate how the gradual internalisation of emptiness facilitates recovery from ontological addiction, the following mechanistic pathways have been proposed: (i) emptiness promotes therapeutic transformation due to the client and therapist relaxing their attachment to selfhood and connecting in an open and uninhibited manner (Segall, 2003; Sills & Lown, 2008), (ii) non-attachment to self and experience fosters increased implicit and explicit affection towards others which helps to improve prosocial behaviour (Sahdra et al., 2015), (iii) emptiness leads to an increase of spiritual awareness that exerts a protective influence over life-stressors as well as feelings of loneliness, isolation, and low sense of purpose (Shonin & Van Gordon, 2015a), (iv) reduced preoccupation with self facilitates a greater acceptance of death and this, in turn, reduces death- and/or grieving-related anxiety and trauma-response (Cacciatore et al., 2014a, 2014b; Kumar, 2005), (v) by gradually undermining deep-rooted core beliefs concerning selfhood, emptiness mediates the effect of psychotherapeutic techniques that work at the surface level of behaviour and cognition (Chan, 2008), (vi) reducing the amount of self allocated to life and work tasks fosters strategic perspective, clarity of thought, decision-making competency, and problem-solving skills (Shonin & Van Gordon, 2015a), (vii) emptiness reduces the intrinsic value that individuals with addiction disorders assign to the object of their addiction (Griffiths, Shonin, & Van Gordon, 2015), and (viii) emptiness ameliorates self-obsession which helps to reduce thought rumination and negative thinking patterns (Trungpa, 2003).

Implications of Emptiness for Psychology

Outcomes from several of the aforementioned empirical investigations of emptiness (e.g., improvements in prosocial behaviour and organisational citizenship) appear to suggest that individuals with a better understanding of emptiness construct a more permeable boundary between self and society. Consistent with the view by some psychologists that rigid divides between self and other are contraindicative to optimal human functioning (e.g., Sampson, 1999), emptiness may have implications in social psychology for advancing understanding of the correlates and determinants of healthy societies. As noted earlier, an inherently existing self is implicit within the study of social psychology. Indeed, an individual's belief that it exists and has a role in society is deemed to be important for both self and societal enhancement (Smith & Mackie, 2007). However, a common misconception concerning emptiness theory is that it does not prevent individuals from assuming an identity or role within society. Emptiness recognizes and allows for the uniqueness of every individual (and all phenomena), and it also recognizes that such individuals are key components of a much larger whole (Nhat Hanh, 1999). In other words, emptiness of self and the absence of self-identity are two very different notions. Emptiness allows for the complete expression of individuality but acknowledges that such individuality can only manifest out of a larger society of which the individual forms an inseparable part.2

If the principle of emptiness is accepted, then there are also implications for the field of neuropsychology. More specifically, in recent decades there have been attempts to identify the neurological seat of the self and/or consciousness (Koch, 2004). To a certain degree, these efforts have been successful because associations have been identified between certain self-related cognitive processes and the activation of specific areas in the brain. Two examples of relevance to the present chapter are the: (i) association between self-referential memories and increased activation of the medial prefrontal cortex (Kelley et al., 2002), and (ii) regulation of self-

---

2 At the absolute level, this larger society is likewise absent of inherent existence.

recognition (normally of facial images) by the left cerebral hemisphere (Heatherton, Macrae, & Kelley, 2004; Turk et al., 2002). However, despite the fact that neuroimaging studies provide useful data in terms of brain areas that correspond to self-referential processes, the activation of such brain areas does not equate to the location of consciousness or the nucleus of an inherently existing self. Rather, neuron activation in these brain areas simply demonstrates that most individuals have a pronounced sense of self. From the perspective of emptiness theory, empirical attempts to identify the location of self or consciousness would be considered a somewhat futile endeavour because at the absolute level, consciousness and self exist as all things, and they abide just as much within the brain as they do outside of it.

As previously suggested (see section on the *Empirical Investigation of Emptiness*), emptiness may have utility within mental health treatment settings, and for promoting adaptive psychosocial functioning more generally. However, in terms of its potential impact upon the treatment and understanding of mental health issues, perhaps the most significant implication of emptiness theory is the fact that if the clinical literature continues to accept, assimilate, and utilise such Buddhist principles, then it will also need to re-evaluate its assumptions in terms of what actually constitutes mental illness. The reason for this is because individuals currently deemed to be "mentally healthy" (by Western medical conventions) would not be considered as such according to emptiness theory. Indeed, the Buddhist teachings on emptiness assert that any individual that does not perceive the absolute (i.e., empty) nature of reality is effectively deluded (Gampopa, 1998).

The condition of perceiving the world in this deluded manner has recently been referred to as an *inverted hallucination*, and it involves the *non-perceiving of that which is* (Shonin et al., 2014g). This is distinct from the more regular form of hallucination that involves *the perceiving of that which is not*. Therefore, rather than a continuum with categories of mentally healthy and mentally ill at each end, a model of mental illness in accord with the theoretical assumptions of

emptiness would necessitate a continuum with categories of deluded or mentally ill at one end, and extremely deluded or extremely mentally ill at the other. Implicit within such a model would be the understanding that all un-enlightened beings exhibit symptoms of mental illness, but these symptoms are more accentuated in some individuals compared to others.

Given the fact that extant psychiatric diagnostic systems accept that symptoms of mental illness can be present at the sub-diagnostic level (Davey, 2008), it could be argued that the aforementioned description of an emptiness-compatible model of mental illness does not present a significant departure from current psychological thought. However, as previously elucidated, rather than assessing the severity of mental illness according to its impact upon functionality, an emptiness-compatible model would assess illness severity according to the intensity of ego- or self-attachment. Not only does this constitute a departure from current diagnostic procedures, but it would be conceivable (according to emptiness theory) that an individual could – by Western psychological conventions – be classified as mentally healthy and found to be functioning in an adaptive manner, yet at the same time be substantially attached to their selfhood.

Given that emptiness involves a number of subtle existential and ontological concepts and given that research into the properties, correlates, and applications of emptiness is still at an early stage, it is difficult to make reliable or definitive inferences regarding the degree of disconnect between emptiness theory and current psychological understanding of mental health. Based on findings from some of the aforementioned empirical studies indicating strong positive correlations between emptiness and adaptive psychosocial functioning, it may be that the two conceptual approaches are more compatible than might be expected. Nevertheless, there are some fundamental differences in terms of how Western psychology and emptiness theory understand mental illness, and this should be borne in mind as part of any attempt to integrate emptiness principles into Western mental health diagnostic and treatment systems.

A Theory of Everything

In addition to implications specific to psychology, there are also implications of emptiness for the wider scientific understanding of mind and matter. In recent decades, there have been numerous attempts within physics to formulate a theoretical framework – known as a *theory of everything* (ToE) – that explains and links together all physical aspects of the universe (Hawking, 2006). An explication of leading ToE theories is beyond the scope of this chapter, as is a detailed evaluation of evidence from the field of quantum mechanics that appears to support the validity of emptiness. However, suffice to say, there is growing consensus amongst quantum theorists that at the sub-atomic level, there can never be absolute certainty that a particle exists at a given position in time or space (O'Connell et al., 2010). In fact, it has been demonstrated in an experimental setting that a minute metal blade of semi-conductor material can be made to simultaneously vibrate in two different energy states (O'Connell et al., 2010). These experimental findings are the kinetic equivalent of matter being in two different places at the same time. They demonstrate that at the sub-atomic level, particles (and any property of self that they might possess) can never be absolutely located in time and space (i.e., they exist nowhere and everywhere at the same time).

The present author argues that emptiness theory is a type of ToE because it provides a unifying theory regarding the nature and workings of reality. Consistent with the aforementioned experimental findings, emptiness implies that phenomena never come to rest in a fixed place, are made of "transience", and do not exist in absolute terms. Therefore, within emptiness, phenomena are deemed to be of the same nature and they are all assigned an equivalent level of importance (Norbu & Clemente, 1999). Phenomena arise from emptiness, are empty of inherent existence for the duration of their manifestation, and dissolve back into emptiness (Nhat Hanh, 1999). Thus, according to emptiness theory, reality exists as a singularity that transcends the "man-made" concepts of space and time. This is very similar to the singularity that is believed to have been present immediately before matter was created

following the Big Bang (Penrose, 2006). The only difference between emptiness theory and current scientific thought is that the latter draws a distinction between the absolute energy state of the reality that existed before and after the Big Bang. However, in emptiness, no such distinction can be drawn because the pre-Big Bang singularity was already "pregnant" with reality as we know it today. At the absolute level, current reality is simply a face or expression of that "primordial" singularity and nothing has been created that has different absolute physical or metaphysical properties than that which created it.

Emptiness theory posits that no distinction can be made between the inherent existential properties of tangible phenomena such as a house, tree, or planet, and intangible phenomena such as a thought, feeling, or dream (Norbu & Clemente, 1999). Consequently, emptiness implies that matter is composed of "mind particles" and that these mind particles are only perceived as "real" because the mind that perceives them is deluded. Consider the example of a person becoming frightened or excited during a dream – the mind has a deep-rooted propensity to apprehend as "existing" that which ultimately has no substance. Emptiness theory asserts that when a mind stops being attached to phenomena (including itself), it lets go of the idea of existing as a discrete self-entity and expands to its full capacity (Khyentse, 2007). The notion of a mind expanding to its full capacity is perhaps best explained by the analogy of a wave and the ocean. Although a wave appears to arise as a discrete phenomenon, at no time is it separate from the ocean. A deluded mind might be compared to a wave that only sees itself as a wave, whilst a mind expanded to its full capacity might be compared to a wave that has realised that it is an expression of the entire ocean.

There is also evidence from within psychology that appears to support the assertion within emptiness theory that the universe (or multiverse) is "mind made". The (now scientifically more accepted) phenomenon of *near death experiences* suggest that the mind continues (for a limited or unlimited period) to create and then live in a reality beyond clinical death (Belanti, Perera,

& Jagadheesan, 2008). To a certain degree, this appears to be consistent with the notion in emptiness theory that the deluded mind eternally migrates from one self-created reality to another. Some examples of these mind-created realties include: (i) waking-state reality, (ii) dream reality, and (iii) the reality that exists between death and re-entering into waking-state reality (Tsong-Kha-Pa, 2004). Some of these realities are understood to be created and lived in primarily by a single mind (e.g., dream state), whilst other realities – such as waking-state reality – are understood to be co-created. Examples of other mind realities posited by emptiness theory are perhaps less familiar to current psychological thought and include the existence of entirely different world systems (Dalai Lama, 2004). However, even the notion that there exist different realities and world systems is not completely foreign to modern science because *M-theory* (and related mathematical models from quantum mechanics) asserts that reality actually has multiple (i.e., more than ten) dimensions to it (Hawking, 2010; Schwarz, 1999). Although emptiness theory asserts that the number of conceivable realities is infinite, recent mathematical and theoretical models from quantum mechanics appear to be closing some of the ground between modern scientific and ancient Eastern perspectives.

A further body of evidence from within psychology that adds credibility to emptiness theory as a valid ToE comes from neuropsychology and the basic principles of saltatory conduction through the nervous system. Upon stimulation, sense receptors are understood to send electrochemical impulses via the peripheral nervous system to the central nervous system (CNS) (Vogel, 2009). The CNS receives these electrochemical messages and transforms them into coherent information that can be acted upon. However, without exception, an individuals' sense of movement, touch, taste, pain, pleasure, sight, sound, and so forth is based upon a mental impression formulated by the CNS. In other words, the CNS transforms electrochemical information into a 'working' three-dimensional image or movie. However, consistent with the principles of emptiness, although there is the impression of living in and moving through a

physical world, in truth, there is never any movement and life is experienced solely as the mental projection of the CNS.

Conclusion

The principle of emptiness arises from the 2,500-year-old Buddhist system of spiritual practice and refers to the belief that all phenomena are empty of intrinsic existence. Current scientific and psychological interest into the properties, correlates, and applications of emptiness has probably grown out of increasing public and scientific interest into the Buddhist meditative practice of mindfulness. Cultivating an advanced level of competency in mindfulness – the practice of becoming aware of the present moment - requires a concrete understanding of the true and absolute (i.e., empty) mode in which the present moment exists (Nhat Hanh, 1999).

Logical enquiry and evidence from a wide range of scientific disciplines appears to be gradually adding credence to the notion that phenomena are empty of intrinsic existence. If emptiness theory continues to be validated and accepted by Western psychology, it will become necessary to re-examine some established beliefs in relation to the workings of both the psychological and physical world. Examples of how emptiness might develop and/or complement psychological and wider scientific understanding in this respect would include coming to the acceptance that: (i) what is currently understood to be waking reality is effectively a shared dream, (ii) phenomena are in a constant state of transience, are "dream like" and/or "mind-made" in nature, and do not occupy a fixed place in time and space, (iii) physical space and all that it occupies is of the same composition of the mind, (iv) the self does not inherently exist, (v) the underlying cause of mental illness is the belief in inherent self-existence, and (vi) maladaptive psychosocial functioning and the absence of mental illness are not necessarily mutually exclusive occurrences.

Further empirical evaluation into the validity and applications of emptiness is clearly

needed. However, perhaps one of the biggest challenges in terms of assimilating emptiness into Western research and applied psychological settings is the fact that as soon as emptiness is adopted as an object of empirical research or contemplative practice, there occurs a betrayal of the essential meaning of emptiness. According to emptiness theory, even emptiness is devoid of intrinsic existence (Tsong-Kha-Pa, 2004). Consequently, during the empirical study or practice of emptiness, there is a risk of emptiness being reified and erroneously apprehended as a metaphysical phenomenon that can be realised, analysed, and categorised. Indeed, any investigation of emptiness can only be undertaken according to the norms and laws of empiricism that are not necessarily compatible with the profound nature of emptiness that exists outside the confines of conceptuality (Puhakka, 2015).

In spite of this, if supportive empirical findings relating to emptiness continue to emerge, it is possible that some of the next important scientific "discoveries" concerning mind and matter will emerge at the intersection of ancient Eastern contemplative practice, empirically-grounded Western psychological insights, and quantum mechanics.

Chapter 6

Ontological addiction: Classification, aetiology, and treatment

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

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Ontological addiction: Classification, etiology, and treatment. *Mindfulness, 7*, 660-671.

The final published version of this article is available at Springer:

http://link.springer.com/article/10.1007/s12671-016-0501-4

Abstract

Despite the fact that there is increasing integration of Buddhist principles and practices into Western mental health and applied psychological disciplines, there appears to be limited understanding in Western psychology of the assumptions that underlie a Buddhist model of mental illness. The concept of *ontological addiction* was introduced and formulated in order to narrow some of the disconnect between Buddhist and Western models of mental illness, and to foster effective assimilation of Buddhist practices and principles into mental health research and practice. Ontological addiction refers to the maladaptive condition whereby an individual is addicted to the belief that they inherently exist. The purposes of the present chapter are to: (i) classify ontological addiction in terms of its definition, symptoms, prevalence, and functional consequences, (ii) examine the aetiology of the condition, and (iii) appraise both the traditional Buddhist and contemporary empirical literature in order to outline effective treatment strategies. An assessment of the extent to which ontological addiction meets the clinical criteria for addiction suggests that ontological addiction is a chronic and valid – albeit functionally distinct (i.e., when compared to chemical and behavioural addictions) – form of addiction. However, despite the protracted and pervasive nature of the condition, recent empirical findings add support to ancient Buddhist teachings and suggest that addiction to selfhood can be overcome by a treatment process involving phases of: (i) becoming aware of the imputed self, (ii) deconstructing the imputed self, and (iii) reconstructing a dynamic and non-dual self.

The biopsychosocial model of mental illness asserts that biological, psychological, and social factors each play a role in the onset of mental illness (Engel, 1978). It was formulated as an alternative to the medical model, that from the late 1970s onwards, was increasingly regarded by the scientific community as a form of biomedical reductionism (Ghaemi, 2009). However, despite the more inclusive approach of the biopsychosocial model, it is not necessarily compatible with emerging thought and empirical findings regarding the aetiology and treatment of psychopathology. More specifically, there is growing assimilation in the clinical literature of ancient Buddhist principles concerning the determinants of mental illness, as well as interventional techniques constructed upon these principles (Kelly, 2015). Consequently, a somewhat paradoxical trend appears to be emerging where mental illnesses that are increasingly conceptualised and diagnosed according to a Western biopsychosocial framework, are being treated (or recommended for treatment) utilizing Buddhist-derived interventions that reject the assumption that mental illness can be solely attributed to a combination of biological, psychological, and social influences.

Consistent with the principles of evidence-based medicine and a 'what works' approach to treating mental illness, it could be argued that utilizing interventions constructed upon assumptions that are incongruous with a Western understanding of psychopathology does not present a problem in and of itself. However, although this is true up to a point, a problem begins to emerge when: (i) many researchers and clinicians are seemingly unaware that the assumptions underlying the techniques they are researching and/or administering run tangential to mainstream Western scientific and medical opinion concerning the determinants of psychopathology, and (ii) there is limited understanding in the clinical and scientific literature of the mechanisms posited by 2500-year-old Buddhist meditational theory that underlie therapeutic change (Shonin, Van Gordon, & Griffiths, 2014g).

In an attempt to foster effective assimilation of Buddhist practices and principles into

mental health research and practice, and in an attempt to narrow some of the disconnect between Buddhist and Western models of mental illness, the concept of *ontological addiction* was recently introduced and formulated by Shonin et al., (2013a). Consistent with traditional Buddhist thought concerning the origins and nature of psychopathology (and suffering more generally), ontological addiction refers to the maladaptive condition whereby an individual is addicted to the belief that they inherently exist (i.e., as an independent and autonomous entity). The purpose of this chapter is to build upon earlier theoretical and empirical works by undertaking an in-depth assessment of the various attributes of ontological addiction. By so doing, the present author hopes to elucidate a Buddhist construction of mental illness that is more palatable to a Western medical and scientific audience. The chapter begins by classifying ontological addiction in terms of its definition, symptoms, prevalence, and functional consequences, and continues by examining the etiology of the condition. The final part of the chapter appraises both the traditional Buddhist and current empirical literature in order to propose effective treatment strategies.

Classification

Definition

Ontological addiction has been 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., 2013, p.64). The intended meaning of each of the key terms employed in this definition are explained below in more detail.

Given that such explanations will make use of the term 'the Buddhist teachings', an explanatory note is perhaps warranted. The assertion by some scholars that there are many 'Buddhisms' is acceptable because the external form that Buddhism assumes varies according to culture, time, and geographic region. However, the present author would argue that all

authentic Buddhist lineages teach methods that ultimately lead to the same result. Furthermore, most of these methods are intended to foster insight into core Buddhist principles such as suffering, impermanence, and non-self. Suffering is suffering whether you approach it from a *Theravada*, *Mahayana*, or *Vajrayana* perspective (see Shonin et al. [2014g] for an overview of major Buddhist schools, and the differences between them). The same applies to impermanence and non-self. Thus, the different Buddhist 'vehicles' (a translation of the Sanskrit word *yana*) and their respective traditions essentially work with the same underlying principles, which they reconstitute and teach in different ways. The most profound *Vajrayana* practices are implicit within the simplest of Buddhist teachings, such as the discourse on the four noble truths (Van Gordon et al., 2015d). Therefore, within Buddhism, there are different interpretations of how to effectively practice spiritual development, but in essence, they represent variations on the same theme.

Deep-rooted belief

The words *deep-rooted belief* are intended to emphasize the persistent and consuming nature of the belief in an inherently existing self. In many respects, this term is similar to the notion of core beliefs in cognitive behavioural therapy (CBT). Core beliefs are deep-seated beliefs that often go unrecognised but significantly influence the way individuals interpret and react with people and the world around them (Wells, 1997). However, over and above their meaning within CBT contexts, the words *deep-rooted belief* are employed in the definition of ontological addiction in order to depict a much more persistent and primitive form of core belief. According to Buddhist theory, in the period following death the innermost aspect of a person's mind or consciousness is reborn within another physical (or non-physical) form (Sogyal, 1998). Buddhism asserts that the particular rebirth an individual is attracted to is governed by whichever cognitive and behavioural response patterns become dominant during

their lifetime (and during previous lifetimes). The Buddhist teachings explain that embedded patterns of thinking and behaviour leave an 'imprint' on the mind-stream and that following death, these tend to propel the innermost aspect of consciousness towards (or away from) a particular rebirth (Sogyal, 1998). A detailed explication of Buddhist transmigration theory is beyond the scope of this chapter but the salient point is that according to Buddhist philosophy, beings are born with a latent tendency to clutch at a 'self' and to believe that they inherently exist (Dalai Lama & Berzin, 1997).

Inherently existing 'self' or 'I'

Models of 'the self' in Western psychology range from those that posit a 'concrete self', to those that assume a more fluid self-schema (Van Gordon et al., 2016a). An example of the former would be Rogers' (1959) humanistic formation in which dimensions of *self-worth*, *self-image*, and *ideal-self* are collectively understood to comprise an individual's *self-concept*. Examples of the latter would be certain social psychological constructions in which a more relational self is proposed (Smith & Mackie, 2007), and Jungian theory (Jung, 1981) where it is asserted that the self cannot be confined to a given location in time or space. While some postmodern and poststructuralist philosophical and psychological perspectives have begun to question the validity of the self-concept (e.g., Gergen, 2009), it remains the case that most established models of self in Western psychology are locus-orientated, and thus implicitly or explicitly accept that there is a 'self' or an 'I' that intrinsically exists (Chan, 2008; Shonin et al., 2015b; Van Gordon et al., 2016a).

Despite the tendency of most people to derive reassurance from the belief that they exist as a definite 'I' entity, the existence of such an entity is logically and scientifically implausible. Without exception, phenomena – including human beings – do not manifest as discrete standalone entities but manifest only in reliance upon numerous (or innumerable) causes and

conditions (Dalai Lama, 2001). For example, the human body relies for its existence on the air that it breathes, animals and plants that it eats, rain that it drinks, and so forth. If a single one of these conditions is not present, the human body ceases to manifest (Nhat Hanh, 1992). The fact that phenomena are fundamentally interconnected (i.e., boundless) means that they are of the nature of 'non-self' (i.e., they do not possess a self that exists independently). However, for the same reasons that it can asserted that animate and inanimate objects are empty of an intrinsically existing self, it can also be asserted that they are 'full' of everything that exists. Therefore, the one implies the whole, and the whole implies the one.

It could be construed that there is a contradiction between the statement in the foregoing section that there is an innermost aspect of consciousness that survives death, and the assertion that sentient beings are of the nature of 'non-self'. However, these assertions are compatible because the innermost aspect of consciousness is also of the nature of non-self (Shonin & Van Gordon, 2014c). Consequently, the notion of an inherently existing 'self' or 'I' is referred to as *erroneous* in the above definition of ontological addiction because a self that exists independently and of its own accord is untenable (for a detailed explication of the notions of 'non-self' and 'emptiness', see Shonin et al., [2015b]).

Unwillingness to relinquish and *impaired functionality*

The terms *unwillingness to relinquish* and *impaired functionality* refer to the 'addictive' properties of ontological addiction, and the fact that it is a maladaptive condition. According to Griffiths' (2005) component model of addiction, for a condition to be considered as an addiction, the following six components must be present: (i) *salience*, (ii) *mood modification*, (iii) *tolerance*, (iv) *withdrawal*, (v) *conflict*, and (iv) *relapse*. The following draws upon both the traditional Buddhist and contemporary psychological (theoretical and empirical) literature in order to examine the extent to which ontological addiction meets the conventional criterial

for classification as an addiction:

1. *Salience* occurs when the activity becomes the single most important undertaking in the person's life and dominates their thinking, feelings, and behaviour (Griffiths, 2005). Conventional chemical and behavioural forms of addiction involve the ingestion of a psychoactive substance (e.g., alcohol, nicotine, cocaine, etc.) and/or engagement in an activity (e.g., gambling, internet use, sex). The substance or activity in question becomes a (or the) focal point in the individual's life, and they invariably have some awareness of their involvement with the activity or substance in question (Griffiths, 2005).

   A key difference between ontological addiction and conventional forms of addiction is that in the case of the former, the individual is not necessarily aware that they are in some way 'involved' with the object of their addiction (i.e., they are not consciously engaged in the act of believing that they inherently exist). However, this does not detract from the fact that their belief in a discrete 'I' entity dominates their thoughts, feelings, and behaviours. According to Buddhist psychology, attachment or addiction to self governs each and every choice made by an individual afflicted with ontological addiction (Chan, 2008). In other words, the belief in an inherently existing self is understood to become so important to the individual that they are unable to associate with it as being separate from themselves (i.e., it has become a characteristic that defines their being rather than an activity that they routinely engage in). Thus, the criterion of salience is certainly met by ontological addiction, but it takes on a slightly different aspect compared to the meaning of this term in conventional addiction contexts.

2. *Mood modification* refers to the subjective experiences that people report as a consequence of engaging in the addictive activity, and can be seen as a coping strategy (i.e., experiencing an arousing 'buzz' or a 'high' or paradoxically, a tranquilizing feeling of 'escape' or 'numbing') (Griffiths, 2005). According to Buddhist psychology and what is known as the *chain of dependent origination* (Nanamoli & Bodhi, 2009), the underlying cause of all feelings (positive or negative) is ignorance as to the manner in which the self exists. Because most individuals have a deep-rooted belief in an intrinsically existing 'self', they crave objects, situations, and experiences that they deem will advance the interests of the self. Acquiring such objects, situations, or experiences brings temporary happiness, such as feelings of comfort, relief, elation, pleasure, joy, or pride. However, the process of desiring and acquiring 'favourable' circumstances reifies the individual's belief in a self, and an addiction feedback loop arises (see section on *Aetiology* for a fuller description of addiction feedback loops in the context of the ontological addiction condition).

    The strategy of the individual suffering from ontological addiction is flawed because demand (i.e., desire) for favourable conditions always outweighs supply. Indeed, when an individual acquires a certain level of psychological and/or material comfort, Buddhism asserts that their expectations raise accordingly (Shonin et al., 2014g). Therefore, ontological addiction gives rise to 'trait' experiences of mood modification (e.g., elation, satisfaction) that arise out of a 'state' experience of suffering which is born from constantly craving such trait experiences.

3. *Tolerance* is the process whereby increasing amounts of the activity are required to achieve the former mood modifying effects (Griffiths, 2005). Compared to the other components of Griffiths' model of addiction, the rationale for including tolerance as a feature of ontological addiction requires greater explanation. From the Buddhist

perspective and as discussed above, people are born with a propensity to become addicted to themselves. Depending upon which cognitive-behavioural response patterns become dominant during their life, Buddhism asserts that they either augment or weaken their belief in selfhood (Gampopa, 1998). However, during this current time period, it is understood (within Buddhism) that most individuals are inclined towards compounding their belief in selfhood. In Buddhist terms, this is the same as asserting that although most individuals are aware of a spiritual aspect to their being, they invariably choose not to nourish or develop it.

One explanation for the tendency of people to repel themselves from authentic spiritual practice (which does not necessarily equate to religious practice) is that they do not wish to confront and/or make efforts towards dismantling the 'selfhood' that they have worked so hard to construct (Trungpa, 2002). Consequently, according to this line of Buddhist thought, individuals effectively 'run' from themselves and require ever increasing levels of immersion in emotions, discursive thinking patterns, and worldly pursuits in order to sustain and further augment the deluded belief that they inherently exist. From this perspective, it can be argued that tolerance is a component feature of ontological addiction.

4. *Withdrawal symptoms* are the unpleasant feeling states and/or physical effects (e.g., moodiness, irritability, etc.) that occur when the person is unable to engage in the addictive activity (Griffiths, 2005). As noted above, in the current era (known in Buddhism as *pashchimadharma* [Sanskrit] or *mappō* [Japanese]), people might go through the motions of engaging in spiritual practice, but according to Buddhist theory, the majority of people are repelled by the idea of wholeheartedly committing themselves to spiritual development (Marra, 1988). Consequently, Buddhism asserts that individuals invariably repel – sometimes with extreme anger or venom – attempts

to ease them off their addiction to a 'me', a 'mine', and an 'I'. One well-known historic example of this might be the crucifixion of Jesus Christ. Through selfless acts of kindness and what were deemed to be miracles, Christ is reported to have provided people with undeniable 'evidence' that the 'Kingdom of God' was a place or state they could access after transcending selfish thoughts and behaviours. However, having been shown, beyond reasonable doubt, that it was possible (i.e., via engaging in authentic spiritual practice) to completely transcend selfishness and thus experience 'God', historical records (e.g., the Gospel according to St. Luke, Chapter 23) report that the 'people' became angry and killed (i.e., crucified) Christ. Thus, if Buddhism is correct in asserting that individuals are generally repelled by the idea of transcending selfhood, then it can be argued that withdrawal symptoms are a component of ontological addiction.

5. *Conflict* refers to the conflicts between the person and those around them (interpersonal conflict), conflicts with other activities (e.g., work, social life, hobbies, and interests) or from within the individual (e.g., intra-psychic conflict and/or subjective feelings of loss of control) that are concerned with spending too much time engaging in the addictive activity (Griffiths, 2005). As highlighted in more detail below (see Aetiology section), Buddhism attributes all forms of intrapersonal and intra-psychic conflict to an individual's belief in, and addiction to, selfhood (Gampopa, 1998). Even attempts to avoid intra-psychic conflict by engaging in experiential avoidance (defined by Hayes et al. [2006] as unwillingness to remain in contact with particular private experiences) would be considered in Buddhism to be an expression of ontological addiction because if the individual was not afflicted by a belief in selfhood, they would not be inclined to reject experiences or sensations that they deem are constituents of the 'self'.

Recent empirical findings support the Buddhist position regarding the underlying source of conflict and indicate that non-attachment to self and experience plays an important role in the regulation of maladaptive and distressing psychological states. Based on participant responses to the (Buddhist-compatible) *Non-Attachment Scale* (Sahdra et al., 2010), non-attachment to self and experience has been shown to predict: (i) greater levels of acceptance, non-reactivity, mindfulness, self-compassion, subjective wellbeing, pro-social behaviour, and eudemonic wellbeing, and (ii) lower levels of fatalistic outlook, intimacy avoidance, dissociation, and alexithymia (i.e., an impaired capacity to identify or describe feelings) (Sahdra et al., 2010; Sahdra et al., 2015). Based on these empirical findings and the Buddhist construction of suffering more generally, it appears that conflict is a core feature of ontological addiction.

6. *Relapse* is the tendency for repeated reversions to earlier patterns of excessive engagement in the activity to recur, and for even the most extreme patterns typical of the height of excessive engagement in the addictive activity to be quickly restored after periods of control (Griffiths, 2005). According to some Buddhist teachers, it is not uncommon for individuals to undertake spiritual practice and begin making inroads into weakening their addiction to self but to subsequently lose enthusiasm and allow ego-driven cognitive-behavioural processes to re-establish themselves (Shonin & Van Gordon, 2015b). From this point of view, it appears that relapse is a component feature of ontological addiction.

Symptoms

If it is accepted that a 'psychopathology' reflects an aberration from a statistical norm of suffering or functionality, then it is questionable whether ontological addiction can be defined as such. However, if the term 'psychopathology' is understood to mean a condition that

severely and chronically impairs functionality, then ontological addiction can be considered an 'illness'. Either way, the merits of developing and validating a diagnostic test for ontological addiction need to be carefully considered because if the assumptions elucidated throughout this chapter are correct, then it can be expected that a substantial proportion of the world's population would satisfy the diagnostic criteria. This is not to say that a clinical cut-off and severity ratings could not be established because, consistent with Buddhist thought, it is reasonable to assume that there would be variation amongst individuals in the intensity of their belief in an inherently existing self. Nevertheless, the primary purpose for elucidating below the primary symptoms of ontological addiction – that have been sourced from a synthesis of the canonical Buddhist literature – is to help foster understanding of the Buddhist model of mental illness rather than provide a definitive set of diagnostic criteria *per se*:

1. Presence of a DSM-5 mental disorder (e.g., anxiety, depression, personality disorders, trauma and stressor-related disorders, obsessive-compulsive disorders, dissociative disorders, etc.) excluding neurodevelopmental disorders and other disorders that are principally biological in nature (e.g., neurocognitive disorders, specific sexual dysfunctions, etc.).

2. Blindly focussed on advancing wealth, material possessions, or status (including at the expense of others' wellbeing).

3. General disregard for the fact that death is a certainty and that its' timing is uncertain (i.e., a lack of death awareness).

4. Embroiled in schemes, plans, and/or quarrels with limited capacity to step back and approach such activities with clarity and perspective.

5. Easily offended and responds with anger/irritation on occasions when the ego or selfhood is challenged or questioned.

6. Gloats and responds with pride when praised or on occasions when the ego or selfhood is reinforced.

7. Dislike or hatred of individuals and scenarios that are deemed to threaten the interests of the self.

8. Strong attachment towards individuals and scenarios that are deemed to advance the interests of the self.

9. Superiority or inferiority complex.

10. Limited interest in matters of a spiritual nature or in undertaking spiritual practice.

11. Blind belief in a set of religious dogma including the belief in a ruling or divine entity that is in some way responsible for life occurrences.

12. Belief that there intrinsically exists a: (i) self or other, (ii) this or that, (iii) here or there, (iv) past, (v) future, or (vi) present moment. From the Buddhist perspective, being 'without intrinsic existence' is a property that applies to all things, including the present moment. In other words, 'non-self' and 'emptiness' (which in essence are the same thing) are not selective. Due to the fact that time never stands still, logic dictates that there is never a point when a present moment crystallizes into existence. For a fuller explication of why the present moment doesn't intrinsically exist, see Shonin & Van Gordon (2013).

Prevalence

Given the very recent formulation of the ontological addiction concept, no studies have been published that specifically estimate the prevalence of the condition. However, there exist prevalence estimates for some of the abovementioned symptoms of ontological addiction and thus, it is possible to indirectly approximate a minimum level of global prevalence for the condition. Notable examples are: (i) global prevalence estimates for the existence of mental

illness (symptom 1 above) which are in the range of 20-33% (National Institute of Mental Health, 2012; WHO International Consortium in Psychiatric Epidemiology, 2000), and (ii) prevalence estimates for a belief in God (symptom 11 above) which for the US, are in the order of 78-92% of the population (Gallup, 2013; Maugans & Wadland, 1991; Harris Poll, 2009).

Clearly, the reliability of such figures is questionable because (for example) there are criteria whereby a belief in an external God would not necessarily equate to the occurrence of ontological addiction. For instance, the word 'God' means different things to different people and whilst, from the Buddhist perspective, a belief in a divine and/or ruling being requires that there is a 'self' that likewise believes it exists, the belief that 'God' corresponds more to a principle, pervasive and unifying energy, or state that awaits those that can transcend selfhood reflects a much less dualistic (i.e., self-other) interpretation. Nevertheless, given the broad range of symptoms that relate to ontological addiction – of which some (e.g., anger, hatred, pride, desire for wealth, etc.) might be deemed to be core traits of human behaviour – global prevalence rates for at least a mild-to-moderate level of ontological addiction could be expected to exceed 99%.

Development and Course

As discussed above, ontological addiction is considered to be latent at birth. However, symptoms first begin to manifest as an individual develops a sense of selfhood during childhood. Consequently, and in practice, there is a progressive onset with symptoms first manifesting during childhood and gradually progressing into adulthood. For most individuals, the course is persistent and stable, unless treatment is initiated (Tsong-kha-pa, 2004).

Risk and Prognostic Factors

Risk and prognostic factors for ontological addiction are principally environmental (i.e., rather

than genetic or physiological). A lack of exposure to, or uptake of, spiritual values and principles is likely to increase severity and/or result in earlier onset. Exposure to conditions that foster desire for wealth, pleasure, and reputation can likewise increase severity (Gampopa, 1998).

Functional Consequences

The unyielding belief in a 'me', 'mine', and 'I' results in interpersonal and inter-psychic conflict as discussed above. However, perhaps more importantly, ontological addiction effectively causes the mind to limit and 'turn in' on itself. Due to being absorbed in selfhood, perspective and clarity of thought diminishes and the belief in inherent existence acts a filter that impedes the ability to directly perceive and remain aware of the present moment (Norbu & Clemente, 1997). Self-addiction drives cyclic existence (i.e., the unending cycle of birth, death, and rebirth) and fosters ignorance as to the ultimate and deeply interconnected nature of phenomena (Dalai Lama, 2001).

Aetiology

Earlier in the chapter, reference was made to the lack of compatibility between the Buddhist and biopsychosocial models of mental illness. Buddhism does not deny that biological, psychological, and social factors play a role in the onset of mental illness, but it considers them to be secondary determinants. From the Buddhist perspective, a primary limitation of the biopsychosocial model is that it places minimal emphasis on the role of spiritual factors. This conceptualisation also appears to be carried over to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013), where discussion specifically relating to problems that are spiritual or religious in nature is limited to a total of four lines of text.

In the DSM-5, religious or spiritual problems are categorised as *Problems Related to Other Psychosocial, Personal, and Environmental Circumstances* within the section on *Other Conditions that May Be a Focus of Clinical Attention*. In respect of religious or spiritual problems (DSM-5 code V62.89), the DSM-5 gives examples of: (i) distressing experiences that involve loss or questioning of faith, (ii) problems associated with conversion to a new faith, and (iii) questioning of spiritual values that may not necessarily be related to an organised church or religious institution (American Psychological Association, 2013). Thus, the DSM-5 considers problems that are spiritual or religious in nature to be features that can accompany, but are distinct from, mental illness (Yang & Lukoff, 2006). Rejecting the possibility of spiritual issues manifesting as mental illness arguably reduces the clinical significance of such issues. This is consistent with what the present author would argue is a relative lack of emphasis placed by clinical psychology on the role that spiritual factors play in the aetiology of diagnosable mental illnesses.

In comparison, Buddhism adopts a different perspective and asserts that spiritual factors: (i) are the foremost determinants of mental illness, and (ii) can be variants of mental illness in and of themselves (e.g., ontological addiction) (Shonin et al., 2013a). From the Buddhist perspective, the term 'spiritual' could be interpreted as meaning 'that which helps to transcend selfhood'. Consequently, character traits such as generosity, patience, compassion, loving kindness, and death awareness are highly regarded in Buddhism because to differing extents, their cultivation requires the individual to be 'other' centred as opposed to 'self' centred (Khyentse, 2007). Consistent with this mode of thought, actions and behaviours that are self-centred are generally looked upon unfavourably in Buddhism because they are understood to reify an individual's belief in inherent existence (Dalai Lama, 2001). Transcending selfhood in the context of it being a spiritual pursuit should not be confused with losing one's self-identity as part of a group. From the Buddhist perspective, individuals generally join groups or causes

because the ego-self wants to belong to, or believe in, something (Shonin et al., 2014g). In other words, for most people, joining causes and groups actually reifies their sense of a 'me', 'mine' or 'I' (e.g. 'I belong to this', 'I believe in that', 'my view', 'my rights', etc.).

Due to being ignorant of their absolute nature and as previously discussed, Buddhism explicates that individuals are attached to circumstances that they deem will promote their selfhood and interests (Chah, 2011; see Chapter 5 for a definition of the Buddhist conceptualisation of attachment). Buddhism teaches that because sentient beings believe that they inherently exist, they view the world in dualistic terms and allocate unrealistic levels of value to (what they deem to be) desirable external objects and situations (Shonin et al., 2014g).

However, because the 'self' is an imputed (i.e., made up) construct, Buddhism asserts that no amount of exposure to desirable objects and circumstances will result in lasting happiness (Gampopa, 1999). In other words, having finally gained possession of the commodity, person, or position that was previously the object of desire, Buddhism teaches that dissatisfaction will once again manifest in the mind, and that new commodities and situations will avail themselves as the object of the self's attachment (Chah, 2011). Furthermore, because sentient beings and the conditions in which they find themselves are constantly changing (i.e., they are impermanent), favourable circumstances can, at best, be enjoyed for only a limited period of time. Therefore, a component attribute of ontological addiction is the incessant desire to have something else, be somebody else, and/or be somewhere else.

Thus, Buddhism asserts that desirous and self-centred thoughts and behaviours are both product and cause of ontological addiction (Shonin et al., 2014g). The belief in an inherently existing self is understood to augment each time an individual views the world in self-other (i.e., dualistic) terms, and this augmented belief, in turn, increases the intensity and frequency of self-centred thoughts and behaviours. In many respects, this process is similar to current clinical understanding regarding the acquisition of addictive behaviour and the development of

addiction feedback loops. According to conventional addiction theory, particular behaviours induce positive or negative affective states, as well as memories that correspond to the mood-modification associated with these behaviours (Baker, Piper, McCarthy, Majeskie, & Fiore, 2004). Stimuli subsequently trigger these memories that result in cravings to either re-experience (i.e., if it was positive), or avoid (i.e., if it was negative), the affective response. The cravings prompt behaviours that are subsequently rewarded or punished by the resulting modification of mood, thus encoding additional associative memories and fuelling an addiction feedback loop (Houlihan & Brewer, 2015).

According to the Buddhist model, the process of acting selfishly and thus amplifying the belief in selfhood results in a negative feedback loop (Dalai Lama, 2001). As referred to previously, the intensification of selfish beliefs and behavioural patterns is understood in Buddhism to culminate in spiritual undernourishment. Without the protective influence of suitably developed spiritual competencies (e.g., compassion, loving-kindness, generosity, metacognitive insight, etc.), high levels of self-absorption eventually render individuals susceptible to mental illness including (but not limited to) episodes of anxiety, depression, trauma, and psychosis (Shonin et al., 2014f). In summary, from the Buddhist perspective, suffering (including ontological addiction and derivative forms of mental illness) is the consequence of the mind: (i) viewing and interacting with the world through the lens of selfhood, and (ii) attempting to force reality to function in a manner that is scientifically and logically implausible.

Treatment

Assessment of an individual's suitability to receive treatment, and determining the duration and specific content of individual treatment phases, should be undertaken by a highly experienced meditator who, consistent which Buddhist guidelines, has cultivated a serene and

disciplined mind (Van Gordon et al., 2015c; a detailed appraisal of the qualities of a suitable 'ontological addiction therapist' is beyond the scope of this chapter). However, for the purposes of outlining a generic course of treatment for ontological addiction, the following phases of treatment are recommended: (i) becoming aware of the imputed self, (ii) deconstructing the imputed self, and (iii) reconstructing a dynamic and non-dual self.

Phase One: Becoming Aware of the Imputed Self

The treatment of ontological addiction is concerned with uprooting an individual's deep-rooted belief that they inherently exist. However, before the process of deconstructing the self can begin in earnest, it is first necessary for the individual to become aware of: (i) the fact that they have constructed a self, and (ii) the various attributes of the imputed self. Consequently, the first phase of treatment focuses on enhancing self-awareness and on helping individuals come to terms with the fact that there are actually no credible grounds upon which it can be said that they intrinsically exist as a discrete 'I' entity. For most individuals and consistent with qualitative research findings, the implausibility of selfhood is likely to be a difficult notion to digest (Shonin & Van Gordon, 2015a; Van Gordon, Shonin, & Griffiths, 2016b). Therefore, an element of psycho-education – focussing on the logic and principles of non-self and emptiness – is normally administered at the onset of treatment.

Another principal aspect of the first treatment phase is gaining proficiency in meditative awareness. Meditative techniques introduced during this phase of treatment tend to be more concentration-based (i.e., as opposed to insight-based). Concentrative meditation (Pāli: *samatha*) is understood to facilitate an individual's development of self-awareness, including awareness of the movements of both body and mind (Dalai Lama & Berzin, 1997; Singh et al., 2013). Mindfulness plays an important role here and serves the purpose of regulating concentration and ensuring that it remains meditative in aspect (Van Gordon et al., 2015c). A

primary goal of the first phase of treatment is for the individual to develop the ability to sustain a degree of meditative awareness outside of formal seated meditation sessions (i.e., as they go about their daily activates). A detailed explication of the principles of concentrative meditation and mindfulness is beyond the scope of this chapter but some important considerations are as follows:

1. The focus should be on introducing meditative awareness into daily life, and seated meditation sessions of excessive duration should be discouraged.

2. The individual's breathing can be used as an attentional referent (i.e., to anchor concentration in the present moment) (Singh et al., 2007).

3. Whilst maintaining awareness of breathing, meditative attention should be directed, in successive order, towards the body, feelings, and mental processes (e.g., thoughts, perceptions, self-centred beliefs and cognitive-behavioural responses, attachments, etc.).

4. The primary objective is to observe phenomena (e.g., sights, sounds, feelings, thoughts, etc.) as they enter the attentional sphere. Phenomena should be permitted to endure as objects of awareness until such time as they naturally exit the attentional sphere.

5. Over exertion (including forced breathing) should be discouraged.

6. The overall objective of concentrative meditation is to introduce tranquillity into the body, and 'breathing space' into the mind. Feelings of meditative tranquillity should be encouraged but dependency on them should be discouraged. If meditative tranquillity arises, it should be treated as an observable phenomenon and – as with all other psychosomatic experiences – adopted as an object of meditative awareness.

Although the primary purpose for utilizing concentrative meditation is to induce

psychological and somatic calming, findings from fMRI studies suggest that the process of simply observing and placing concentration upon observable sensory, psychological, and environmental phenomena begins to undermine the intensity of self-addiction. More specifically, activation of the default mode network (DMN) is correlated with the state of 'mind wandering' (i.e., discursive thinking) and self-referential processing (Buckner, Andrews-Hanna, & Schacter, 2008; Whitfield-Gabrieli & Ford, 2012). Mindfulness practice has been shown to reduce activation of the DMN, including in the posterior cingulate cortex (a primary DMN node) (Houlihan & Brewer, 2015). Given that posterior cingulate cortex activation is positively correlated with severity of nicotine- and alcohol-related addictive cravings (Claus, Ewing, Filbey, Sabbineni, & Hutchison, 2011), there is tentative evidence suggesting that concentrative meditation may help to regulate the activation of brain areas associated with self-addiction and derivative self-referential processes (Houlihan & Brewer, 2015).

Phase Two: Deconstructing the Imputed Self

Phase One of the treatment process helps to foster familiarity with the various attributes of the imputed self and to create the appropriate conditions for uprooting maladaptive ego-centred core beliefs. This procedure of uprooting or 'deconstructing' the imputed self is the focus of Phase Two, and it unfolds via the use of both *indirect* and *direct* psycho-spiritual techniques.

Indirect techniques

During Phase Two of the treatment, the individual is taught to cultivate and practice a range of spiritual competencies including compassion, generosity, patience, loving-kindness, and death awareness. The intention behind training in such aptitudes is to indirectly undermine ego-centricity, and thus complement the action of meditative techniques that are intended to directly target addiction to selfhood (see *Direct techniques* sub-section below).

These spiritual aptitudes, that can be easily practised outside of formal seated meditation, have in recent years been subject to differing degrees of empirical enquiry, and are each understood to play an important role in fostering psychological wellbeing and/or treating psychopathology. For example, compassion and loving kindness-meditation have been shown to increase activity in brain areas associated with the regulation of neural emotional circuitry (e.g., anterior insula, post-central gyrus, inferior parietal lobule, amygdala, and right temporal-parietal junction) (Keysers, 2011; Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008). Increased regulation of neural emotional circuitry helps to modulate descending brain-to-spinal cord noxious neural inputs (Melzack, 1991), and may explain why some individuals experience reductions in pain intensity and pain tolerance during and following engagement in compassion and loving-kindness meditation (Shonin et al., 2015c). Loving-kindness and compassion meditation have also been shown to increase implicit and explicit affection towards known and unknown others, and to thus improve social-connectedness and prosocial behaviour (Hutcherson, Seppala, & Gross; 2008; Leiberg, Olga, & Tania, 2011). In turn, greater social-connectedness exerts a protective influence over life-stressors as well as feelings of loneliness, isolation, and low sense of purpose (Shonin et al., 2015c).

Direct techniques

Breath awareness and the meditative tranquillity referred to in the above explication of Phase One of the treatment has been shown to slow down autonomic and psychological arousal (Van Gordon et al., 2015a). This, in turn, allows thoughts, feelings and sensory processes to be recognised and meditatively investigated on an individual basis. This meditative investigation of phenomena is a key component of Phase Two of the treatment, and the technique taught to individuals in order to directly investigate 'selfhood' is known as *vipassanā* (Pāli) or insight meditation. The type of *vipassanā* meditation being referred to here is fundamentally different

from the general use (or misuse) of this term in the psychological literature. For example, *vipassanā*, which actually translates as 'superior seeing', is often incorrectly referred to in the scientific (and popular Buddhist literature) as having the same meaning as the term mindfulness (Van Gordon et al., 2015c).

In the manner that *vipassanā* meditation is taught and conceptualised in the treatment of ontological addiction (and in the traditional Buddhist literature), the practice involves capturing and refining the attentional focus cultivated during mindfulness and concentrative meditation practice in order to direct it in a very deliberate and specific manner (Gampopa, 1999). Consequently, insight meditation is best practised following a prior period of concentrative meditation (Tsong-Kha-Pa, 2004). The reason for this is because the tranquilisation of body and mind that occurs during concentrative meditation helps to introduce focus and perceptive clarity into the mind (Chah, 2011). During *vipassanā* meditation, this attentional focus is then directed in order to try to identify the causes, intrinsic properties, and absolute nature of a given phenomenon. More specifically, the technique involves attempting to locate the 'selfness' of the object of meditation and of the meditator more generally. When *vipassanā* meditation is practised correctly, the individual begins to realise that it is impossible to identify an intrinsically existing self within either themselves or an external object (Van Gordon et al., 2016b). Consequently, the deep-rooted core beliefs that sustain ontological addiction begin to be undermined.

Phase Three: Reconstructing a Dynamic and Non-Dual Self

Although Buddhism considers that the notion of an intrinsically existing self is implausible (Dalai Lama & Berzin, 1997), the objective during the process of treating ontological addiction is not to eliminate any form of identification with a self. In other words, there is a difference between 'non-self' and 'not caring for self'. Non-self is a tool used to undermine attachment

to self. However, non-self is a concept used to describe an experience or state of realisation, but it can never fully embody that state or experience. The notion of non-self is a construct of subject-object (i.e., self-other) conceptualisation. As such, it is an expression (albeit at a low level of intensity) of ontological addiction, and it must ultimately be relinquished. When the concepts of self and non-self are abandoned, an individual can abide as 'true self'. True self encompasses both the individual and the whole. A person who has realised true self cares for the individual because they care for the whole, and vice versa. Thus, it is important to clarify that the 'deconstruction of the self' is not related to a deep dissociative experience (e.g., depersonalisation/derealisation disorder), which would likely incur harmful consequences.

For individuals to function in an adaptive manner, they must be aware that society considers them to be a distinct entity, and that certain roles and conforming behaviours are expected of them. However, the self that the individual reconstructs during Phase Three of the treatment is one that, having realised it is empty of intrinsic existence, is comfortable with assuming a self-identity for the purposes of effectively functioning in the world. In comparison with the self that was present at the onset of treatment, this 'newly constructed self' is a much more fluid and dynamic entity.

As demonstrated by the experiences of an individual that received the MAT intervention (a Buddhist-derived intervention that adheres to the phasic treatment model outlined here), the newly constructed 'self' regards itself as a deeply interconnected entity that is inseparable from the conditions, people, and phenomena around it:

Everything makes more sense. 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 kind of find yourself in the company's shoes, your own shoes, and the customer's shoes all at once (Shonin & Van Gordon, 2015a, p.905)

This increased connectivity to, and awareness of, prevailing psychological and environmental conditions gives rise to what in research settings has been termed the *phenomena feedback effect* (PFE) (Shonin & Van Gordon, 2015a). PFE refers to the ability to reciprocally transact and communicate with the unfolding events of the present moment, and is reported to give rise to an increased ability to anticipate how a particular situation might unfold. According to Shonin and Van Gordon (2015a), PFE is the outcome of individuals knowing that they, and the situations in which they find themselves, are inseparable and continuously changing. Perceiving the self and phenomena as transient and unfixed entities is understood to allow individuals to work with, and stay abreast of, the present moment.

Individuals report that the dynamic and non-dual self that is cultivated during this phase of treatment has greater perceptive clarity (Shonin & Van Gordon, 2015a). In not being attached to the idea that they intrinsically exist, individuals can minimize the amount of 'I' that they allocated to work and life engagements. Consequently, they are better able to 'see the big picture', and are less likely to be preoccupied with their own agenda and entitlements (Shonin & Van Gordon, 2015a). Furthermore, by reducing ego-centric beliefs and behaviours, there no longer exists a substantial 'self' that can be (for example) offended, let down, cheated, or traumatised. In other words, there is no longer a fixed locus upon which maladaptive cognitive-affective states can assemble, and the newly constructed and dynamic 'self' thus liberates itself from the various functional impairments associated with ontological addiction.

Conclusions

Despite the fact that there is increasing integration of Buddhist principles and practices into Western mental health and applied psychological disciplines, there appears to be limited understanding in Western psychology of the assumptions that underlie a Buddhist model of mental illness. The ontological addiction formulation is a means of addressing this problem, and explicates a Buddhist model of psychopathology that is sympathetic to Western conventions concerning the classification, aetiology, and treatment of mental illness.

An assessment of the extent to which ontological addiction meets the clinical criteria for addiction (utilizing Griffiths' [2005] components model of addiction) suggests that ontological addiction is a valid – albeit operationally and functionally distinct (i.e., when compared to chemical and behavioural addictions) – form of addiction. Consistent with 2,500-year-old Buddhist teachings, recent empirical findings suggest that addiction to the belief in an inherently existing self is associated with maladaptive psychosocial functioning (e.g., Sahdra et al., 2010). More specifically, there is rationale to suggest that ego-centric beliefs and behavioural-response patterns cause the mind to 'contract' and limit an individual's psycho-spiritual development.

In terms of aetiology, ontological addiction is understood to be self-sustaining (i.e., self-centred thoughts and behaviours reify an individual's belief in selfhood and this, in turn, fosters further ego-centric responses). However, despite the chronic and pervasive nature of the condition, the addiction to selfhood can be overcome by a phasic treatment process that involves (in sequential order): (i) becoming aware of the imputed self, (ii) deconstructing the self, and (iii) reconstructing a dynamic and non-dual self. The first of these three phases makes use of concentrative meditation techniques in order to enhance awareness of the various attributes of selfhood. In conjunction with the tranquillity associated with concentrative meditation, this increased awareness of self is a prerequisite to employing insight meditation

techniques (utilised in Phase Two of the treatment) in order to undermine attachment to the belief in an intrinsically existing 'I' entity (Van Gordon et al., 2015b). Phase Three of the treatment is concerned with cultivating a dynamic and non-dual self that is deemed (and has been empirically shown) to be better able to communicate with, and adapt to, the changing conditions of the present moment (Shonin et al., 2014d).

Clearly, additional theoretical and empirical endeavours are required in order to assess the utility of ontological addiction and its' validly as: (i) a comprehensive model of mental illness and, (ii) a diagnosable form of psychopathology in and of itself. Likewise, therapeutic (and spiritual) discernment is clearly required in order to assess the suitability of a particular individual to receive, and progress through, the various (generic) treatment phases outlined in this chapter. Nevertheless, it is the view of the present author that the ontological addiction formulation constitutes an accurate portrayal of a Buddhist conceptualisation of mental illness that is palatable to a Western clinical and scientific audience. Perhaps more importantly, ontological addiction appears to challenge a number of established Western medical and scientific assumptions concerning the determinants of mental illness and the notion of selfhood more generally. Consequently, further theoretical and empirical investigation is warranted.

Chapter 7

Corporate use of mindfulness and authentic spiritual transmission:

Competing or compatible ideals?

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

Van Gordon, W., Shonin, E., Lomas, T., & Griffiths, M. D. (2016). Corporate use of mindfulness and authentic spiritual transmission: Competing or compatible ideals? *Mindfulness and Compassion, 1, 75-83.*

The final published version of this article is available at Elsevier:

http://www.journals.elsevier.com/mindfulness-and-compassion/recent-articles

Abstract

There is consensus amongst both the scientific and Buddhist community that mindfulness – when correctly taught and practised – leads to a range of beneficial outcomes. However, there has been little evaluation of what happens when mindfulness is incorrectly taught, or is practised with a selfish rather than selfless intention. Nowhere is the importance of this issue more pertinent than the recent and growing assimilation of mindfulness for employees by large corporations. The current chapter introduces the principle of 'authentic spiritual transmission' and examines how it can inform the integration of mindfulness into the corporate workplace. Three questions are explored: (i) what spiritual infrastructure is required to operationalise mindfulness that is effective in the corporate setting? (ii) to what extent can 'inner change' induced by mindfulness substitute the need for corporations to foster healthy 'external' working conditions? and (iii) is mindfulness corruptible or does it have a natural defence mechanism? This chapter addresses these questions by synthesizing relevant Buddhist discourses, evaluating recent theoretical and empirical findings concerning the use of mindfulness in corporate settings, and examining how SG-MBIs can inform this topical area of scholarly debate.

American corporations spend an average of $13,000 per employee per year on direct and indirect healthcare costs (Klatt, Wise, & Fish, 2015). Approximately 20% of American employees take time off work due to a stress-related illness in a given twelve-month period, and 63% would welcome support and advice from their employer on how to improve their health and wellbeing (Crawford, 2014). In countries such as the United Kingdom, work-related stress results in a loss of 10 million working days each year (Health and Safety Executive, 2015). Moreover, since 2009, the number of sick days lost to stress, depression, and anxiety in the United Kingdom has increased by 24%, while the number lost to serious mental illness has doubled (Davies, 2014). Consequently, it is unsurprising that there is growing interest amongst large corporations into techniques such as mindfulness that are reported to directly improve employee wellbeing, and indirectly improve productivity and profitability (Dane, 2010).

Corporations such as *General Mills, Target, Apple, Google, Carlsberg, Sony Corporation, Ikea, Nike, Procter & Gamble, AOL, Goldman Sachs, Transport for London,* and *Monsanto* are reported to have implemented employee mindfulness programs, and according to one media report, over 25% of American companies have done likewise (Huffington, 2013). However, given that amongst traditional contemplative communities mindfulness is employed as a means of fostering spiritual growth (Purser, 2015), concerns have arisen regarding the use of mindfulness in the corporate setting. More specifically, some researchers, Buddhist teachers, and business leaders have asserted that introducing mindfulness into the corporate workplace could be harmful to (i) the Buddhist teachings (i.e., due to them being misappropriated and misapplied), (ii) society (i.e., due to employees using mindfulness to advance their career and/or wealth in ways that are ethically unwholesome), and (iii) employees (i.e., due to greater demands being placed upon them by corporations adopting the Buddhist rhetoric that stress is a 'mind-made' phenomenon that can be transmuted by practicing mindfulness (Macaro & Baggini, 2015; Purser, 2015; Purser & Ng, 2015).

At the core of Buddhist thought is the notion that stress – and indeed all forms of suffering – are 'mind-made' constructs that can be overcome by eliminating erroneous views concerning the ultimate manner in which the 'self' and reality exist (Dalai Lama, 1995; Van Gordon et al., 2016a). Although there are differing Buddhist perspectives, ultimately, all traditional schools of Buddhist practice subscribe to the view that by dedicating one's life to spiritual practice, it is possible to start cultivating a mind that is unconditionally happy (i.e., irrespective of external conditions) (Chah, 2011; Dalai Lama, 1995; Huang Po, 1982; Nhat Hanh, 1999). The term 'dedicating one's life' is key here because although Buddhism asserts that it is possible to permanently transmute suffering, it likewise asserts that this can only happen pursuant to the spiritual practitioner completely abandoning themselves to the *Buddhadharma* (in the sense used here, the Sanskrit term *Buddhadharma* means 'the truth' or 'true teachings') (Khyentse, 2006).

Some corporate mindfulness stakeholders appear to maintain that there are minimal risks associated with introducing mindfulness into the corporate setting (Huffington, 2013). The Trojan Horse metaphor is often employed in this respect in order to highlight the view that mindfulness will 'work from within' and gradually cause corporations to become more socially responsible and less profit-focussed. There are also reports that some corporate mindfulness advocates have gone one step further by drawing direct comparisons between their work and the historical Buddha providing teachings to kings and wealthy merchants (Purser, 2015). However, as noted by Purser, such claims appear to be made with limited consideration of the context in which the Buddha offered his teachings to interested parties:

> While the Buddha taught the dharma to leaders and the merchant class, what he taught was not a mindfulness-based intervention so they could simply feel better about themselves, nor did he simply provide them a meditative technique for improving their

concentration so that they could obtain even more wealth and riches, rather, the Buddha advocated a wiser form of ethical leadership that counteracted the mental poisons of greed, ill will and delusion (2015, p.37).

Thus, when aspects of Buddhist practice are taken out of context and applied in settings that are primarily concerned with monetary – as opposed to spiritual – gain, claims that mindfulness can eliminate stress or induce an 'enlightened workplace' become contentious. Given these issues and concerns, the present chapter introduces the principle of 'authentic spiritual transmission' (AST) and examines how it can inform the integration of mindfulness for employees into large corporations. More specifically, three questions are explored: (i) what spiritual infrastructure is required to operationalise mindfulness that is effective in the corporate setting? (ii) to what extent can 'inner change' induced by mindfulness substitute the need for corporations to foster healthy 'external' working conditions? and (iii) is mindfulness corruptible or does it have a natural defence mechanism? The present chapter addresses these questions by synthesizing relevant Buddhist discourses, evaluating recent theoretical and empirical findings concerning the use of mindfulness in corporate settings, and examining how SG-MBIs can inform this topical area of scholarly debate.

Authentic Spiritual Transmission

There are numerous perspectives on what is implied by the term 'spiritual', but for the purposes of this chapter, 'spiritual' is understood to constitute 'that which helps to transcend selfhood'. This delineation of spiritual is consistent with the Buddhist position that selfishness and craving for a 'me', 'mine', or 'I' is the cause of suffering, and that removing belief in selfhood is the cause of liberation (Van Gordon et al., 2015d).

According to Shonin and Van Gordon (2015b), an authentic spiritual practitioner or

teacher is an individual that has transcended the ego and cultivated a high level of spiritual awakening. Such an individual could be firmly on the path to enlightenment, or a fully enlightened Buddha (Shonin & Van Gordon, 2015b). An authentic spiritual teacher emanates spiritual awareness and is not necessarily a Buddhist scholar (Nhat Hanh, 1999). AST takes place when an authentic spiritual teacher (known as the 'right teacher') imparts spiritual insight and awakening onto a suitably disposed student (known as the 'right student') (Shonin & Van Gordon, 2015b). There are various perspectives within Buddhism on what makes a student a suitable vessel for AST, but in general the student should be (i) willing to devote their life to spiritual practice, (ii) innately possessing spiritual acumen (possibly accumulated over successive lifetimes of spiritual practice), (iii) persevering and courageous, (iv) dissatisfied with cyclic existence (cyclic existence refers to the Buddhist notion that until they liberate themselves, sentient beings continue to migrate through a cycle of birth, life, death, and rebirth; Dalai Lama, 1995), and (v) eager to foster qualities of humility, faith, compassion, patience, joy, and generosity (Tsong-Kha-Pa, 2004).

In the Canki sutta, the Buddha advises that the principal mark of an authentic spiritual teacher is that their behaviour is not influenced by greed, hatred, or delusion (Bodhi, 2009). As suggested by the following words recorded in the Sandaka sutta (and attributed to the Buddha's disciple Ananda), the Buddha placed limited emphasis on other factors, including whether the teacher is a recipient of a traditional spiritual teaching lineage:

Again, Sandaka, here some teacher is a traditionalist, one who regards oral tradition as truth, he teaches a Dharma by oral tradition, by legends handed down, by the authority of the collections. But when a teacher is a traditionalist, one who regards oral tradition as truth, some is well transmitted and some badly transmitted, some is true and some is otherwise (Bodhi, 2009, p.624).

Consistent with these accounts of the Buddha's teachings, Shonin and Van Gordon (2015b) argue that there are no 'worldly qualifications' that an individual can attain in order to be conferred the status of an authentic spiritual teacher:

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 awakening to the timeless truth of emptiness. It seems that some form of spiritual guide is required to effectuate this awakening (p.143).

The primary methods by which AST can be acquired, developed, and maintained are via: (i) oral instruction (Tsong Kha-pa, 2004), (ii) the written word (Gampopa, 1998), (iii) mind-to-mind transmission from a teacher present in physical form (Nyoshul & Surya Das, 1995), and (iv) mind-to-mind transmission from a teacher not present in physical form (Urgyen, 2000). It should be understood that the ultimate purpose of AST (i.e., that occurs when the 'right teacher' encounters the 'right student') is to bring the student into contact with the 'teacher within' (Shonin & Van Gordon, 2015b). Accessing and awakening the teacher within constitutes AST in its purest form and this notion has been alluded to by Nyoshul and Surya Das (1995) as follows:

If you meet a teacher who represents the lineage and tradition of Dzogchen, this is also a

partial idea; it is good fortune, but it is still a limited notion…Authentic sacred vision, the pure perception often mentioned in the tantric path, implies that we can and should see everything as perfectly pure and inherently good; that is, beyond good and bad, perfectly complete just as it is (p.115).

The most essential point appears to be that without the intervention of a spiritually realised teacher, and without the student being a receptive vessel, AST does not occur and the student remains unable to fully access or awaken the inner teacher (Urgyen, 2000). This principle (i.e., the importance of a spiritually realised teacher) applies to the teaching and learning of all aspects of Buddhist practice, including mindfulness.

What Spiritual Infrastructure is Required to Operationalise Mindfulness that is Effective in the Corporate Setting?

Various change management strategies have been implemented to maximize the chances of mindfulness being successfully integrated into the employee's workplace (Klatt et al., 2015). Such approaches typically seek to secure management and employee buy-in, deliver tailored interventions, and capture data (i.e., to feedback to senior management) on how such interventions improve various aspects of work-related wellbeing and/or work effectiveness (Klatt et al., 2015). For example, the multinational food company *General Mills* is reported to have delivered mindfulness training to over 400 employees, where over 80% reported taking time each day to optimize their personal productivity following mindfulness training compared to 23% pre-intervention (Gelles, 2012). The same company found that 80% of senior executives that participated in mindfulness training reported improvements in decision-making competency (Gelles, 2012).

These internal findings are consistent with reports in the academic literature where

mindfulness has been shown to lead to significant improvements in employee mental health outcomes, including anxiety (Dobie, Tucker, Ferrari, & Rodgers, 2016), depression (Mealer et al., 2014), stress (Monocha et al., 2011), burnout (Krasner et al., 2009), sleep quality (Frank, Reibel, Broderick, Cantrell, & Metz, 2015), and dispositional mindfulness (Malarkey et al., 2013). Mindfulness has also been shown to improve employee physical health outcomes such as diet (Aikens et al., 2014), response to flu immunisation (as measured via changes in antibody titers; Davidson et al., 2003), and salivary α-amylase levels (Duchemin, Steinberg, Marks, Vanover, & Klatt, 2015). Furthermore, mindfulness in the workplace has been linked to job performance in various ways, including (i) client-centred empathic care in health-care professionals (e.g., Krasner et al., 2009), (ii) positive organisational behaviour (Aikens et al., 2014), (iii) organisational innovativeness and performance (Ho, 2011), and (iv) work-related self-efficacy (Jennings, Frank, Snowberg, Coccia, & Greenberg, 2013; Poulin, Mackenzie, Soloway, & Karayolas, 2008).

Although these findings are promising, the fact of the matter is that what is being implemented by corporations (and researchers) is not necessarily mindfulness. According to all systems of Buddhist thought that recognize mindfulness as a key feature of meditative development, mindfulness is deemed to be a spiritual practice (Shonin et al., 2014g). It is introduced as the seventh aspect of a fundamental teaching known as the Noble Eightfold Path (Bodhi, 1994). Whilst the Noble Eightfold Path (obviously) consists of eight different elements, these elements do not function as standalone entities. In other words, it is not the case that an individual begins with the first aspect of the Noble Eightfold Path – known as 'right view' – and only moves onto the second (known as 'right intention') after concluding their training in 'right view'. Indeed, although the Noble Eightfold Path has eight different aspects, it is a single path and a single practice (Van Gordon et al., 2015d). This means that in the absence of 'right view', 'right intention', 'right speech', 'right action', 'right livelihood', 'right effort', and 'right

concentration', there cannot be 'right mindfulness'.

The present author argues that contemporary mindfulness (hereinafter referred to as "mindfulness"), as it is operationalised in MBIs such as MBSR, MBCT, and Corporate-Based Mindfulness Training, does not always meet the traditional Buddhist criteria for authentic mindfulness (McWilliams, 2011; Purser, 2015; Rosch, 2007; Shonin et al., 2014g). The main reason for this is because contemporary "mindfulness" is invariably taught in the absence of each of the seven aforementioned Noble Eightfold Path elements, and it is generally not taught with the primary intention of fostering spiritual growth. A further reason why contemporary "mindfulness" techniques cannot necessarily be considered authentic from the Buddhist perspective, is the fact that most contemporary "mindfulness" instructors have not met Shonin and Van Gordon's (2015b) aforementioned criteria of being a realised spiritual teacher. Although the situation is gradually improving, the experience of some instructors of "mindfulness" is limited to attendance at just one eight-week course followed by one year of self-practice (Mental Health Foundation, 2010).

It would be inaccurate to assert that contemporary MBIs are ineffective, because (as indicated above) empirical data suggests otherwise. However, to date, all that such data demonstrate is that certain MBIs are effective for initiating change across predefined outcomes, and over relatively short periods of time (e.g., 3-24 months). Although this change is often reported as substantial, robustly conducted meta-analysis demonstrate that the effectiveness of MBIs is equivalent to what can be expected from using anti-depressants in a primary care population (i.e., small to moderate effect sizes; Goyal et al., 2014). In fact, with the exception of treating depression and anxiety in clinical populations, there is insufficient high quality evidence at present to support the wide-scale utilisation of mindfulness for effecting lasting psychological and/or behavioural change – including in the workplace setting (Shonin et al., 2015a).

The present author argues that most "mindfulness" approaches teach an 'attention-based psychological technique' that has demonstrable real-world applications. However, this technique should not be confused with authentic Buddhist mindfulness. For the reasons outlined above, mindfulness only becomes authentic (i.e., in the Buddhist sense) when it becomes spiritual, and it only becomes spiritual when taught by an authentic spiritual teacher. Therefore, in essence, if an organisation wishes to successfully introduce its employees to authentic mindfulness, the only indispensable infrastructure required is that of an authentic spiritual teacher. All other considerations (e.g., type of mindfulness intervention, program length, protected time for employees to practice mindfulness, space designation, amount of instructor-participant contact time, and range of meditation techniques employed) are of lesser importance.

To What Extent Can 'Inner Change' Induced by Mindfulness Substitute the Need for Organisations to Foster Healthy 'External' Working Conditions?

Santideva, an 8th Century Indian Buddhist saint and philosopher, asserted that rather than cover the entire outdoors with leather, it is more practical to adorn the feet with a leather sole (Santideva, 1997). As outlined above, central to Buddhist thought is the notion that any form of suffering can be transformed by spiritual training, and that this ultimately liberates the mind (Dalai Lama, 1995). The present author believes that the position of Santideva and other Buddhist adepts (including the Buddha) is robust, and that it is possible to foster meditative awareness to such an extent, that egoistic clinging (and therefore suffering) is abandoned. Under such circumstances, there is no longer a reification of 'self' through which suffering can manifest (Huang Po, 1982). This is not to say that an enlightened being does not experience (for example) pain when they trap their finger in a door, but they experience such pain 'as it is' (Urgyen, 2000) – without attachment and without relating to it as something that belongs to a

'me', 'mine', or 'I' (for a detailed explanation of the Buddhist concepts of attachment, emptiness, and non-self, see Shonin et al., 2014g).

Based on empirical findings, it appears that after only 8-12 weeks of training, employees that participate in MBIs can increase resilience to psychological distress caused by suboptimal working conditions (Klatt et al., 2015). However, the notion of mindfulness equipping employees with the necessary psychological and spiritual resources to transcend the self – and thus become impervious to toxic work conditions – is unrealistic. The primary reasons for this are that (i) as noted above, the "mindfulness" that is typically taught by organisations is not necessarily authentic or sufficiently potent according to the Buddhist conceptualisation, and (ii) even where mindfulness is correctly taught and practiced, it generally takes many years (if not decades) of diligent day-to-day practice to attain high levels of spiritual insight (i.e., whereby mental quietude is profound, unconditional, and self-sustaining) (Shonin et al., 2014g).

In recent years, a new generation of MBI (i.e., SG-MBIs) have been formulated and empirically investigated. Compared to FG-MBIs, SG-MBIs – such as MAT – operationalise mindfulness in a manner deemed to be more congruent with the traditional Buddhist model (Van Gordon et al., 2015b). As discussed in Chapter 4, FG-MBIs generally subscribe to Kabat-Zinn's (1994) definition that mindfulness involves "*paying attention in a particular way: on purpose, in the present moment, and non-judgmentally*" (1994, p.4). Conversely, according to the SG-MBI delineation, mindfulness is deemed to be "*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*" (Van Gordon et al., 2015b, p.592).

The term 'direct awareness' in the SG-MBI formulation contradicts the use of the term 'non-judgemental' in the FG-MBI definition. According to Van Gordon et al. (2015b), rather than teaching participants to be 'non-judgemental', SG-MBIs encourage them to be (amongst

other things) (i) ethically discriminative (i.e., responsible world citizens that are aware of both the short-term and long-term consequences of their actions), and (ii) spiritually empowered to relate to mindfulness as a 'way of life', rather than a therapeutic technique that is employed under certain conditions but not others.

Studies of MAT (from RCTs and clinical case studies) have shown that 8-10 weeks of training can help effectuate statistically and/or clinically significant improvements in employee levels of (i) job performance (as rated by employee's line managers), (ii) work-related stress, (iii) job satisfaction, (iv) attitudes towards work, and (v) workaholism (Shonin & Van Gordon, 2015a; Shonin et al., 2014c; 2014d; Van Gordon et al., 2016d; 2017). Qualitative studies have likewise indicated that MAT can improve participant's ability to transfer the locus of control for stress from external conditions to internal metacognitive and attentional resources (Shonin & Van Gordon, 2015b; Shonin et al., 2014a; Van Gordon et al., 2016b). Studies of other SG-MBIs – such as Mindfulness-Based Positive Behaviour Support – have shown that SG-MBIs can improve caregiver levels of stress, turnover, and work-related injury, as well as reduce their use of physical restraints (Singh, Lancioni, Karazsia, & Myers, 2016; Singh et al., 2015; Singh, Lancioni, Winton, Singh, Adkins, & Singh, 2009).

Findings from SG-MBI qualitative studies are often accompanied by participants reporting increases in spiritual awareness that are arguably more profound than comparative qualitative studies of FG-MBIs (Van Gordon et al., 2016b). Outcomes from SG-MBI research are promising and – at least from the Buddhist perceptive – the greater focus of SG-MBIs on AST could mean that they equip participants with greater psycho-spiritual coping resources relative to FG-MBIs. However, to date, no head-to-head studies have been conducted that allow reliable inferences to be drawn as to the relative effectiveness of FG-MBIs and SG-MBIs for different population groups. Furthermore, the manner in which SG-MBIs are being integrated into research and applied settings appears to be more in-keeping with providing prospective

mindfulness practitioners with a greater choice of MBI rather than seeking to compete with FG-MBIs.

Thus, notwithstanding the fact that SG-MBIs are intended to be more spiritual in nature, as the situation currently stands it appears (i.e., based on available empirical findings) that mindfulness – whether delivered according to the FG-MBI or SG-MBI model – can be used by corporations to make improvements to work-related wellbeing and/or work effectiveness among employees. However, corporations should be realistic about what outcomes can be induced by both FG-MBIs and SG-MBIs and should consider them as just one element of the overall workplace infrastructure that can help to optimize productive working conditions.

Mindful working and mindful managing are arguably key aspects of a healthy work environment, but over-reliance on mindfulness could directly or indirectly exert pressures on employees to endure work stresses that might otherwise be eliminated by (for example) making changes to human resource management systems (e.g., flexible work schemes, innovative appraisal and reward systems, etc.). The view of the present author is that in the majority of instances, corporations that have chosen to make mindfulness available to employees are well intended (i.e., they are seeking a win-win situation), and in so far as mindfulness training has encouraged a rhetoric of 'stress is in the mind', it should not be discounted that this may have occurred due to poor teaching and/or project implementation on the part of third-party mindfulness consultants (or a small number of so-called mindfulness experts in cases where corporations have instructed their own employees to deliver the training).

Is Mindfulness Corruptible or Does it have a Natural Defence Mechanism?

Where an employee is taught mindfulness correctly, they are also being directly or indirectly instructed in practices intended to cultivate ethical awareness (i.e., 'right speech', 'right action', 'right livelihood'), a compassionate and spiritual outlook (i.e., 'right intention', 'right effort'),

and wisdom (i.e., 'right view') (Nhat Hanh, 1999). Consequently, correct and authentically taught mindfulness means that employees will also be learning how to become wiser and more responsible world citizens (Shonin & Van Gordon, 2014b). Under such conditions, there is a 'win' for the employee, employer, Buddhism, and society more generally.

As noted earlier, where mindfulness is taught outside of a system of ethical and spiritual values, it is not 'true' mindfulness that is being taught, but rather an 'attention-based psychological technique'. Since what is being propagated in such situations is not authentic mindfulness, there is arguably limited value in being concerned with the consequences of employees or corporations misappropriating the mindfulness teachings. In other words, it is difficult to justify raising a grievance that a corporation is misusing mindfulness, if in fact what is being implemented is not mindfulness (Shonin & Van Gordon, 2014b).

Exposure to "mindfulness" could foster an interest in more profound forms of spirituality (Lomas, Cartwright, Edginton, & Ridge, 2014), but it could also quash spiritual inquisitiveness while it is still at an embryonic stage (Farias & Wikholm, 2015). Indeed, it is the present author's view that the majority of individuals enticed by "mindfulness" to explore spiritual practice have the 'wrong intention' and are motivated, or partially motivated, by desire to (for example) accrue wealth, follow a fashion, discover friends and relationship partners, or advance their career. However, despite this unfortunate scenario, Shonin and Van Gordon (2014b) have asserted that it is precisely this 'wrong intention' that triggers a natural defence mechanism of the spiritual teachings:

If a person comes into contact with the Dharma who is not ready to receive the teachings, or who intends to use them for selfish or negative purposes, their wrong intention will prevent the teachings from taking root within their being. In fact, all that

they will receive will be a theoretical and superficial account of the teachings – and even this won't be properly understood (p. 1).

Furthermore, as implied by the following words of the Buddha (who refers to himself below as the Tathāgata), where an individual has a 'wrong intention', it is generally the case than an authentic spiritual teacher will refuse to teach them:

Some misguided men here formulate a question, come to the Tathāgata, and ask it. In that case, Sunakkhatta, though the Tathagata has thought: 'I should teach them the Dhamma,' he changes his mind (Bodhi, 2009, pp. 861-862).

As referred to in Chapter 3, specific Buddhist systems of thought divide history into phases that correspond to the 'health' of the spiritual teachings during that particular period of time (Van Gordon et al., 2015c). For example, 'the age of true law' (Sanskrit: *saddharma*, Japanese: *shōbō*) corresponds to the period when the historical Buddha lived and taught some 2,500-years-ago, and when the spiritual teachings were deemed to be flourishing (Endo, 1999). This was followed by the 'age of semblance dharma' (Sanskrit: pratirupadharma, Japanese: zōbō), a period where authentic spiritual teachings were deemed difficult to happen upon. The current period of time (i.e., approximately the last 500-1,000 years) is known as the 'age of degeneration of the dharma' (Sanskrit: pashchimadharma, Japenese: *mappō*) and corresponds to a period of widespread demise in spiritual teachings.

However, although, according to the Buddhist view we are currently in a period of spiritual degeneration, the present author would argue that ultimately, the *Buddhadharma* – and indeed any true spiritual teaching such as authentic mindfulness – is indestructible. Santideva (1997) asserted that authentic spiritual teachings are expressions of an ultimate truth

of reality. Although individuals may foster deluded views regarding how to attain this ultimate truth (i.e., enlightenment), the ultimate truth itself does not degenerate. Likewise, because authentic spiritual teachings are direct expressions of a pervasive and enduring ultimate truth of existence, they too remain incorruptible (Norbu & Clemente, 1999).

Thus, whether due to authentic spiritual teachers refusing to teach it, or due to it not revealing itself to individuals with impure intention, 'spiritual truth' – of which authentic mindfulness is an aspect – remains protected from corruption (Norbu & Clemente, 1999). The minds of human beings may move through phases of being less receptive to authentic mindfulness (and other spiritual) teachings, but the essence of mindfulness does not wax nor wane. Therefore, it is the present author's view that corporations can (inadvertently) misguide employees by teaching "mindfulness", but it is both employee and employer that are subjected to a corrupted version of the teachings rather than mindfulness being corrupted *per se*.

Discussion

The Buddhist teachings, that include teachings on mindfulness, are asserted to be universal in their application (Dalai Lama, 2000). It is inconsistent with the ethos of Buddhism, and that of spiritual practice more generally, to make spiritual teachings available to some people, but deny them to others (Shonin & Van Gordon, 2014b). Therefore, there are strong grounds for arguing that individuals working for large corporations should be permitted the opportunity to make an informed decision as to whether a particular form of spiritual practice is right for them. This can only happen if they have the opportunity to try it first. Consequently, the present author support the integration of authentic mindfulness into the corporate workplace.

However, there is clearly a need for greater awareness amongst corporations as to what (i) constitutes authentic mindfulness practice, (ii) outcomes can be realistically expected from training employees in mindfulness techniques (i.e., steady improvements in work-related

wellbeing and/or work effectiveness rather than the sudden emergence of an 'enlightened workplace'), (iii) methodological factors limit the findings from mindfulness research (i.e., in order to counteract some of the scientific and media hype that organisations may have encountered regarding mindfulness efficacy), and (iv) health and commercial risks can arise due to a lack of authenticity (i.e., spiritual aptitude) on the part of the mindfulness teacher.

This latter point is arguably of crucial importance because very few studies have specifically sought to assess whether mindfulness can incur adverse effects, and the outcomes of some of these studies have given rise for concern. For example, one recent study that appeared to employ what the present author would deem to constitute "mindfulness" (i.e., rather than authentic mindfulness) demonstrated that a mindful breathing exercise led to increased false memory susceptibility (Wilson, Mickes, Stolarz-Fantino, Evrard, & Fantino, 2015). There also exist reports of mindfulness fostering 'depersonalisation' (Booth, 2014) and negative self-perceptions (Lomas et al., 2015).

Although there are few (if any) studies investigating whether mindfulness practiced according to the traditional Buddhist model can lead to negative consequences, the traditional model of mindfulness has been 'tried and tested' for over 2,500 years. Consequently, and while acknowledging that minor modifications, such as language secularisation, are likely to be necessary when using mindfulness in corporate (and other applied) settings, any major deviation from the traditional approach should be undertaken with caution.

In terms of the current state of affairs, it is probably accurate to conclude that AST and corporate mindfulness constitute competing rather than compatible ideals. Nevertheless, the present author believes that there is scope for introducing authentic (and secular) mindfulness into the corporate workplace in a manner that serves the spiritual, health, and financial interests of both employers and employees. However, the effective implementation of such an initiative would require fundamental changes in the way corporations view both spiritual and

commercial advancement, as well as the close collaboration of spiritual leaders – that possess at least a moderate degree of genuine meditative realisation – with spiritually receptive business leaders. In the meantime, corporations may wish to carefully investigate the 'spiritual authenticity' of their chosen mindfulness provider (whether an employee or external consultant) to ensure that they (i) are not permitting individuals that do not understand the delicate intricacies of AST to teach mindfulness to their workforce, and (ii) are not paying for an occupational intervention that, when the hype surrounding "mindfulness" eventually subsides, will leave them spiritually and financially short-changed.

SECTION B

CONTRIBUTION TO RESEARCH:

EVALUATING THE TREATMENT APPLICATIONS OF SG-MBIs

Chapter 8

Meditation Awareness Training for the treatment of fibromyalgia:

A randomised controlled trial

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

Van Gordon, W., Shonin, E., Dunn, T., Garcia-Campayo, J., & Griffiths, M. D. (2017). Meditation Awareness Training for the treatment of fibromyalgia: A randomised controlled trial. *British Journal of Health Psychology, Advance Online Publication*, *22*, 186-206.

The final published version of this article is available at Wiley at:

http://onlinelibrary.wiley.com/doi/10.1111/bjhp.12224/full#references

Abstract

Fibromyalgia syndrome (FMS) is a chronic pain disorder that affects approximately 3% of adults. While some FMS patients appear to respond favourably to pharmacological treatments, many experience limited symptom reduction as well as adverse effects. The need for more efficacious FMS treatments – including those without the side-effects of pharmacotherapy – has prompted a growth of scientific investigation into the applications of mindfulness for treating FMS. The purpose of this study was to conduct the first RCT to evaluate the effectiveness of an SG-MBI for treating FMS. Adults with FMS received an eight-week SG-MBI known as MAT ($n = 74$) or an active control intervention known as Cognitive-Behaviour Theory for Groups ($n = 74$). Assessments were performed at pre-, post-, and six-month follow-up phases. MAT participants demonstrated significant and sustained improvements over control-group participants in FMS symptomatology, pain perception, sleep quality, psychological distress, non-attachment (to self, symptoms, and environment), and civic engagement. A mediation analysis found that (i) civic engagement partially mediated treatment effects for all outcome variables, (ii) non-attachment partially mediated treatment effects for psychological distress and sleep quality, and (iii) non-attachment almost fully mediated treatment effects for FMS symptomatology and pain perception. Average daily time spent in meditation was found to be a significant predictor of changes in all outcome variables. MAT may be a suitable treatment for adults with FMS and appears to ameliorate FMS symptomatology and pain perception by reducing attachment to self.

Fibromyalgia syndrome (FMS) is a chronic pain disorder that affects approximately 3% of adults, with higher rates of occurrence in females compared to males (Branco et al., 2010). Individuals with FMS typically experience symptoms of widespread musculoskeletal pain, sleep disturbance, poor quality of life, cognitive dysfunction (particularly memory impairment), psychological distress (i.e., depression, anxiety, and stress), and fatigue (Häuser, Wolfe, Tölle, Üçeyler, & Sommer, 2012; Jones, Sherman, Mist, Carson, Bennett, & Li, 2012; Wolfe, Brähler, Hinz, & Häuser, 2013). The condition is also associated with (i) high rates of presenting at medical services (Schaefer et al., 2011), unemployment (Scott & Jones, 2014), (ii) use of incapacity for work and/or disability benefits (Sicras-Mainar et al., 2009; Wolfe et al., 1997), (iii) hypochondriasis, self-preoccupation and self-attachment (Canzonieri, Pollak, Oliveira, Costa, & Natour, 2013; Van Gordon et al., 2016b; Wolfe, 2009), and (iv) low levels of civic engagement (Van Gordon et al., 2016b).

There is no reliable laboratory test for FMS and diagnosis is often based on the exclusion of other pathologies as well as the patient's verbal responses to gentle manual pressure being applied to tender body points (Van Gordon et al., 2016b). While some FMS patients appear to respond favourably to pharmacological treatments (principally tricyclic antidepressants and serotonin-norepinephrine reuptake inhibitors), many experience limited symptom reduction as well as adverse effects (Häuser et al., 2012; Luciano et al., 2014; Nüesch, Häuser, Bernardy, Barth, & Jüni, 2013). Consequently, an integrative treatment approach is currently preferred whereby pharmacological treatments are combined with (for example) aerobic exercise, cognitive-behavioural therapy, self-help, and/or psycho-education (Van Gordon et al., 2016b).

The need for more efficacious FMS treatments – including those without the side-effects of pharmacotherapy – has prompted a growth of scientific investigation into the applications of mindfulness for treating FMS (Langhorst, Klose, Dobos, Bernardy, & Häuser,

2013; Modrego, Morillo, López Montoyo, Correa, Borao, & García-Campayo, 2016).

Mindfulness is understood to increase perceptual distance from distressing sensory and psychological stimuli, and this objectification of pain helps to regulate its impact on psychosocial functioning (Garcia-Martin et al., 2016; Morone, Lynch, Greco, Tindle & Weiner, 2008; Van Gordon et al., 2016b).

Until recently, the healthcare literature has predominantly focussed on what have been termed FG-MBIs. The two most empirically investigated FG-MBIs are MBSR (Kabat-Zinn, 1990) and MBCT (Segal, Williams, & Teasdale, 2002). Findings from FG-MBI studies indicate that they may have applications in the treatment of FMS. For example, a meta-analysis ($n = 674$) – incorporating six RCTs of MBSR – concluded that it led to short-term improvements in quality of life and pain compared to treatment-as-usual or active control groups (Lauche, Cramer, Dobos, Langhorst, & Schmidt, 2013). A more recent review study ($n = 702$; 10 RCTs, prospective or retrospective studies) that included a greater range of FG-MBIs (i.e., in addition to MBSR) reported mild-to-moderate treatment effects (Henke & Chur-Hansen, 2014). These findings are consistent with a meta-analysis (comprising nine RCTs with active control groups) in which effect sizes in the mild-to-moderate range were reported for the effectiveness of FG-MBIs in the treatment of chronic pain (Cohen's $d = 0.33$; Goyal et al., 2014).

SG-MBIs reflect a new direction in mindfulness research and practice and have been formulated in order to address some of the limitations of FG-MBIs. SG-MBIs differ from FG-MBIs by adopting a broader definition of mindfulness that is more acknowledging of its spiritual roots. In addition to being overtly spiritual in nature, SG-MBIs are distinct from FG-MBIs due to them employing (i) a greater range of meditative techniques (generally delivered in a secular context), (ii) ethics as a key component of the taught programme, and (iii) an instructor training programme that typically requires several years of supervised mindfulness

practice (Van Gordon et al., 2015b). Some SG-MBIs also introduce participants to meditative concepts such as impermanence, interconnectedness, non-self or emptiness, and non-attachment (Shonin & Van Gordon, 2015a).

The introduction of the non-attachment principle is based on the Buddhist view that suffering arises as a result of an individual's 'attachment' to both themselves and external phenomena (e.g., wealth, people, reputation, etc.; Feliu-Soler et al., 2016). As discussed in Chapter 6, the Buddhist notion of attachment has been 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*" (Shonin et al., 2014g, p.126). Consequently, in the traditional meditation literature, reducing attachment (or augmenting non-attachment) is deemed to be an important feature of the path to psycho-spiritual wellbeing. Furthermore, given that self-attachment is deemed to play a role in the maintenance of FMS (Van Gordon et al., 2016b), FMS interventions that specifically aim to reduce attachment (to self, symptoms, and environment) warrant empirical investigation.

A positive association has been observed between spirituality and positive affect in individuals with FMS (Moreira-Almeida & Koenig, 2008). Consistent with this finding, qualitative studies of SG-MBIs have demonstrated that participants of both healthy and clinical status attribute improvements in health outcomes to increased spiritual awareness. Although a study investigating the effectiveness of an SG-MBI for treating FMS has not been conducted to date, SG-MBIs have demonstrable applications for treating many of the individual symptoms of FMS including (for example) psychological distress (Van Gordon et al., 2014a), self-preoccupation and maladaptive ego-constructs (Shonin, Van Gordon, & Griffiths, 2014a; Shonin & Van Gordon, 2015a), and sleep disturbance (Van Gordon et al., 2016d). Using these findings as a basis, the purpose of the present RCT was to address the need for a rigorous

empirical assessment of the effectiveness of an SG-MBI for treating FMS. Primary outcomes were fibromyalgia symptomatology, pain perception, sleep quality, and psychological distress. Secondary outcomes were non-attachment and civic engagement.

Method

Design

An RCT (trial no. NCT02800720) compared MAT with a purpose-designed active control condition. CONSORT guidelines for non-pharmacological interventions were followed where applicable (Boutron et al., 2008; Schulz et al., 2010). The trial was approved by the research team's University Ethics Committee. A qualitative study exploring participant's experiences and general feasibility was embedded in the RCT, and findings from the qualitative study are reported in Chapter 9.

Participants

Participants were male and female English-speaking adults with a current diagnosis of FMS (as confirmed by a letter from a GP, rheumatologist, or hospital pain consultant). Participation was on a voluntary basis and individuals were recruited via talks at FMS self-help groups, posters in GP surgeries, and emails sent to members of FMS support groups. Furthermore, some East-Midlands GPs were made aware of the study and were asked to informally raise awareness amongst relevant service users by suggesting that they could contact the research team for further information.

As part of the informed consent process, participants were required to acknowledge that they understood that MAT (i) is deemed by its founders to be both a psychological and spiritual intervention, (ii) is not intended to be a course on Buddhism (i.e., it is secular in context) but makes extensive use of Buddhist meditative techniques and principles, and (iii) was founded

by two Western psychologists who are also Buddhist monks. This step was implemented for ethical and transparency reasons on account of the fact that some FG-MBIs have been criticised for emphasising or masking their affiliation with Buddhism to suit their needs (Purser, 2015).

Eligibility Criteria

In addition to a current FMS diagnosis, the eligibility criteria for participation in the study were: (i) being aged between 18 and 65 years, (ii) being able to read and write using the English language, (iii) not currently undergoing formal psychotherapy, (iv) no changes in psychopharmacology type or dosage one-month prior to intervention (although stable prescription medication was permitted), and (v) not currently practicing mindfulness or meditation. Participants were also required to confirm their availability to complete an eight-week intervention and six-month follow-up assessment. Attendance at at-least seven of the eight weekly sessions is a prerequisite for course completion. In the current study, participants that did not attend the requisite number of sessions were classed as having dropped-out and were excluded from (or where unavailable to attend) future assessment phases. Participants were informed about the attendance requirements via the informed consent procedure.

Randomisation and Blinding

The first author (and principal investigator) was responsible for recruitment and participant screening. Following the screening process, eligible participants were assigned five-digit pseudonyms. The document linking participant demographic data and screening results to their pseudonyms was stored in a sealed opaque envelope in a lockable unit within the office of the principal investigator, and all other researchers were blinded as to its contents. A list of eligible participant pseudonyms, grouped by sex, was then passed to the second author who conducted the randomisation procedure (the principal investigator was not involved in the randomisation

process). On a sex-strata basis, participant pseudonyms were placed into a bowl and then selected one at a time prior to being placed, in alternating sequence, into one of two separate envelopes corresponding to the intervention and control group (participants were grouped by sex in order to yield sex-matched intervention and control groups). Randomisation was implemented prior to administering baseline psychometric tests in order to facilitate the blinding of researchers involved in conducting the randomisation procedure. Participants were blinded as to allocation condition until after completion of baseline assessments and were likewise blinded as to which allocation condition featured the target intervention.

Sample Size Calculation

Based on an equal distribution between allocation conditions, statistical power calculations using *GPOWER Software* (Faul & Erdinger, 1992) indicated a total sample size of 128 participants would be required for an effect size of 0.5, an alpha of 0.05, and 80% power. Consistent with literature reviews conducted by other authors (e.g., Glombiewski, Sawyer, Gutermann, Koenig, Rief, & Hofmann, 2010), a comprehensive literature review conducted by the present author found that an effect size of 0.5 appears to be standard for efficacy studies of MBIs as well as FMS treatment studies. The power calculation was conducted with the primary outcome measures in mind. An over-recruitment margin of 20 participants was applied to account for drop out.

Programme Description

MAT is an eight-week SG-MBI in which mindfulness is an integral component, but is not the exclusive focus (Shonin, Van Gordon, & Griffiths, 2014a; Van Gordon et al., 2014a). The intervention is delivered by instructors who have undergone a three-year supervised MAT training programme. Participants attend eight weekly workshops (each lasting two hours) and

receive a CD of guided meditations to facilitate daily self-practice. The weekly sessions comprise three distinct phases: (i) a taught/presentation component (approximately 45 minutes), (ii) a facilitated group-discussion component (approximately 35 minutes), and (iii) guided meditation and/or mindfulness exercises (approximately 30 minutes). A 10-minute break is scheduled prior to commencing the guided meditation exercises. In the third and eighth week of the programme, participants attend one-to-one support sessions (each of 50-minutes duration) with the programme instructor (for comprehensive information regarding the intervention protocol, see Van Gordon et al., 2014a).

Due to the fact that individuals with FMS can experience difficulties in concentrating (referred to as 'fibro fog'; Mease et al., 2008), in the present study the intervention was slightly modified to include an additional 5-minute break that occurred 45 minutes into the session (this was achieved by reducing the duration of the facilitated group discussion component to 30 minutes). In order to directly target the key symptoms and correlates of FMS, the intervention was also modified in the present study to include an extended focus on: (i) mindfulness techniques specifically concerned with meditatively observing and objectifying somatic pain, (ii) compassion meditation in order to help participants become less preoccupied with their illness (i.e., by becoming more aware of the suffering of others), and (iii) 'engaged mindfulness' (a technique intended to raise participants' awareness of the benefits – to both themselves and others – of contributing to the welfare of society in a manner that does not exceed the physical and/or psychological demands of their condition).

Rather than prescribe a fixed amount of daily meditation practice time, 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 formal seated meditation sessions and meditation during everyday life activities. In the present study, MAT was delivered by the

second author (30 years meditation teaching experience) and the first author provided supervision in order to identify any deviations from the standard intervention delivery format. Supervision was implemented by the first author (i) silently observing at least 15 minutes of each weekly session (not always following the same amount of elapsed time into the 2-hour session), and (ii) engaging in discussion with the program facilitator on a weekly basis. With the exception of the planned modifications specified above, no other deviations from the standard protocol were identified.

MAT (and the control intervention) were delivered across multiple sites in the East Midlands in separate training rooms utilised by a meditation centre and GP surgery. Other than an over-head projector, chairs and tables, a singing bowl for use during the guided meditations, and sufficient space to practice walking meditation (that requires participants to walk in single file), no special equipment or arrangements were required. In the present study, the intervention was delivered using group-sizes of approximately 25 participants.

Control Condition

Cognitive Behavioural Theory for Groups (CBTG) is a purpose-designed control intervention formulated by Shonin et al., (2014d). CBTG is based on guidelines by MacCoon et al. (2012) for the development of suitable control groups for studies of MBIs. CBTG involves educating participants in cognitive-behavioural theory and principles. It is 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, group-size, and inclusion of an at-home practice element. Weekly sessions comprise: (i) a taught presentation component (45 minutes), (ii) a facilitated group discussion component (30-minutes duration in the present study), (iii) guided discovery educational exercises (30 minutes), and (iv) the same number and duration of breaks as the target intervention. The weekly sessions are explicitly education-focussed and do not

include any practice or discussion of meditation.

To control for a facilitator effect and ensure consistency of didactic style, CBTG was delivered by the same instructor who facilitated the MAT programme. To assess for differences in the instructor'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 instructor's levels of planning and motivation. As with the target intervention, the CBTG sessions were supervised to identify any deviations from the standard intervention delivery format. With the exception of an additional 5-minute break that was introduced in order to match the target intervention, there were no planned or unplanned modifications to the delivery of CBTG.

Outcome Measures

Study outcomes were assessed via the following well-established psychometric scales:

Revised Fibromyalgia Impact Questionnaire (FIQ-R; Bennett, Friend, Jones, Ward, Han, & Ross; 2009): The FIQ-R assesses the impact of FMS across the three domains of function, overall impact, and symptoms. The FIQ-R includes 21 questions that are graded on a 0-10 numeric scale and higher scores correspond to higher levels of negative impact. Questions are framed in the context of the past seven days and include items such as "*difficulty in sitting in a chair for 45 minutes*", "*fibromyalgia prevented me from accomplishing goals for the week*", and "*please rate the level of pain*". The summed score for the function domain (range 0 to 90) is divided by three, the summed score for overall impact domain (range 0 to 20) remains unchanged, and the summed score for the symptom domain (range 0 to 100) is divided by two. The total FIQ-R score is the sum of the three modified domain scores and the maximum total score is 100. Based on over 250 studies employing either the FIQ-R or the original Fibromyalgia Impact Questionnaire, individuals diagnosed with FMS typically score between 55-65 (Bennett et al., 2009).

Short-form McGill Pain Questionnaire (SF-MPQ; Melzack, 1987): The Pain Perception Index of the SF-MPQ comprises 15 sensory or affective pain descriptors (e.g., *throbbing*, *aching*, *heavy*, and *punishing*) that are rated on a four-point Likert scale (0 = *none*, 3 = *severe*). Scores for each pain descriptor are combined to give a total measure of pain perception. The maximum score is 45 and a mean improvement of more than 5 points is deemed to be clinically important (Hawker, Mian, Kendzerska, & French, 2011).

Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995): The 21-item DASS assesses psychological 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. 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).

Pittsburgh Sleep Quality Index (PSQI; Buysse, Reynolds Monk, Berman, & Kupfer, 1989): The seven-item PSQI assesses sleep quality during the past month across the domains of subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction. The PSQI is scored on a four-point Likert scale (0 = *no difficulty*, 3 = *extreme difficulty*) and features items such as "*during the past month, how would you rate your sleep quality overall?*" The maximum score is 21 and a global score of ≥5 indicates a poor quality of sleep (Buysse et al., 1989).

Non-Attachment Scale (NAS; Sahdra et al., 2010; Sahdra et al., 2015): The seven-item NAS is based on a Buddhist model of mental illness and evaluates the degree to which a person becomes attached to their experiences on the psychological, social, and environmental plane.

The NAS also assesses the degree to which a person is 'attached to themselves' because according to Buddhist theory, attachment to psychological or environmental phenomena arises due to a firm sense of selfhood (Van Gordon et al., 2016a). The NAS is constructed upon the Buddhist notion that the self does not inherently exist and that attachment to self and environment thus constitutes a maladaptive condition (see Shonin et al. [2014g] for a discussion of the differences between Buddhist and Western psychological conceptualisations of attachment). The NAS is scored on a six-point Likert scale (from 1 = *disagree strongly* to 6 = *agree strongly*) and features items such as "*When pleasant experiences end, I am fine moving on to what comes next*". The maximum score is 42 and higher scores reflect lower levels of attachment (or higher levels of non-attachment).

Civic Engagement: Participants were asked to record how many hours during the previous seven days they had spent engaging in paid work, voluntary work, participating in an event or meeting hosted by a community organisation or group, and/or mentoring another non-family member of the community.

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-dependent variable mean scores.

Mixed effects models (also known as multi-level models, random effects model, and hierarchical models) were used to examine the effect of intervention (MAT) and control (CBTG) on all six outcome measures (i.e., FIQ-R, SF-MPQ, DASS, PSQI, NAS, and Civic Engagement). Mixed effects modelling accounts for shared variance within-participants while modelling between-participant differences. The benefits of mixed effects models are well

established and include reduced assumptions (i.e., homoscedasticity, sphericity, and compound symmetry) and greater statistical power over traditional methods (Baguley, 2012a; Gelman & Hill, 2007; Quene & van der Berg, 2004; Snijders & Bosker, 1999). Furthermore, mixed effects models adequately account for baseline differences in outcome scores by modelling (per participant) the *change* in outcome measure relative to baseline across all measurement periods (i.e., pre-, post-, and follow-up). Prior to model estimation, distributions of all outcome variables and random effects residuals were inspected and deemed to be close approximations of normality. Using the absolute median deviation method to detect outliers (Leys, Ley, Klein, Bernard, & Licata, 2013), no data points were deemed to be extreme in the present data set. The RCT was conducted on an 'intent-to-treat' basis with missing data at end-point substituted using last-observation-carried-forward basis.

Results

Recruitment and Allocation

Participant demographic characteristics are summarised in Table 8.1. A total of 231 individuals completed the screening questionnaire and 83 of these were screened-out on the grounds of ineligibility. The main reasons for exclusion were (i) currently receiving structured psychotherapy (32 individuals), (ii) unable to confirm current diagnosis of FMS (23 individuals), (iii) recent change in psychopharmacology type or dosage (13 participants), and (iv) currently attending meditation or mindfulness classes (8 participants). Of the 148 remaining participants, 74 were allocated to the intervention group and the same number to the control group (see Figure 8.1). MAT and the control group interventions were each delivered in three separate tranches (i.e., approximately 25 participants per tranche).

Table 8.1. Baseline demographic characteristics for each allocation condition

Characteristic	MAT ($n = 74$)	CBTG ($n = 74$)
Age, mean (*SD*)	46.41 (9.06)	47.34 (9.83)
Female (%)	82.4	83.8
Employed (%)	52.70	48.65
Education (%)		
School Leaver	55.41	59.46
Vocational	25.68	25.68
University	18.92	14.87
Marital Status (%)		
Married	56.76	63.51
Single	9.46	5.41
Divorced	27.03	24.32
Widow	6.76	6.76
Ethnicity (%)		
White (British)	77.03	71.62
White (Non-British)	9.46	9.46
Asian	8.11	9.46
Black (Caribbean)	5.3	9.46

Figure 8.1. Flow of participants through recruitment and assessment phases

```
                    ┌─────────────────────────────┐
                    │   Expressed an interest and  │
                    │  completed screening forms   │
                    │          n = 231             │
                    └─────────────────────────────┘
                               │
                               │         ┌──────────────┐
                               ├─────────│   Excluded   │
                               │         │   n = 83     │
                               │         └──────────────┘
                               ▼
                    ┌─────────────────────────────┐
                    │        Randomisation         │
                    │          n = 148             │
                    └─────────────────────────────┘
                               │
          ┌────────────────────┴────────────────────┐
          │                                          │
┌──────────────────┐                      ┌──────────────────┐
│ Intervention group│                      │   Control group  │
│     n = 74        │                      │     n = 74       │
└──────────────────┘                      └──────────────────┘
          │                                          │
┌──────────┐  │                              │  ┌──────────┐
│ Withdrew │──┤                              ├──│ Withdrew │
│  n = 20  │  │                              │  │  n = 22  │
└──────────┘  ▼                              ▼  └──────────┘
  ┌──────────────────────────────┐  ┌──────────────────────────────┐
  │Completed post-intervention    │  │Completed post-intervention    │
  │assessment                      │  │assessment                      │
  │          n = 54                │  │          n = 52                │
  └──────────────────────────────┘  └──────────────────────────────┘
                  │                                  │
                  ▼                                  ▼
  ┌──────────────────────────────┐  ┌──────────────────────────────┐
  │Completed follow-up assessment  │  │Completed follow-up assessment  │
  │          n = 45                │  │          n = 40                │
  └──────────────────────────────┘  └──────────────────────────────┘
```
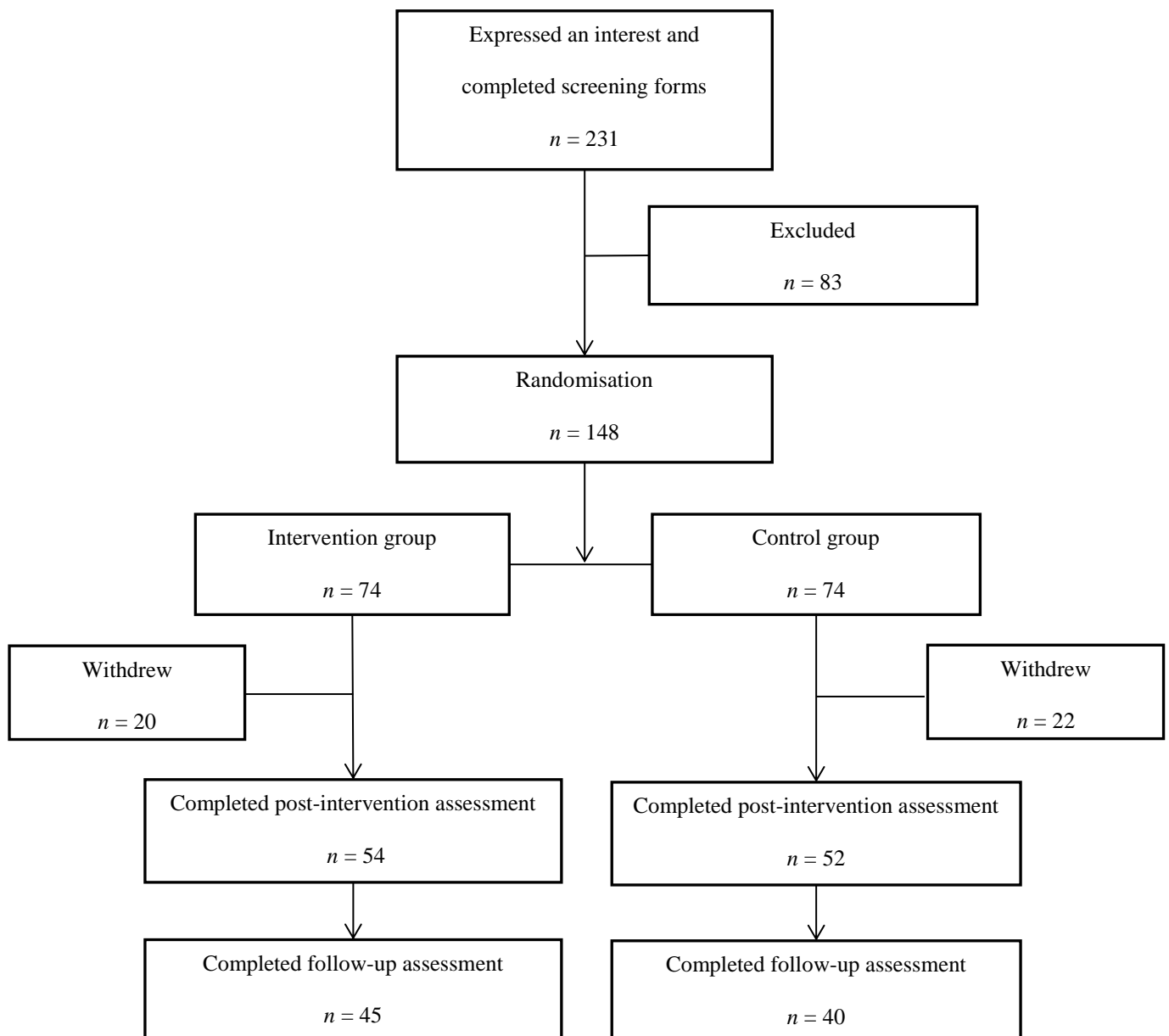
Non-Completion, Attendance, and Fidelity of Implementation

There were no significant differences between MAT and CBTG in the number of participants that dropped out of the study prior to completing the intervention (MAT = 20, CBTG = 22). There were no significant differences between dropout and completion samples (i.e., irrespective of allocation condition) in sex, education, employment status, marital status, and ethnicity. However, there was a significant difference for age where the mean dropout and completer age were 44.4 years (SD = 8.8) and 47.9 years (SD = 9.6) respectively (t (91) = -2.19, p = 0.03). The main reasons for non-completion were that the participant: (i) did not attend at least seven of the eight weekly sessions (MAT = 10, CBTG = 12), (ii) found the intervention to be overly demanding (MAT = 6, CBTG = 6), or (iii) changed medicine or commenced structured psychotherapy after baseline assessment (MAT = 3, CBTG = 2). Of those participants that attended the post-intervention assessment phase, 9 MAT and 12 CBTG participants were lost to follow up. There were no significant differences between allocation conditions in participant ratings of the instructor's levels of planning and motivation. MAT participants practiced meditation for an average of 41.11 minutes per day (SD = 15.26).

Demographic and Baseline Characteristics

There were no significance differences between allocation conditions in baseline demographic characteristics (i.e., sex, age, education, employment status, marital status, or ethnicity). Likewise, there were no significant differences between MAT and the CBTG group in baseline scores on each of the six outcome measures.

Analysis of Outcome Measures

A separate mixed effects model was estimated for each outcome measure (see Table 8.2 for means and SDs). Each model included Group (control, intervention) and measurement Interval

(pre-, post-, follow-up) as fixed effects (i.e., in the form of an interaction predictor [Group*Interval]) and Participant (within measurement Interval) as a random effect. This allowed a unique regression model (i.e., intercept and slope) to be specified for every participant across measurement intervals (see Figure 8.2 for an exemplar modelling DASS scores across measurement intervals). Results from the six estimated mixed effects models show an overall strong effect of intervention compared to control for all outcome measures (see Table 8.3 for summaries of each model). More specifically, relative to baseline and compared to control, intervention resulted in a (i) 6.24 (at post) and 7.92 (at follow-up) greater decrease in FIQ-R score, (ii) 2.01 (at post) and 3.01 (at follow-up) greater decrease in SF-MPQ score, (iii) 3.70 (at post) and 4.86 (at follow-up) greater decrease in DASS score, (iv) 1.50 (at post) and 2.28 (at follow-up) greater decrease in PSQI score, (v) 2.81 (at post) and 3.57 (at follow-up) greater increase in NAS score, and (vi) 1.69 (at post) and 2.05 (at follow-up) greater increase in Civic Engagement (see Figure 8.3 for a breakdown of intervention and control group outcome means across measurement intervals). Overall, results demonstrate that MAT significantly outperformed CBTG at both post- and follow-up assessment phases for all six outcome measures.

Table 8.2. Means and standard deviations of outcome variable scores for group and time

	Group	FIQ-R Mean	SD	SF-MPQ Mean	SD	DASS Mean	SD	PSQI Mean	SD	NAS Mean	SD	Civic Engagement Mean	SD
Pre	Intervention	**55.24**	*10.06*	**28.04**	*4.64*	**26.61**	*5.33*	**14.11**	*2.43*	**18.45**	*4.11*	**17.24**	*11.62*
	Control	**54.04**	*8.86*	**27.58**	*3.69*	**26.24**	*4.19*	**14.09**	*2.35*	**18.28**	*3.70*	**17.78**	*12.23*
Post	Intervention	**46.89**	*9.55*	**24.82**	*4.56*	**21.82**	*5.02*	**11.91**	*2.71*	**22.14**	*4.68*	**19.35**	*11.95*
	Control	**51.93**	*8.80*	**26.38**	*3.75*	**25.16**	*4.11*	**13.39**	*2.53*	**19.16**	*3.92*	**18.20**	*11.83*
Follow-up	Intervention	**45.65**	*10.95*	**23.84**	*5.38*	**20.65**	*5.96*	**11.36**	*3.09*	**22.78**	*5.39*	**19.85**	*11.80*
	Control	**52.36**	*9.29*	**26.39**	*3.93*	**25.15**	*4.58*	**13.64**	*2.55*	**19.05**	*3.78*	**18.34**	*12.23*

Table 8.3. Fixed effects estimates (at post and follow-up assessment phases) with 95% CIs for all six outcome measures

|	value	CIs	*t*-value	*p*-value
FIQ-R				
(Intercept)	54.04			
Post	-6.24	-8.24:-4.25	-6.13	<0.001
Follow-up	-7.92	-13.76:-7.76	-6.14	<0.001
SF-MPQ				
(Intercept)	27.58			
Post	-2.01	-2.80:-1.26	-5.24	<0.001
Follow-up	-3.01	-4.09:-1.94	-5.48	<0.001
DASS				
(Intercept)	26.24			
Post	-3.70	-4.77:-2.63	-6.80	<0.001
Follow-up	-4.86	-6.30:-3.43	-6.63	<0.001
PSQI				
(Intercept)	14.09			
Post	-1.50	-2.03:-0.96	-5.53	<0.001
Follow-up	-2.28	-2.94:-1.63	-6.83	<0.001
NAS				
(Intercept)	18.28			
Post	2.81	1.92:3.70	6.17	<0.001
Follow-up	3.57	2.50:4.63	6.56	<0.001
Civic Engagement				
(Intercept)	17.78			
Post	1.69	0.53:2.84	2.86	<0.01
Follow-up	2.05	1.10:3.00	4.24	<0.001

Note: The reference category in all cases is the control group. This means a Post FIQ-R score of -6.24 can be interpreted as a -6.24 change in FIQ-R score in comparison to the control condition relative to baseline (i.e., Pre FIQ-R score).

Figure 8.2. Mixed effect model for DASS
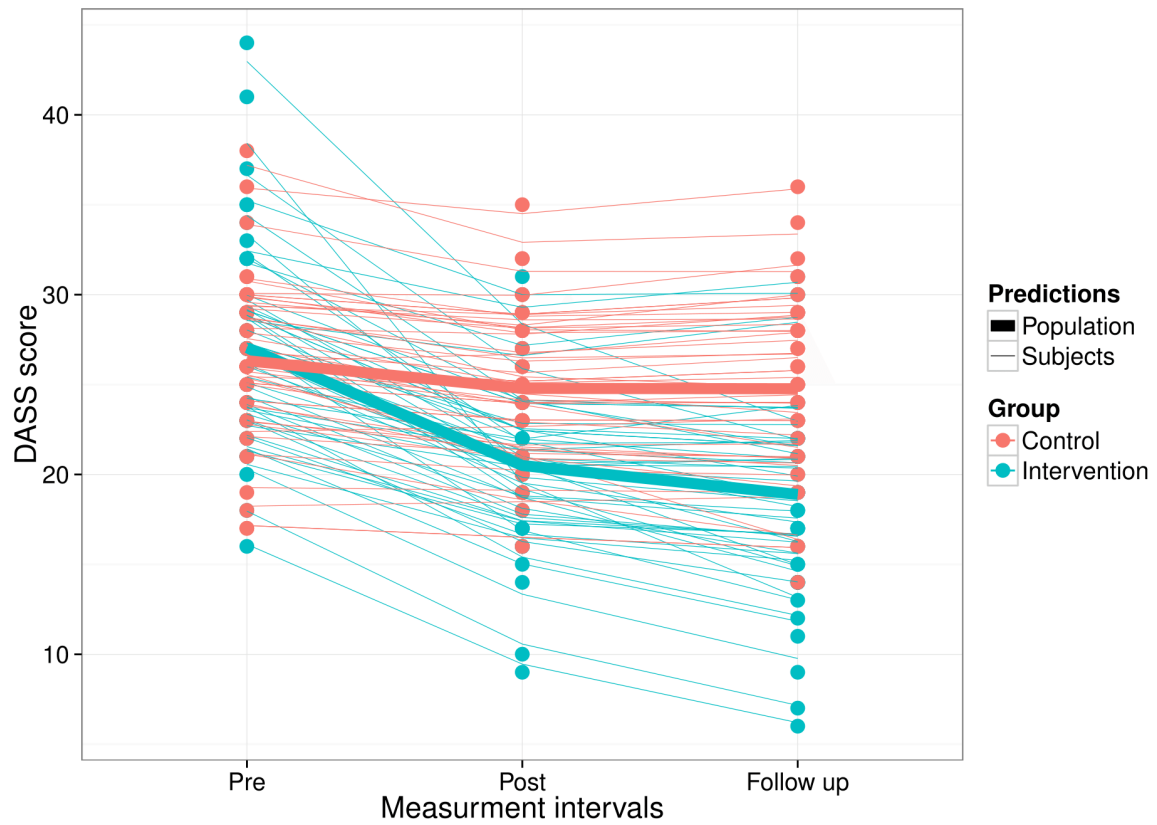

Note: The plot shows each participant's DASS score trajectory across measurement intervals (pre, post, follow-up). Narrow lines illustrate trajectories at the subject-level whereas two fuller lines illustrate the predicted population estimates by group (control vs. intervention).

Figure 8.3. Outcome means (intervention and control) across measurement intervals with two-tier 95% CIs

Intervention group

Control group

Intervention group

Control group

157
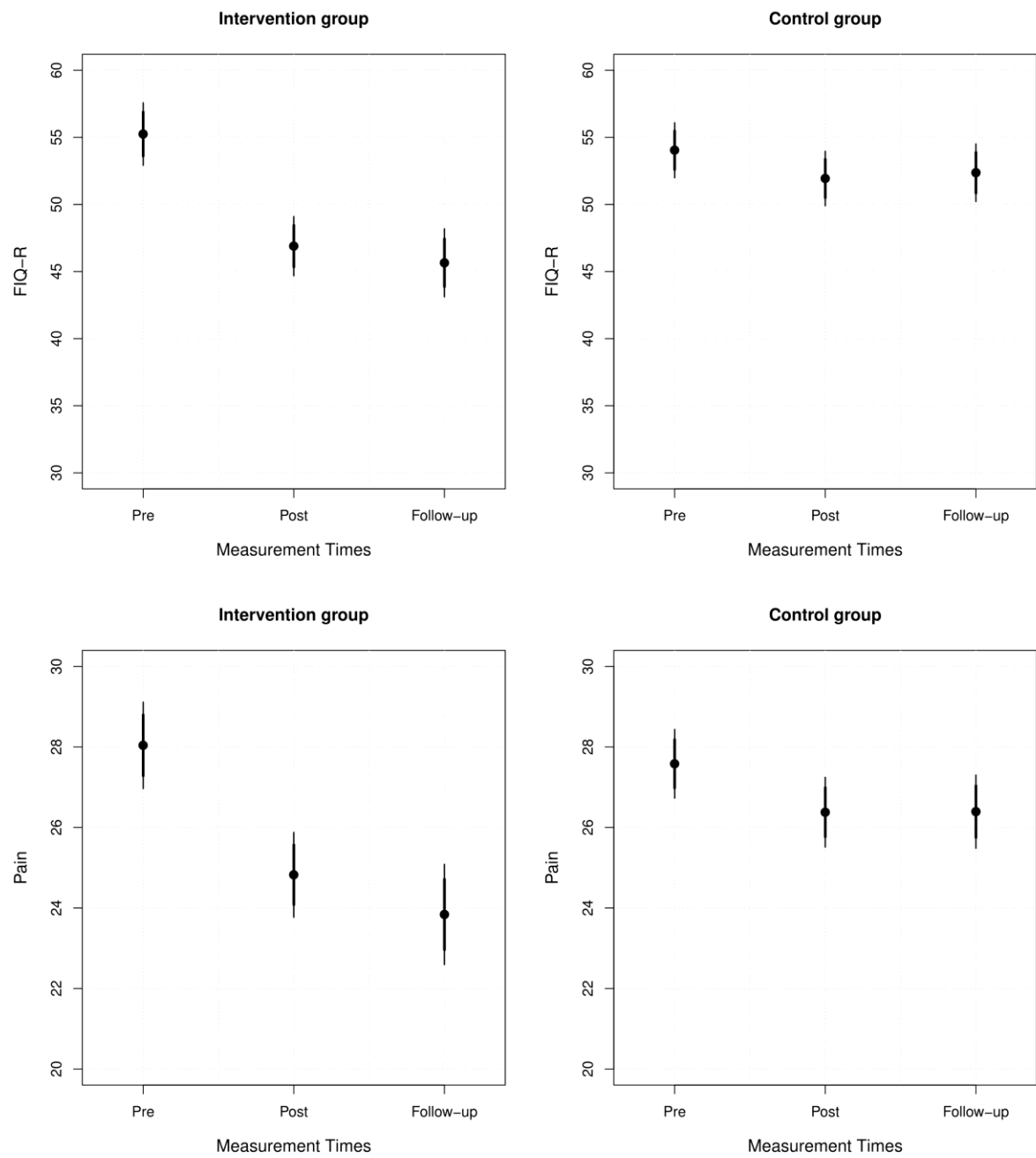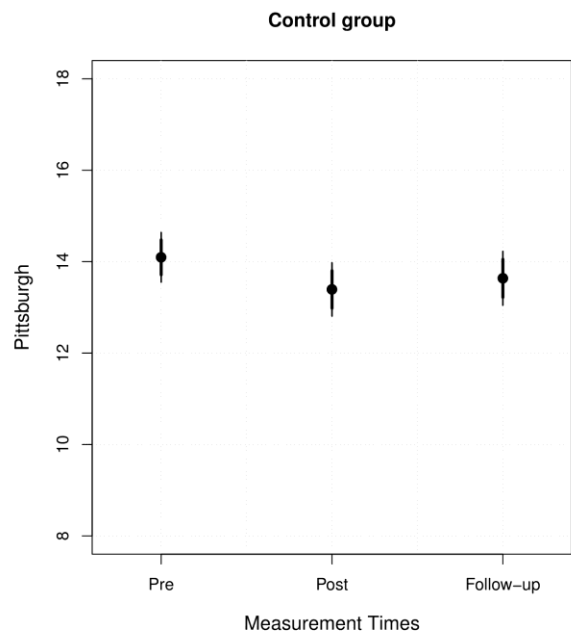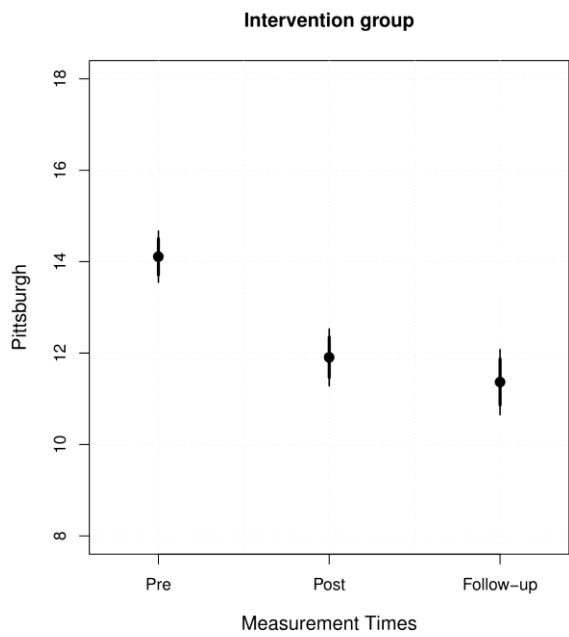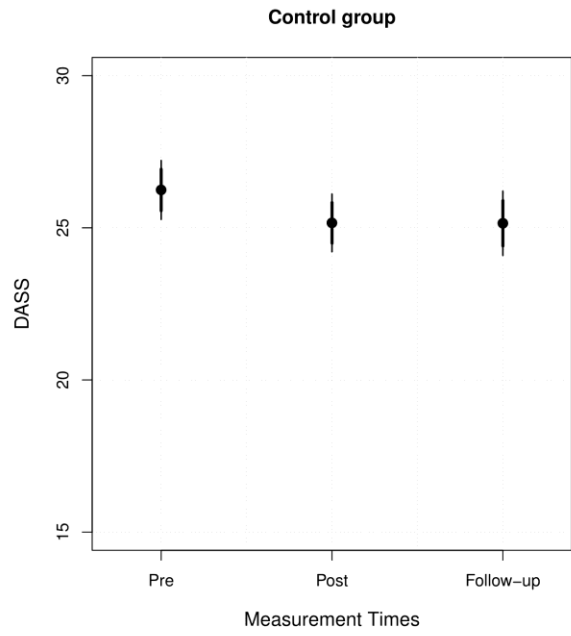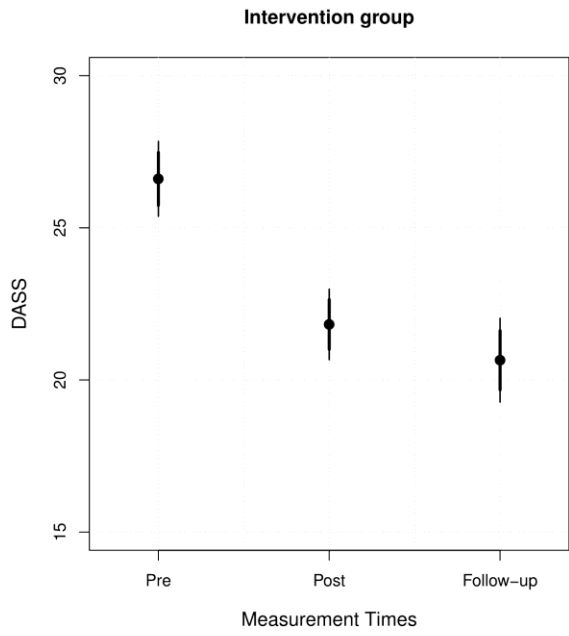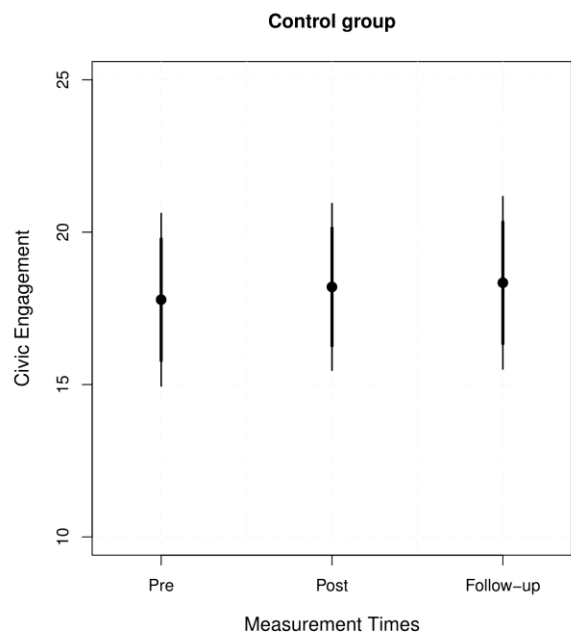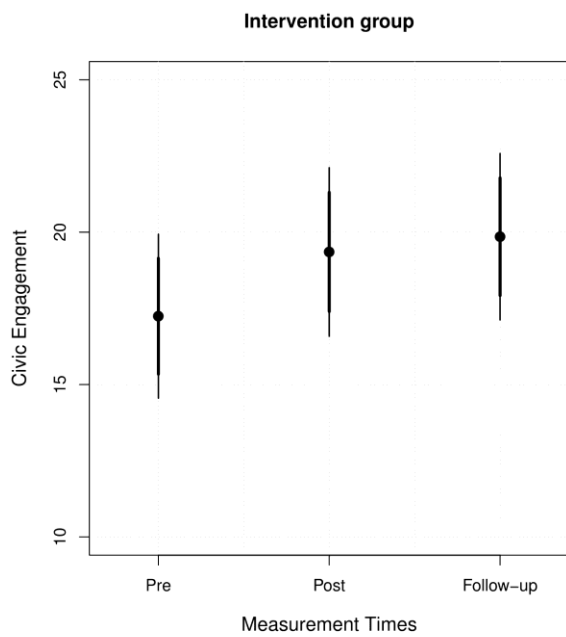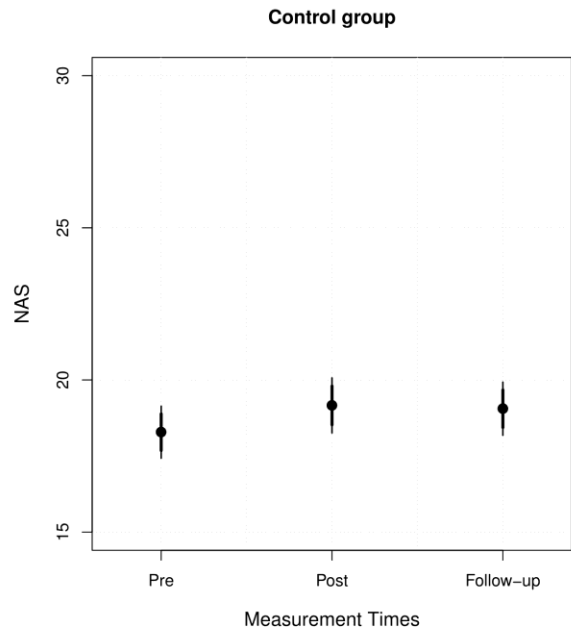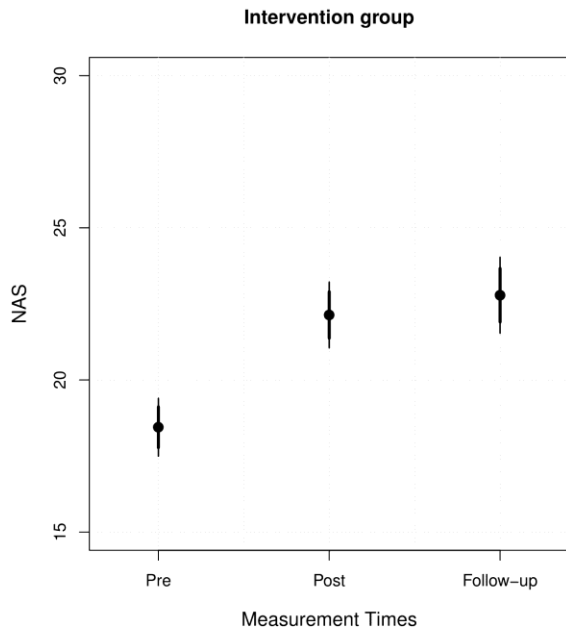
Note: The inner tier of a two-tiered CI represents CIs for the mean whilst the outer tier represents a difference-adjusted CI. Difference-adjusted CIs represent the individual means but calibrates the CI to indicate whether the sample means differ (using 95% confidence in the difference as a standard) (Baguley, 2012b).

Intervention Engagement Effects

A linear model was estimated, regressing the number of minutes meditated per day onto the difference between baseline and follow-up for each outcome measure. Results showed significant linear relationships between the number of minutes meditated and all outcome differences (see Table 8.4). This suggests that the level of engagement with meditation is a good indicator of its effect, as captured by six different outcome measures.

Table 8.4. Parameter estimates of linear models for minutes meditated and outcome measures

Outcome measures	Intercept	Estimate	*SE*	*t*-value	*p*-value
FIQ-R	7.59	-0.50	0.06	-8.05	<0.001
SF-MPQ	0.82	-0.16	0.03	-5.53	<0.001
DASS	3.17	-0.28	0.03	-8.28	<0.001
PSQI	0.72	-0.11	0.02	-6.71	<0.001
NAS	-2.87	0.21	0.02	9.20	<0.001
Civic Engagement	0.05	0.09	0.03	2.59	<0.05

Note: All outcome measure differences (baseline – follow-up) are predicted by the number of average minutes meditated per day

Mediation Analysis

Several models were estimated to test the mediating effects of the two secondary outcome variables (Civic Engagement, NAS) on all primary outcome variables (FIQ-R, SF-MPQ, DASS, PSQI). Given the established relationships between IV-DV and IV-M (i.e., paths *a* and *c* of Figure 8.4) via the mixed effects models (see Table 8.3), only path *b* was inspected for a correlation between mediator and DV (Baron & Kenny, 1986). Analysis demonstrated significant relationships between each mediator and respective outcome measure (see Table 8.5). Having established that all variables were correlated, a comparison between the direct (path *c*) and indirect effects (paths *c + b*) was undertaken to determine whether the relationship between the IV and DV was attenuated by the inclusion of a mediator (M).

The results showed that Civic Engagement was a partial mediator of treatment effects across all outcome measures (FIQ-R, SF-MPQ, DASS, PSQI). This can be seen in Table 8.6 where each IV-DV regression coefficient is reduced (but remains statistically significant) when Civic Engagement is introduced into the model. Treating NAS as a mediator resulted in partial mediation of treatment effects for DASS and PSQI but close to full mediation (i.e., IV-DV paths became non-significant with the inclusion of M) for FIQ-R and SF-MPQ (see Table 8.6). This suggests that non-attachment to the self and environment is an important mediating mechanism in reducing fibromyalgia symptoms.

Figure 8.4. Example of mediation model paths
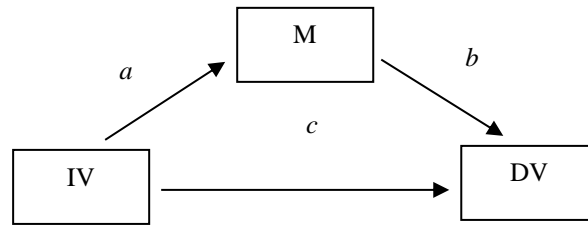
Table 8.5. Parameter estimates of path b treating the potential mediator as a predictor of each

outcome measure

	Intercept	Estimate	*SE*	*t*-value	*p*-value
Civic Engagement					
FIQ-R	-2.66	-1.87	0.17	-10.80	<0.001
SF-MPQ	-1.55	-0.72	0.07	-9.44	<0.001
DASS	-1.85	-1.06	0.10	-10.35	<0.001
PSQI	-0.93	-0.42	0.05	-8.33	<0.001
NAS					
FIQ-R	-0.27	-2.10	0.08	-24.60	<0.001
SF-MPQ	-0.69	-0.78	0.04	-16.30	<0.001
DASS	-0.58	-1.15	0.05	-19.62	<0.001
PSQI	-0.30	-0.50	0.02	-17.11	<0.001

Table 8.6. Parameter estimates for mediation models with Civic Engagement and NAS as separate mediators of all primary outcome variables

(FIQ-R, SF-MPQ, DASS, PSQI)

	FIQ-R		SF-MPQ		DASS		PSQI	
	Step1	Step2	Step1	Step2	Step1	Step2	Step1	Step2
Intercept	-1.67	-0.77	-1.19	-0.84	-1.09	-0.59	-0.45	-0.27
b (IV)	-7.92***	-4.56***	-3.01***	-1.71***	-4.86***	-3.01***	-2.28***	-1.58***
b (Civic Eng.)		-1.63***		-0.63***		-0.89***		-0.33***
F change	87.84***		65.44***		79.18***		46.49***	
R^2	0.21	0.51	0.17	0.42	0.23	0.50	0.24	0.42
Intercept	-1.67	-0.08	-1.18	-0.59	-1.09	-0.25	-0.45	-0.09
b (IV)	-7.91***	-0.55	-3.01***	-0.27	-4.86***	-0.97*	-2.28***	-0.61*
b (NAS)		-2.06***		-0.76***		-1.08***		-0.46***
F change	450.50***		195.42***		271.21***		199.3***	
R^2	0.20	0.80	0.17	0.64	0.23	0.73	0.24	0.68

Note:
Step 1 = direct effect (DV~IV), Step 2 = indirect effect (DV~IV+M) ['~'=predicted by]
Sig. level: '***' 0.001, '*' 0.05

Discussion

In the present study, an RCT compared MAT with a purpose-designed control intervention in individuals with FMS. MAT participants demonstrated significant improvements over control group participants in levels of FMS symptomatology, pain perception, sleep quality, psychological distress, non-attachment, and civic engagement. The therapeutic gains attributed to MAT were maintained (and in some cases slightly augmented) at six-month follow-up.

Approximately one in four MAT participants did not complete the intervention. This level of non-completion is consistent with other studies administering meditation-based interventions to individuals with FMS where non-completion rates between 21-37% have been reported (e.g., Kaplan, Goldenberg, & Galvin-Nadeau, 1993; Mannerkorpi & Arndorw 2004; Weissbecker, Salmon, Studts, Floyd, Dedert, & Sephton, 2004). However, in the present study, only six participants reported that they dropped out because the intervention was over-demanding. A more common reason for non-completion was failure to attend at least seven of the eight weekly MAT sessions (i.e., ten participants reported that they were unable to attend one or more sessions due to unforeseen circumstances). Given that some studies investigating the applications of mindfulness for treating FMS have set the requisite attendance rate as low as 50% (e.g., Grossman, Schwarzer, Jena, Naumann, & Walach (2011), and given that FMS treatment studies typically report relatively high rates of drop-out (i.e., when compared to other patient groups), the present author deems that the non-completion levels observed here support the acceptability of MAT for the target population (i.e., an equivalent level of drop-out observed in an intervention with higher attendance requirements suggests that it is relatively more acceptable). Additional support for the acceptability of the intervention is derived from the fact that no significant differences in drop out were observed across allocation conditions.

With the exception of meditative practices and principles, the CBTG control condition was designed to replicate MAT on all other intervention design factors (e.g., duration,

facilitator-participant contact time, group discussion, instructor didactic style, etc.). Compared to a wait list control, treatment-as-usual, or 'convenience' comparison intervention, the use of a 'matched' active control condition allows therapeutic gains due to non-specific factors (e.g., group interaction, therapeutic alliance, etc.) to be filtered out. Consequently, findings from the present study provide a reliable indicator of the treatment effects that can be attributed to the 'active ingredient' of MAT (i.e., meditation). The fact that therapeutic improvements were due to meditation is further supported by findings from the regression analysis that showed average daily time spend meditating was a significant predictor of changes in all outcome variables. Designing studies that permit such inferences to be made is particularly important for MBIs because such interventions typically employ a variety of therapeutic and relaxation techniques.

Irrespective of allocation condition, a slight but statistically significant age difference was observed in the present study between completers and non-completers. The fact that non-completers were slightly older that completers (mean age of 47.9 and 44.4 years, respectively) could suggest that the acceptability of both MAT and CBTG is reduced in slightly older FMS populations. However, both the age difference and non-completion sample size are too small to draw reliable conclusions in this respect. Furthermore, this finding has not been observed in other studies of MAT or – to the best of the present author's knowledge – in other MBI studies involving individuals with FMS. Nevertheless, future FMS treatment studies using MBIs could seek to investigate this finding further.

The improvements experienced by participants across all primary outcome measures (i.e., fibromyalgia symptomatology, pain perception, psychological distress, and sleep quality) are largely consistent with FG-MBI studies involving individuals with FMS (e.g., Davis & Zautra, 2013; Henke & Chur-Hansen, 2014; Lauche et al., 2013). However, based on a single SG-MBI study, it is difficult to draw reliable conclusions as to the comparative effectiveness of SG-MBIs and FG-MBIs for individuals with FMS. Reliably formulating such conclusions

would require further controlled large-sample FMS treatment studies using SG-MBIs and/or several purpose designed head-to-head studies. Data on which particular MBI is most effective for FMS (or a given medical illness) is certainly of value to the medical community. However, rather than seek to out-perform or replace FG-MBIs, the primary intent underlying the SG-MBI initiative appears to be that of providing service users with a greater choice of evidence-based mindfulness intervention – including that of practicing mindfulness in a manner that is more consistent with the traditional spiritual conceptualisation of the technique (Van Gordon, Shonin, Lomas, & Griffiths, 2016f).

Notwithstanding the consistency between findings from primary outcome measures in the present study and those from FMS treatment studies using FG-MBIs, a qualitative feasibility study that was embedded within the present RCT (i.e., see Chapter 9 or Van Gordon et al., 2016b) reported outcomes that are not typically associated with FG-MBIs. More specifically, analysis of interview transcripts from ten MAT participants that were randomly allocated to a qualitative arm yielded a master theme of *spiritual growth*. This theme is consistent with outcomes from the mediation analysis which showed that non-attachment to self almost fully mediated the treatment effects for FMS symptomatology and pain perception. In Buddhism, 'spiritual growth' and 'reductions in attachment' are arguably synonymous terms because according to the Buddhist conceptualisation, a practice can be deemed spiritual if it helps to transcend 'selfhood' (Van Gordon et al., 2016e).

The abovementioned qualitative study also reported a theme of increased willingness to civically engage that participants attributed to greater spiritual awareness as well as a reduced emphasis on their own suffering and life problems (Van Gordon et al., 2016b). This is consistent with the finding in the current study of civic engagement partially mediating the treatment effects for all outcome variables. Being more 'other-centered' improves life perspective and dismantles self-obsessed and self-disparaging cognitive schemas (Shonin et

al., 2015c). Furthermore, a compassionate disposition and spiritual outlook has been shown to increase social-connectedness and prosocial behaviour (Hutcherson et al., 2008; Leiberg et al., 2011). Thus, viewing the findings of this and the embedded qualitative study as a collective, it seems reasonable to conclude that a meditation-induced growth in spirituality played an important mechanistic role in improving both primary and secondary outcomes.

Key limitations of the study were reliance on self-report measures and the fact that outcomes were only assessed at three time points (i.e., pre-, post-, and six-month follow-up). An increased number of assessment phases would provide insights on which particular stages of the eight-week intervention have the strongest treatment effects. Furthermore, an assessment beyond the six-month stage would provide a better indication of maintenance effects as well as the need for booster sessions. A further factor that may limit findings is a phenomenon that has been termed the 'popularity effect' (Shonin et al., 2015a). Mindfulness and meditation are experiencing growing popularity amongst both the scientific community and general public. Consequently, outcomes of both FG-MBI and SG-MBI studies could be influenced by participants' belief that they are receiving a 'fashionable' and/or 'proven' psychotherapeutic technique (Shonin et al., 2015a). This is a difficult confounding factor to control for because it is almost impossible to blind participants from the fact they are undergoing mindfulness training. Finally, although GPs and other health professionals assisted in raising awareness of the study, interested participants were required to contact the research team directly in order to be considered for recruitment. Thus, participants in the present study were effectively 'self-referring' and it is difficult to gauge whether outcomes would be as favourable for individuals directly referred by their GP or another health professional.

The present study suggests that MAT is an effective FMS treatment and contributes further evidence supporting the applications of SG-MBIs in clinical and other applied settings. The considerable focus on the 'self' by some individuals with FMS means that SG-MBIs (that

place emphasis on reducing attachment to self) may be particularly suitable treatments for this population group. Further controlled empirical studies using large sample sizes are therefore warranted.

Chapter 9

Meditation Awareness Training for individuals with fibromyalgia syndrome:

An interpretative phenomenological analysis of participant's experiences

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

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Meditation Awareness Training for individuals with fibromyalgia syndrome: An interpretative phenomenological analysis of participant's experiences. *Mindfulness*, 7, 409-419.

The final published version of this article is available at Springer:

http://link.springer.com/article/10.1007/s12671-015-0458-8

Abstract

FMS is a complex and poorly-understood psychosomatic pain disorder. The illness has been the subject of controversy, both in terms of the alleged lack of interest and capability of the medical community to understand and support patients with FMS, and the burden that such individuals place upon economic and healthcare resources. Due to the lack of convincing data for the effectiveness of extant pharmacological and non-pharmacological FMS treatments, a recent direction in FMS research has been the empirical investigation of mindfulness and other meditation-based approaches. The present qualitative study explored whether following participation in a MBI, patients with FMS report experiencing changes in: (i) how they experience and relate to their illness, and (ii) their attitudes towards societal participation, work and unemployment. Ten individuals with FMS were randomly selected from the intervention arm of an RCT evaluating the effectiveness of MAT for the treatment of FMS. Transcripts of semi-structured interviews were analysed using Interpretative Phenomenological Analysis, and five super-ordinate themes emerged from the dataset: (i) *reservations about participating*, (ii) *improvements in psychosomatic wellbeing*, (iii) *spiritual growth*, (iv) *awareness of impermanence*, and (v) *increased sense of citizenship*. MAT was experienced as both an acceptable and accessible intervention by individuals with FMS, and participants reported experiencing improvements in psychosocial functioning as well as a sense of societal responsibility. MAT appears to have utility for treating FMS, and for changing the attitudes of some individuals with FMS towards community engagement and societal contribution.

FMS is a poorly-understood chronic pain disorder involving symptoms of widespread musculoskeletal pain, non-restorative sleep, sleep disturbance, cognitive dysfunction, and fatigue (Häuser et al., 2012). FMS is frequently associated with functional mobility limitations, poor quality of life, psychopathology (in particular anxiety and depression), and irritable bowel syndrome (Wolfe et al., 2013). Individuals with FMS can incur up to three times the medical expenditure compared to chronic illness comparison groups (Wolfe et al., 1997a; Jones, et al., 2012). Prevalence estimates for FMS are in the order of 2.9%, with higher rates in females compared to males (Branco et al., 2010).

According to Wolfe (2009), FMS is a highly controversial condition. In conjunction with a broad symptom spectrum, the absence of a reliable laboratory test for FMS has led some individuals (both medical professionals and members of the public) to doubt and/or question the legitimacy of the condition. In other words, because a diagnosis of FMS is reliant upon the exclusion of other illnesses as well as the patient's medical history and their verbal responses to pressure being gently applied to tender points, it is difficult to definitively establish that a given individual is experiencing the illness. Furthermore, efforts to dispel what might be described as 'stigma' relating to the condition are not helped by the fact that FMS is associated with: (i) high rates of presenting at medical services (Schaefer et al., 2011), (ii) unemployment (Scott & Jones, 2014), (iii) use of social security (and in particular incapacity for work and/or disability) benefits (Sicras-Mainar et al., 2009; Wolfe et al., 1997b), and (iv) hypochondriasis (Canzonieri et al., 2013).

Recommended front-line pharmacological treatments for FMS include the tricyclic antidepressant amitriptyline, and serotonin-norepinephrine reuptake inhibitors such as duloxetine and milnacipran (Häuser et al., 2012). However, the efficacy of pharmacological treatments for FMS is questionable. While a small number of patients experience substantial symptom reduction, many patients discontinue treatment due to limited symptom relief and/or

adverse effects (Häuser et al., 2012; Nüesch et al., 2013). Consequently, the current treatment of choice for FMS is a multicomponent approach involving psychopharmacology with (for example) aerobic exercise, cognitive-behavioural therapy, lifestyle change, self-help, and/or psycho-education (Nüesch et al., 2013).

Consistent with the absence of convincing outcome data for the effectiveness of extant FMS treatments, in recent years emphasis has been placed upon the empirical validation of novel non-pharmacological treatments that do not incur the same adverse effects as pharmacotherapy. An important direction in this respect has been the empirical investigation of mindfulness and other meditation-based approaches (Henke & Chur-Hansen, 2014; Langhorst et al., 2013; Lauche et al., 2013). As discussed in Chapter 2, based on meta-analytical findings, MBCT is advocated by the UK's NICE and the APA for the treatment of recurrent depression in adults (APA, 2010; NICE, 2009). Similarly, a growing evidence base exists for the use of MBIs in treating each of the other key symptoms of FMS including anxiety (Vøllestad, 2015), chronic pain (Chiesa & Serretti, 2011; Cramer, Haller, Lauche, & Dobos, 2012), sleep disturbance (Britton, Haynes, Fridel, & Bootzin, 2012), fatigue (Rimes & Wingrove, 2013), and cognitive dysfunction (Stange et al., 2011).

Research assessing the efficacy of mindfulness as a treatment for FMS is still at an early stage, and outcomes have been undermined by issues of poor methodological quality. Nevertheless, preliminary findings show a degree of promise. For example, a meta-analysis (inclusive of six controlled trials involving individuals with FMS; $n = 674$) concluded that MBSR led to short-term improvements in quality of life and pain compared to treatment-as-usual or active control comparison groups (Lauche et al., 2013). More recently, a systematic review (inclusive of ten RCTs, retrospective studies, and longitudinal studies involving individuals with FMS; $n = 702$) incorporated a range of MBIs and concluded that although there appear to be mild-to-moderate salutary effects, further research is required (Henke &

Chur-Hansen, 2014).

Davis and Zautra (2013) proposed that the absence of robust and conclusive data from mindfulness-based FMS treatment studies is due to the fact that MBIs require adaptation in order to target a greater range of symptoms over and above somatic pain. More specifically, Davis and Zautra suggested (and then empirically demonstrated) that more effective treatment outcomes can be realised by targeting deficits in positive affect and social relations (i.e., in addition to pain frequency and intensity). FMS is a complicated multi-dimensional illness, and the findings of Davis and Zautra suggest that there is a clear need for greater understanding in terms of the various components that make a given MBI an effective treatment for FMS. In particular, in addition to changing how individuals with FMS relate to their pain (and other symptoms), it appears that mindfulness-based treatments for FMS need to be: (i) purpose-designed, (ii) orientated towards helping patients exploit social and metacognitive resources in order to foster better illness and life-coping skills, and (iii) based upon a patient-led and in-depth knowledge of the illness.

Rather than RCT (and other efficacy-based) study designs, qualitative research is generally understood to be a more suitable means of evaluating how participants experience and respond to a given intervention. Specific methods of qualitative enquiry provide greater insight into the 'life-world'[3] of the patient (Smith et al., 2009), which is essential when attempting to formulate treatments for aetiologically complex and poorly understood psychosomatic conditions such as FMS. In terms of qualitative research involving individuals with FMS, to date a small but growing number of studies have explored the impact and characteristics of the condition from the patients' point of view (see review by Sim & Madden,

---

[3] In qualitative research, data are deemed to reflect the research participant's subjective truth rather than objective truth per se (Ashworth, 2000). Therefore, the term 'life-world' is employed to refer to the participant's situation as they see it. According to Ashworth (2000), it is more appropriate to refer to the participant's life-world rather than their experience because "*experience tends to lead us to think of some inner realm which is revealed by introspection, whereas a focus on the life-world directs attention to the whole experienced situation of the person*" (pp.97-98).

2008). However, to the present author's knowledge, no study has ever been undertaken that employs robust qualitative analysis in order to investigate the subjective experiences of FMS sufferers participating in an MBI.

The primary aim of the present study was to utilise a rigorous qualitative methodology in order to examine how individuals with FMS experience participating in a purpose-designed MBI. The focus of this primary aim was to explore whether following receipt of mindfulness training, participants report experiencing changes in how they relate to their illness, including whether they experience improvements in life- and illness-coping skills. A further aspect of this first aim was to investigate how individuals with FMS experience and assimilate the practice of mindfulness, and examine which components of the intervention are experienced to be the most effective. In light of the apparent tendency for some individuals diagnosed with FMS to have limited aspiration and/or ability to contribute to the socio-economic welfare of their local and wider community, a secondary aim of the study was to explore whether following participation in an MBI, patients report experiencing changes in how they relate to and experience societal participation, work and/or unemployment.

Methods

Participants

Computer generated numbers were used to randomly select ten participants from the intervention arm ($n = 54$) of an RCT assessing the effectiveness of a modified version of an MAT for the treatment of FMS. Participants were English-speaking adults with a current diagnosis of FMS (as confirmed by a letter from a GP, rheumatologist, or hospital pain consultant). Participation was on a voluntary basis and individuals were recruited into the RCT via GP and hospital referral, FMS self-help groups, and strategically placed poster advertisements (e.g., in GP surgeries).

Based on the pre-defined inclusion/exclusion criteria for the RCT, all participants were

not currently: (i) undergoing formal psychotherapy, (ii) practising mindfulness or meditation, (iii) undergoing changes in psychopharmacology type or dosage (although stable prescription medication was permitted), and (iv) diagnosed with a neurological disorder. Participant demographic characteristics are summarised in Table 9.1. Ethical approval for the study was granted by the research team's university Ethics Committee.

Table 9.1: Participant demographic characteristics

Participant number	Age	Sex	Education	Marital status	Ethnicity	Pre-Intervention Employment Status	Years Diagnosed with FMS
1	64	F	School Leaver	Widow	White (British)	Unemployed	8
2	50	F	School Leaver	Divorced	White (British)	Unemployed	5
3	52	F	School Leaver	Married	White (British)	Unemployed	11
4	56	F	School Leaver	Divorced	White (British)	Unemployed	9
5	51	F	School Leaver	Married	White (British)	Unemployed	3
6	29	F	School Leaver	Married	White (British)	Unemployed	2
7	62	F	School Leaver	Single	White (British)	Unemployed	6
8	60	M	School Leaver	Married	White (British)	Unemployed	8
9	35	F	University Graduate	Married	White (British)	Employed	4
10	49	F	School Leaver	Divorced	White (British)	Unemployed	7

Procedure

Interpretative Phenomenological Analysis (IPA; Smith et al., 2009) was used to explore the subjective experiences of FMS sufferers based on their participation in MAT. IPA is influenced by phenomenology in its emphasis on subjective experience, but also by symbolic interactionism in its appreciation that insight into the meaning individuals ascribe to their experiences can only be gleaned through a process of interpretation (Hamill, Carson, & Dorahy, 2010). IPA can be described as being: (i) idiographic because of its focus on how individuals allocate meaning to their experiences, (ii) inductive because it allows themes to naturally emerge from the dataset, and (iii) interrogative because it encourages a dialogue to emerge that evaluates how outcomes fit with extant theory and research (Smith, 2004). IPA typically uses small sample sizes as it is concerned with understanding particular phenomena in particular contexts (Smith et al., 2009). Homogeneity is therefore important in IPA as it ensures that all participants can make relevant and meaningful contributions in terms of investigating a specific phenomenon or research question. Although Table 1 demonstrates that the current sub-sample of participants had a high degree of homogeneity across factors such as ethnicity, sex and employment status, the aforementioned eligibility criteria were formulated to focus on the participant characteristics that were deemed to be most relevant in light of the study aims. More specifically, in the current study and in line with IPA guidelines that the "*extent of this homogeneity varies from study to study*" (Smith et al., 2009, p.49), it was deemed important that there was homogeneity in terms of a current FMS diagnosis, participation on a voluntary as opposed to referral basis, and not currently practising meditation (i.e., thus ensuring that all ten participants were in a position to share their lived experience of voluntarily undergoing a programme of meditation as a means of treating FMS).

Mindfulness and meditation are subtle practices that require the mobilisation of attentional skills which, for most individuals, remain largely inactive during normal cognitive

functioning (Shonin & Van Gordon, 2015a). Consequently, individuals new to meditation are invariably without a benchmark against which to compare or contextualise their meditational experiences. The hermeneutic phenomenological approach used in IPA is a suitable method for analysing meditative experiences because it lends itself to a rich co-construction of the meaning individuals ascribe to their meditative experiences by researchers who are themselves proficient in meditation (Shonin et al., 2014a). 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 (Shonin & Van Gordon 2015a).

Program description

Participants received MAT (see Methods section of Chapter 8 for a description of MAT as well as modifications made to intervention design).

Data collection

Data collection (and analysis) followed a similar procedure to that employed in previous studies of MAT that have utilised IPA (e.g., Shonin & Van Gordon, 2015a; Shonin et al., 2014a). The second of the aforementioned one-to-one support sessions (i.e., in week eight of the intervention) included a semi-structured interview (SSI) designed to derive understanding into participants' experiences of practising mindfulness, including their recollection of how MAT changed their attitudes towards FMS and life more generally. Examples of some of the questions included in the SSI are: 'What were your expectations of the course?', 'Did the course differ from these expectations?', 'Has the type or amount of pain that you experience changed since learning to practise meditation?', 'Has meditation changed your ability to cope with FMS? (If yes, then in what ways?)', 'Do you think you will experience any challenges in terms

of continuing with the practice after the end of the course?' The MAT instructor used discretion to discern the most suitable point to intersperse the SSI questions into the one-to-one support session dialogue. A Socratic questioning method was employed in order to encourage participants to freely express themselves, and participants were prompted for further clarification as required (Smith, 1995). The one-to-one support sessions were audio recorded and then transcribed verbatim.

Data analysis

Transcripts were read several times and coded to identify outcomes of experiential significance 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 saturation[4] was achieved. The analytical process was then repeated by a second member of the research team (ES) as a form of independent audit (Smith, 1996). ES was deemed to be qualified to undertake the audit on the basis that they are an international expert in the psychology of meditation with at least three published studies that specifically involve using IPA to investigate participant experiences of meditation (as well as several other meditation studies using different qualitative approaches). The independent audit involved the second researcher remaining blind to the primary researcher's analysis and findings while they coded and identified the themes present in the data. Areas of divergence were resolved through discussion and a 100% agreement was required for a theme or sub-theme to be included as part of the final thematic structure. Areas of divergence were minor and mostly related to whether

---

4 *There exists a degree of uncertainty regarding the use and conceptualisation of the term 'saturation' in qualitative research. However, for the purposes of the present study, 'saturation' is used to refer to the process of Inductive Thematic Saturation (Birks & Mills 2015; Olshansky, 2015; Saunders, et al., 2017). This form of saturation corresponds to the point in the coding process where no new codes are occurring, and thus new themes are unlikely to arise.*"

a theme concerning the experience of an increased capacity to cope with pain related to some, most, or all participants. Finally, validation techniques such as grounding in examples and requesting feedback from participants on the summary of themes were employed (Creswell, 2007; Sandelowski & Barroso, 2002; Yardley, 2000).

Results

The analysis of participant's transcripts generated five super-ordinate themes, each with two subordinate themes. The final hierarchical thematic structure is shown in Table 9.2, and a description of the emerging super-ordinate and subordinate themes (including illustrative verbatim extracts) is provided below.

Table 9.2. Master and subordinate themes

Master Theme	Subordinate Theme
1. Reservations about participating	1a. Limited understanding of mindfulness 1b. Fear of losing diagnosis
2. Improvements in psychosomatic wellbeing	2a. Improved ability to cope with pain 2b. Improved quality of life
3. Spiritual growth	3a. Spiritual curiosity 3b. Sense of being on a journey
4. Awareness of Impermanence	4a. The uncertainty of life 4b. Death awareness
5. Increased sense of citizenship	5a. Greater motivation to contribute towards the wellbeing of society 5b. Greater sense of compassion

Reservations about Participating

All participants expressed reservations about receiving the intervention. The most common reservation related to a *limited understanding of mindfulness* (subordinate theme 1a) and an association that participants had made between mindfulness and the supernatural. For example, participants 3, 8, and 10 were under the impression that mindfulness was a means of communicating with the deceased:

> I thought mindfulness was when you all sit around and talk with the dead
>
> (Participant 3)

> [Mindfulness] can make you see ghosts (Participant 8)

> My friend did mindfulness and saw her dead aunt (Participant 10)

Participant 1 was under the impression that mindfulness involved chanting 'for hours on end in order to see white lights' and Participants 2 and 4 believed that mindfulness was a means of developing clairvoyant powers. Other participants (5 and 7) associated mindfulness with the practice of voodoo, and Participant 6 believed that mindfulness was a technique for 'reading people's minds'. In addition to associations with the supernatural, some participants (1, 6, and 10) harboured concerns that mindfulness was a method of brainwashing or 'making people tell the truth' (Participant 10). Participants (all except participant 3) also expressed concerns as to the demand characteristic of the program:

> How am I going to be able to sit still with my eyes closed for two hours?
>
> (Participant 2)

I don't mind giving it a try but don't be surprised if I just get up and walk out if the pain kicks in (Participant 5)

I'm worried that being here for two hours will drain me for the rest of the day (Participant 8)

Although participants demonstrated a poor understanding of mindfulness (which in some cases involved being unconvinced as to its suitability or credibility as an FMS treatment), five of the participants appeared to be anxious that the intervention might be effective. When prompted for clarification and further information regarding this concern, participants explained that it related to a *fear of losing the diagnosis* of FMS (subordinate theme 1b):

It took me three years to get [this diagnosis of] fibro, and when I got it, it was such a relief. If this [MAT] works, I'm not going back to how things were (Participant 1)

What am I supposed to do if [MAT] works? (Participant 3)

I'm worried I'll lose my diagnosis and have to work (Participant 6)

If mindfulness makes me better, can I still go to the fibro [self-help] group? (Participant 7)

Do I have to tell people if I get fixed? (Participant 10)

Improvements in Psychosomatic Wellbeing

As participants matured in their understanding and practice of meditation, they reported experiencing improvements in psychosomatic wellbeing. Three participants (4, 6, and 9) specifically reported reductions in pain intensity and/or frequency as a result of their participation in MAT:

I'm definitely noticing that there is less pain now (Participant 4)

The pain is the same in the evening when I'm tired, but it has eased off in the mornings (Participant 6)

I used to ache even just after walking the dog but its better now (Participant 9)

However, although a small number of participants reported reductions in pain, all participants reported that MAT *improved their ability to cope with pain* (subordinate theme 2a). Participants mostly attributed this to improvements in their ability to objectify pain, and not to allow it to dominate their thought processes:

The pain is still there. However, I am coping with it much better now (Participant 1)

When I am tired it still gets on top of me … But when I'm feeling good, I can just sit with my breath and watch it. It's there and is part of me. But it's also separate from me (Participant 8)

'You don't realise just how much [pain] brings you down. It gets in your head and takes over. Everything becomes black and a struggle. It's different though when I practise meditation. It's like I'm a spectator' (Participant 10)

More specifically, participants appeared to acknowledge that although pain imposed a significant burden upon their lives, they still had choices in terms of how they relate to their pain:

I see the pain except now I know I have a choice. I can either let it control my life or I can be in control (Participant 2)

The pain is always going to be there but we [the participant and their pain] can work together. I never thought it would be possible (Participant 5)

I see what I'm doing to myself and that I've the option to change my thoughts (Participant 9)

Participants reported that their enhanced ability to cope with pain lead to *improvements in quality of life* (subordinate theme 2b). These improvements mostly manifested as increased levels of psychological wellbeing. Phrases such as 'I'm happier now' (Participants 2, 3, 5 and 6), 'it's much better now' (Participants 1, 6, and 7), 'more alive' (Participants 4, 7 and 10), 'more energy' (Participants 8 and 10), and 'feeling well' (Participants 4 and 9) were used to describe this aspect of the participants' experience. Participants also appeared to relate these improvements in quality of life to increases in sleep quality:

I'm sleeping better now (Participant 3)

I meditate just before going to bed. I used to wake up about every hour but now I'm only waking up two or three times [per night] (Participant 6)

I am able to take a nap during the day which I could never do before. I've got more energy in the evenings now (Participant 7)

Spiritual Growth

Related to the improvements in psychosomatic wellbeing that the participants experienced as part of theme 2, participants also reported that MAT caused them to grow in spiritual awareness. All participants (except Participants 6 and 9) considered this growth in spiritual awareness to be a key determinant of psychosomatic wellbeing. For example, Participant 2 explained that 'when I feel nourished spiritually, I feel better all over' and Participant 7 stated that 'meditation soothes the soul and that's why I feel better'. Consistent with these experiences, MAT appeared to lead to an *increase in spiritual curiosity* (subordinate theme 3a), which is perhaps best captured by the following excerpt from Participant 5:

Normally my mind just does its own thing and I don't notice it. I work myself into a mess without even knowing it. But by just sitting and being with myself, I'm starting to realise that there is this whole other part of me. I'm in my 50s and I'm only just beginning to work it out. It's a really interesting part of my life and I'm curious to know more (Participant 5)

Increased curiosity into the spiritual aspect of their being appeared to give participants

the *sense of being on a journey* (subordinate theme 3b). Examples of some of the phrases utilised by participants in this respect are 'journeying within' (Participants 2, 5, 9 and 10), 'spiritual journey' (Participants 2, 6 and 7), 'walking a path' (Participants 1 and 3), and 'come a long way' (Participants 4 and 8). Participant 2 explained their experience of being on a spiritual journey as follows:

> I keep falling back into my old ways but I'm definitely getting stronger. I've got something to work towards now. I'm on a spiritual journey and it's probably the most important thing I've ever done in my life. [Meditation] is like taking a spiritual shower. Being in the here and now helps me to feel whole again. It helps me to know what direction I should go in (Participant 2)

Awareness of Impermanence

The growth in spiritual awareness that participants experienced appeared to arise in conjunction with an increased awareness of impermanence. In particular, participants attributed their participation in MAT to a greater appreciation of the *uncertainty of life* (subordinate theme 4a), and the fact that the present moment never stands still. As demonstrated by the following extracts, participants appeared to regard their growing awareness of impermanence as a positive experience:

> Things are always shifting. Nothing stays still, not even for a moment. Yes, I see that now. It's true. It's definitely true. There's no knowing what tomorrow will hold (Participant 3)

> Impermanence is the way things are …I am going to try to be more in the here and now.

Who knows what the future holds? I mean, I've still got to plan, you know, because you've got to. But there's actually no point really. I don't want to wish my life away (Participant 7)

In addition to a greater understanding of the uncertainty of life, part of the participants' growing appreciation of impermanence appeared to manifest as an increased *awareness of death* (subordinate theme 4b). Again, participants appeared to relate to this as a positive experience, and all participants appeared to derive motivation and a greater sense of life perspective from understanding that death is a matter of *when*, rather than *if*:

When you know, I mean really know, that death is something that you are definitely going to have to face, it puts everything in perspective (Participant 1)

Death is a matter of when, and not if. It's strange but I find this really uplifting (Participant 4)

There is no time to fool about really. You know, death can happen [at] any time. I've been given quite a wake-up call (Participant 6)

When I forget [to be mindful] and get [absorbed] back in myself, I stop and think about death. It helps me to see the big picture (Participant 8)

Increased Sense of Citizenship

Coupled with an increased awareness of impermanence, the sense of being on a spiritual journey appeared to instil in participants a greater sense of citizenship. More specifically, all

participants reported a *greater motivation to contribute towards the wellbeing of society* (subordinate theme 5a). As demonstrated by the following excerpts, this motivation appeared to stem from an understanding by participants that they have a role in society, and that through their actions, they can influence the people and situations around them:

A lot of the things people get involved with aren't all that important. Me and my pals have a tendency to get caught up in our own world and not see the [big] picture. I want to change that now. I want to reach out and help others. It's hard to explain. Everybody has got their fair share of problems. It's important that I remember this (Participant 1)

I've got something to give. I've got a role to play in helping [other people] (Participant 3)

If I think positively, I can make things better. I don't just mean for me but for everybody. I can change things around here (Participant 10)

Consistent with this greater motivation to contribute towards the wellbeing of society, Participants 4 and 5 had made the decision to undertake paid work. Participants 4 and 5 also appeared to be uplifted and derive a great deal of satisfaction from this decision, but they also appeared to be concerned as to whether it was a sensible long-term choice:

I've recently taken a job at [employers name redacted]. It's been three years since I've worked but I'm getting back into it. I'm really enjoying it … I take lots of breaks. I pace myself … [but] I'm worried I've made the right choice, and I'm worried about what will happen when this [MAT] program finishes. I hope I haven't jumped in too

soon…But I'm just going with the flow. It's such a relief to be off the benefits. I mean, I'm still getting my disability money, but that's all I'm getting now (Participant 4)

I've gone back to my old job. I'm taking it easy, just three afternoons [each week] at the moment. It's good. It's nice to see them all again. It feels good to give something. And it's good to get paid too. I hope I don't go back to how I was. I can't go back there. This meditation is keeping me afloat (Participant 5)

As intimated by the content of some of the excerpts included under subordinate theme 5a, participants reported that MAT helped them to develop a *greater sense of compassion* (subordinate theme 5b). Examples of some of the phrases utilised by participants in this respect were 'help others' (Participants 1, 4, 6, 9 and 10), 'reach out' (Participants 1, 2, 8, and 10), 'duty to help' (Participants 5, 6, and 10), 'feel others' pain' (Participants 2 and 8), and 'feel empathy' (Participants 3 and 9). Participant 9 described this greater sense of compassion as follows:

It's strange but when I think more about others, I feel better about myself. It's a struggle at first but then it gets easier. It becomes more natural. I see people and I want to help [them]...[Compassion] makes me much more forgiving (Participant 9)

Discussion

In the present study, IPA was used to analyse the experiences of ten individuals with FMS that participated in an eight-week MAT program. Participants were randomly selected from the intervention arm of an RCT evaluating the effectiveness of MAT as a treatment for FMS. All ten participants provided rich accounts of their experiences, and the following five super-

ordinate themes (each comprising two subordinate themes) emerged from the dataset: (i) *reservations about participating*, (ii) *improvements in psychosomatic wellbeing*, (iii) *spiritual growth*, (iv) *awareness of impermanence*, and (v) *increased sense of citizenship*.

In respect of the first super-ordinate theme of *reservations about participating,* other studies have likewise reported that specific population groups harbour reservations about receiving an MBI. For example, a qualitative study exploring how individuals with severe health anxiety (i.e., hypochondriasis) experience MBCT found that some participants were sceptical and uncertain about mindfulness, believing it was unscientific and might involve chanting with bells (Williams, McManus, Muse, & Williams, 2011). Although understanding and awareness of mindfulness is likely to improve as it becomes more readily utilised in applied psychological settings, the fact that the migration of mindfulness from Eastern contemplative traditions has only occurred in earnest within the last two decades, means that it is understandable that some individuals in the West have reservations and/or inaccurate views about the nature of the practice. Notwithstanding this, to the author's knowledge, the association made by almost all participants in the present study between mindfulness and the supernatural has not been reported in any previous qualitative or quantitative studies of mindfulness.

A likely explanation for the prevalence of this view amongst the current group of participants is that a number of individuals attended the same FMS self-help groups, and knowing that the research project was scheduled to take place, it is likely that participants discussed and shared their (erroneous) views about mindfulness in advance of volunteering for the study. However, irrespective of how these views originated, this finding suggests that there is clearly a need to raise awareness about mindfulness in specific clinical and socio-demographic groups, and in the wider population more generally.

As part of the reservations that participants had towards mindfulness, half of the

participants expressed a fear of MAT actually causing them to lose their diagnosis of FMS (subordinate theme 1b). Previous research has demonstrated that individuals with FMS often experience difficulty in: (i) understanding their symptoms, (ii) receiving a diagnosis of FMS, and (iii) having their needs and symptoms understood by both medical professionals and family members (Dennis et al., 2013; Hickie, Pols, Koschera, & Davenport, 2004; Peterson, 2007). Consequently, it is unsurprising that individuals with FMS place importance on the diagnostic label, and that they derive some degree of relief from being informed that their symptoms correspond to a 'valid' medical condition (Hughes, Martinez, Myon, Taïeb, & Wessely, 2005; White, Nielson, Harth, Ostbye, & Speechley, 2002).

Under such circumstances, the fear of some participants that MAT might be effective in removing their symptoms (and FMS diagnosis) does not, by default, imply that the current population group (and FMS sufferers more generally) prefer to avoid paid work and/or specific societal responsibilities. However, given the association between FMS and usage of state benefits (in particular disability benefits) (Sicras-Mainar et al., 2009; Wolfe et al., 1997b), a slightly more sceptical perspective might deem that this specific study outcome adds credence to the view that a small proportion of individuals with FMS 'hide' behind their diagnosis, and use it as a means of avoiding social and civic responsibility.

The second super-ordinate theme identified in the current study was that participants experienced *improvements in psychosomatic wellbeing*. Although a small number of participants specifically reported reductions in pain intensity and/or frequency, most participants experienced that MAT improved their ability to cope with pain (i.e., rather than decrease the intensity of pain *per se*). Consistent with the findings of other qualitative studies of MBIs involving individuals with pain disorders (e.g., Morone et al., 2008), participants attributed their improved pain-coping skills to the process of mindfully observing uncomfortable somatic sensations. Mindfulness is understood to increase perceptual distance

from painful and/or distressing sensory and psychological stimuli, and this perceptual gap is believed to help objectify pain and thus ameliorate its impact on psychosocial functioning (Singh, Lancioni, Wahler, Winton, & Singh, 2008; Van Gordon et al., 2015a). Unsurprisingly and consistent with a number of recent quantitative studies of MBIs involving individuals with FMS (Davis & Zautra, 2013; Henke & Chur-Hansen, 2014; Lauche et al., 2013), participants reported that this greater ability to cope with pain lead to improvements in quality of life including increased levels of: (i) self-efficacy, (ii) happiness, (iii) energy and motivation, and (iv) sleep quality.

In terms of seeking to connect and understand their various experiences of MAT, participants made it clear that the aforementioned improvements in quality of life did not originate in isolation from the spiritual growth that was identified and reported as part of the third super-ordinate theme. Spiritual growth has occasionally been identified as an outcome of studies of FG-MBIs (e.g., Roth & Stanley, 2002; Mackenzie, Carlson, Munoz, & Speca, 2007). However, consistent with the findings of the present study, the more open and explicit focus in MAT on spiritual development appeared to foster a greater degree of spiritual curiosity (subordinate theme 3a), including the sense of being on a spiritual journey (subordinate theme 3b). Outcomes of spiritual growth have been reported in previous qualitative studies of MAT involving: (i) individuals with issues of depression, anxiety, and stress (Shonin et al., 2014a), and (ii) middle-hierarchy office managers (Shonin & Van Gordon, 2015a). These earlier MAT studies reported that increased spirituality helped to improve life perspective, and provide a buffer against loneliness, negative affect, and low sense of purpose. These collective findings from qualitative investigations into MAT (including findings from the current study) are consistent with outcomes from cross-sectional studies involving individuals with fibromyalgia in which a positive association between spirituality and positive affect, and a negative association between spirituality and depression-anxiety symptoms, has been identified (see

review by Moreira-Almeida & Koenig, 2008).

In addition to mindfulness, a central focus of MAT is teaching the principles of, and providing guidance for meditating upon, impermanence. As implied by the extracts of participants that were included as part of super-ordinate theme 4 (see Results section), the Buddhist notion of impermanence refers to the fact that: (i) phenomena are in a constant state of flux, (ii) life is (therefore) highly uncertain, (iii) all phenomena and living beings must eventually die and/or dissolve, and (iv) since phenomena (including sentient beings) are in a constant state of change, they lack a permanently existing 'self' (i.e., they are of the nature of 'non-self') (Shonin et al., 2014g).

According to a Buddhist model of mental illness, an experiential understanding of impermanence and non-self are prerequisites for cultivating psycho-spiritual wellbeing (Shonin et al., 2014g). In the opinion of the present author, empirical investigation into the applications and health benefits of impermanence and non-self remains under-developed. Nevertheless, the handful of studies that have been conducted in this area indicate that the 'practices' of impermanence and non-self may have therapeutic utility. For example, non-attachment to self and experience is correlated with higher levels of subjective wellbeing, pro-social behaviour, and eudemonic wellbeing, and with lower levels of fatalistic outlook, intimacy avoidance, dissociation, and alexithymia (Sahdra et al., 2010; Sahdra et al., 2015). Similarly, in previous qualitative studies of MAT, participants have assigned importance and meaning to their meditation-related experiences of impermanence and non-self, and attributed these experiences to gains in subjective wellbeing (Shonin & Van Gordon, 2015a; Shonin et al., 2014a). According to Shonin and Van Gordon (2015a), understanding that the notions of permanence and a self that exists independently (i.e., of all other phenomena) are logically implausible helps people to: (i) change their perspective on life and appreciate that it is a time-

limited occurrence, (ii) avoid becoming self-absorbed and/or self-obsessed, (iii) engage in meaningful activities and inter-personal interactions, and (iv) become more 'other-centred'.

The fifth and final master theme to emerge from the dataset was an *increased sense of citizenship*. Here, participants reported that MAT helped them to: (i) feel and understand that they have a role in society, (ii) have confidence that they can influence their immediate and wider social (and living) environment, (iii) be more willing to make meaningful contributions towards the welfare of society (including opting to take-up paid work in the case of two participants), and (iv) feel motivated to support others. These findings are consistent with the significant emphasis placed in MAT on compassion, and on helping participants understand the benefits to be derived from engaging with, and contributing to, community and societal welfare. The inclusion in MAT of dedicated teachings and meditations on compassion follows the traditional Buddhist model of teaching and practising spiritual development, wherein compassion assumes a central role (Shonin et al., 2014a).

Based on a recent systematic review of Buddhist-derived compassion (and loving-kindness) meditation intervention studies, compassion meditation has been shown to foster improvements in (but not limited to): (i) positive and negative affect, (ii) psychological distress, (iii) positive thinking, (iv) interpersonal relations, and (v) empathic accuracy (Shonin et al., 2014d). By becoming increasingly aware of the needs and suffering of others, it is understood that individuals are better able to add perspective to their own problems and suffering, which helps to dismantle self-obsessed maladaptive cognitive structures and self-disparaging schemas (Gilbert, 2009). Compassion meditation has also been shown to foster greater affection towards others which, in turn, helps to augment social-connectedness and prosocial behaviour (Hutcherson et al., 2008; Leiberg et al., 2011).

The rationale behind including techniques designed to foster compassion and citizenship in the MAT teaching syllabus is solely based on the fact that such aptitudes are

associated with improved levels of subjective wellbeing and psychosocial functioning (Shonin et al., 2014a). Indeed, participants are left to evaluate how to apply such teachings and practices in their own life situation, and they are not provided with guidance in terms of which activities and/or societal responsibilities would be suitable for their particular circumstances. Furthermore, participants are informed that premature and/or over-engagement in physical, social, and compassionate activities could be counter-indicative to their overall levels of psychological wellbeing. Thus, given the fact that MAT does not guide or explicitly encourage participants to assume specific roles or duties (including voluntary or unpaid work), it is promising that some participants in the present study felt able and equipped to return to paid work, and that others had the inspiration and/or intention to find ways of being more actively involved in their local and wider community.

FMS is a complex and poorly-understood psychosomatic pain condition. As noted earlier, the illness has been the subject of controversy, both in terms of the alleged lack of interest or capability of the medical community to understand and support patients with FMS, and the burden that such individuals place upon economic and healthcare resources. Given the lack of convincing data for the effectiveness of extant pharmacological and non-pharmacological FMS treatments, there is a need to formulate and empirically evaluate novel interventional approaches. The modified version of MAT employed in the present study was experienced as an acceptable and accessible intervention by individuals with FMS, and participants likewise reported experiencing improvements in psychosomatic and psycho-spiritual wellbeing.

Nevertheless, as with all qualitative studies, the findings do not provide robust evidence as to the efficacy of the intervention for all individuals with FMS, and irrespective of efforts to 'bracket off'[5] the epistemological and ontological stance of the research team, the nature of

---

5 Bracketing refers to the process of setting aside prior assumptions about the nature of the experience under investigation (Ashworth, 2000). This is to avoid inadvertently contaminating the description of participants'

IPA means that there can never be complete certainty that any disconnect between participants' experiences and their subsequent interpretation has been removed (Shonin & Van Gordon, 2015a). Further empirical (qualitative and quantitative) investigations are warranted in order to further evaluate the potential utility of MAT (and other purpose-designed MBIs) for treating FMS, and for changing the attitudes of some individuals with FMS towards societal participation and community engagement.

---

lifeworld due to importing theories, findings, or preconceived ideas. (Ashworth, 2000; Smith et al, 2009). In the current study, the bracketing process was facilitated by forming a 'mind-map' (Tattersall, Watts, & Vernon, 2007) that involved using a blank piece of paper to sketch all known facts and theories (i.e., relating to the practice of meditation by individuals with FMS and related pain disorders) as well as the themes that were anticipated to arise from the data analysis. According to Tattersall et al. (2007), mind-mapping can help to raise awareness or clear the mind of previous assumptions and is thus a useful means of facilitating the bracketing process during phenomenological enquiry.

Chapter 10

Meditation Awareness Training for The Treatment of Sex Addiction: A Case Study

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

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016). Meditation Awareness Training for the treatment of sex addiction: A case study. *Journal of Behavioral Addiction*, *5*, 363-372.

The final published version of this article is available at Akadémiai Kiadó:

http://www.akademiai.com/doi/pdf/10.1556/2006.5.2016.034

Abstract

Sex addiction is a disorder that can have serious adverse functional consequences. Treatment effectiveness research for sex addiction is currently underdeveloped, and interventions are generally based on guidelines for treating other behavioural (as well as chemical) addictions. Consequently, there is a need to clinically evaluate tailored treatments that target the specific symptoms of sex addiction. It has been proposed SG-MBIs may be an appropriate treatment for sex addiction because in addition to helping individuals increase perceptual distance from craving for desired objects and experiences, some SG-MBIs specifically contain meditations intended to undermine attachment to sex and/or the human body. The current study conducts the first clinical investigation into the utility of mindfulness for treating sex addiction. An in-depth clinical case study was conducted involving an adult male suffering from sex addiction that underwent treatment utilising MAT. Following completion of MAT, the participant demonstrated clinically significant improvements in addictive sexual behaviour, as well as reductions in depression and psychological distress. The MAT intervention also led to improvements in sleep quality, job satisfaction, and non-attachment to self and experiences. Salutary outcomes were maintained at six-month follow-up. The current study extends the literature exploring the applications of mindfulness for treating behavioural addiction, and findings indicate that further clinical investigation into the role of mindfulness for treating sex addiction is warranted.

Although sex addiction was not accepted for inclusion in the latest (fifth) edition of the DSM-5 (American Psychological Association, 2013), excessive non-paraphilic sexual behaviour was included in the DSM-III as a 'Sexual Disorder Not Otherwise Specified' (American Psychological Association, 1987). Furthermore, both the American Society of Addiction Medicine (2011) and the International Classification of Diseases (10th ed.; World Health Organisation, 2007) accept that excessive sexual behaviour can form the basis of a medical illness. Estimates of sex addiction prevalence vary considerably according to gender, age, culture, sexual orientation, taxonomy (e.g., paid sex, cybersex, pornography, etc.), and diagnostic criteria (which likewise vary considerably), and range between 1-8% in the general population (e.g., Carnes, 1999; Kinsey, Pomeroy, & Martin, 1948; Seegers, 2003; Traeen, Spitznogle, & Beverfjord, 2004; Sussman, Lisha & Griffiths, 2011). Sex addiction (sometimes referred to – amongst many other names – as hypersexuality disorder) has been defined as "*a sexual desire disorder characterised by an increased frequency and intensity of sexually motivated fantasies, arousal, urges, and enacted behaviour in association with an impulsivity component – a maladaptive behavioural response with adverse consequences*" (Kafka, 2010, p. 385).

Sex addiction is associated with (amongst other things) increased risk-taking behaviours (e.g., substance use, multiple sex partners), depression and anxiety, impulsivity, loneliness, low self-worth, and insecure attachment styles (see reviews by Dhuffar & Griffiths, 2015; Rosenberg, Carnes, & O'Connor, 2014; Sussman et al, 2011). Key symptoms include each of the six criteria of Griffiths' (2005) components' model of addiction: (i) *salience* (sexual behaviour becomes the most important activity in the person's life and dominates their thinking, feelings, and behaviour), (ii) *mood modification* (the subjective experiences that individuals report as a consequence of engaging in sex-related behaviour), (iii) *tolerance* (the need for increased levels or intensity of the sexual behaviour to achieve the desired effect), (iv)

withdrawal (i.e., psychophysiological withdrawal symptoms – such as irritability and moodiness – upon discontinuation of the pattern of sexual behaviour), (v) *conflict* (both interpersonal and intrapsychic conflict due to spending excessive amounts of time engaged in sex-related behaviour), and (vi) *relapse* (the tendency for repeated reversions to earlier patterns of sexual behaviour to recur after prolonged periods of abstinence or control).

Examples of interventions typically employed for treating sex addiction are CBT, dialectical behavioural techniques, psychoanalysis, family therapy, motivation training, 12-step and peer-support programmes, self-help, diet and exercise enhancement, and psychopharmacology (Dhuffar & Griffiths, 2015; Griffiths, 2012; Rosenberg et al., 2014). However, treatment effectiveness research for sex addiction is underdeveloped and most of the aforementioned interventions are based on recommendations for treating other behavioural (as well as chemical) addictions (Rosenberg et al., 2014). Consequently, there is a need to empirically and clinically evaluate tailored treatments that target the specific symptoms of sex addiction.

A recent development in treatment for both chemical and behavioural addiction has been evaluative research into the therapeutic effectiveness of mindfulness. Promising emergent findings exist for the use of mindfulness in treating substance/alcohol use disorders (Witkiewitz, Marlatt, & Walker, 2005), gambling disorder (Griffiths, Shonin, & Van Gordon, 2015; Shonin et al., 2014b), workaholism (Shonin et al., 2014c) and internet addiction (Iskender & Akin, 2011). However, to date, no study has explored the applications of mindfulness for treating sex addition. Nevertheless, Shonin et al. (2013a) suggested that mindfulness is likely to be a suitable treatment for sex addiction because in addition to helping individuals increase perceptual distance from craving for desired objects and experiences, some SG-MBIs specifically utilise meditations intended to undermine attachment to sex and/or the human body.

According to Van Gordon et al. (2015b), rather than teaching participants to be 'non-judgemental' (as advocated by many FG-MBIs), a reason why SG-MBIs may be more suited to the treatment of behavioural addictions is because they encourage mindfulness practitioners to be (i) ethically aware of both the short-term and long-term consequences of their actions, and (ii) spiritually empowered to relate to mindfulness as a 'way of life', rather than a therapeutic technique to be applied in some circumstances but not others.

This chapter represents the first study to explore the utility of mindfulness for treating sex addiction. More specifically, it presents an in-depth clinical case study of an adult male suffering from addictive sexual behaviour that underwent treatment utilising a SG-MBI.

Case Vignette and Assessment

Clinical History

"Adam" is in his early thirties and is a single divorced white British male without dependants. His psychiatric history comprises two periods of depressive episodes (each lasting approximately six months) that occurred three years ago (*Major Depressive Disorder, Recurrent Episode, Mild; DSM-IV-TR Code 296.31*) and five years ago (*Major Depressive Disorder, Single Episode, Mild; 296.21*). In both episodes, antidepressants were administered. Adam's clinical history is otherwise unremarkable but he explained that 42 months ago, whilst still married, he "*started to become addicted to sex*". Apart from attending a self-help group for a six-week period approximately one year ago, he had not previously sought treatment for his hypersexual behaviour.

Case History

Occupational history

Adam works in a sales position that involves regular domestic travel and overnight hotel stays.

His role affords him use of a fully expensed company car and provides him with considerable flexibility in terms of work location. He typically spends three nights per week in a hotel and he generally visits the company offices one day each week. Adam has been employed in his current role for the past four years. He previously performed various sales roles and completed a two-year salaried graduate training programme upon leaving university. Opportunities for promotion with Adam's current employer are advertised nationally, but employees are encouraged to apply (and are often given priority). During the previous two years, Adam has been encouraged by senior management to apply for two internal positions, but decided not to do so because he was "*comfortable*" in his current role.

Family history

Adam was raised by his biological parents who both work in public sector roles. Adam's parents divorced when he was 16 years old, and both parents remarried. Adam describes his parents as "*caring and supportive*", and feels that both he and his only sibling (a younger sister) received a good upbringing. He is on good terms with his parent's respective partners, and has "*got used*" to the fact that there is presently minimal communication between his biological mother and father. Adam has not disclosed details of his mental health problems to any of his family members.

Educational history

Adam graduated from a British university with a BSc degree that he passed with upper second-class honours. At the time of graduating he considered completing a *Masters of Business Administration* but decided to take paid employment instead. He attended state schooling and his A-level grades enabled him to attend his first choice of university.

Social history

Up until the time of his divorce, most of Adam's social engagements involved he and his wife meeting with other married couples. Adam met his wife approximately two years after leaving university, and was married for four years. Since the divorce, Adam has remained single and his current social engagements principally involve meeting with (i) colleagues from work, (ii) one long-term male friend that he had known since university, (iii) known and unknown individuals (mostly other business professionals) that he meets in hotels, and (iv) individuals that he interacts with as a result of his problematic sexual behaviour.

Religious history

Adam did not describe his biological parents as being particularly religious. They classified themselves as Anglican Christians and according to Adam, attended church only at Christmas. Adam stated that whilst at university, "*I became interested in my spiritual side*" and he began to explore Christianity more earnestly. However, Adam became disillusioned with certain organised Christian traditions and decided that there was a "*big difference between the teachings of Christ and the teachings of the Church*". Consequently, Adam developed an interest in Buddhism. He tried meditation and visited the Buddhist countries of Thailand and Nepal (including visiting Buddhist temples in these countries). Adam frequented a Buddhist centre in the UK for a period of six months during his mid-twenties. He enjoyed learning about Buddhism but started to lose interest because he found the instructors to be "*two-faced and superficial*". Adam maintains an interest in Buddhist practice but has had minimal contact with Buddhism over the past three years.

Behavioural Observations

At his initial assessment with the psychotherapist (and at each subsequent meeting), Adam was

cognisant as to person, place, time, and circumstance. He was well presented and wore ironed smart-casual attire (several items of clothing displayed a designer label). His face was clean-shaven and he used a styling product on his hair that had recently been cut. Adam wore cologne and his mobile phone and watch appeared to be recent and high-end models. Adam made the same effort with his appearance during each of the subsequent therapy sessions.

At the initial assessment (and at the second and third weekly sessions), Adam's eyes were moderately blood shot, and although he denied feeling tired, he appeared fatigued. The psychotherapist's best estimate is that Adam is six feet (183 cm) tall and weighs 85-87.5kg. This would correspond to a Body Mass Index of 26-27, meaning that Adam is slightly overweight. Adam has no visible tattoos or piercings. Without being asked, he turned his phone to silent at the start of the assessment session (and at each subsequent session).

Adam is confident and well spoken. He helped himself to biscuits and coffee (he drank two cups of coffee during the 90-minute session). Although Adam did not exhibit problems in expressing himself, the account of his problematic sexual behaviour provided at the initial session appeared rehearsed. When discussing his symptoms in detail, Adam talked for longer than needed and would attempt to brush over important details. He would sometimes talk out-of-turn (i.e., without waiting for the psychotherapist to conclude their sentence). The frequency of such interruptions – that appeared to be an attempt to change subject – increased by approximately 50% when the dialogue started to address the intimate specifics of his sexual behaviour. At these times, Adam assumed a more tense body posture and became over-confident, and borderline defensive. This behaviour appeared to be an effort to conceal embarrassment and/or mask his guilt.

At his initial assessment session, Adam stated "*I feel awkward talking about all this*" and "*you're the first person I've properly talked to*". At times, he appeared to be exhibiting low mood symptoms (e.g., pessimistic, lethargic, irritable) and on several occasions, he was cold

and abrupt. When confronted by the psychotherapist with this latter observation Adam apologised and explained that "*I've got a lot on my plate right now*".

Presenting Complaints

Adam explained that approximately four years ago (i.e., one year before he divorced), he took steps to try to invigorate a "*stale sex life*" and failing marriage. Adam introduced his wife to watching pornographic films both before and during sexual intercourse. He stated that neither he nor his wife had been particularly interested in pornography prior to this time. Adam reported that for a period of approximately two months, the frequency and duration of sexual contact with his wife increased. However, the effect was relatively short-lived because according to Adam, his wife "*became bored with it*". Adam, on the other hand, found pornographic films to be sexually stimulating and he continued to watch them without his wife's knowledge.

Adam began to accrue a collection of online and offline pornographic films, and started using them as a focus for masturbation. Six months after he first started to watch pornography (i.e., six months before he divorced), Adam was masturbating approximately five times per week. He stated that it was at about this time that he also started to become sexually aroused by watching men masturbate themselves, and by watching gay sex films (up until this point, Adam had always described himself as being heterosexual). He started to add gay sex films to his online and offline portfolio, and decided that he was bi-sexual.

Adam stated that approximately five months before he divorced, "*pornography stopped being enough*" and "*I needed to explore myself sexually*". He stated that "*my wife didn't want to know so I occasionally started to use female and male escorts*". Adam explained that at this time, he would meet with an escort approximately once a fortnight. He reported that although his marriage was failing, a divorce became inevitable when his wife found out that he had been

watching gay pornographic films on his computer. Adam had left his computer to answer the door but had left the online film playing. The film was seen by his wife who "*freaked out*" and moved out of their house five days later.

Adam explained that for a period of approximately 18 months following the divorce, he was "*in control*" and was enjoying his newly found sexual freedom. He had built up a network of female and male sexual contacts across the country, including a small number of individuals with whom he engaged in sexual activities on an unpaid (i.e., casual) basis. Adam stated that at that time (i.e., 18 months before presenting for treatment), his monthly salary no longer covered the cost of his sexual exploits that typically cost £350 per week. Consequently, he decided to sell his home in order to raise capital and he moved into rented accommodation.

At the initial assessment meeting and following considerable encouragement, Adam disclosed that in terms of his current sexual behaviour, he typically (i) uses the services of an escort six times per week (each paid sexual encounter normally lasts for 30-60 minutes, and those lasting for 60 minutes will normally result in Adam ejaculating twice), (ii) spends £500 per week on escort services, (iii) has unpaid sex three times per week (drawing from a changing pool of up to ten male and female casual sex partners), (iv) has cybersex (normally involving masturbation) five times per week, (v) watches "*gay or straight sex videos*" for approximately 60 minutes each day in three-four separate viewing sessions (i.e., each of 15-20-minutes duration), and (vi) masturbates five times a week whilst watching pornographic films. Adam stated that he always has protected sex and that as far as he is aware, he has never contracted a sexually transmitted disease. He confirmed that he has never engaged in sexual contact with (or watched pornographic films involving) individuals under the age of 18 years.

Adam explained that during the past year, he sometimes felt "*empty and cheap*" following a sexual encounter. He stated that "*I know I need to change [but] I enjoy it too much*". Adam has attempted to reduce the frequency of sex-related encounters and expenditure on

several occasions during the past 12 months. However, he explained that "*whenever I try and cut back it lasts for a few days, or sometimes a week, but then it gets too much and I'll end up [having paid sex and/or masturbating] seven or eight times over the course of 48 hours*". He stated *"I know it's wrong for a Buddhist to be like this"*.

Adam acknowledged that he often masturbates (i.e., during cybersex or whilst watching a pornographic film) to help him sleep, and that he typically sleeps for 5-6 hours per night. He reported that recently, he has "*started to become careless*" and has used his work telephone and work laptop for sex-related purposes. Adam explained that unless an individual he meets online gives a strong indication that a date will lead to sexual contact (e.g., by sending sexually provocative photographs), he declines to meet in person. He acknowledged that his current pattern of sexual behaviour is likely to minimise his chances of meeting long-term relationship partners but explained that "*I'm not sure I'm ready for a wife or serious partner at this stage in my life*".

Adam denied any suicidal ideation as well as gambling, substance, or alcohol dependency (but explained that the majority of his sexual encounters are accompanied by some form of alcohol consumption). He occasionally smokes cigarettes but asserted that his usage is for "*social purposes*" and that he is not nicotine dependent. Adam typically smokes 5-10 cigarettes per day, mostly when socialising during the evening or when meeting sex partners during the day or evening.

Diagnostic Impressions

Adam's problematic sexual behaviour was predated by a phase of major depression that occurred 18 months prior to the onset of his sex addiction (Adam experienced a second phase of major depression that occurred six months after the onset of his problematic sexual behaviour). Given the chronology, it is likely that Adam's addiction to sex was an expression

(i.e., rather than the cause) of an underlying mood disorder. Adam was assessed using DSM-5 criteria that confirmed the psychotherapist's impression that he was currently experiencing a depressive episode, and that his previous diagnosis of *Major Depressive Disorder (Recurrent, Mild)* was still current. In addition to sleep impairment, another important feature of Adam's clinical profile was *Religious or Spiritual Problems* (DSM-5 code V62.89) resulting in (i) distressing experiences that involve loss or questioning of faith, and (ii) a questioning of spiritual values.

Treatment Outcome Measures

The 45-item *Sexual Addiction Screening Test – Revised* (SAST-R; Carnes, Green, & Carnes, 2010) was administered to assess addictive sexual behaviour. SAST-R items are rated as either present or absent, and a 'yes' response to six or more of the 20-items on the core scale indicates probable sex addiction. Various subscales assess the dimensions of sex addiction and require either two or three 'yes' responses (to either four or five questions) to indicate a problem on that specific dimension. Examples of SAST-R items are "*Has anyone been hurt emotionally because of your sexual behaviour?*" and "*Do you ever think your sexual desire is stronger than you are?*" Adam's baseline score on the core scale was 16 (out of a possible 20), indicating that he met the diagnostic criteria for sex addiction. He responded with 'yes' answers to the majority of the subscale questions, suggesting that the following symptoms were key aspects of his problematic sexual behaviour: (i) preoccupation, (ii) loss of control, (iii) relationship disturbance, and (iv) affect disturbance.

The 21-item *Depression, Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995)* assesses emotional distress and comprises sub-scales of depression, anxiety, and 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 felt that life was*

meaningless". The DASS is completed in respect of the foregoing seven-day period and scores for each of the three sub-scales can be summed together to provide an overall assessment of psychological distress (Van Gordon et al., 2014a). 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). Adam's baseline score was 24 (i.e., moderate).

The *Abridged Job in General Scale* (AJIGS; Russel, Spitzmuller, Lin, Stanton, Smith, & Ironson, 2004) is an eight-item measure of job satisfaction. The scale contains the following adjectives or short phrases in relation to the job a person is currently employed in: *"makes me content", "better than most", "good", "disagreeable", "excellent", "enjoyable", "poor",* and *"undesirable".* For each item, respondents are asked if they agree ('yes'), are not sure ('?'), or disagree ('no'). A score of three is assigned for 'yes', one for '?', and zero for 'no'. Individual items are summed to give a global score and negatively worded items are reverse-scored. Higher scores indicate greater levels of job satisfaction. Adam's score on intake was seven (out of a possible 24), indicating a low-level of job satisfaction.

The seven-item *Non-Attachment Scale* (NAS; Sahdra et al., 2015; Sahdra et al., 2010) is based on a Buddhist model of mental illness and assesses the extent to which an individual is attached to the various psychological, social, and material aspects of their life. By default, the NAS also measures the extent that individuals are 'attached to themselves' because according to Buddhist theory, attachment to psychological or external phenomena is dependent upon a firm sense of selfhood (Van Gordon et al., 2016e). The scale is constructed upon the Buddhist idea that the self does not exist intrinsically and that attachment to self (and psychological and material objects) therefore constitutes a maladaptive condition (see Shonin et al. [2014g] for a detailed explanation of how attachment is conceptualised differently in Buddhism compared to Western Psychology). The NAS is scored on a six-point Likert scale

(from 1 = *disagree strongly* to 6 = *agree strongly*) and features items such as "*When pleasant experiences end, I am fine moving on to what comes next*". Higher scores reflect lower levels of attachment (or higher levels of non-attachment). Adam's baseline score was 16 (out of a possible 42).

The seven-item *Pittsburgh Sleep Quality Index* (PSQI; Buysse et al., 1989) assesses the sleep quality during the past month across domains of subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction. The PSQI is scored on a four-point Likert scale (0 = *no difficulty*, 3 = *extreme difficulty*) and features items such as "*during the past month, how would you rate your sleep quality overall?*" A global score of ≥5 indicates a poor quality of sleep. Adam's baseline score was 14 (out of a possible 21).

The *Goal Attainment Scale* (GAS; Kiresuk & Sherman, 1968) assesses treatment goal attainment, and involves the client and therapist agreeing upon a series of goals. The level of goal attainment is determined by behavioural descriptions of functioning. Scores range from minus 2 (regression) through 0 (expected outcome attained) to plus 2 (expected outcome exceeded) for each of the agreed goals. Scores for individual goals are combined and then the GAS conversion key is utilised to calculate a global score. In this clinical case study, five equally weighted goals were formulated. A score of 50 indicates an expected level of goal achievement and higher scores indicate greater levels of goal achievement.

Changes in each of the following outcome measures – based on the preceding 14-day period – were assessed using daily dairy-keeping by Adam (baseline values shown in brackets): (i) time spent watching online and offline pornographic films (13.5 hours), (ii) time spent engaged in cyber-sex (10 hours), (iii) frequency of paid sexual encounters (12 meetings), and (iv) expenditure on escort services (£1,050). Each of the aforementioned outcomes were assessed at four separate time points: (i) baseline (*t*1), (ii) mid-treatment (*t*2 [week 5]), (iii)

therapy termination (*t*3 [week 10]), and (iv) six-month follow-up (*t*4). All of the above scales are established screening instruments with good psychometric properties.

Case Formulation

Adam's initial expression of interest in pornography appeared to be well intended (i.e., a step taken to help recover his marriage). However, with his marriage deteriorating and perceiving that his wife was uninterested in sex, he experienced masturbating using pornography and occasional contact with sex escorts to be an increasingly important outlet for satisfying his sexual urges. For approximately a 12-month period, Adam exhibited a reasonable degree of behavioural control over his sexual urges, and it is likely that his use of pornography and sex escorts did not become addictive and problematic until after he divorced.

Rather than seek long-term relationship partners after divorcing, Adam became locked into his pattern of sexual behaviour and allowed it to intensify. Inevitably, his sexual behaviour became maladaptive and an addiction feedback loop ensued. Watching pornography or engaging in paid (or casual) sexual contact induced temporary positive affective and sensory states. These, in turn, gave rise to affirmative memories (Baker, Piper, McCarthy, Majeskie, & Fiore, 2004). Subsequent contact with sexual stimuli triggered these memories, and resulted in a craving to re-experience the affective and sensory response. The craving was satisfied by further engagement in the same type of sexual behaviour that, in addition to the desired modification in mood, led to encoding of additional associative memories (Houlihan & Brewer, 2015). Adam continued to reinforce his pattern of problematic sexual behaviour until interpersonal and intrapsychic conflict reached a point that he could no longer deny that his behaviour was unsustainable in the long-term.

Adam's initial use of pornography and sex escorts was probably unrelated to his underlying symptoms of depression. However, at the point he sought the help of a

psychotherapist, sex and sex-related behaviour (i) had become a means of avoiding feelings of depression (and other problems in his life), and (ii) were augmenting his low mood symptoms and causing feelings of guilt to manifest.

Predisposing Factors

The divorce of Adam's parents during his teenage years inevitably imposed an emotional burden. However, Adam appeared (both at present time and at the time of his parents' divorce) to accept it and commented that "*they did their best to minimise the impact on [me and my sister]*". The first signs of notable intrapsychic conflict arose while Adam was at university and was experiencing a 'spiritual yearning'. Adam's spiritual needs were not met by his encounters with either Christianity or Buddhism, and this appeared to augment his psychological and spiritual tension. According to Van Gordon et al (2016e), spiritual undernourishment can be a key determinant of psychopathology and probably played a role in the onset of Adam's depression and hypersexual behaviour.

Protective and Problematic Factors

Adam's interest in spiritual development (and in particular Buddhism) could be potentially utilised as a protective factor. In fact, Adam confirmed that his primary motivation for approaching the psychotherapist was because of their expertise in the therapeutic use of Buddhist principles and practices. The relatively undemanding nature of Adam's job does not help his situation. Adam is not challenged in his current role where he receives minimal supervision. His primary reason for declining to apply for internal advancement opportunities was that the increased responsibility would interfere with his sexual activities. However, if Adam's interest in his career could be rekindled, a role with more responsibility could also become a potential protective factor.

Intervention

In conjunction with the absence of psychotic features, Adam's craving for sex indicated the suitability of a meditation-based recovery model. According to meditational theory, the contemplative observance of cravings and negative affective states helps to objectify these psychological phenomena, such that they become less consuming and can be 'let go of' (Van Gordon et al., 2016e). Following informed consent, Adam received the secular MAT intervention that was administered by the second author (a psychotherapist and meditation teacher). MAT follows a comprehensive approach to meditation whereby mindfulness is an integral part – but does not form the exclusive focus – of the programme (Van Gordon et al., 2014a).

In addition to mindfulness, MAT incorporates practices that are traditionally followed by (Buddhist) meditation practitioners including techniques aimed at cultivating: (i) citizenship, (ii) perceptive clarity, (iii) ethical and compassionate awareness, (iv) meditative insight (e.g., into subtle concepts such as emptiness and impermanence), (v) patience, (vi) generosity (e.g., of one's time and energy), and (vii) life perspective. Each of the ten weekly sessions attended by Adam lasted for 90 minutes and comprised three phases: (i) discussion with the therapist (approximately 40 minutes), (ii) a taught component (approximately 20 minutes), and (iii) a guided meditation (approximately 20 minutes). A ten-minute break was scheduled immediately prior to the guided meditation, and Adam received a CD of guided meditations to facilitate daily self-practice.

Ethics

The study received ethical approval from the ethics committee of the author's academic institution. The participant provided written consent for their data to be published in an

215

academic journal in anonymised form.

Early Intervention Phase (Weeks 1-2)

The early intervention phase focussed on establishing therapeutic alliance, as well as core therapeutic conditions such as active listening, unconditional positive regard, accurate empathy, respect, and genuineness (Wells, 1997). Psycho-education was likewise important during this treatment phase in order to reinforce Adam's understanding of (i) addiction and the addiction feedback loop, (ii) psychotherapy according to a meditational framework, and (iii) the aetiology, prevalence, and symptom course of hypersexual behaviour.

During the second week of therapy, five GAS compatible goals were proposed by Adam (and agreed by the psychotherapist): (i) 50% reduction in the frequency of paid and casual sex encounters, (ii) eliminating the use of pornography and cyber-sex websites, (iii) limiting sexual contact to three paid or casual sex partners with whom Adam felt sex was more meaningful, (iv) applying for one internal or external employment advancement opportunity each week, and (v) uptake of a regular exercise routine. A goal of reducing sex-related financial spending was discounted because it was deemed as something that might encourage riskier sexual behaviour (e.g., using street prostitutes that typically charge lower prices for their sexual services than escorts).

A further key aspect of the early intervention phase was introducing Adam to the practice of mindful awareness, and in particular breath awareness. He was taught to use breath observance as an 'attentional anchor' by focussing approximately 50% of his awareness on his breathing, and 50% on what was happening in the present moment. In this manner, Adam started to develop the necessary foundations for subsequent meditative development as well as a method of arresting ruminative thinking.

Mid-Intervention Phase (Weeks 3-8)

The mid-intervention phase comprised five key elements that were administered in conjunction with mindfulness training:

1. *Body composition and decomposition*: This aspect of the practice drew upon Buddhist sutras that include detailed meditations on the composition of the body, and its decomposition following death. The objective was to help Adam understand more about the 'true' nature of the object of his desire (i.e., the body). For example, one of the guided meditations involved mentally deconstructing the body and identifying its constituent parts that in themselves, are not particularly desirable (e.g., nails, hair, mucus, faeces, urine, pus, vomit, blood, sinew, skin, bone, teeth, flesh, sweat, etc.). Another guided meditation involved visualising the process of decay that the body undergoes following death (i.e., as part of understanding the true nature of body and the inevitable future that awaits it).

2. *Meditative exposure therapy*: Adam experienced difficulty in implementing this technique outside the therapeutic sessions, and explicitly requested a more direct and supportive approach. Consequently, a controlled scenario was enacted whereby Adam sat opposite the therapist with a laptop computer that had the sound turned off. He was administered a guided meditation while one of his online sex films was playing (the psychotherapist could not see the film). Adam was requested to keep his eyes closed but to intermittently and briefly open them in order to glance at the film. He was instructed to relate to the psychological and somatic processes that were triggered by the film as 'simply phenomena'. In other words, Adam was taught to objectify such processes and interact with them as a 'participating observer'. Adam was thus shown

that he could psychologically accommodate and work with sex urges, but without them dictating his mental state and behaviour.

3. *Compassion and loving-kindness meditation:* Adam was introduced to compassion and loving-kindness meditation for various reasons, but the principal purpose was to raise awareness of others' suffering, including the individuals with whom he was paying to have sex. Adam was encouraged to view such individuals as human beings (i.e., with problems and hopes of their own), and not just as objects to gratify his sexual urges.

4. *Analytical meditation*: Adam was guided using meditations intended to undermine a belief that the self (or for that matter any phenomenon) intrinsically exists (see 'Discussion' section below for further explanation).

5. *Sex in context*: This aspect of Adam's treatment was mostly discussion-based and focussed on helping Adam contextualise some of his meditative insights and experiences. Techniques such as guided discovery, logical reasoning, and Socratic questioning were employed to help Adam test the validity of his assumptions concerning sex. For example, Adam was guided to accept that (i) desire to have sex is normal and biologically driven, (ii) there is no 'right' amount of sex (i.e., everybody is different), (iii) sex is an important part of life, but there are many other (arguably more) important aspects, (iv) where two adults consent to engage in sexual contact, it is generally their frame of mind (i.e., rather than the type of sex act performed) that determines whether the encounter is 'wholesome' or 'debasing', (v) from a Buddhist perspective, using the services of adult sex escorts was not necessarily 'wrong', so long as nobody was being hurt (admittedly, there are numerous – including philosophical – supportive and critical arguments that could be applied in this respect), and (vi) sex within the context of a long-term relationship was likely to be safer and more meaningful.

Therapy Termination (Weeks 9-10)

The final phase of treatment concentrated on preparing Adam for therapy termination. Whilst he felt that his psychological wellbeing and control over sexual urges had considerably improved, Adam expressed concerns over relapse due to loss of face-to-face therapeutic contact. To help alleviate such concerns, Adam was advised to continue with his daily practice of meditation and to keep a daily register of sexual behaviour, stress levels, and sleep patterns. Coping strategy cue cards were formulated that Adam 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 90-minute booster sessions were arranged at four-week intervals.

Results

Following completion of MAT (i.e., $t3$), Adam was assessed against DSM-5 diagnostic criteria for major depression. He exhibited clinically significant change (i.e., to below the diagnostic threshold) that was maintained at six-month follow-up (i.e., $t4$). As shown in Figure 10.1, his $t3$ and $t4$ scores on all other outcome measures likewise suggested that the intervention had been successful. Adam answered 'yes' to five of the SAST-R items, indicating that he was no longer suffering from addictive sexual behaviour. His post-treatment scores on the DASS demonstrated a 'normal' level of symptom severity, and his $t3$ scores on both the AJIGS and NAS were doubled compared to baseline (with a trend towards further improvement at $t4$). Adam's $t3$ score on the PSQI was markedly reduced (from $t1 = 14$ to $t3 = 8$), but was still above the threshold (of ≥ 5) for non-problematic sleep. Further improvements in sleep quality were demonstrated between $t3$ and $t4$, and Adam's PSQI score of five at six-month follow-up was just outside the cut-off for 'normal' sleep quality.

Between $t3$ and $t4$, Adam abstained from watching pornography and using online sex websites. His expenditure on sex escorts decreased by 60% between $t1$ and $t3$ (to £420 per 14 days; three paid encounters per week), and 73% between $t1$ and $t4$ (£280 per 14 days; two paid encounters per week). Adam likewise reduced the number of individuals in his network of unpaid casual sex partners (from $t1$ = 10, to $t3$-$t4$ = 3), and between $t3$ and $t4$ he would generally meet with one unpaid casual sex partner each week (compared to three such weekly meetings at $t1$). Adam's post-treatment GAS score of 74 corresponded to achievement across all goal fronts. At $t4$, Adam reported that he (i) had secured an internal promotion that was due to commence in two months' time, (ii) was attending a Buddhist meditation group on a weekly basis, and (iii) no longer feels guilty about his sexual behaviour that *"works for me and is much more meaningful"*.

Figure 10.1. Change in outcome variable scores over time. Where t1 = baseline, t2 = week 5, t3 = week 10 (therapy termination), t4 = 6-month follow-up. Dotted lines indicate cut-off for 'normal' symptom severity (where available) in an adult population
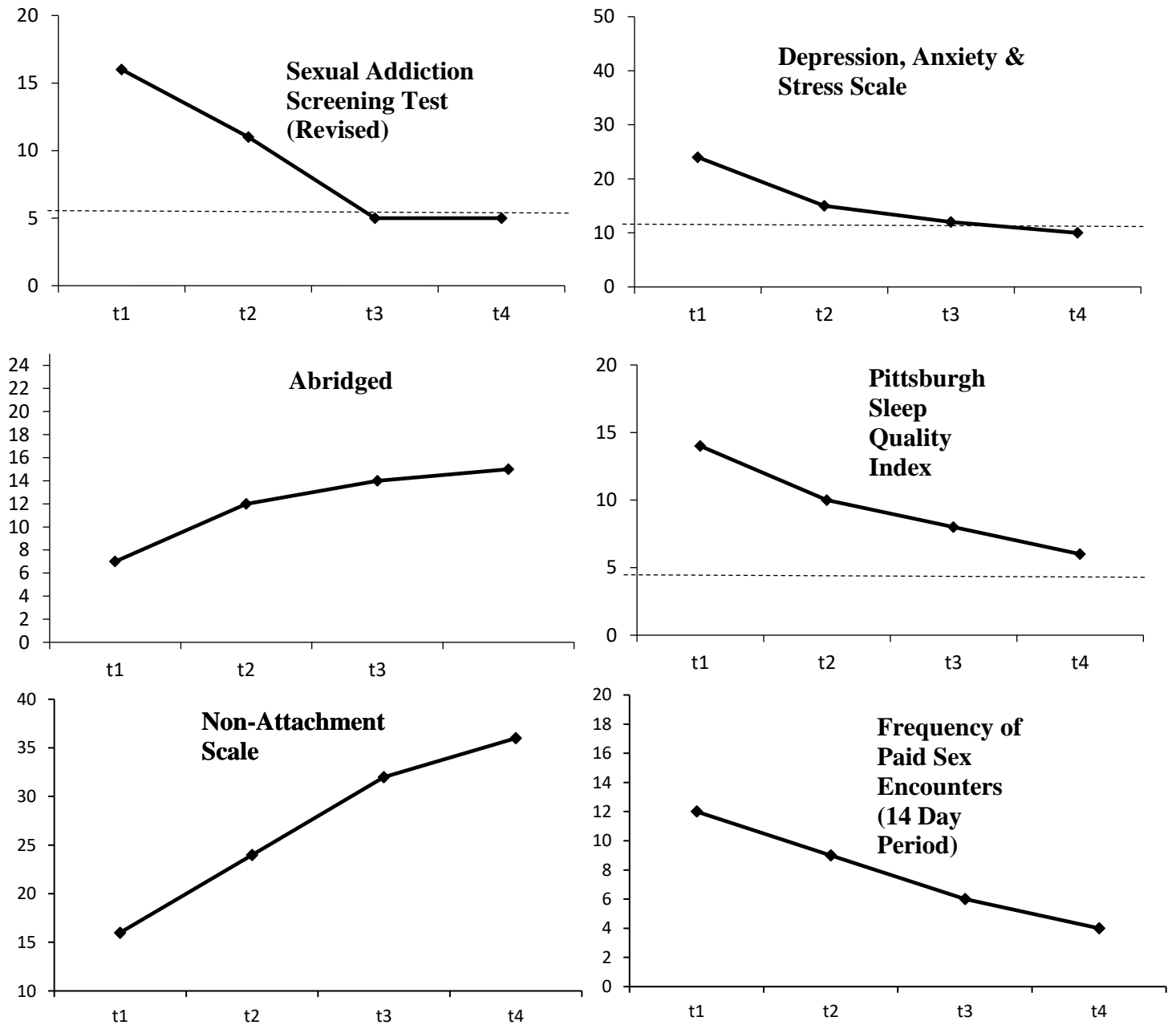
Discussion

This chapter reports findings from the first clinical study to investigate the utility of mindfulness for treating sex addiction. The intervention utilised in the present study (i.e., MAT) belongs to the second-generation of MBIs, and follows a comprehensive approach to mindfulness teaching and practice. The male adult participant (Adam) demonstrated clinically significant improvements in addictive sexual behaviour as well as depression and psychological distress. Improvements post-therapy were also observed in sleep quality, job satisfaction, and non-attachment to self and experiences. Salutary outcomes were maintained at six-month follow-up.

The current study highlights the need for tailoring treatment outcomes on a case-by-case basis. An ideal outcome would have been Adam expressing an interest in finding a long-term relationship partner, and abstaining from paid and unpaid casual sex encounters. However, the participant was clear that a long-term relationship was not on their personal agenda, and so therapeutic goals had to be adjusted accordingly. Although Adam continued to use sex escorts post-treatment, his use of them was at a much lower frequency, and scores on the SAST-R suggested that he was no longer addicted to sex. Furthermore, scores on all other measures of Adam's sexual behaviour indicated that he was now able to regulate his sexual urges.

A key proposed mechanistic pathway is that mindfulness increases perceptual distance from addiction-driven urges, and thus facilitates a process of 'urge surfing' (Appel & Kim-Appel, 2009). In other words, observing a behavioural urge helps to objectify it, and this allows it to dissipate of its own accord. However, in reality, the 'biological intensity' of sexual craving could mean that mindfulness alone is insufficient, and that other meditative treatment techniques are required. Indeed, according to the traditional Buddhist literature, it typically takes years for an individual to become proficient in mindfulness practice (Shonin et al., 2014g). This suggests that individuals with problematic behavioural urges (and other mental

health issues) are unlikely to accrue the necessary grounding in mindfulness (i.e., such that they can regulate engrained maladaptive cognitions) after attending just eight to ten mindfulness training sessions.

According to Shonin et al (2013a; 2014e), when using meditation to treat behavioural addiction, it is essential not only to help individuals learn how to meditatively objectify craving (i.e., by practising mindfulness), but also to empower them to use meditation techniques that directly undermine attachment to the object of addiction. SG-MBIs, that generally integrate a range of contemplative techniques, are therefore arguably well suited to treating behavioural addiction. In addition to targeting craving for sexual contact (i.e., by employing meditations on the composite and impermanent nature of the body), MAT also includes meditations intended to undermine belief in an intrinsic and independently existing self (Van Gordon et al., 2014a). The rationale behind this approach stems from *Ontological Addiction Theory* (OAT) in which 'ontological addiction' is deemed to be the underlying cause of maladaptive cognitive and behavioural processes (Shonin et al., 2013a).

As discussed in Chapter 6, ontological addiction is defined as "*the unwillingness to relinquish an erroneous and deep-routed belief in an inherently existing 'self' or 'I' as well as the 'impaired functionality' that arises from such a belief*" (Shonin et al., 2013a, p.64). Belief in selfhood is considered 'erroneous' because the 'self' manifests only in reliance on all other phenomena in the universe. If belief in the intrinsic existence of the self is undermined, then by default, so too is belief in the intrinsic existence of any object that the 'self' desires. According to OAT, sexual contact is certainly not a worthless experience, but as with all other activities, it should be undertaken without over-allocating cognitive and emotional resources such that sex (or a human body) is assigned an attractive quality that is unrealistic and that exceeds its intrinsic worth (Shonin et al., 2014g).

As observed in other clinical case studies of MAT involving individuals with

behavioural addictions (e.g., problem gambling [Shonin et al., 2014b]; workaholism [Shonin et al, 2014c]), further mechanisms by which MAT may have been therapeutically active are: (i) meditative calm leading to reductions in autonomic arousal, psychological arousal, and impulsivity, (ii) 'bliss substitution' whereby the sensory and psychological pleasure derived from meditation increases capacity to defer sexual gratification, (iii) increased levels of loving-kindness, compassion, and self-compassion that foster ethical awareness and undermine self-disparaging schemas, and (iv) spiritual nourishment that increases sense of purpose as well as work and life satisfaction.

To date, research exploring the applications of mindfulness in relation to sexual behaviour have explicitly focussed on improving sexual dysfunction and/or enjoyment (e.g., Brotto, Basson, & Luria, 2008; Brotto et al., 2012). The current study extends this literature by reporting on the use of mindfulness as a therapeutic intervention for treating sex addiction. As with all clinical case studies, the single-subject design, and the absence of a control condition, means that findings may not generalise to other individuals suffering from sex addiction. The study was also limited by the use of a 14-day period for assessing aspects of sexual behaviour, as this time period may not reflect long-term behaviour patterns. Nevertheless, Adam's promising treatment outcomes indicate that further clinical evaluation of the utility of MAT for treating sex addiction is warranted.

Chapter 11

Meditation Awareness Training for the treatment of workaholism:

A controlled trial

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

Van Gordon, W., Shonin, E., Dunn, T., Garcia-Campayo, J., Demarzo, M., & Griffiths, M. D. (2016). Meditation Awareness Training for the treatment of workaholism: A non-randomised controlled trial. *Journal of Behavioral Addiction, 6,* 212-220.

Abstract

Workaholism is a form of behavioural addiction that can lead to reduced life and job satisfaction, anxiety, depression, burnout, work-family conflict, and impaired productivity. Given the number of people affected, there is a need for more targeted workaholism treatments. Findings from previous case studies successfully utilising SG-MBIs for treating behavioural addiction suggest that SG-MBIs may be suitable treatments for workaholism. The present study conducted a controlled trial to investigate the effects of MAT on workaholism. Male and female adults suffering from workaholism ($n = 73$) were allocated to MAT or a waiting-list control group. Assessments were performed at pre-, post-, and three-month follow-up phases. MAT participants demonstrated significant and sustained improvements over control-group participants in workaholism symptomatology, job satisfaction, work engagement, work duration, and psychological distress. Furthermore, compared to the control group, MAT participants demonstrated a significant reduction in hours spent working but without a decline in job performance. It is concluded that (i) MAT may be a suitable intervention for treating workaholism, and (ii) further controlled intervention studies investigating the effects of SG-MBIs on workaholism are warranted.

.

Introduction

Workaholism has been defined as "*being overly concerned about work, driven by an uncontrollable work motivation, and to investing so much time and effort to work that it impairs other important life areas*" (Andreassen, Hetland, & Pallesen, 2014a, p. 8). Prevalence rates for workaholism in Western counties are typically in the order of 8-10% (Sussman et al., 2011). However, only one study (i.e., Andreassen et al., 2014b) has ever carried out a nationally representative survey of workaholism and it reported that 8.3% of Norwegian adults were addicted to work. Despite this relatively high figure, there is concern that prevalence rates could increase even further with the proliferation of technology-driven modern working styles (e.g., use of laptops, tablets, and smartphones) that blur the work-leisure boundary (Andreassen, Griffiths, Sinha, Hetland, & Pallesen, 2016; Quinones, Griffiths & Kakabadse, 2016). Unlike work engagement that is associated with increases in life satisfaction and job performance, workaholism is associated with reduced life and job satisfaction (e.g., Karanika-Murray, Pontes, Griffiths & Biron, 2015; Shimaz, Schaufeli, Kamiyama, Kawakami, 2015), stress and incivility (e.g., Lanzo, Aziz, & Wuensch, 2016), and anxiety and depression (e.g., Andreassen et al., 2016). Workaholism can also lead to burnout, work-family conflict, and impaired productivity (Griffiths & Karanika-Murray, 2012; Sussman, 2012).

Workaholism is a form of behavioural addiction, of which other examples include addictions to gambling, video gaming, shopping, exercise, and sex (Demetrovics & Griffiths, 2012). According to Griffiths' (2005) components model of addiction, an individual is deemed to suffer from a behavioural addiction when in respect of the object of their addiction, they satisfy six criteria. In relation to work this would be: (i) *salience* (i.e., work is the single most important activity in their life), (ii) *mood modification* (i.e., work is used to alleviate emotional stress and/or to engender euphoric or arousing states), (iii) *tolerance* (i.e., needing to work longer hours or at greater intensity to derive the same mood-modifying effects), (iv) *withdrawal*

(i.e., suffering emotional and/or physical distress when not being able to work), (v) *conflict* (i.e., interpersonal conflict with family members and other individuals, conflict with non-work activities such as socialising and exercising, and intra-psychic conflict), and (vi) *relapse* (i.e., reverting to earlier patterns of excessive working following periods of being in control).

Despite the significant health and economic burden imposed by workaholism, there are very few peer-reviewed studies examining the treatment of workaholism (Shonin et al., 2014c). Consequently, guidelines for treating workaholism are largely based on theoretical proposals and/or anecdotal clinical reports that are unsupported by empirical evidence. Consistent with the need for more targeted treatments, there has been growing interest in the use of MBIs for treating behavioural addiction, including workaholism (Shonin et al., 2014c; Van Gordon, Shonin, Skelton, & Griffiths, 2014c). More specifically, a handful of intervention studies have been conducted indicating that mindfulness has applications for treating addictions to gambling (see reviews by Griffiths, Shonin, & Van Gordon, 2016; Maynard, Wilson, Labuzienski, & Whiting, 2015; Shonin et al., 2013a; 2014e). In addition, two separate clinical case studies (each incorporating a quantitative data-assessment component) have demonstrated that mindfulness can lead to clinically significant positive change (maintained through to six-month follow-up) in sex addiction (Van Gordon et al., 2016a) and workaholism (Shonin et al., 2014c).

The latter case study involved a director of a blue-chip company working more than 65 hours a week and who presented with complaints of (i) work-related sensation-seeking (e.g., obsessing over winning high-value contracts), (ii) non-restorative sleep, (iii) frequent migraines, (iv) irritability and incivility when not working, (v) exhaustion, (vi) dysphoric mood episodes, (vii) work-family conflict, and (viii) impaired concentration (Shonin et al., 2014c). The participant received MAT (the same intervention was also administered in the aforementioned sex addiction case study and in one of the aforementioned studies on the treatment of gambling addiction).

As with many FG-MBIs, MAT introduces mindfulness techniques aimed at increasing perceptual distance from mental urges. However, MAT is deemed to be particularly suited to treating behavioural addictions because the additional meditation techniques that it incorporates are believed to invoke the following mechanisms of action: (i) reducing relapse and withdrawal symptoms via substituting maladaptive addictive behaviours with a 'positive addiction' to the blissful and tranquil states associated with specific forms of meditation, (ii) regulating dysphoric mood states and addiction-related shameful and self-disparaging schemas via the cultivation of compassion and self-compassion, (iii) reducing myopic focus on reward by undermining the intrinsic value that individuals assign to the object of addiction (a central view in Buddhism is that phenomena are in fact 'empty' of inherent existence; Van Gordon et al., 2016a), (iv) reducing salience by fostering a better understanding of the 'impermanent' nature of existence (e.g., a senior/lucrative occupational role must one day be relinquished, etc.), (v) growth in spiritual awareness that broadens perspective and prompts a re-evaluation of life priorities, and (vi) increased capacity to defer gratitude due to improved patience (Shonin, Van Gordon, & Griffiths, 2014e).

Building upon preliminary (but promising) findings observed during the use of MAT in the aforementioned workaholism clinical case study (and also during studies of MAT involving other forms of behavioural addiction), the purpose of the present study was to conduct a controlled trial to investigate whether the salutary effects of MAT are observed in a larger sample of individuals suffering from workaholism. The primary study outcome was reduction in workaholism and the secondary study outcomes were improved job satisfaction, improved job performance, decreased psychological distress, decreased work duration, and decreased work involvement.

Methods

Participants

Participants were male and female English-speaking adults working in full-time employment. Participation was on a voluntary basis and participants were recruited via: (i) posters and flyers strategically located across city and out-of-city work locations (e.g., business parks, factories, etc.) in the East Midlands (UK), (ii) the client database of a local meditation centre (limited to individuals who had expressed an interest in receiving meditation training but had not yet done so), and (iii) presentations by two of the research team to personnel of key local employers. Furthermore, some East-Midlands occupational physicians and occupational health nurse advisors were made aware of the study and were invited to informally raise awareness amongst relevant employees by suggesting that they could contact the research team for further information.

Eligibility criteria

The presence of workaholism was confirmed using the Bergen Work Addiction Scale (BWAS; Andreassen, Griffiths, Hetland, & Pallesen, 2012). To be considered eligible for the study, participants were required to score 4 or more on at least four of the scale's seven items (see below for a fuller description of the BWAS). Other eligibility criteria for participation in the study were (i) aged between 18 and 65 years, (ii) not currently absent from work (e.g., due to leave of absence, maternity leave, sickness, etc.), (iii) no periods of annual leave planned for the duration of the eight-week intervention, (iv) not currently undergoing formal psychotherapy, (v) not currently practicing meditation, and (vi) no changes in psychopharmacology type or dosage one-month prior to intervention (although stable prescription medication was permitted). Furthermore, participants had to be working a minimum of 32 paid hours per week. Rather than an indication of workaholism (that is not

necessarily a function of hours worked per week), the purpose of this latter inclusion criteria was to ensure that all participants were engaged in fulltime employment and thus maximise homogeneity in terms of participant work characteristics.

Procedure

Allocation procedure

Randomisation was not employed because some participants that met the eligibility criteria indicated that they would be unavailable to attend the requisite number of MAT sessions due to pre-planned work or family engagements scheduled to occur on the same day as delivery of the MAT intervention. These pre-planned engagements included training days, attending conferences/workshops, medical appointments, family engagements, and weekly team-meetings, etc. Therefore, allocation to MAT or a waiting-list control group occurred firstly by assigning all participants reporting availability issues to the waiting-list control group, and then subsequently visually inspecting demographic data in order to match MAT and control group participants as closely as possible on sex, age, education level, salary, and employment type (i.e., white collar or blue collar workers).

Programme description

Participants received MAT (for comprehensive information regarding the intervention protocol, see Methods section of Chapter 8 as well as Van Gordon et al. [2014a]). In the present study, MAT was delivered by the second author (30 years meditation teaching experience) and the first author provided supervision to identify any deviations from the standard intervention delivery format. Supervision was implemented by the first author (i) silently observing at least 15 minutes of each weekly session (not always following the same amount of elapsed time into the two-hour session, and (ii) engaging in discussion with the program facilitator on a weekly

basis. No unplanned deviations from the standard intervention protocol were identified. The intervention was delivered using group-sizes of approximately 18 participants.

Measures

Study outcomes were assessed via the following well-established psychometric scales:

Bergan Work Addiction Scale (BWAS; Andreassen et al., 2012; Orosz et al., 2016): The BWAS is embedded within general addiction theory and contains seven items reflecting core characteristics of addiction (i.e., salience, conflict, mood modification, withdrawal, tolerance, problems, and relapse). Questions are answered on a 5-point Likert scale ranging from 1 (never) to 5 (always). Examples of BWAS items are "*How often during the last year have you worked so much that it has negatively influenced your health?*" and "*How often during the last year have you experienced that others have told you to cut down on work without listening to them?*". High scores indicate greater levels of workaholism and scoring 4 or more on at least four of the scale's seven items indicates that the individual is suffering from workaholism (Andreassen et al., 2012).

Abridged Job in General Scale (AJIGS; Russel et al., 2004): The AJIGS is a measure of job satisfaction and includes the following eight 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, are unsure, or disagree. A score of 3 is assigned for agree, 1 for unsure, and 0 for disagree. Individual items are summed to give a global score and negatively-worded items are reverse-scored. Higher scores indicate greater levels of job satisfaction.

Role-Based Performance Scale (RBPS; Welbourne, Johnson, & Erez, 1998): The 20-item RBPS is a measure of general work performance. The RBPS assesses performance across five different aspects of an individual's 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 (e.g., 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 5-point 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 is completed by participants' direct line manager and thus provides a more objective measure of work performance. The RBPS was submitted directly to the research team by participants' line managers.

Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995): The 21-item DASS assesses psychological distress and comprises three subscales that focus on depression, anxiety, and stress. The scale is scored on a four-point Likert scale (0 = Did not apply to me at all, to 3 = Applied to me very much or most of the time) and includes items such as *"I found it hard to wind down"* and *"I felt that life was meaningless"*. Scores from the three subscales can be summed together to provide an overall indication of psychological distress. The DASS is completed in respect of the foregoing seven-day period. 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).

Work Duration and Work Involvement: Participants were asked to keep a diary and record (i) the total number of hours worked each week, and (ii) how many of these hours were accumulated whilst working during non-work hours (e.g., evenings and weekends).

Statistical 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-dependent variable mean scores.

Mixed effects models (also known as multi-level models, random effects model, and hierarchical models) were used to examine the effect of intervention (MAT) and control on all six outcome measures (i.e., BWAS, AJIGS, DASS, RBPS, Work Engagement, and Work Involvement). Mixed effects modelling accounts for shared variance within-participants while modelling between-participant differences (Baguley, 2012a). The benefits of mixed effects models include fewer assumptions (i.e., homoscedasticity, sphericity, and compound symmetry) and greater statistical power over traditional approaches (Baguley, 2012a; Gelman & Hill, 2007; Quene & van der Berg, 2004; Snijders & Bosker, 1999). Furthermore, mixed effects models account for baseline differences in outcome scores by modelling (per participant) the *change* in outcome score relative to baseline across all measurement phases (i.e., pre-, post-, and three-month follow up) (Van Gordon, et al., 2017). Prior to model estimation, distributions of all outcome variables and random effects residuals were inspected and deemed to be close approximations of normality. Using the absolute median deviation method to detect outliers (Leys et al., 2013), no data points were deemed to be extreme in the present data set. 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.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The Institutional Review Board of [University name redacted] approved the study. All participants

were informed about the study and all provided informed consent. For ethical and transparency reasons, participants were required to acknowledge (i.e., as part of the informed consent procedure) that they understood that MAT (i) is deemed by its founders to be both a psychological and spiritual intervention, (ii) is not intended to be a course on Buddhism (i.e., it is secular in context) but makes use of Buddhist meditative techniques and principles, and (iii) was founded by two Western psychologists who are also Buddhist monks. This step was implemented because there are reports that some FG-MBIs have inappropriately emphasised or concealed their affiliation with Buddhism to suit their needs (Van Gordon et al., 2017).

Results

Recruitment and Allocation

Participant demographic characteristics are summarised in Table 11.1. A total of 108 individuals completed the screening questionnaire and 35 of these were excluded on the grounds of ineligibility. The main reasons for exclusion were (i) did not meet the BWAS criteria for workaholism (15 individuals), (ii) not in full-time paid employment (six individuals), (iii) currently absent from work (five individuals), (iv) currently receiving structured psychotherapy (four individuals), (iv) recent change in psychopharmacology type or dosage (three individuals), and (v) already attending meditation or mindfulness classes (two individuals). Of the 73 remaining participants, 37 were allocated to the intervention group and the remainder to the waiting-list control group (see Figure 11.1).

Table 11.1. Baseline demographic characteristics for each allocation condition

Characteristic	MAT ($n = 37$)	Control ($n = 36$)
Age, mean (*SD*)	38.60 (7.80)	38.83 (8.98)
Male (%)	59.50	58.33
Employment Type (%)		
Blue Collar	32.43	36.11
White Collar	67.57	63.89
Salary Range (£1000s/year; %)		
<20	2.70	5.56
20-40	54.05	58.33
40-60	35.14	27.78
60-80	5.41	2.78
>80	2.70	5.56
Education (%)		
School Leaver	21.62	22.22
Vocational	29.73	33.33
University	48.65	44.44
Marital Status (%)		
Married	62.16	66.67
Single	13.51	11.11
Divorced	21.62	19.44
Widow	2.70	2.78
Ethnicity (%)		
White (British)	48.65	50.00
White (Non-British)	18.92	27.78
Asian	16.22	8.33
Black (Caribbean)	16.22	13.89

Figure 11.1. Flow of participants through recruitment and assessment phases
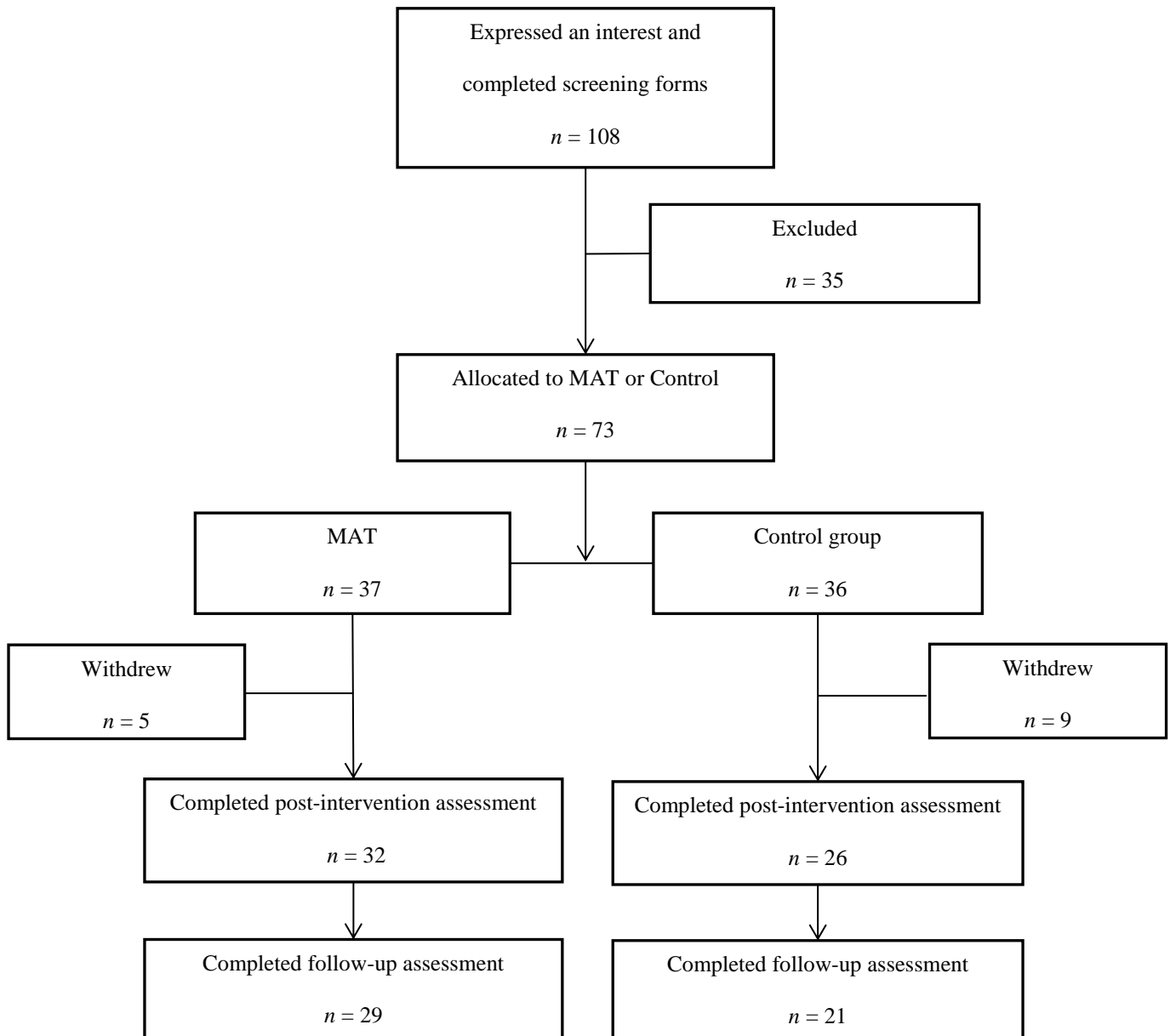
Non-Completion

A total of five MAT and nine control group participants dropped out of the study prior to the post-intervention assessment phase. Using a chi-square test of independence, differences in frequencies of drop-out and completion were not statistically significant ($\chi^2(1) = 1.71$, $p = 0.19$). The reasons provided for non-completion were: changed job (six individuals), sickness (five individuals), and became too busy due to work demands (three individuals). Of those participants that attended the post-intervention assessment phase, a further three MAT and five control group participants were lost to follow up. The response-rate by participants' line-mangers on the RBPS was approximately 80%. All MAT participants that completed post-intervention assessments attended at least seven of the eight weekly group sessions. MAT participants practiced meditation for an average of 40.08 minutes per day ($SD = 15.91$).

Demographic and Baseline Characteristics

Chi-square tests showed no significant difference between allocated conditions in terms of sex ($\chi^2(1) < 0.01$, $p = 1$), education ($\chi^2(3) = 0.69$, $p = 0.87$), employment type ($\chi^2(1) < 0.01$, $p = 0.93$), salary range ($\chi^2(4) = 1.40$, $p = 0.84$), family status ($\chi^2(4) = 2.1858$, $p = 0.70$), and ethnicity ($\chi^2(3) = 1.61$, $p = 0.65$). Results also showed no significant difference between mean age of the Control ($M = 38.83$, $SD = 8.97$) and Intervention ($M = 38.59$, $SD = 7.79$) groups (t (70) = 0.121, p = 0.90) or Contracted Hours of the Control ($M = 39.50$, $SD = 3.63$) and Intervention ($M = 39.94$, $SD = 4.88$) groups (t (70) = -0.44, $p = 0.66$).

Independent samples t-tests were carried out to assess differences at baseline between allocated conditions across all outcome measures. Results showed no significant difference in baseline scores between control and intervention for BWAS (t (70) = 0.22, $p = 0.82$), AJIGS (t (70) = -0.43, $p = 0.67$), DASS (t (70) = 0.51, $p = 0.61$), RBPS (t (56) = 0.79, $p = 0.43$), Work Engagement (t (70) = -0.41, $p = 0.69$), and Work Involvement (t (70) = -0.06, $p = 0.96$) (see

Table 11.2 for means and SDs).

Table 11.2. Means and standard deviations of outcome variable scores for control and intervention groups at all time periods

|	Group	BWAS		AJIGS		DASS		RBPS		Work Engagement		Work Involvement	
		Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Pre	Intervention	**29.30**	*3.04*	**9.46**	*2.94*	**28.03**	*3.78*	**73.56**	*6.11*	**53.49**	*5.25*	**13.54**	*5.18*
	Control	**29.44**	*2.61*	**9.17**	*2.83*	**28.44**	*3.23*	**74.86**	*6.51*	**52.97**	*5.54*	**13.47**	*5.16*
Post	Intervention	**21.65**	*5.39*	**13.70**	*3.16*	**19.19**	*4.95*	**70.53**	*23.34*	**49.68**	*4.99*	**9.73**	*5.65*
	Control	**29.27**	*3.15*	**9.17**	*2.71*	**28.22**	*3.08*	**65.67**	*22.56*	**53.03**	*5.62*	**13.53**	*4.92*
Follow-up	Intervention	**21.32**	*5.57*	**14.27**	*3.67*	**18.16**	*5.64*	**70.58**	*24.01*	**49.27**	*5.32*	**9.32**	*5.77*
	Control	**29.06**	*3.97*	**9.19**	*2.86*	**27.97**	*3.45*	**65.74**	*22.40*	**53**	*5.56*	**13.50**	*4.85*

Analysis of Outcome Measures

A separate mixed effects model was estimated for each outcome measure. Each model included Group (control, intervention) and measurement Interval (pre-, post-, follow-up) as fixed effects (i.e., in the form of an interaction predictor [Group*Interval]) and Participant (within measurement Interval) as a random effect. This allowed a unique regression model (i.e., intercept and slope) to be specified for every participant across measurement intervals (see Figure 11.2 for an exemplar modelling BWAS scores across measurement intervals). Results from the six estimated mixed effects models show an overall strong effect of intervention compared to control for all outcome measures, with the exception of RBPS (see Table 11.3 for summaries of each model). A visual comparison between control and intervention groups across all outcome measures and time intervals can be seen in Figure 11.3.

Table 11.3. Fixed effects estimates (at post and follow-up assessment phases) with 95% CIs for all six outcome measures

|	value	CIs	*t*-value	*p*-value
BWAS				
(Intercept)	29.44			
Post	-7.48	-9.11:-5.86	-9.09	<0.001
Follow-up	-7.58	-9.41:-5.76	-8.22	<0.001
AJIGS				
(Intercept)	9.17			
Post	4.24	3.18:5.31	7.87	<0.001
Follow-up	4.78	3.54:6.03	7.59	<0.001
DASS				
(Intercept)	28.44			
Post	-8.62	-10.46:-6.77	-9.24	<0.001
Follow-up	-9.39	-11.41:-7.37	-9.20	<0.001
RBPS				
(Intercept)	74.88			
Post	5.90	-	0.97	0.34
Follow-up	6.21	-	1.01	0.31
Work Engagement				
(Intercept)	52.97			
Post	-3.87	-5.21:-2.52	-5.69	<0.001
Follow-up	-4.24	-5.66:-2.82	-5.90	<0.001
Work Involvement				
(Intercept)	13.47			
Post	-3.87	-5.21:-2.52	-5.69	<0.001
Follow-up	-4.24	-5.66:-2.82	-5.90	<0.001

Note: The reference category in all cases is the control group. This means a post-BWAS score of -7.48 can be interpreted as a -7.48 change in BWAS score in comparison to the control condition relative to baseline (i.e., pre-BWAS score).

Figure 11.2. Mixed effect model for BWAS
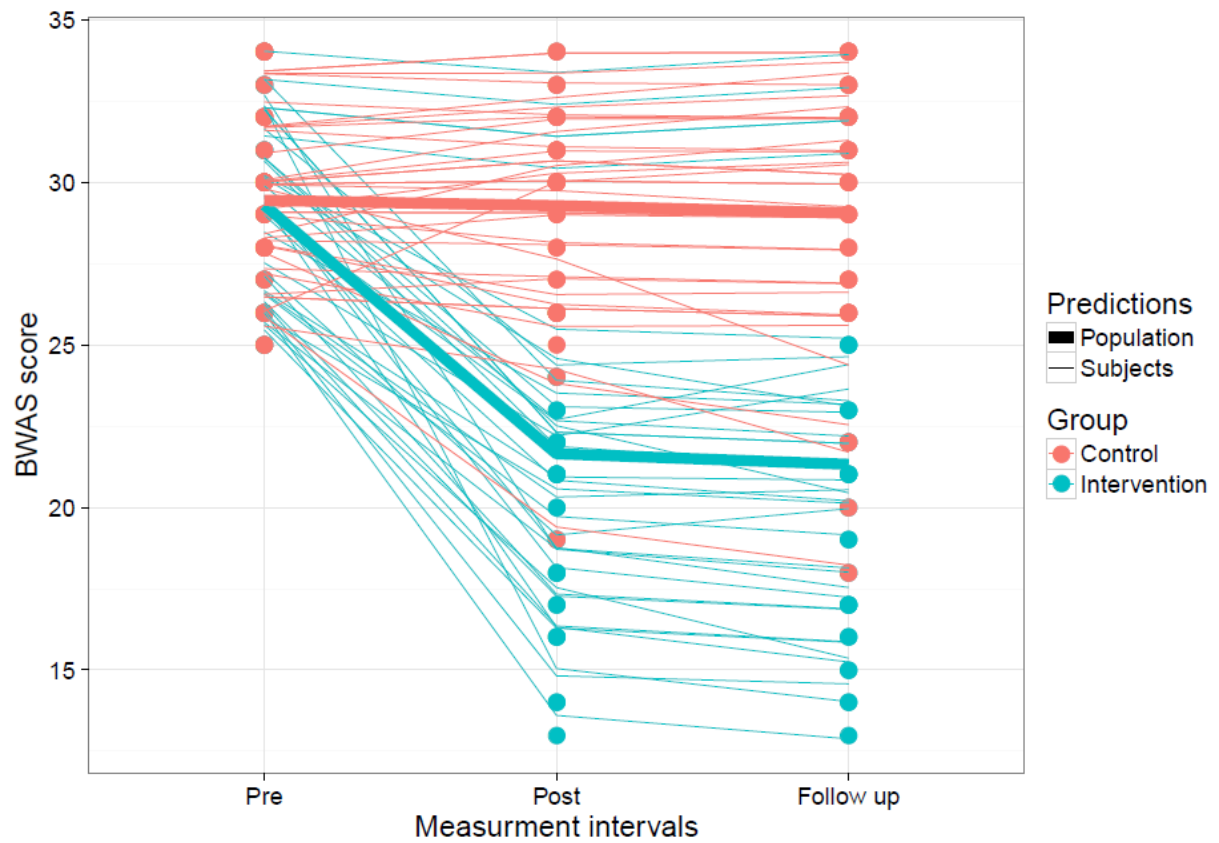
Note: The plot shows each participant's BWAS score trajectory across measurement intervals (pre, post, follow-up). Narrow lines illustrate trajectories at the subject-level whereas two fuller lines illustrate the predicted population estimates by group (control vs. intervention).

Figure 11.3. Outcome means (Intervention and Control) across measurement intervals with two-tier 95% CIs.
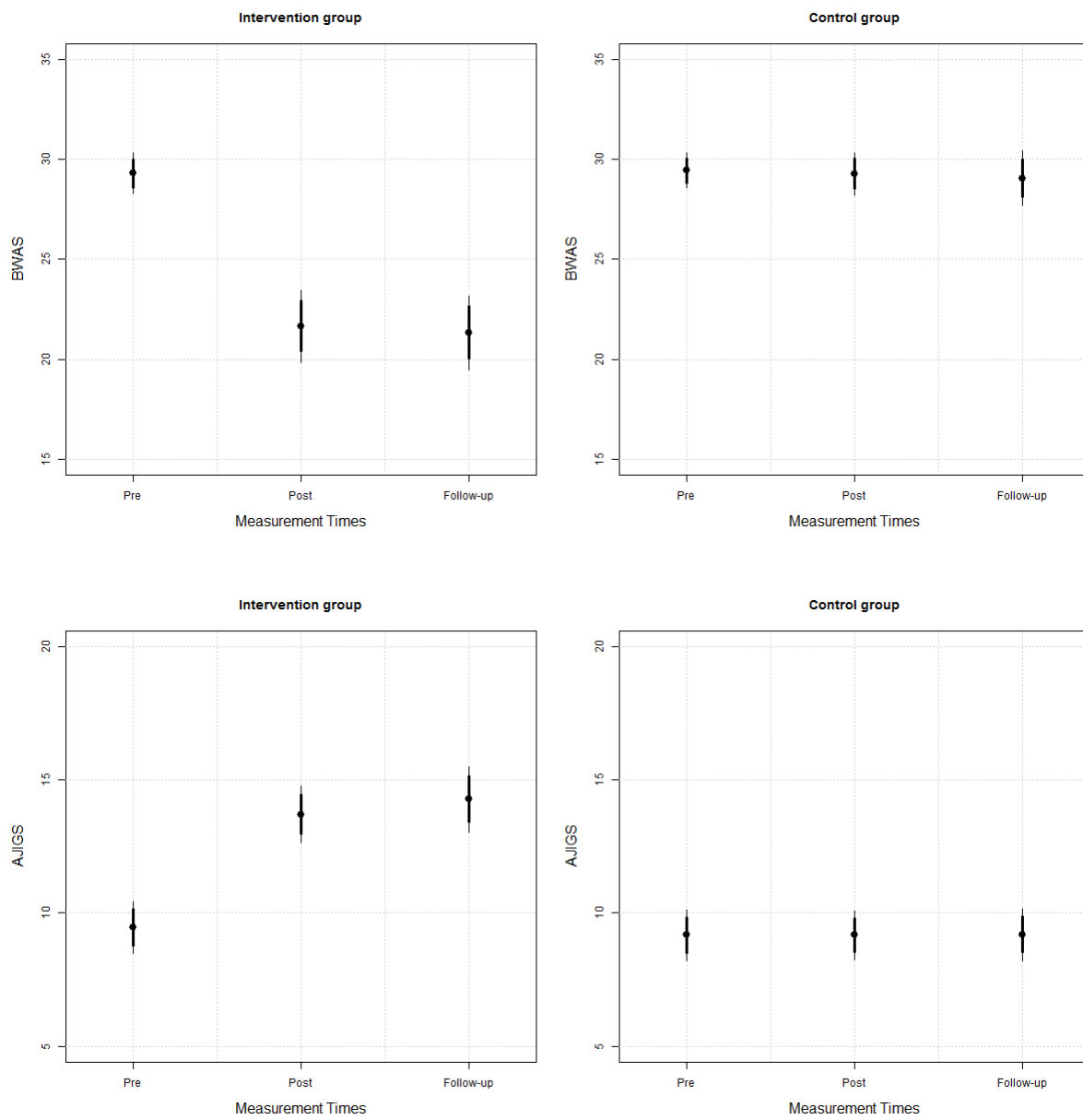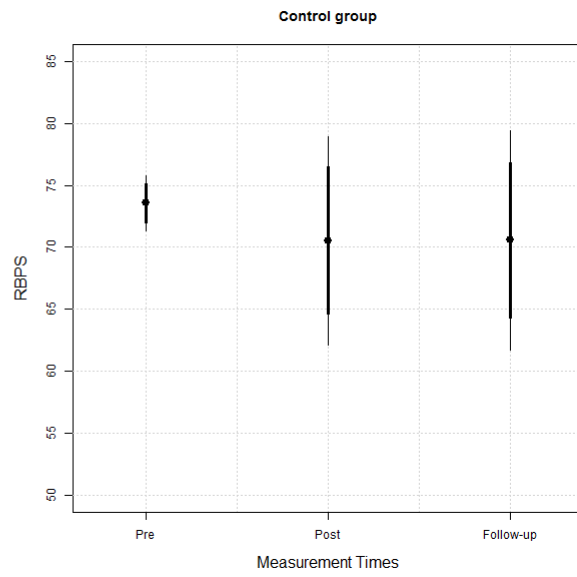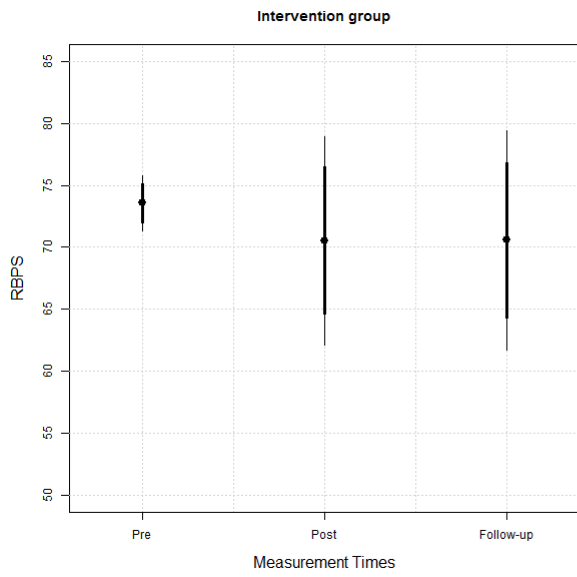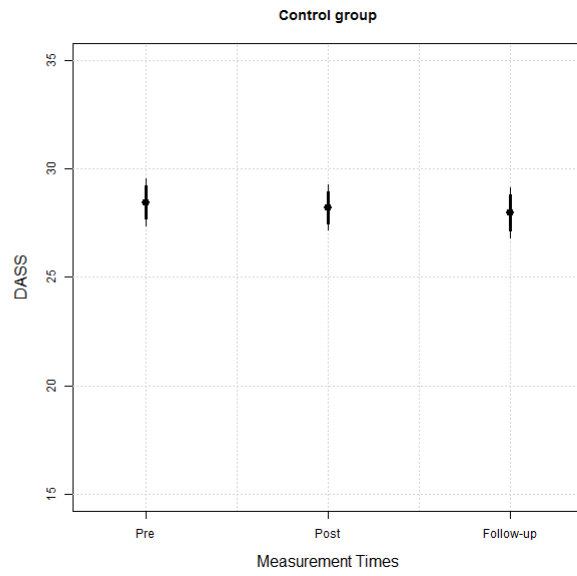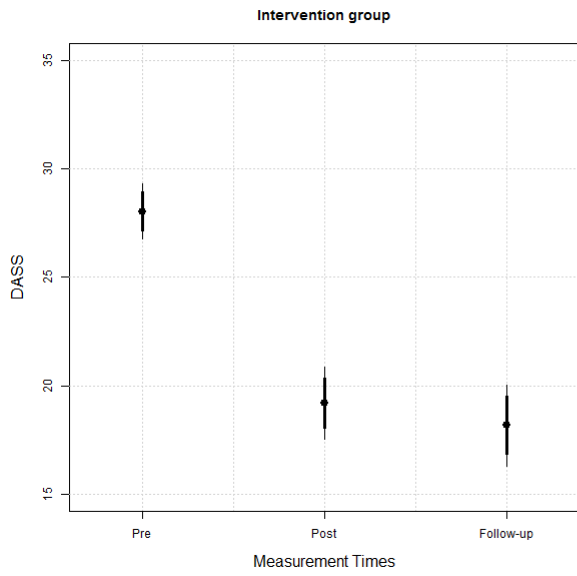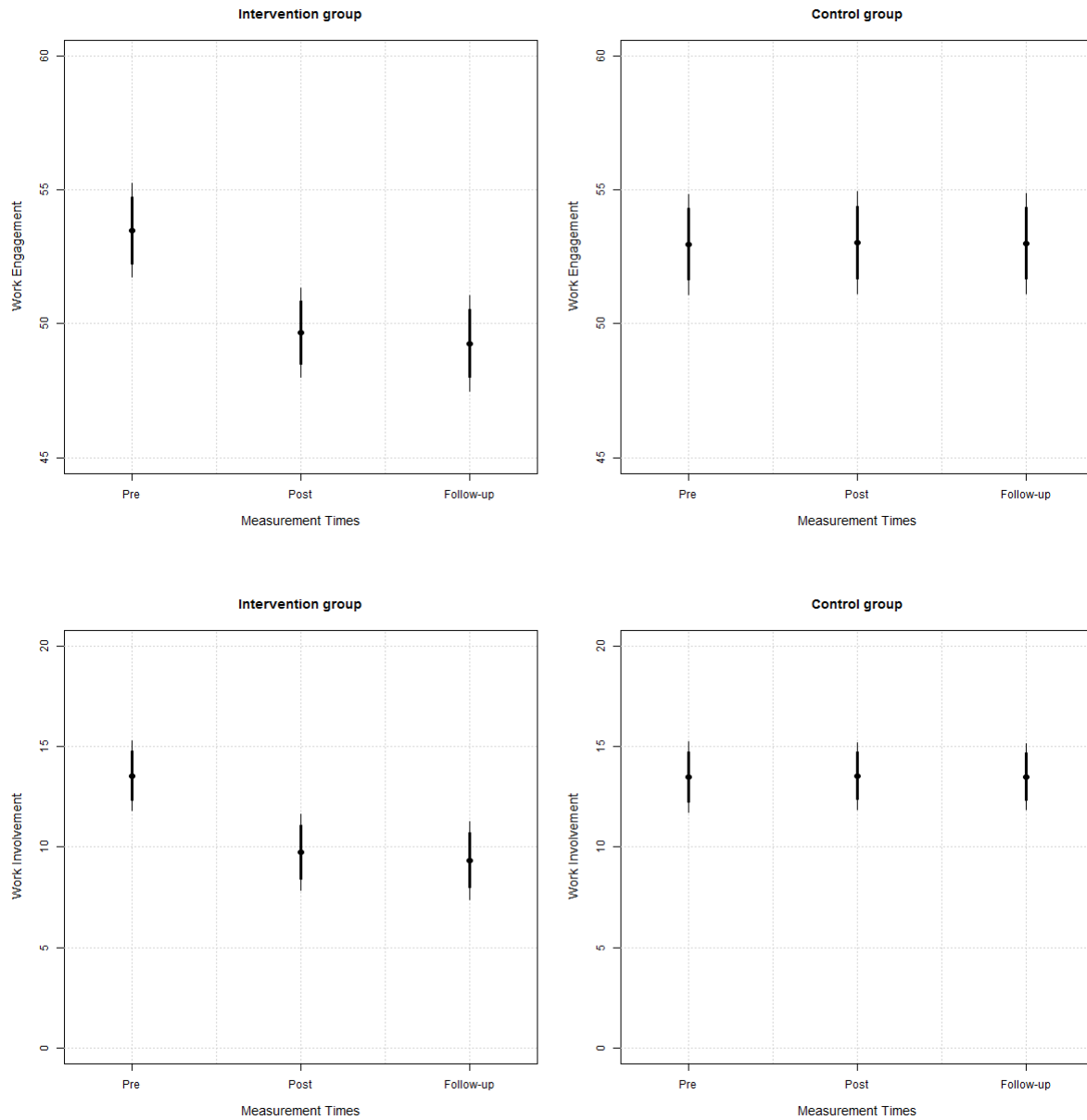
Note: The inner tier of a two-tiered CI represents CIs for the mean whilst the outer tier represents a difference-adjusted CI. Difference-adjusted CIs represent the individual means but calibrates the CI to indicate whether the sample means differ (using 95% confidence in the difference as a standard) (Baguley, 2012b).

Discussion

A non-randomised controlled trial compared MAT (an SG-MBI) with a waiting-list control group in full-time employed adults suffering from workaholism. MAT participants demonstrated significant improvements over control group participants in levels of workaholism, job satisfaction, psychological distress, work duration, and work engagement. Furthermore, compared to the control group, MAT participants demonstrated a significant reduction in hours spent working but without a decline in job performance. Therapeutic gains were maintained through to three-month follow up.

The present study is the first controlled study to investigate the utility of mindfulness for treating workaholism. Findings were consistent with a previous single-participant case study which showed that MAT led to clinically significant change in workaholism symptomatology (Shonin et al., 2014c). However, unlike the case study that involved a senior manager working in a large corporation, the present study involved participants of wide ranging education levels (i.e., school leaver, vocational qualification, university education, etc.), salary profiles (salary range: less than £20,000 a year to more than £80,000 a year), and occupational backgrounds (i.e., blue collar and white collar workers). Therefore, findings from the present study expand the range of worker profiles for which MAT is likely to be beneficial.

Compared to FG-MBIs, SG-MBIs such as MAT integrate a greater spirituality component that has been shown to increase life purpose and prompt a re-evaluation of life priorities (Van Gordon et al., 2016b). It has been proposed that the growth in spiritual awareness associated with meditation can reduce the salience that individuals assign to work or another given behaviour (Shonin et al., 2013a, 2014e). Participation in MAT is also associated with reduced attachment to self and environment (Van Gordon et al., 2017). According to Buddhist theory, being less attached to the self means that an individual also

becomes less attached to desirous objects in their environment (i.e., on the basis that it is the selfhood of an individual that assigns value to an object, substance, or behaviour rather than the object or behaviour possessing intrinsic value *per se*) (Van Gordon et al., 2016a). Thus, reduced self-attachment associated with participation in MAT may help to reduce myopic focus on reward, including urges for feelings of elation or escape elicited by problematic working.

The observed improvements in secondary study outcomes support the consensual scientific opinion that workaholism contraindicates job satisfaction and psychological wellbeing more generally (Shimazu et al., 2015). Mindfulness requires participants to be less future- or goal-orientated and to focus attentional resources on the task at hand (i.e., the present moment). For individuals suffering from workaholism, it is conceivable that goal-based working could reinforce an addiction feedback loop due to the mood-modification and reward effects experienced at the point of goal attainment. Therefore, being less goal-orientated as part of a mindful approach to working may reduce sensation seeking along with its associated negative consequences.

The fact that the present study did not find significant improvements for MAT versus control in job performance is not consistent with findings from (i) the aforementioned MAT workaholism case study (Shonin et al., 2014c), and (ii) a RCT that administered MAT to middle-managers of healthy clinical status (Shonin et al., 2014d). A plausible explanation for this finding is that missing data for the RBPS (i.e., due to drop-out and the fact that 20% of participants' line managers did not complete and return the scale) is likely to have increased the standard error. Indeed, the fact that there was no significant change in job performance between allocation conditions could reflect a more efficient use of time by MAT participants, particularly given that work involvement and work engagement decreased for MAT versus control (i.e., MAT led to a reduction in hours spent working without causing job performance

to decline). Nevertheless, it remains unclear at present as to whether the reduced focus on accomplishing goals embodied by mindfulness, can, paradoxically, facilitate goal attainment and improved job performance more generally.

Although there appears to be a role for MAT in the treatment of workaholism, several factors limit the generalisability of these findings. In particular, selection bias may have been introduced due to a lack of randomisation, and the use of a waiting-list rather than active control condition means that non-specific factors (e.g., group interaction, psycho-education, therapeutic alliance, intrinsic motivation, etc.) may have influenced outcomes (i.e., rather than meditation *per se*). Other factors that may limit the findings are the fact that (i) the follow-up assessment occurred after only three months had expired following intervention completion (i.e., a follow-up assessment at six or nine months would have provided a better indication of maintenance effects), (ii) self-employed workers were not represented in the present study, (iii) the sample size was reduced due to the number of control group participants dropping out of the study prior to the post-intervention assessment phase (pre-post drop-out rate of 27.8% for control versus 13.5% for MAT), and (iv) interested participants were required to contact the research team directly in order to be considered for recruitment (i.e., participants were 'self-referring' and it is thus difficult to gauge whether outcomes would be as favourable for individuals directly referred by their employer or by an occupational health professional).

A primary focus of interventions such as MAT is to encourage participants to integrate mindfulness into all aspects of work and family life. Therefore, MAT may be a practical and cost-effective workaholism intervention compared to treatments that require a reduction of work responsibilities or segregation from the work-environment (Shonin et al., 2014c). Furthermore, findings from the present study support outcomes of other studies indicating that MAT may be a cost-effective and feasible intervention for improving work-related wellbeing

and work effectiveness more generally (including in individuals of healthy clinical status demonstrating adaptive levels of work enthusiasm and/or work engagement). Further research addressing the aforementioned study limitations is required to augment the evidence-base in terms of MAT's effectiveness as a workaholism treatment. However, the present controlled trial adds further empirical support for the applications of SG-MBIs for treating workaholism and other forms of behavioural addiction.

SECTION C

CONTRIBUTION TO PRACTICE:

UNDERSTANDING AND TREATING SUFFERING

Chapter 12

Mindfulness and the Four Noble Truths

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

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.

The final published version of this article is available at Springer:

http://link.springer.com/chapter/10.1007%2F978-3-319-18591-0_2#page-1

Abstract

The *Four Noble Truths* are recorded as being the first teaching given by the Buddha after he attained enlightenment and they represent the foundations for the entire collection of teachings that the Buddha subsequently expounded. Indeed, every aspect of Buddhist practice is somehow encompassed by this simple yet profound teaching, and no study or practice of any component of the Buddha's teachings—including mindfulness—is complete without a thorough understanding of how it relates to the Four Noble Truths. This chapter employs Logical Deductive Analysis in order to examine the validity and logical soundness of the *Four Noble Truths* and then discusses their individual and collective implications for comprehending, practising, and working with mindfulness.

The teaching of the Four Noble Truths is recorded as being the first teaching given by the Buddha after he attained enlightenment. It is arguably the most important of all Buddhist teachings and provides the foundation for the entire collection of discourses that the Buddha subsequently provided. Without exception, every aspect of Buddhist practice is somehow encompassed by this simple yet profound teaching, and no study or practice of any component of the Buddha's teachings—including mindfulness—is complete without a thorough comprehension of how it relates to the Four Noble Truths. This chapter examines the significance and meaning of the Four Noble Truths and then discuss their individual and collective implications for understanding, practising, and working with mindfulness.

The Four Noble Truths

In the *Discourse that Sets the Wheel of Dharma in Motion* (*Dhammacakkappavattana Sutta,* SN 56:11) that forms part of the *Connected Discourses on the Truths* (*Saccasamyutta*, SN 56), the Buddha is recorded as expounding the Four Noble Truths as follows (Bodhi, 2000, p. 1844):

1. "Now this, bhikkhus, is the noble truth of suffering: birth is suffering, aging is suffering, illness is suffering, death is suffering; union with what is displeasing is suffering; separation from what is pleasing is suffering; not to get what one wants is suffering; in brief, the five aggregates subject to clinging are suffering.

2. Now this, bhikkhus, is the noble truth of the origin of suffering: it is this craving which leads to renewed existence, accompanied by delight and lust, seeking delight here and there; that is, craving for sensual pleasures, craving for existence, craving for extermination.

3. Now this, bhikkhus, is the noble truth of the cessation of suffering: it is the remainderless fading away and cessation of that same craving, the giving up and relinquishing of it, freedom from it, nonreliance on it.

4. Now this, bhikkhus, is the noble truth of the way leading to the cessation of suffering: it is this noble eightfold path; that is, right view ... right concentration."

During subsequent teachings, the Buddha provided additional accounts and explanations of the Four Noble Truths (e.g., *Saccavibhanga Sutta* [The Exposition of the Truths Sutta], Majimma Nikāya, 141 [MN 141]). However, consistent with the generally accepted abbreviated form of the Four Noble Truths, for the purposes of this chapter the Four Noble Truths will be summarised and referred to as follows:

1. Suffering exists

2. There is a cause of suffering

3. There is cessation of suffering

4. There is a path that leads to the cessation of suffering

The *Dhammacakkappavattana Sutta* records that on the occasion when the Buddha first taught the Four Noble Truths (an event referred to as the "first turning of the wheel of Dharma") at the Deer Park in Sarnath near Varanasi, the primary recipients of the teaching were the five aesthetics (the Buddha's first disciples). However, a frequently overlooked observation concerning the *Dhammacakkappavattana Sutta* is that the sutta also records that the earth dwelling devas were recipients of this teaching. The inclusion within the audience of two very different types of being—those in human form and those of the deva-realm—has important implications for understanding the significance of Four Noble Truths, and of the Buddha's

teaching more generally. Most importantly, it implies that there are both outer and inner (or hidden) aspects to the Buddhist teachings that can be interpreted and transmitted on both exoteric and esoteric levels (Gampopa, 1998).

Understanding that the Buddhist teachings are multi-layered in their meaning and profundity is an essential take-home message for anybody wishing to comprehend, practice or work with any aspect of the Buddhadharma. In fact, as illustrated and discussed in the section below that utilises *deductive logical analysis* (DLA) in order to investigate the theoretical and spiritual validity of the Four Noble Truths, each individual teaching given by the Buddha embodies the meaning and potency of the entire spectrum of the Buddha's wisdom and knowledge (Gampopa, 1998). It is probably for this reason that there exist reports of some of the Buddha's followers directly ascending to liberation simply upon hearing the Buddha utter the Four Noble Truths. Some examples are: (i) the Venerable Añña Kondañña (one of the five aesthetics) who awoke to the "*dust-free, stainless vision of the dhamma*" (Bodhi, 2000, p. 1846) (the prefix Añña before the name Kondañña denotes "one who has understood" or "one who has realised"), and (ii) the householder Upāli who "*saw the Dhamma, understood the Dhamma, fathomed the Dhamma, attained the Dhamma; he crossed beyond doubt, did away with perplexity, gained intrepidity, and became independent of others in the teacher's dispensation*" (Nanamoli & Bodhi, 2009, p. 485).

In addition to appreciating the spiritual significance and potency of the Four Noble Truths, a further essential take-home message concerning this teaching is that the statements that comprise the Four Noble Truths were never intended to be ambiguous. Indeed, not only were the noble truths intended to represent the Buddha's experiential understanding and expression of the truth, but they were also intended to represent statements of fact. For example, the Buddha's statement that suffering exists does not just mean that there is the potential for

suffering to exist, it means that with the exception of those beings that have realised the third noble truth (i.e., the cessation of suffering), all beings suffer (Van Gordon et al., 2016e). Likewise, the noble truth of suffering does not mean that sentient beings suffer at certain times but not at other times, it means that sentient beings that have not ascended to liberation are continuously immersed in suffering.

Suffering Exists

In Western culture suffering is generally construed as the experience of either somatic or psychological pain. Therefore, in the absence of such pain and whilst experiencing favourable socio-environmental conditions, individuals are generally not categorised as suffering or ill according to Western medical conventions (e.g., as defined by the World Health Organisation). However, within Buddhism, the term suffering takes on a much more encompassing meaning. Irrespective of whether a sentient being is currently experiencing psychological or somatic pain, and irrespective of whether a sentient being considers itself to be suffering, Buddhism asserts that the very fact an unenlightened being exists means it suffers (Shonin et al., 2016).

This type of enduring latent suffering referred to above is known in Buddhism as *all-pervasive suffering* (Gampopa, 1998). In essence, it is the suffering that arises due to an individual's ignorance as to the ultimate nature of self and reality. Given that unenlightened beings have a distorted perception of reality, Buddhism asserts that they are deluded (Tsong-Kha-pa, 2004). Accordingly, within Buddhism and to a large extent, the terms suffering, deluded and ignorant can all be used interchangeably.

One means of conceptualizing the Buddhist interpretation of suffering as a form of delusion (or ignorance) is by drawing parallels between the two conditions of mindlessness and hallucination. Mindlessness refers to a lack of present moment awareness whereby the mind is

preoccupied with future (i.e., fantasised) conjectures or past (i.e., bygone) occurrences (Shonin et al., 2014g). Therefore, an individual afflicted by mindlessness might be said to be engaging in the *non-perceiving of that which is*. Hallucination, on the other hand, can be described as being *the perceiving of that which is not*. Thus, given that both states involve an erroneous perception of the here and now, the present author has previously argued that mindlessness is actually a form of inverted hallucination (Shonin et al., 2014g).

According to Buddhist thought, the overwhelming majority of people are deemed to be delusional (i.e., suffering) and in a permanent inverted-hallucinatory state (Shonin et al., 2014g). However, as the 12th century Tibetan Buddhist Gampopa (1998, p. 96) aptly pointed out, although all unenlightened beings (human or otherwise) experience all-pervasive suffering, they are generally ignorant of this fact:

> Ordinary people will not feel the all-pervasive suffering as, for example, when one is stricken with a serious plague and a small pain in the ears and so forth is not noticeable. But the saintly beings—the noble ones beyond samsara such as the stream enterers and so forth—will see the all-pervasive suffering as suffering.

In addition to all-pervasive suffering that might be described as a more subtle form of suffering, Buddhism recognises two other primary forms of suffering that are much more tangible. The first is known as the *suffering of change* and refers to the fact that whatever temporary happiness there might be, it simply cannot endure. As stated by the Buddha in his explication of the first noble truth, birth leads to the suffering of sickness and old age, and sickness and old age lead to the suffering of death. Being in love leads to the suffering of separation and having possessions (e.g., wealth, health, reputation, family, friends) leads to

suffering when one is ultimately parted from such favourable circumstances. In short, suffering is ubiquitous to the human condition and the principle of impermanence means that just as with all phenomena and experiences, favourable circumstances are transient and are subject to dissolution (Dalai Lama, 1995).

The third primary form of suffering recognised in the Buddhist teachings is that of the *suffering of suffering*. This is the most palpable form of suffering and is typified by experiences such as somatic pain, psychological distress, illness, hunger or starvation, thirst or dehydration, being too hot, and being too cold. Buddhism asserts that the human being comprises five aggregates (i.e., form, feelings, perceptions, mental formations, and consciousness; Sanskrit: *skandhas;* Pali: *khandhas*) and that each individual aggregate is likewise composite (Dalai Lama & Berzin, 1997). For example, the first aggregate of form (or the body) in-turn comprises the five elements of water, wind (i.e., air), earth (i.e., food), sun (i.e., heat/energy), and space (i.e., in the bodily cavities and between molecules and so on) (Shonin et al., 2014g). Due to the fact the human body exists in reliance upon a delicate balance of innumerable causes, components and conditions, Buddhism teaches that even a slight imbalance in these elements and components results in both the suffering of suffering (e.g., pain and discomfort) and ultimately, the suffering of change (e.g., illness and death) (Gampopa, 1998).

The Cause of Suffering

As a means of operationalizing within Western psychological and scientific domains Buddhism's position concerning the aetiology of suffering, the concept of *ontological addiction* was recently formulated (See Chapter 6 for a detailed explanation of ontological addiction). Due to a firmly-embedded, yet scientifically and logically implausible belief that the self is an inherent and independently existing entity, Buddhism teaches that afflictive

mental states arise as a result of the imputed "self" incessantly craving after objects it considers to be attractive or harboring aversion towards objects it considers to be unattractive (Shonin et al., 2014g). Put simply, Buddhism asserts that because sentient beings believe they inherently exist, they constantly crave after objects and/or situations that they deem will better their predicament (Dalai Lama & Berzin, 1997). Not only is this craving itself a form of suffering, but as explained by the Buddha, it causes an unending torrent of sorrows to ensue:

> Whoever is overcome by this wretched and sticky craving, his sorrows grow like grass after the rains (*Dhammapada*, 24, 335; Buddharakkhita, 1986, p. 113).

In Buddhist terminology, the word craving has very similar connotations to the meaning of the word attachment, which is deemed to be an undesirable quality that leads to the reification of the ego-self. Attachment has previously been 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*" (Shonin et al., 2014g, p. 126). Thus, attachment takes on a different meaning in Buddhism vis-a-vis its construction in Western psychology where attachment (i.e., in the context of relationships) is generally considered to exert a protective influence over psychopathology (Shonin et al., 2014g). Based on a Buddhist construction of attachment, lower levels of attachment have been shown to predict greater levels of mindfulness, acceptance, non-reactivity, self-compassion, subjective wellbeing, and eudemonic wellbeing (Sahdra et al., 2010). Furthermore, the Buddhist attachment construct is positively correlated with avoidance (i.e., of intimacy), dissociation, fatalistic outlook, and alexithymia (i.e., an impaired capacity to identify or describe feelings) (Sahdra et al., 2010).

It is important to understand that although there are many similarities between the Buddhist notion of craving/attachment and the connotation of these terms in (for example) substance misuse and behavioural addiction contexts, additional levels of meaning are implied by the Buddhist construction. Indeed, the type of craving referred to in the Buddhist model of suffering is incredibly deep-rooted and stems from a wrong view that has been developed and cemented over innumerable lifetimes of samsaric wandering (Gampopa, 1998). Therefore, as stated by the Buddha, sentient beings have a propensity for craving and any path that does not facilitate the severing of craving at its roots will only result in a short term reduction in suffering:

> Just as a tree, though cut down, sprouts up again if its roots remain uncut and firm, even
>
> so, until the craving that lies dormant is rooted out, suffering springs up again and again
>
> (*Dhammapada*, 24, 338; Buddharakkhita, 1986, p. 133).

The Cessation of Suffering

There is debate amongst Buddhist schools as to exactly what constitutes liberation (i.e., the cessation of suffering) and whether it represents the conclusion of the spiritual journey. For example, some Buddhist systems contend that liberation and enlightenment are two distinct conditions whereby liberation signifies the removal of obscurations caused by emotional defilements (Sanskrit: *klesavarana*), but not of all obscurations to knowledge (Sanskrit: *jneyavarana*). However, despite the slight variations in how different Buddhist approaches interpret the meaning of the term liberation, all Buddhist schools agree that spiritual liberation implies breaking free of samsaric wandering.

Within Buddhism, beings are said to be samsaric if they are bound to the cycle of birth, death, and rebirth. Buddhism contends that the particular category (i.e., hell being, preta, animal,

human, demi-god, god) and quality (i.e., attractive/ugly, rich/poor, healthy/unhealthy) of an individual's rebirth is directly influenced by their karmic baggage (Tsong-Kha-pa, 2004). In this context, karmic baggage refers to the imprint that each individual's thoughts, words and deeds leaves upon their mind and that in-turn determines how they react to and perceive the conditions and occurrences around them.

Although the present author would argue that a being—including those that have attained Buddhahood—never actually concludes its spiritual journey, the Buddha's statement that there is cessation of suffering implies that liberation from suffering is not a half-way stage on the path to enlightenment. The reason for this is because it is logically implausible to assert that there exists a state in which suffering has completely ceased, but that in this state a being is still subject to a subtle class of ignorance (i.e., suffering) due to still not having awoken to complete omniscience and enlightenment. Therefore, the present author would argue that to experience the cessation of suffering means to have fully actualised: (i) omniscience, (ii) deathlessness, (iii) emptiness, (iv) unconditional blissful abiding, (iv) freedom to take rebirth in any realm according to the needs of beings, (v) great compassion (Sanskrit: *maha karuna*), and (vi) command over animate and inanimate phenomena.

Implicit as part of advancing on the path towards liberation is the accumulation of spiritual wisdom. There are numerous delineations of the term wisdom in Buddhism but the present author would define it as *"the extent to which an individual accurately apprehends both themselves and reality"*. In other words, the Buddhist notion of wisdom refers to the gradual (or in some cases instantaneous) development of insight that permits an individual to undergo recovery from ontological addiction by reconstructing their erroneous view of self and reality (Shonin et al., 2013a). Therefore, the Buddhist interpretation of wisdom contrasts with the Western psychological depiction where wisdom is generally measured against indices of

knowledge, adaptive psychological functioning, and socio-environmental mastery (Baltes & Staudinger, 2000).

Consistent with Buddhist thought, the degree of respect awarded to a particular Buddhist practitioner or teacher is (or should be) based on the amount of spiritual wisdom they have accumulated (Shonin & Van Gordon, 2015b). Indeed, for all intents and purposes, Buddhism assigns a similar meaning to the word wisdom (Sanskrit: *prajna*) as it does to the word enlightenment (i.e., the wiser a person is, the closer they are to enlightenment and vice versa). Shonin and Van Gordon (2014d, p.1) described the Buddhist construction of wisdom as follows:

> A wise person knows every inch of their mind. They know why it exits, where it exists, and how it exists. Not only do they know their mind, but they also know that part of them that knows that it knows the mind. They appreciate fully that they are both the observed mind as well as the mind that observes. Because they know their own minds, they also know every inch of everybody else's minds and they are fully aware that all minds are interconnected. They are aware that their mind is without limitations and they know that all other sentient beings also have the potential to have a mind without limitations. In short, their outlook is vast and unconditionally compassionate— everything is encompassed in it.

> Although the wise person has realised the full potential of their mind, they are in no way conceited or boastful about this. In fact, the wiser a person is, the more humble they are. Wise people don't have goals or agendas *per se*, and they place no importance on being recognised for their efforts or successes. Their main objective is to simply be,

and from this state of simply being, profound tranquillity and lucidity arises that allows them to act in a way that is inconceivably skilful yet completely uncontrived.

A noteworthy observation concerning the Buddhist construction of wisdom is that intelligence is not a prerequisite for being wise. Obviously, there are numerous categories (e.g., emotional, social, logical, linguistic and so on) and interpretations of intelligence, but here the term is used according to its popular definition of the ability to acquire and apply knowledge and skills. Thus, based on a Buddhist view, it is probable that a wise person will be intelligent in the conventional sense, but it is also conceivably possible that they will not be. Buddhism regards intelligence as a tool that wise people can cultivate and make use of as required, but it also asserts that wise people appreciate the need to handle intelligence carefully. This is because in the absence of wisdom, intelligence can become an obstacle to enlightenment and therefore an obstacle to the development of a dynamic and fluid wisdom (Shonin & Van Gordon, 2014d).

The Path

The fourth noble truth that there is a path that leads to the cessation of suffering principally refers to the Noble Eightfold Path that comprises the elements of (i) right view, (ii) right intention, (iii) right speech, (iv) right action, (v) right livelihood, (vi) right effort, (vii) right mindfulness, and (viii) right concentration. It is beyond the scope of this chapter to provide a detailed discussion of the eightfold path and its relationship to mindfulness, so the following briefly outlines three considerations concerning the eightfold path that are deemed to be pertinent in the context of the current discussion:

1. *The Noble Eightfold Path is One Path*: As inferred by the Buddha's teachings on the noble eightfold path in the *Mahācattārisaka Sutta* (*The Great Forty Sutta*; MN 117), although the eightfold path comprises eight individual elements, these elements should be considered as the individual strands that comprise a single rope. A rope is at its strongest when all of the strands are wound together and it is only when practised and embodied as a single path that the noble eightfold path provides all of the factors necessary to attain liberation. In fact, the same principle applies to the entire collection of Buddhist teachings. Irrespective of the complexity, aspect (i.e., esoteric or exoteric) and intended audience of a particular strand of teachings, all authentic Dharma teachings take their place as part of a cohesive whole and they originate from a single source. In effect, there is only one path to liberation, but it manifests in various guises in order to appeal to the differing needs, dispositions and capacities of suffering beings.

2. *Treading the Path Requires Right Effort*: In order to realise their associated outcomes, Dharma teachings require continuous effort on behalf of the practitioner. This may seem like an obvious statement, but what is perhaps less obvious is the type of effort that is required. An individual can only be said to be making the "right effort" when they adhere to each of the following sets of advice provided by the Buddha:

   a. Understand and accept that nobody but themselves can eliminate their suffering:

      > You yourselves must strive; the Buddhas only point the way. Those meditative ones who tread the path are released from the bonds of Māra (*Dhammapada*, 20, 276; Buddharakkhita, 1986. p. 109).

   b. Make nothing less than complete liberation the object of their practice:

> He whose cankers are destroyed … whose object is the void, the unconditioned freedom – his path cannot be traced, like that of birds in the air (*Dhammapada*, 7, 93; Buddharakkhita, 1986, p. 37).

c. Adopt the middle way between extremes (e.g., of trying too hard and not trying hard enough, of being attached to possessions/material comforts and of being averse to having possessions/material comforts, etc.):

> He who holds aloof from house holders and ascetics alike … … him do I call a holy man (*Dhammapada*, 26, 404; Buddharakkhita, 1986, p. 159).

d. At all times hold the teacher and teachings as dear to their heart:

> Of all the paths the eightfold path is the best; of all the truths the four noble truths are the best; of all things passionlessness is the best; of men the Seeing One (the Buddha) is the best (*Dhammapada*, 20, 273; Buddharakkhita, 1986, p. 109).

e. View their life as a practice ground and persevere at all times:

> Ever grows the glory of him who is energetic, mindful and pure in conduct, discerning and self-controlled, righteous and heedful. By effort

and heedfulness, discipline and self-mastery, let the wise one make for himself an island which no flood can overwhelm (*Dhammapada*, 2, 24-25; Buddharakkhita, 1986, p.11).

    f.   Offer loving-kindness and compassion unconditionally to all suffering beings:

> Come bhikkhus, abide pervading one quarter [of directional space] with a mind imbued with loving-kindness, likewise the second, likewise the third, likewise the fourth; so above, below, around and everywhere, and to all as to yourselves, abide pervading the all-encompassing world with a mind imbued with loving-kindness, abundant, exalted, immeasurable, without hostility and ill will. Abide pervading one quarter with a mind imbued with compassion, likewise the second, likewise the third, likewise the fourth; so above, below, around and everywhere and to all as to yourselves, abide pervading the all-encompassing world with a mind imbued with compassion, abundant, exalted, immeasurable, without hostility and ill will (Nanamoli & Bodhi, 2009, p. 434; MN 50).

3. *Any Attachment to a Path must be Relinquished*: In essence, walking the path is the practice of simply being and allowing the mind to relax into its natural state. Striving to do something other than this is an example of attachment and serves only to obscure pure perception:

Whoever meditates on me will not encounter me precisely on account of that meditation. As I am the manifestation of the fundamental nature, [in my state] suffering does not arise, and consequently, there is no need to try to eliminate it [by walking a path] (Norbu & Clemente, 1999 p. 187).

Deductive Logical Analysis of the Four Noble Truths

Robust empirical investigation permits the credible testing of hypotheses that involve observable variables. However, the utility of empiricism comes into question when attempting to investigate subtle spiritual phenomena or metaphysical propositions (Puhakka, 2015). For example, to date, no scientifically credible empirical study has been conducted that allows reliable conclusions to be drawn regarding the claim made in the third noble truth that sentient beings can transcend to a state of spiritual liberation in which suffering has completely ceased. However, as far as Buddhism is concerned, the absence of scientific evidence in support of a given theory or assertion does not necessarily present a cause for concern. This is not to say that Buddhism does not recognize or value empirical findings, because it most certainly does. Indeed, what in our opinion constitutes a particular strength of Buddhist doctrine is that if robust scientific evidence comes to light that invalidates a particular aspect of Buddhist thought, then Buddhism is dynamic and humble enough to re-evaluate its spiritual and philosophical outlook accordingly.

However, although Buddhism recognizes the importance of empirical evidence, the value it assigns to different forms of scientific evidence arguably proceeds in the reverse direction compared with contemporary research paradigms. For example, the research and scientific community generally places experimental evidence (particularly from RCTs) much higher up the hierarchical-evidence pyramid than it does expert opinion. Buddhism, on the

other hand, places much greater value on the opinion of spiritual adepts who are deemed to have directly tasted and penetrated the truth of existence. However, rather than some religious systems where followers are required or encouraged to accept claims made by the spiritually inspired as "the gospel truth", the emphasis in Buddhism is for practitioners to adopt such claims as hypotheses to be accepted or rejected based on their own meditative and spiritual experience.

In conjunction with the investigating of spiritual hypotheses on the personal and experiential level, a key technique utilised in Buddhist practice is the examining of a given proposition via the use of DLA. DLA lends itself to the testing of hypotheses or theoretical assumptions that involve non-observable variables. In essence, the technique makes use of top-down (i.e., deductive) logical principles (e.g., detachment, syllogism, contraposition, etc.) such that reliable conclusions can be drawn from a given starting premise. Of course, any conclusions reached by using DLA are only as reliable as the soundness of the original premise. However, where the assumptions of logical validity and scientific soundness are not violated throughout a given deductive logical sequence, then the final outcome can be regarded as being necessarily true. In this section, DLA is used to test the logical validity of the Four Noble Truths, and in particular, to assess whether those aspects of the Four Noble Truths that relate to non-observable phenomena represent logically plausible assertions.

Taken at face value, the Buddha's Four Noble Truths do not follow a coherent logical sequence. In the first noble truth the Buddha states that "there is suffering," but in the third noble truth he states that "there is non-suffering" (i.e., cessation). Thus, the third noble truth negates the first noble truth and the second noble truth does not provide a plausible or logical explanation of why this is so. However, Buddhism (and contemporary science) accepts the

principle of causality (i.e., effects rely on causes) and so by factoring this premise into a deductive logical sequence, the link between the first and third noble truths becomes apparent:

Sequence 1 *(taking the first noble truth as a starting premise; P = Premise; C = Conclusion):*

P1: There is suffering

P2: Phenomena exist in reliance upon causes

C: Therefore, there is a cause to suffering

Sequence 2 *(taking the conclusion of Sequence 1 as the starting premise):*

P1: There is a cause to suffering

P2: Phenomena exist in reliance upon causes

C2: Therefore, removal of the causes of suffering leads to the removal of suffering

Sequence 1 above validates from a logical perspective both the first and second of the Buddha's noble truths (i.e., that suffering exists and it has a cause). Taking the outcome of Sequence 1 as the stating premise, Sequence 2 then provides the logical validation for both the third and fourth noble truths (i.e., that there is the cessation of suffering which also has a cause—the cause of the end of suffering is treading the path that eradicates suffering).

Thus, in a single sentence format, the Four Noble Truths could be rendered as follows: **"**There is suffering which has a cause and there is liberation which has a cause**"**. However, because Buddhism accepts the principle of causality, even the above sentence could be condensed to a simpler form. For example, in stating that there is suffering, there is no requirement to then state that there is a cause to suffering because this is already implied. Likewise, since the statement "there is suffering" infers that suffering relies for its existence

on certain causes (i.e., ignorance, attachment, and aversion), then it is already implied that the removal of these causes will lead to the eradication of suffering. In other words, the entire meaning of the Four Noble Truths can be captured by simply stating that "there is suffering" or "suffering exists" (or for want of being less pessimistic, the statement that "there is liberation" likewise implies each of the other noble truths).

However, although the statement "there is suffering" implies that suffering has a cause and that removal of the cause will lead to the cessation of suffering, it could be argued that this statement does not, by logical default, imply the existence of a path that can eradicate this suffering (i.e., the fourth noble truth). However, as demonstrated by Sequence 3 below, such an objection can be easily overcome because upon stating that "there is suffering," the existence of "non-suffering" (i.e., liberation) is automatically established. In other words, at the same time as positing the existence of a relative phenomenon, the existence of its opposite is also posited. For example, if it is accepted that the "left" exists, then it must also be accepted that the "right" exists. The "left" only exists because there is "right"—if "right" is eliminated, then "left" no longer exists.

Sequence 3 *(taking the conclusion of Sequence 1 as the starting premise):*

P1: There is suffering (which is diametrically opposed to liberation)

P2: The law of duality governs the existence of relative phenomena

C1: Therefore, there is liberation

P3: Phenomena exist in reliance upon causes

C2: There is a cause to liberation

Accordingly, the statement that "suffering exists" also implies that "liberation exists" and vice versa. Based on the principle of causality, having accepted that liberation exists, it now follows logically that liberation has a cause. The cause of liberation is none other than the path (i.e., the fourth truth) and it must now be accepted that (i) there exists a state of existence in which suffering has completely ceased, and (ii) the meaning and essence of all four of the Buddha's noble truths is implicit within each truth individually.

Mindfulness of Suffering and its Causes

The S*atipaṭṭhāna Sutta* (Sanskrit: *Smṛtyupasthāna Sūtra*; MN, 10) teaches that mindfulness should be developed across the following four frames of reference: (i) body, (ii) feelings, (iii) mind, and (iv) phenomena (collectively known as the "four establishments of mindfulness" or the "four foundations of mindfulness"). One of the principal reasons for this is because these four frames of reference are the precise locality where suffering abides. Outside of the body, feelings, mind, and (their perception of) phenomena, sentient beings do not experience suffering. As previously discussed, for a sentient being that has not attained liberation, suffering continuously manifests in each of these four domains. Therefore, to practice mindfulness correctly means to be fully aware of the suffering within the body, feelings, mind, and phenomena at any given point in time. This includes both the suffering that is currently manifest (i.e., the suffering of suffering) and the suffering that lies dormant and is yet to manifest (i.e., the suffering of change).

Consistent with the advice provided in the *Mindfulness of Breathing In and Out Sutta* (Pali: *Ānāpānasati Sutta*; Sanskrit: *Ānāpānasmṛti Sūtra;* MN 118), mindfulness of the suffering of suffering can be cultivated by using the breath to "tie the mind" to the present moment whilst awareness is directed to any palpable suffering present in the abovementioned focal points (i.e.,

body, feelings, mind, and phenomena) (Shonin et al., 2014g). For example, the third exercise of the *Ānāpānasati Sutta* simply involves resting awareness on the body and the next exercise involves observing the body becoming calm and tranquil as a natural consequence of it being mindfully observed. The same process of attending mindfully to a particular focal point and then observing it calm and tranquilise (of its own accord) occurs again in the seventh and eighth exercises (which relate to calming mental formations), and once more in the ninth and tenth exercises (which relate to calming the mind).

Despite the above technique being taught by the Buddha for calming and introducing rapture into the body and mind, it is important to understand that contrary to the intent of some contemporary approaches to mindfulness practice, Buddhism does not promote the utilisation of mindfulness for the treatment of medical ailments and/or for the short-term relief of pain. According to Buddhist theory, a condition of their existence is that in one way or another, (unenlightened) sentient beings must experience the consequences of their ego-driven actions (i.e., karma) and will continue to experience suffering all the way up until they attain enlightenment (Gampopa, 1998). Of course, this is not to say that Buddhism does not support the use of medical or pharmacological intervention in order to minimise an individual's discomfort or pain. To advocate such an approach would run contrary to a central theme of Buddhist practice, which is the offering of loving-kindness and compassion towards all life forms. However, the point is that arresting a particular course of suffering at one point in time inevitably serves as the cause for an episode of suffering at a future point. Consequently, rather than striving to provide sentient beings with temporary relief from their (self-created) problems, Buddhism is concerned with equipping individuals with the knowledge, means and motivation to permanently eradicate suffering at its roots (Dalai Lama, 1995).

Thus, the practice of mindfulness of suffering is not about seeking a rapid recovery from a particular somatic or psychological problem. Rather, it is about developing a spiritual relationship with suffering so that the individual perceives and works with suffering in such a manner that suffering itself becomes a principal cause of liberation. Accordingly, the following are based on a synthesis of key Buddhist discourses and principles for working with suffering and outlines what the present author believes to be essential requirements for practising mindfulness of the suffering of suffering effectively:

1. Accept the presence and inevitability of suffering for the duration of the spiritual journey.

2. Understand that the causes of suffering can be permanently eradicated.

3. Objectify suffering by adopting it as a meditative object.

4. Perceive that suffering continuously changes in both severity and variety.

5. Recognise that the intensity of suffering is inversely associated with the degree of tranquillity in the mind that experiences it.

6. Understand that suffering provides the raw material that the spiritual practitioner works with in order to attain liberation (without experiencing the starkness and unyielding nature of suffering, it is unlikely that sentient beings would choose to strive towards enlightenment).

7. Understand that ultimately, suffering is a relative phenomenon and it relies for its existence on a "self" that can experience it.

8. Instinctively understand that the perceiver of suffering lacks inherent existence and, as such, suffering is a creation of the mind.

As referred to earlier in this chapter, unlike the suffering of suffering which is difficult for individuals not to notice, the suffering of change requires a deeper insight. Therefore, adopting it as the object of mindful awareness requires slightly more effort and intuition on behalf of the practitioner. Accordingly, in order to cultivate mindfulness of the suffering of change, the practitioner should aim to maintain a continuous awareness—to the point that it taints all thought processes and arises automatically—of what are collectively known as the *Four Summaries of the Dhamma* (Nanamoli & Bodhi, 2009, p. 686-687; MN 82):

1. Life in any world is unstable, it is swept away
2. Life in any world has no shelter and no protector
3. Life in any world has nothing of its own; one has to leave all and pass on
4. Life in any world is incomplete, insatiate, the slave of craving

As implied by the Four Summaries of the Dhamma, the practise of mindfulness of the suffering of change requires perspective and clarity of vision on behalf of the practitioner. It also requires a full understanding of the principle and law of impermanence. Phenomena are born, they live, and they pass away. There are no exceptions to this rule—It is a mark of existence. The very fact that an individual enjoys good health serves as a cause for poor health at a future point. The fact that an individual is alive serves as the cause for death.

Mindfulness of the suffering of change requires the practitioner to have internalised and embodied the truth of impermanence to such a degree, that it changes the way they interpret and process sensory information around them. The change being referred to here could, in effect, be described as a form of metacognitive reappraisal. Instead of apprehending objects and situations as fixed or even existing, by practising mindfulness of the suffering of change,

the practitioner begins to perceive and instinctively understand that reality is completely fluid, transient, and ephemeral (Norbu & Clemente, 1999). As such, the extent to which they crave after objects or experiences significantly diminishes and in this manner they no longer create the causes of suffering. Shonin and Van Gordon (2013, p. 107) have referred to this stage of realisation as "piercing through the present moment" and it gives rise to an awareness that transcends the constraints of thinking in terms of past, present, and future. The Buddha described this ability to non-conceptually observe and accept the coming and going of phenomena as follows:

> But let be the past, Udāyin, let be the future. I shall teach you the Dhamma: When this exists, that comes to be; with the arising of this, that arises. When this does not exist, that does not come to be; with the cessation of this, that ceases (Nanamoli & Bodhi, 2009, p.655; MN 79).

Thus, attending with present moment awareness to the suffering that lies latent in every situation—Including within (so-called) favourable circumstances—ultimately leads to the development of pure perception. In other words, practising mindfulness of suffering has the effect of honing an individual's perceptive faculties to the point that the practitioner is effectively forced to apprehend reality in its true form and render suffering as a cause for liberation.

A further and final consideration concerning the practice of mindfulness of suffering is developing an awareness of the suffering of others. Included in this awareness should be an appreciation of the suffering that others are currently experiencing, as well as the suffering that might arise in others due to unskilful thoughts, words and deeds on behalf of the practitioner.

Accordingly, the Dalai Lama (1995) has taught that spiritual practitioners have a responsibility for ensuring that their speech, writing, and general behaviour are infused with gentleness, wisdom and awareness. In this respect, Buddhism asserts that all human beings are creators with the difference between the everyday person and the realised practitioner being that the latter is fully aware of their inherent creative potency:

> The realised being is like a master artist who uses the tools of insight, compassion, and skilful means to create a dynamic masterpiece of interwoven mind and matter upon the canvas of all-pervasive emptiness … 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 (Shonin & Van Gordon, 2014e, p. 346).

In fact, the practitioner's responsibility for the effects of their actions does not stop at how they will influence other sentient being's happiness or suffering, but also includes how they might introduce disorder into the ambient and natural environment around them. For example, based on the principle of interconnectedness, Shonin and Van Gordon (2014e) asserted that the mind directly influences the natural environment and that natural disasters such as tsunamis, earthquakes, and volcanic eruptions can be attributed to growing levels of negativity, selfishness, and ignorance in the hearts and minds of the population. Therefore, the type of awareness required to practice mindfulness of suffering effectively is not only incredibly encompassing, but it is unconditionally compassionate and extends well beyond the interests of the self.

Mindfulness of Cessation and its Causes

Mindfulness of cessation and its causes principally involves maintaining a continuous meditative awareness of the practitioner's inherent potential for spiritual awakening. Buddhism asserts that practising mindfulness with the full knowledge and understanding that liberation is a real possibility—including within this lifetime—adds a new dimension to an individual's mindfulness practice and nourishes them with spiritual and meditative energy (Shonin & Van Gordon, 2015b). This "right intention" facilities a broadening of perspective as well as the arising of a firm resolve to overcome any obstacles to complete spiritual awakening. According to Shonin and Van Gordon (2015b, p. 144), by practising mindfulness with a firm intention to actualise their potential for liberation, the practitioner is able to tap into the lineage blessings that lie latent within them:

The lineage we are referring to here is the universal Dharma lineage – or you can call it the lineage of mindfulness if you prefer. It belongs to nobody yet everybody can access it. It exists within every sentient being but only reveals itself to those that choose to live in awareness. In order to acquire this universal lineage, we do not need anybody's permission. We do not need to be empowered by another person and we do not need to attend any initiation ceremonies. We empower ourselves simply by being sincere and diligent in our practice. In fact, if you are sincere in your mindfulness practice – if your intentions are pure and wholesome –then progress and results will follow naturally. At this point, it doesn't matter in the slightest whether you belong to a religion or a meditation tradition, nor does it matter whether you have undergone an

extensive study of the spiritual texts. You can take your place as an authentic heir to the mindfulness lineage.

The Buddha's third noble truth that there is cessation or liberation represents the primary goal of Buddhist practice. Consequently, every moment that spiritual practitioners apply themselves to spiritual development should be infused with both a firm belief in the truth of liberation and, the knowledge that they are already innately liberated. This absolute conviction that liberation is a realistic eventuality avails to the practitioner hidden spiritual resources (Khyentse, 2007). Put simply, by having complete faith that enlightenment comes from within and not without, practitioners cease to be bound by the idea of walking a path and of seeing themselves as separate from their goal. As long as the mind—which is already innately enlightened and inseparable from the realm of liberation—seeks to find liberation outside of itself, there is no alternative other than for it to remain trapped in the domain of dualistic perception. Indeed, Buddhism asserts that everything the mind perceives is already liberated and of the nature of mind (Shonin et al., 2015b). A mind that separates its single entity into both a subject and object and then as a subject attempts to search for its object self, is destined to fail. Maintaining mindfulness of the fact that experience unfolds within the expanse of mind means that an individual is liberated, not being mindful of this means that they are deluded. Other than this, there is not a hair's breadth of difference between a Buddha and an ignorant being (Norbu & Clemente, 1999).

Therefore, ultimately, there is no ascending to liberation, and grasping after liberation or any of the fruits of spiritual practice only serves as a cause of attachment and further suffering. Mindfulness of the causes of cessation/liberation means remaining aware of this fact and of the need to abandon clinging—no matter how subtle:

Here Ānanda, a bhikkhu is practising thus … What exists, what has come to be, that I am abandoning. Thus he obtains equanimity. He delights in that equanimity, welcomes it, and remains holding to it. As he does so, his consciousness becomes dependant on it and clings to it. A bhikkhu with clinging, Ānanda, does not attain Nibbāna (Nanamoli & Bodhi, 2009, p.872; MN 106).

The same principle applies to being attached to the idea of being a spiritual practitioner or of being a recipient of the lineage of mindfulness:

Along with being a holder of the lineage of mindfulness comes a tremendous responsibility to keep the lineage teachings alive and authentic. However, the way to do this is not by trying to own or protect the lineage, but by letting go of it. This is because lineage is, and has to be, completely dynamic. As you grow in awareness, the teachings that are all around and within you change and present themselves in different ways. Therefore, if you want the lineage to endure and remain effective, then you have to allow it to evolve – and you have to evolve with it. The way to allow things to evolve is to simple be and allow experience to unfold without clinging to it. You have to understand that the moment you become attached to the lineage of mindfulness, it slips through your fingers and you cease being an authentic lineage holder (Shonin & Van Gordon, 2015b, p. 144).

By not attaching themselves to situations, achievements or experiences, Buddhism asserts that mindfulness practitioners remain unbound to any time or place. In other words,

they establish as their home the present moment and enjoy freedom and refuge wherever they find themselves:

> The mindful ones exert themselves. They are not attached to any home; like swans that abandon the lake, they leave home after home behind (*Dhammapada*, 7, 91; Buddharakkhita, 1986, p. 37).

In essence, the final four insight exercises of the *Ānāpānasati Sutta* provide a means of practising and establishing mindfulness of cessation and its causes. There are differing views amongst Buddhist scholars and traditions as to whether the experiences/realisations referred to in the final tetrad of the 16 *Ānāpānasati Sutta* exercises arise of their own accord (i.e., as a natural consequence of practising the foregoing 12 exercises), or whether they require a deliberate and subtle shift in meditative mode. It is our view (and experience) that the latter scenario is the case, but ultimately such differing opinions are of limited consequence. The key point is that having first calmed and immersed the body, feelings and mind in mindful awareness, the mind is then suitably disposed for insight to manifest. In order of appearance (i.e., beginning with exercise 13 and finishing with exercise 16), the insights that the *Ānāpānasati Sutta* refers to are a spiritual comprehension of impermanence, fading away, cessation, relinquishment. These spiritual realisations essentially describe the practitioner's passage from the relative to the absolute realm and the inclusion of cessation and relinquishment in the 15th and 16th *Ānāpānasati Sutta* exercises refers, precisely, to the cessation and relinquishment of self and therefore of suffering that the practitioner experiences as they relax progressively further into their intrinsic wakeful state.

Conclusion

As with all Buddhist practices, mindfulness is deeply connected to the Buddha's teaching of the Four Noble Truths. The quintessential message of the Four Noble Truths is that until a sentient being attains spiritual liberation (the third truth), it will suffer (the first truth), and the only way to end this suffering is to walk the path (the fourth truth) that acts upon the causes of suffering (the second truth). A mindfulness practice that does not encompass and remain attentive to these four truths of existence cannot be said to embody the authentic Dharma. Suffering is a mark of existence, but by incorporating suffering into the sphere of mindful awareness, Buddhism asserts that suffering itself can become a causal agent of liberation. In other words, as demonstrated by the outcome of the DLA performed earlier in this chapter, within the truth of suffering exists the truth of liberation—and for that matter—the truth of the entire collection of the Buddha's teachings.

From a Buddhist perspective, practising mindfulness with a firmly embedded understanding of the principles implied and outlined by the Four Noble Truths helps the individual to remain acutely aware of why they are practising mindfulness as well as the severity of their predicament. Without such awareness, and without an unshakeable resolve to permanently uproot the causes of suffering, there is a distinct possibility that the mindfulness practitioner's efforts will be in vain and their practice will remain at the superficial level. From a Buddhist perspective, this is the same as abandoning the spiritual path—a fate that the present author would argue is worse than death itself:

> For it is death in the Discipline of the Noble One, Sunakkhatta, when one abandons the training to the low life (Nanamoli & Bodhi, 2009, p. 866; MN 105).

Chapter 13. General Conclusion

Thesis Provenance and Aims

The past is history and no longer exists. The future never arrives. Life can only be experienced in the present moment. Mindfulness involves focussing awareness on the present moment and paying attention, in real-time terms, to psychological and sensory processes. Mindfulness derives from Buddhist practice where it is deemed to constitute a form of spiritual training. In Buddhism, mindfulness comprises one small part of the path to spiritual awakening. In recent decades, there has been a marked growth of interest in the West into the applications of mindfulness in applied psychological domains. In particular, there is growing interest into the applications of mindfulness in clinical settings where MBIs are increasingly being administered as frontline or adjunctive treatments (Van Gordon et al., 2015a).

Although empirical findings indicate a role for mindfulness in the treatment of health-related disorders, the rate at which mindfulness has been assimilated by Western society has given rise to concerns regarding the need to (i) consolidate and replicate research findings, (ii) clarify whether mindfulness (i.e., as it is used in contemporary MBIs) continues to bear any resemblance to the Buddhist model of mindfulness, (iii) investigate potential adverse effects, (iv) control for performance bias in MBI intervention studies, (v) formulate comprehensive training and supervision curricula – that are informed by the traditional meditation literature – for secular MBI instructors, and (vi) investigate the Buddhist position that mindfulness has limited utility when isolated from the supporting meditative and spiritual techniques that would traditionally accompany it.

The present PhD thesis sought to address some of these issues by complementing an ongoing program of empirical enquiry exploring the clinical utility of a newly-developed second generation of MBI. SG-MBIs frame mindfulness as a spiritual or psycho-spiritual

practice and employ a greater range of meditative techniques compared to FG-MBIs. The thesis introduced several novel psychological theories that explicate the key stages of an SG-MBI-based treatment model as well as a model of mental-illness that is compatible with both Buddhist and Western psychological paradigms. The thesis also undertook empirical investigations to assess the efficacy, versatility, and flexibility of an SG-MBI known as MAT. MAT represents the first SG-MBI to be developed and tested in research settings and has been the subject of empirical investigation since 2010.

Reflection on Methods and Research Designs

MBIs are typically multi-component interventions that may include (for example): guided mindfulness exercises, guided loving-kindness and compassion meditation exercises, group discussion, psycho-education, yoga, one-to-one discussion with the programme facilitator, a CD of guided meditations to encourage at-home practice, and a full or half-day silent group retreat. Given that each of the above techniques arguably have therapeutic utility in their own right, determining why MBIs are effective is problematic because they have numerous 'active ingredients'.

Adherence to a 'what works' approach to alleviating symptom severity would mean that establishing which specific intervention components are most effective is of limited importance. However, for the purposes of developing more 'therapeutically streamlined' MBIs and advancing scientific understanding of how the human mind responds to specific psychotherapeutic techniques, it is necessary to establish the active ingredients of a given intervention. Despite this, MBI study designs have typically failed to identify whether it is mindfulness (i.e., as opposed to other therapeutic agents) that is primarily responsible for therapeutic change.

One means of overcoming this methodological limitation is to employ a purpose-designed 'active' control condition (i.e., a control intervention that mirrors the main intervention in terms of its design, but does not include any mindfulness or meditation techniques). When designing an active control intervention for MBI efficacy studies, in addition to matching the design of the target and control interventions (i.e., minus the inclusion of mindfulness techniques), it is important to match the 'competency' of the intervention instructor. For example, some meditation studies employing active control conditions have used an experienced clinician and/or meditation teacher to deliver the target intervention, whilst leaving a relatively inexperienced student to administer the control intervention (e.g., Pace et al, 2010, 2011).

The need to overcome these methodological issues played an important role in influencing the design of some of the studies conducted as part of this PhD. More specifically, in the RCT reported in Chapter 8, the same instructor was used to delivered both MAT and the active comparison condition. To control for potential bias on the part of the instructor, participants in each intervention condition were asked to rate the instructor's levels of enthusiasm and preparation. To the present author's knowledge, the aforementioned RCT represents the only active-controlled RCT of an MBI to implement this specific procedure. The decision to control for an 'instructor effect' was taken because as discussed in Chapter 7, it is the present author's view that the mindfulness instructor is one of (if not) the most active ingredient in an MBI. This view is supported by findings from qualitative studies where MAT participants have reported that the spiritual competency of the instructor influences their level of commitment to the training program (Shonin et al., 2014a, Shonin & Van Gordon, 2015a; Van Gordon et al., 2016b).

Given the focus on treatment efficacy in the aforementioned CONSORT-guided RCT, the present PhD thesis employed a range of research designs in order to derive meaningful information as to the acceptability, feasibility, and flexibility of MAT. More specifically, a mediation analysis (Chapter 8) investigated the mechanisms of action that underlie therapeutic change induced by MAT. A qualitative investigation using IPA (Chapter 9) elicited rich empirical data in terms of the 'life-world' that participants experience when undergoing a SG-MBI treatment model. A clinical case study (Chapter 10) provided an in-depth account of the assessment, case formulation, and treatment phases of an SG-MBI-based psychotherapy model. Finally, a non-randomised controlled trial (Chapter 11) built upon findings from an earlier clinical case study (Shonin et al., 2014d) and examined the feasibility of using MAT for treating workaholism. Whilst acknowledging the need for replication studies (as well as studies targeting other health-related disorders), the range of research designs employed in the present thesis is deemed to provide a rounded assessment of the clinical utility of MAT.

Key Contributions to Knowledge

The empirical findings from this PhD thesis indicate that SG-MBIs (and more specifically MAT) may be effective treatments for a range of health-related disorders including FMS, work addiction, and sex addiction. Furthermore, secondary outcomes from the empirical component of the thesis indicate that MAT can lead to improvements in psychological distress, sleep quality, civic engagement, non-attachment (to self and symptoms), and job satisfaction. These findings complement outcomes from earlier studies of MAT that indicate it can lead to improvements in (for example) job performance, goal attainment, decision-making competency, problem gambling symptomatology, schizophrenia symptomatology, positive

affect, negative affect, and dispositional mindfulness (Shonin et al., 2014a, 2014b, 2014c; 2014d; 2015a; Van Gordon et al., 2014a).

Other examples of how the theoretical (i.e., Section A), empirical (i.e., Section B), and practice-focussed (i.e., Section C) components of this doctoral thesis have advanced scientific knowledge in a pioneering way are as follows:

- Prompting an international program of empirical investigation into SG-MBIs (i.e., as a means of addressing some of the limitations of FG-MBIs).

- Providing theoretical and empirical support for a novel definition of mindfulness that acknowledges its spiritual properties and that is increasingly being utilised in the academic literature.

- Defining the key components of SG-MBIs as well as the factors that distinguish them from FG-MBIs.

- Delineating the key attributes of mindfulness from a Buddhist perspective and offering recommendations in terms of integrating them into contemporary mindfulness-based interventions.

- Explicating the relationship between mindfulness and emptiness, and demonstrating how the emptiness principle could challenge some central assumptions of Western psychological thought.

- Conceiving and providing preliminary empirical evidence for a new psychological theory (called Ontological Addiction Theory) that posits 'addiction to self' as a third category of addiction (i.e., in addition to chemical and behavioural addiction).

- Eliciting rich quantitative and qualitative data to feedback into, and refine the design of, the secular MAT intervention.

- Empirically demonstrating the role of self-attachment in the onset and maintenance of mental illness.

- Conducting the first ever controlled study to evaluate the effectiveness of a treatment administered to individuals suffering from workaholism, and advancing scientific understanding regarding the design of suitable interventions for treating behavioural addiction.

- Conducting the first ever empirical study to use mindfulness as a treatment for sex-addiction.

- Delineating how an in-depth understanding of a Buddhist model of suffering can inform the effective practice of mindfulness as well as its use in clinical settings.

Limitations

Findings from this PhD need to be considered in light of their limitations that are delineated in detail throughout the main body of the thesis (See Section B). A more general limitation of the PhD is that although SG-MBIs have been presented as a means of addressing some of the limitations of FG-MBIs, findings from the present doctoral project do not allow direct comparisons to be drawn as to the relative treatment effectiveness of FG- versus SG-MBIs. Accurately drawing such conclusions would require the conducting of head-to-head comparison studies in which the FG- and SG-MBI protocols are delivered under identical research conditions (although it is acknowledged that effect size calculations as part of rigorously conducted meta-analytical studies could provide an approximation of relative effectiveness). Thus, the thesis could be criticised for relying too heavily on supposition as to the necessity for SG-MBIs (Shonin, 2015).

Implications and Future Directions

Notwithstanding the lack of studies directly comparing FG-MBIs with SG-MBIs, SG-MBIs constitute an important development in mindfulness research and practice because, at the very least, they provide service-users—including those interested in (or belonging to) Eastern contemplative traditions—with a treatment option that more closely follows a traditional (but secular) approach to mindfulness practice (Shonin, 2015). Furthermore, it may be that FG-MBIs and SG-MBIs can co-exist or complement each other because they are based on different delineations of mindfulness and employ distinct treatment models (Van Gordon et al., 2015b).

Findings from this PhD thesis indicate that SG-MBIs may have applications for treatment of a diverse-range of health disorders. It appears that the more spiritual approach embodied by SG-MBIs plays an important role in terms of their treatment efficacy. This is significant because FG-MBIs have generally been reluctant to acknowledge any spiritual affiliation and have largely presented mindfulness as an exclusively psychological technique. There are no doubt important psychological and attentional aspects to mindfulness and it is correct to identify and evaluate these under research conditions. However, there can reach a point where the conceptual and empirical reductionism of mindfulness means that its use in Western research and applied settings fails to capture the essence of what mindfulness was traditionally intended to embody. Moving forward, a key challenge for the scientific community will be to embrace the need to undertake programs of empirical investigation to explore the possibility that some of the most active ingredients of mindfulness operate on the meta-physical rather than the psychological or biological plane.

References

Aikens, K. A., Astin, J., Pelletier, K. R., Levanovich, K., Baase, C. M., Park, Y. Y., & Bodnar, C. M. (2014). Mindfulness goes to work: Impact of an online workplace intervention. *Journal of Occupational and Environmental Medicine, 56*, 721-31.

American Mindfulness Research Association. (2016). *AMRA Database: Mindfulness publications by year, 1980-2014.* Accessed 29th September 2016. Available at: https://goamra.org/resources/

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed. revised). Washington, DC: Author.

American Psychiatric Association. (2010). *American Psychiatric Association practice guideline for the treatment of patients with major depressive disorder* (3rd ed.). Arlington, VA: American Psychiatric Publishing.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

American Society of Addiction Medicine. (2011). Public policy statement on the definition of addiction. Accessed October 6, 2016. Available at: http://www.asam.org/for-the-public/definition-of-addiction

Andreassen, C. S., Griffiths, M. D., Hetland, J., & Pallesen, S. (2012). Development of a work addiction scale. *Scandinavian Journal of Psychology, 53*, 265-272.

Andreassen, C. S., Hetland, J., & Pallesen, S. (2014a). Psychometric assessment of workaholism measures. *Journal of Managerial Psychology, 29*, 7-24.

Andreassen, C. S., Griffiths, M. D., Hetland, J., Kravina, L., Jensen, F., & Pallesen, S. (2014b). The prevalence of workaholism: A survey study in a nationally representative sample of Norwegian employees. *PLoS ONE, 9(8)*, e102446.

Andreassen, C. S., Griffiths, M. D., Sinha, R., Hetland, J., & Pallesen, S. (2016). The relationships between workaholism and symptoms of psychiatric disorders: A large-scale cross-sectional study. *PLoS ONE, 11(5)*, e0152978.

Appel, J., & Kim-Appel, D. (2009). Mindfulness: Implications for substance abuse and addiction. *International Journal of Mental Health Addiction, 7*, 506-512.

Ashworth, P. D. (2000). Qualitative research methods. *Estudios Pedagógicos, 26*, 91-106.

Baguley, T. (2012a). *Serious stats: A guide to advanced statistics for the behavioral sciences*. Basingstoke: Palgrave Macmillan.

Baguley, T. (2012b). Calculating and graphing within-subject confidence intervals for ANOVA. *Behavior Research Methods*, *44*, 158-175.

Baker, T. B., Piper, M. E., McCarthy, D. E., Majeskie, M. R., & Fiore, M. C. (2004). Addiction motivation reformulated: an affective processing model of negative reinforcement. *Psychological Review, 111*, 33-51.

Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American Psychologist, 55*, 122-136.

Baron, R., & Kenny, D. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Belanti, J., Perera, M. & Jagadheesan, K. (2008). Phenomenology of near-death experiences: A cross-cultural perspective. *Transcultural Psychiatry*, *45*, 121-133.

Bennett, R. M., Friend, R., Jones, K. D., Ward, R., Han, B. K., & Ross, R. L. (2009). The Revised Fibromyalgia Impact Questionnaire (FIQR): Validation and psychometric properties. *Arthritis Research and Theory, 11*, R120.

Birks, M., & Mills, J. (2015). *Grounded theory: A practical guide* (2nd Ed). London: Sage

Publications.

Bishop, M., Lau, S., Shapiro, L., Carlson, N. D., Anderson, J. & Carmody-Segal, Z. V., … Devins, G.. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*, 230-241.

Bodhi, B. (1994). *The noble eightfold path: Way to the end of suffering.* Kandy, Sri Lanka: Buddhist Publication Society.

Bodhi, B. (2000). *The connected discourses of the Buddha: A new translation of the Samyutta Nikaya.* (Bhikkhu Bodhi, Trans.) Massachusetts: Wisdom Publications.

Bodhi, B. (Ed.). (2009). *Majjhima Nikaya: The middle length discourses of the Buddha* (4th ed.). (Bhikkhu Bodhi, & Bhikkhu Nanamoli, Trans.) Massachusetts: Wisdom Publications.

Booth, R. (2014). Mindfulness therapy comes at a high price for some, say experts. *The Guardian.* Accessed February 1, 2016. Available at: http://www.theguardian.com/society/2014/aug/25/mental-health-meditation

Boutron, I., Altman, D. G., Schulz, K. F., & 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., Witkiewitz, K., Dillworth, T. M., Chawla, N., Simpson, T. L., Ostafin, B. D., … Marlatt, G. A. (2006). Mindfulness meditation and substance use in an incarcerated population. *Psychology of Addictive Behaviours, 20*, 243-347.

Branco, J. C., Bannwarth, B., Failde, I., Abello Carbonell, J., Blotman, F., Spaeth, M., … Matucci-Cerinic, M. (2010). Prevalence of fibromyalgia: A survey in five European countries. *Seminars in Arthritis and Rheumatism, 39*, 448-55.

Britton, W. B., Haynes, P. L., Fridel, K. W., & Bootzin, R. R. (2012). Mindfulness-based

cognitive therapy improves polysomnographic and subjective sleep profiles in antidepressant users with sleep complaints. *Psychotherapy and Psychosomatics, 81*, 296-304.

Brotto, L. A., Erskine, Y., Carey, M., Ehlen, T., Finlayson, S., Heywood, M., … Miller, D. A. (2012). Brief mindfulness-based cognitive behavioral intervention improves sexual functioning versus wait-list control in women treated for gynecologic cancer. *Gynecologic Oncology, 125*, 320-325.

Brotto, L. A., Basson, R., & Luria, M. (2008). A mindfulness-based group psychoeducational intervention targeting sexual arousal disorder in women. *The Journal of Sexual Medicine, 5*, 1646-1659.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*, 211-237.

Buckner, R. L., Andrews-Hanna, J. R., & Schacter, D. L. (2008). *The brain's default network: anatomy, function, and relevance to disease*. In A. Kingstone & M. B. Miller (Eds.), *The year in cognitive neuroscience 2008* (pp. 1-38). Malden, MA: Blackwell Publishing.

Buddharakkhita. (1986). *Dhammapada: A practical guide to right living.* Bangalore: Maha Bodhi Society.

Burke, C. A. (2010). Mindfulness-based approaches with children and adolescents: A preliminary review of current research in an emergent field. *Journal of Child and Family Studies, 19,* 133-144.

Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index (PSQI): A new instrument for psychiatric research and practice. *Psychiatry Research, 28,* 193-213.

Cacciatore, J**.,** & Flint, M. (2012). ATTEND: A mindfulness-based bereavement care model.

Death Studies, 36, 61-82.

Cacciatore, J., Thieleman, K., Osborn, J., & Orlowski, K. (2014a). Of the soul and suffering: Mindfulness based interventions and bereavement. *Clinical Social Work Journal, 42*, 269-281.

Cacciatore, J., Thieleman, K., Killian, M., & Tavasolli, K. (2014b). Braving human suffering: Death education and its relationship to empathy and mindfulness. *Social Work Education*, *34*, 91-109.

Canzonieri, A. M., Pollak, D. F., Oliveira, P. J., Costa, M. E., & Natour, J. (2013). Evaluation of socio-demographic variables, psychiatric comorbidity, and pain in fibromyalgia patients. *Annals of Rheumatic Disorders, 71*, 756.

Carnes, P. J. (1999). Cybersex, sexual health, and the transformation of culture. *Sexual Addiction & Compulsivity, 6*, 77-78.

Carnes, P. J., Green, B. A., Carnes, S. (2010). The same yet different: Refocusing the Sexual Addiction Screening Test (SAST) to reflect orientation and gender. *Sexual Addiction and Compulsivity, 17*, 7-30.

Carson, J. W., Keefe, F. J., Lynch, T. R., Carson, K. M., Goli, V., Fras, A. M., & Thorp, S. R. (2005). Loving-kindness meditation for chronic low back pain: Results from a pilot trial. *Journal of Holistic Nursing, 23*, 287-304.

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.

Chiesa, A. (2010). Vipassana meditation: Systematic review of current evidence. *Journal of Alternative and Complementary Medicine, 16*, 37-46.

Chiesa, A., & Serretti, A. (2011). Mindfulness-based interventions for chronic pain: a

systematic review of the evidence. *Journal of Alternative and Complementary Medicine,* *17*, 83-93.

Clark, K. R. (1996). The nowhere (wo)man - an example of the defensive use of emptiness in a patient with a schizoid disorder of the self. *Clinical Social Work Journal*, *24*, 153-166.

Claus, E. D., Ewing, S. W. F., Filbey, F. M., Sabbineni, A., & Hutchison, K. E. (2011). Identifying neurobiological phenotypes associated with alcohol use disorder severity. *Neuropsychopharmacology*, *36*, 2086-2096.

Cramer, H., Haller, H., Lauche, R., & Dobos, G. (2012). Mindfulness-based stress reduction for low back pain. A systematic review. *BMC Complementary and Alternative Medicine,* *12*, 162.

Crane, R. S, Eames, C., Kuyken W., Hastings, R. P., Bartley, T., Evans, A., … Surawy, C. (2013). Development and validation of the Mindfulness-Based Interventions – Teaching Assessment Criteria (MBI:TAC). *Assessment, 20*, 681-688.

Crane, R. S., Kuyken, W., Williams, J. M. G., Hastings, R. P., Cooper, L., & Fennell, M. J. V. (2012). Competence in teaching mindfulness-based courses: Concepts, development and assessment. *Mindfulness, 3*,76-84.

Crawford, R. (2014). 20% take time off work due to stress. *Employee Benefits.* Accessed February 1, 2016. Available at: https://www.employeebenefits.co.uk/20-take-time-off-work-due-to-stress/

Creswell, J. W. (2007). *Qualitative inquiry and research design: choosing among five approaches* (2nd ed.). London: Sage.

Dalai Lama, & Berzin, A. (1997). *The Gelug/Kagyu tradition of Mahamudra.* New York: Snow Lion Publications.

Dalai Lama. (1995). *Essential teachings*. London: Souvenir Press.

Dalai Lama. (2000). *Ancient wisdom, modern world: Ethics for the new millennium*. London: Abacus.

Dalai Lama. (2001). *Stages of meditation: training the mind for wisdom.* London: Rider.

Dalai Lama. (2004). *Ornament of stainless light: An exposition of the Kalacakra Tanta.* Wisdom Publications: Boston.

Dane, E. (2010). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of Management, 37,* 997-1018.

Davey, G. C. (2008). *Psychopathology: Research, assessment and treatment in clinical psychology*. Chichester: Wiley-Blackwell.

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., … Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine, 65*, 564-70.

Davies, S. (2014). *Annual report of the chief medical officer 2013, public mental health priorities: Investing in the evidence*. London: Department of Health.

Davis, M. C., & Zautra, A. J. (2013). An online mindfulness intervention targeting socioemotional regulation in fibromyalgia: results of a randomized controlled trial. *Annals of Behavioural Medicine, 46*, 273-284

Demetrovics, Z., & Griffiths, M. D. (2012). Behavioral addictions: Past, present and future. *Journal of Behavioral Addictions, 1*, 1-2.

Dennis, N. L., Larkin, M., & Derbyshire, S. W. G. (2013). 'A giant mess' - making sense of complexity in the accounts of people with fibromyalgia. *British Journal of Health Psychology, 18,* 763-781.

Desbordes, G., Negi, L. T., Pace, T. W., Wallace, B. A., Raison, C. L., & Schwartz, E. L. (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. DOI: 10.3389/fnhum.2012.00292

Dhuffar, M. & Griffiths, M. D. (2015). A systematic review of online sex addiction and clinical treatments using CONSORT evaluation. *Current Addiction Reports, 2,* 163-174.

Dobie, A., Tucker, A., Ferrari, M., & Rogers, J. M. (2016). Preliminary evaluation of a brief mindfulness-based stress reduction intervention for mental health professionals. *Australasian Psychiatry, 24,* 42-45.

Duchemin, A. M., Steinberg, B., Marks, D., Vanover, K., Klatt, M. (2015). A small randomized pilot study of workplace mindfulness-based intervention for surgical intensive care unit personnel: Effects on self-reported stress and salivary α-amylase levels. *Journal of Occupational and Environmental Medicine, 57,* 393-399.

Dunne, J. (2011). Toward an understanding of non-dual mindfulness. *Contemporary Buddhism, 12*, 71-88.

Endo, A. (1999). Nichiren Shonin's view of humanity: The final dharma age and the three thousand realms in one thought-moment. *Japanese Journal of Religious Studies, 26*, 239-240.

Engel, G. L. (1978). The biopsychosocial model and the education of health professionals. *Annals of the New York Academy of Sciences, 310***,** 169-187.

Farias M., & Wikholm, C. (2015). *The Buddha pill: Can meditation change you?* London: Watkins Publishing Limited.

Faul. F., & Erdinger, E. (1992). *GPOWER: A priori, post-hoc, and compromise power analysis for MS-DOS*. Bonn, Germany: Bonn University.

Feliu-Soler, A., Soler, J., Luciano, J. V., Cebolla, A., Elices, M., Demarzo, M., & García-Campayo, J. (2016). Psychometric properties of the Spanish version of the Non-

Attachment Scale (NAS) and its relationship with mindfulness, decentering and mental health. *Mindfulness, 7,* 1156-1169.

Frank, J. L., Reibel, D., Broderick, P., Cantrell, T., & Metz, S. (2015). The effectiveness of mindfulness-based stress reduction on educator stress and well-being: Results from a pilot study. *Mindfulness, 6*, 208-216.

Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (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.

Freud, S. (1923). *The ego and the id*. London: Hogarth.

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.

Gallup. (2013). How important would you say religion is in your own life? Accessed 8, 2016. Available at: from http://www.gallup.com/poll/1690/religion.aspx

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-Martin, E., Ruiz-de-Gopegui, E., Otin, S., Blasco, A., Larrosa, J. M., Polo, V., … Garcia-Campayo, J. (2016). Assessment of visual function and structural retinal changes in zen meditators: Potential effect of mindfulness on visual ability. *Mindfulness*, *7*, 979-987.

Gardner, F. L., & Moore, Z. E. (2012). Mindfulness and acceptance models in sport psychology: A decade of basic and applied scientific advancements. *Canadian*

Psychology, 53, 309-318.

Garfield, J. (1995). *The fundamental wisdom of the middle qay: Nāgārjuna's Mūlamadhyamakakārikā*. Oxford: Oxford University Press.

Gelek, R. (2009). *The song of four mindfulnesses*. Ann Arbur, Michigan: Jewel Heart Transcripts.

Gelles, D. (2012). The mind business. *FT Magazine*. Accessed February 1, 2016. Available at: http://www.ft.com/cms/s/2/d9cb7940-ebea-11e1-985a-00144feab49a.html

Gelman, A., & Hill, J., (2007). *Data analysis using regression and multilevel/hierarchical model*. Cambridge: Cambridge University Press.

Gergen, K. (2009). *Relational being*. New York: Oxford University Press.

Ghaemi, S. N. (2009). The rise and fall of the biopsychosocial model. *British Journal of Psychiatry, 195*, 3-4.

Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in Psychiatric Treatment, 15*, 199-208.

Glombiewski, J. A, Sawyer, A.T., Gutermann, J., Koenig, K., Rief, W., & Hofmann, S.G (2010). Psychological treatments for fibromyalgia: A meta-analysis. *Pain, 151*, 280-295.

Goyal, M., Singh, S., Sibinga, E. M., 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.

Grabovac A. (2014). Stages of insight: Clinical implications for mindfulness-based interventions. *Mindfulness, 6*, 589-600.

Griffiths, M. D. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use, 10,* 191-197.

Griffiths, M. D. (2012). Internet sex addiction: A review of empirical research. *Addiction*

Research and Theory, 20, 111-124.

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 Addictions, 1*, 87-95.

Griffiths, M. D., Shonin, E., & Van Gordon, W. (2016). Mindfulness as a treatment for gambling disorder. *Journal of Gambling and Commercial Gaming Research*, *1,* 47-52.

Grossman, P., Schwarzer, B., Jena, S., Naumann, J., & Walach, H. (2011). Treating fibromyalgia with mindfulness-based stress reduction: Results from a 3-armed randomized controlled trial. *Pain, 152*, 361-369.

Hamill, R., Carson, S., & Dorahy, M. (2010). Experiences of psychosocial adjustment within 18 months of amputation: an interpretative phenomenological analysis. *Disability and Rehabilitation, 32,* 729-740.

Harré, R. (1998). *The singular self*. London: Sage

Harris Poll (2009). What people do and do not believe in. Accessed November 8, 2015. Available at: http://www.harrisinteractive.com/vault/Harris_Poll_2009_12_15.pdf

Häuser, W., Wolfe, F., Tölle, T., Üçeyler, N., & Sommer, C. (2012). The role of antidepressants in the management of fibromyalgia syndrome: A systematic review and meta-analysis. *CNS Drugs, 26*, 297-307.

Hawker, G. A., Mian, S., Kendzerska, T., & French M. (2011). Measures of adult pain: Visual Analog Scale for Pain (VAS Pain), Numeric Rating Scale for Pain (NRS Pain), McGill Pain Questionnaire (MPQ), Short-Form McGill Pain Questionnaire (SF-MPQ), Chronic Pain Grade Scale (CPGS), Short Form-36 Bodily Pain Scale (SF-36 BPS), and Measure of Intermittent and Constant Osteoarthritis Pain (ICOAP). *Arthritis Care and Research, 63*, S240-252.

Hawking, S. & Mlodinow, L., (2010). *The grand design*. London: Bantam.

Hawking, S. (2006). *The theory of everything: The origin and fate of the universe*. San Francisco: Phoenix Books.

Hay, P., Chinn, D., Forbes, D., Madden, S., Newton, R., Sugenor, L., … Ward, W. (2014). Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of eating disorders. *Australian and New Zealand Journal of Psychiatry*, *48*, 1-62.

Hayes, S. C. (2002). Buddhism and acceptance and commitment therapy. *Cognitive and Behavioral Practice, 9*, 58-66.

Hayes, S. C., Luoma, J., Bond, F., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: model, processes, and outcomes. *Behaviour Research and Therapy, 44*, 1-25.

Health and Safety Executive. (2015). Stress and psychological disorders. Accessed February 1, 2016. Available at: http://www.hse.gov.uk/statistics/causdis/stress/index.htm

Heatherton, T. F., Macrae, C. N., & Kelley, W. M. (2004). What the social brain sciences can tell us about the self. *Current Directions in Psychological Science, 13,* 190-103.

Henke, M., & Chur-Hansen, A. (2014). The effectiveness of mindfulness-based programs on physical symptoms and psychological distress in patients with fibromyalgia: A systematic review. *International Journal of Wellbeing, 4*, 28-45.

Hickie, I., Pols, R. G., Koschera, A., & Davenport, T. (2004). Why are *somatoform disorders so poorly recognized and treated*? In: G. Andrews & Henderson S. (Eds). *Unmet need in psychiatry: problems, resources, responses* (pp. 309-323). Cambridge: Cambridge University Press.

Ho, L. (2011). Meditation, learning, organisational innovation and performance. *Industrial Management and Data Systems, 111,* 113-131.

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.

Horowitz, S. (2010). Health benefits of meditation: What the newest research shows. *Alternative and Complementary Therapies, 16*, 223-228.

Houlihan, S. D., & Brewer, J. A. (2015). *The emerging science of mindfulness as a treatment for addiction*. In: E. Y. Shonin, W. Van Gordon and M. D. Griffiths (eds.), *Mindfulness and other Buddhist-derived approaches in mental health and addiction* (pp. 191-210). New York: Springer.

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*. (Blofeld, J., Trans.) New York: Grove Press.

Huffington, A. (2013). Mindfulness, meditation, wellness and their connection to corporate America's bottom line. *Huffington Post Business*. Accessed February 1, 2016. Available at: http://www.huffingtonpost.com/arianna-huffington/corporate-wellness_b_2903222.html

Hughes, G., Martinez, C., Myon, E., Taïeb, C., & Wessely, S. (2005). The impact of a diagnosis of fibromyalgia on health care resource use by primary care patients in the UK: an observational study based on clinical practice. *Arthritis and Rheumatism, 54*, 177-183.

Hutcherson, C. A., Seppala, E. M., & Gross, J. J. (2008). Loving-kindness meditation increases social connectedness. *Emotion, 8*, 720-724.

Iskender, M., & Akin, A. (2011). Compassion and internet addiction. *Turkish Online Journal of Educational Technology, 10*, 215-221.

Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly, 28*, 374-390.

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.

Jones, K. D., Sherman, C. A., Mist, S. D., Carson, J. W., Bennett, R. M., & Li, F. (2012). A randomized controlled trial of 8-form Tai chi improves symptoms and functional mobility in fibromyalgia patients. *Clinical Rheumatology, 31*, 1205-1214.

Jung, C. G. (1981). *The archetypes and the collective unconscious*, c*ollected works 9 (1) (2nd edition.).* Princeton: Bollingen.

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York: Hyperion.

Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: theoretical considerations and preliminary results. *General Hospital Psychiatry, 4*, 33-47.

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., Wheeler, E., Light, T., Skillings, A., & Scharf, M. J., Cropley, T. G., … Bernhard, J. D. (1998). Influence of a mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photochemotherapy (PUVA). *Psychosomatic Medicine, 60*, 625-632.

Kafka, M. P. (2010). Hypersexual disorder: A proposed diagnosis for DSM-5. *Archives of Sexual Behaviour, 39,* 377-400.

Kahn, E. (1998). Carl Rogers, more relevant today than Freud. *Psychotherapy Bulletin*, *33*, 35-36.

Kang, C., & Whittingham, K. (2010). Mindfulness: A dialogue between Buddhism and clinical psychology. *Mindfulness, 1*, 161-173.

Kaplan, K. H., Goldenberg, D. L., & Galvin-Nadeau, M. (1993). The impact of a meditation-based stress reduction program on fibromyalgia. *General Hospital Psychiatry*, *15,* 284-289.

Karanika-Murray, M., Pontes, H. M., Griffiths, M. D., & Biron, C. (2015). Sickness presenteeism determines job satisfaction via affective-motivational states. *Social Science and Medicine, 139*, 100-106.

Kelley, W. T., Macrae, C. N., Wyland, C., Caglar, S., Inati, S., & Heatherton, T. F. (2002). Finding the self? An event-related fMRI study. *Journal of Cognitive Neuroscience, 14*, 785-794.

Kelly, B. D. (2008). Buddhist psychology, psychotherapy and the brain: A critical introduction. *Transcultural Psychiatry, 45*, 5-30.

Kelly, B. D. (2015). *Compassion, cognition and the illusion of self: Buddhist notes towards more skilful engagement with diagnostic classification systems in psychiatry*. In: E. Y. Shonin, W. Van Gordon and M. D. Griffiths (eds.), *Mindfulness and other Buddhist-derived approaches in mental health and addiction* (pp. 9-28). New York: Springer.

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*. New York: Snow Lion Publications.

Khyentse, D. (2007). *The heart of compassion: The thirty-seven verses on the practice of a bodhisattva.* Boston: Shambhala Publications.

Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behaviour in the human male*. Philadelphia, PA: W. B. Saunders.

Kiresuk, T. J., & Sherman, R. E. (1968). Goal attainment scaling: A general method for evaluating comprehensive community mental health programs. *Community Mental Health Journal, 4*, 443-453

Klatt, M. Wise, E., & Fish, M. (2015). Mindfulness and workplace wellbeing. In: E. Shonin, W. Van Gordon and M. D. Griffiths (Eds.), *Mindfulness and Buddhist-Derived Approaches in Mental Health and Addiction* (pp. 313-336). Gewerbestrasse (Switzerland): Springer.

Klonsky, D. (2008). What is emptiness? Clarifying the 7th criterion for borderline personality disorder. *Journal of Personality Disorders, 22*, 418-426.

Koch, R. (2004). The quest for consciousness: A neurobiological approach. Englewood, CO: Roberts & Company Publishers.

Kohut, H. (1966). *Forms and transformations of narcissism*. In C. Strozier (Ed.), *Self psychology and the humanities* (pp. 97-123), New York: Norton.

Kohut, H. (1971). *The analysis of the self.* New York: International Universities Press

Krasner, M. S., Epstein, R. M., Beckman, H., Suchman, A. L., Chapman, B., Mooney, C.J., & Quill, T. E. (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.

Krishnamurti, J. (2009). *Freedom from the known*. San Francisco: Harper Collins

Kumar, S. M. (2005). *Grieving mindfully: A compassionate and spiritual guide to coping with*

loss. Oakland, CA: New Harbinger.

Langhorst, J., Klose, P., Dobos, G. J., Bernardy, K, & Häuser, W. (2013). Efficacy and safety of meditative movement therapies in fibromyalgia syndrome: A systematic review and meta-analysis of randomized controlled trials. *Rheumatology International, 33*, 193-207.

Lanzo, L., Aziz, S., & Wuensch, K. (2016). Workaholism and incivility: stress and psychological capital's role. *International Journal of Workplace Health Management, 9*, 165-183.

Lauche, R., Cramer, H., Dobos, G., Langhorst, J., & Schmidt, S. (2013). A systematic review and meta-analysis of mindfulness-based stress reduction for the fibromyalgia syndrome. *Journal of Psychosomatic Research, 75*, 500-510.

Lee, T. M., Leung, M.-K., Hou, W.-K., Tang, J. C., Yin, J., So, K.-F., … Chan, C. C. (2012). Distinct neural activity associated with focused-attention meditation and loving-kindness meditation. *PLoS ONE, 7*(8), e40054. DOI: 10.1371/journal.pone.0040054.

Leiberg, S., Klimecki, O., & Singer, T. (2011). Short-term compassion training increases prosocial behavior in a newly developed prosocial game. *PLoS ONE, 6*(3), e17798. doi:10.1371/journal.pone.0017798.

Lewis, M. (1990). Self-knowledge and social development in early life. In L. A. Pervin (Ed.), *Handbook of personality* (pp. 277-300). New York: Guilford.

Leys, C., Ley, C., Klein, O., Bernard, P., & Licata, L., (2013). Detecting outliers: Do not use standard deviation around the mean, use absolute deviation around the median. *Journal of Experimental Social Psychology*, *49*, 764-766.

Lomas, T., Cartwright, T., Edginton, T., & Ridge, D. (2014). A religion of wellbeing?: The appeal of Buddhism to men in London, UK. *Psychology of Religion and Spirituality, 6*, 198-207.

Lomas, T., Cartwright, T., Edginton, T., & Ridge, D. (2015). A qualitative analysis of experiential challenges associated with meditation practice. *Mindfulness, 6*, 848-860.

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety stress scales.* Sydney: Psychology Foundation.

Lowen, A. (2004). *Narcissism: Denial of the true self.* London: Simon & Schuster.

Luciano, J. V., Guallar, J., A., Aguado, J., López-del-Hoyo, Y., Olivan, B., Magallón, R., … Garcia-Campayo, J. (2014). Effectiveness of group acceptance and commitment therapy for fibromyalgia: A 6-month randomized controlled trial (EFFIGACT study). *Pain, 155*, 693-702.

Lutz, A., Brefczynski-Lewis, J., Johnstone, T., & Davidson, R. J. (2008). Regulation of the neural circuitry of emotion by compassion meditation: Effects of meditative expertise. *PLoS ONE*, *3*(3), e1897. DOI:10.1371/journal.pone.0001897.

Lutz, A., Slagter, H. A., Dunne, J. D., & Davidson, R. J. (2008). Attention regulation and monitoring in meditation. *Trends in Cognitive Sciences, 12*, 163-169.

Macaro, A., & Baggini, J. (2015). Businesses on the mindfulness bandwagon. *FT Magazine*. Accessed February 1, 2016. Available at: http://www.ft.com/cms/s/0/ee65c5e4-c82f-11e4-8fe2-00144feab7de.html

MacCoon, D. G., Imel, Z. E., Rosenkranz, M. A., Sheftel, J. G., Weng, H. Y., Sullivan, J. C., … Lutz, A. 2012. The validation of an active control intervention for Mindfulness Based Stress Reduction (MBSR). *Behaviour 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. B., Jarjoura, D., & Klatt, M. (2013). Workplace based mindfulness practice and inflammation: A randomized trial. *Brain, Behaviour and Immunity, 27,* 145-154.

Mannerkorpi, K., & Arndorw, M. (2004). Efficacy and feasibility of a combination of body awareness therapy and qigong in patients with fibromyalgia: A pilot study. *Journal of Rehabilitative Medicine, 36*, 279-281.

Manocha, R. (2000). Why meditation? *Australian Family Physician, 29*, 1135-1138.

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*, *8, 1.* DOI:10.1155/2011/960583.

Markus, H. R., Mullally, P. R., Kitayama, S. (1997). *Selfways: Diversity in modes of cultural participation*. In U. Neisser & D. A. Jopling (Eds.), *The conceptual self in context: culture, experience, self-understanding* (pp. 13-61). New York: Cambridge University Press.

Marra, M. (1988). The development of mappō thought in Japan. *Japanese Journal of Religious Studies, 15*, 26-27.

Mascaro, J. S., Rilling, J. K., Negi, L. T., & Raison, C. L. (2013). Compassion meditation enhances empathic accuracy and related neural activity. *Social Cognitive and Affective Neuroscience*, *8,* 48-55.

Maugans, T. A., & Wadland, W. C. (1991). Religion and family medicine: a survey of physicians and patients. *Journal of Family Practice*, *32*, 210-213.

May, C. J., Weyker, J. R., Spengel, S. K., Finkler, L. J., & Hendrix, S. E. (2014). Tracking longitudinal changes in affect and mindfulness caused by concentration and loving-kindness meditation with hierarchical linear modeling. *Mindfulness, 5,* 249-258.

Maynard, B. R., Wilson, A. N., Labuzienski, E., & Whiting, S. W. (2015). Mindfulness-based

approaches in the treatment of disordered gambling: a systematic review and meta-analysis. *Research on Social Work Practice*. Advance Online Publication, DOI: 10.1177/1049731515606977.

McGarvey, M. K. (2010). *Mindfulness practices and emotional development in adult life: A developmental framework for research and teaching*. Harvard: Harvard Graduate School of Education.

McWilliams, S. A. (2011). Contemplating a contemporary constructivist Buddhist psychology. *Journal of Constructivist Psychology, 24*, 268-276.

Mealer, M., Conrad, D., Evans, J., Jooste, K., Solyntjes, J., Rothbaum, B., & Moss, M. (2014). Feasibility and acceptability of a resilience training program for intensive care unit nurses. *American Journal of Critical Care, 23, e97-e105*. DOI: 10.4037/ajcc2014747.

Mease, P. J., Arnold, L. M., Crofford, L. J., Williams, D. A., Russell, I. J., Humphrey, L., … Martin, S. A. (2008). Identifying the clinical domains of fibromyalgia: Contributions from clinician and patient delphi exercises. *Arthritis Care and Research, 59*, 952-960.

Melzack, R. (1987). The short-form McGill Pain Questionnaire. *Pain, 30,* 191-197.

Melzack, R. (1991). From the gate to the neuromatrix. *Pain, 6 Suppl*, S121-6.

Mental Health Foundation. (2010). *Mindfulness report.* London: Author.

Merleau-Ponty, M. (2012). *Phenomenology of perception* (D. A. Landes, Trans.). London: Routledge. (orig. publ., 1945, Phénoménologie de la perception).

Mipham, S. (2002). *Shamatha meditation: Training the mind*. Accessed 15 November, 2014.

Available at: http://www.lionsroar.com/training-the-mind/

Modrego, M., Morillo, H., López Montoyo, A., Correa, M., Borao, L., & García-Campayo, J. (2016). Mindfulness levels in patients with fibromyalgia following recommended pharmacological treatment: A multicenter, uncontrolled, one-year follow-up study.

Mindfulness and Compassion, 1, 13-21.

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.*

Moreira-Almeida, A., & Koenig, H. G. (2008). Religiousness and spirituality in fibromyalgia and chronic pain patients. *Current Pain and Headache Reports, 12*, 327-332.

Morone, N. E., Lynch, C. S., Greco, C. M., Tindle, H. A., & Weiner, D. K. (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.

Ñanamoli, B., & Bodhi, B. (2009). *Majjhima Nikaya: The middle length discourses of the Buddha* (4th ed.). (Bhikkhu Nanamoli & Bhikkhu Bodhi, Trans.) Massachusetts: Wisdom Publications.

National Institute for Health and Care Excellence (NICE; 2009). *Depression: Management of Depression in Primary and Secondary Care.* London: Author.

National Institute of Mental Health. (2012). Any mental illness (AMI) among adults. Accessed November 8, 2015. Available at: http://www.nimh.nih.gov/health/statistics/prevalence/any-mental-illness-ami-among-adults.shtml

Nhat Hanh, T. (1992). *The sun my heart.* London: Rider.

Nhat Hanh, T. (1999). *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.

Nüesch, E., Häuser, W., Bernardy, K., Barth, J., & Jüni, P. (2013). Comparative efficacy of pharmacological and non-pharmacological interventions in fibromyalgia syndrome:

network meta-analysis. *Annals of the Rheumatic Diseases,* 72, 955-962.

Nyanaponika, T. (1962). *The heart of Buddhist meditation*. New York: Samuel Weiser.

Nyoshul, K., & Surya Das. (1995). *Natural great perfection: Dzogchen teachings and Vajra songs*. New York: Snow Lion Publications.

O'Connell, A.D., Hofheinz, M., Ansmann, M., Bialczak, R.C., Lenander, M., Lucero, E. …. & Cleland, A.N. (2010). Quantum ground state and single-phonon control of a mechanical resonator. *Nature, 464*, 697-703.

Olshansky, E.F. (2015). *Generating theory using grounded theory methodology*. In: de Chesnay, M. (ed.) (2015). *Nursing Research Using Grounded Theory: Qualitative Designs and Methods in Nursing*, pp. 19–28. New York: Springer.

Orbach, S. (2009). *Bodies.* London: Profile Books.

Orosz, G., Loránd. E., Dombi, E., Andreassen, C. S., Griffiths, M. D., & Demetrovics Z. (2016). Analyzing models of work addiction: Single factor and bi-factor models of the Bergen Work Addiction Scale. *International Journal of Mental Health and Addiction, 14*, 662-671.

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 behavioral responses to psychosocial stress. *Psychoneuroendocrinology, 34*, 87-98.

Pace, T. W., Negi, L. T., Sivilli, T. I., Issa, M. J., Cole, S. P., Adame, D. D., & Raison, C. L. (2010). Innate immune, neuroendocrine and behavioral responses to psychosocial stress do not predict subsequent compassion meditation practice time. *Psychoneuroendocrinology, 35*, 310-315.

Penrose, R. (2006). *The road to reality*: *A complete guide to the laws of the universe*. London: Vintage.

Perez-De-Albeniz, A., & Holmes, J. (2000). Meditation: Concepts, effects and uses in therapy. *International Journal of Psychotherapy, 5*, 49-59.

Peterson, E. L. (2007). Fibromyalgia – Management of a misunderstood disorder. *Journal of the American Academy of Nurse Practitioners, 19*, 341-348.

Poulin, P. A., Mackenzie, C. S., Soloway, G., & Karayolas, E. (2008). Mindfulness training as an evidenced-based approach to reducing stress and promoting well-being among human services professionals. *International Journal of Health Promotion and Education, 46*, 72-80.

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. N. Singh (Eds.), *Buddhist foundations of mindfulness* (pp. 217-244). New York: Springer.

Purser, R. E. (2015). Clearing the muddled path of traditional and contemporary mindfulness: A response to Monteiro, Musten, and Compson. *Mindfulness, 6*, 23-45.

Purser, R. E., & Ng, E. (2015). Corporate mindfulness is bullsh*t: Zen or no Zen, you're working harder and being paid less. *Salon*. Accessed February 1, 2016. Available at: http://www.salon.com/2015/09/27/corporate_mindfulness_is_bullsht_zen_or_no_zen_y oure_working_harder_and_being_paid_less/

Quené, H., & van den Bergh, H. (2004). On multi-level modelling of data from repeated measures designs: A tutorial. *Speech Communication*, *43*, 103-121.

Quinones, C., Griffiths, M. D. & Kakabadse, N. (2016). Compulsive Internet use and workaholism: An exploratory two-wave longitudinal study. *Computers in Human Behavior, 60*, 492-499.

Rājvudhācāriya. (2010). *Citta is Buddha*. Bangkok: Chuanpin.

Rimes, K. A., & Wingrove, J. (2013). Mindfulness-based cognitive therapy for people with chronic fatigue syndrome still experiencing excessive fatigue after cognitive behaviour therapy: a pilot randomized study. *Clinical Psychology and Psychotherapy, 20*, 107-117.

Rogers, C. (1959). *A theory of therapy, personality and interpersonal relationships as developed in the client-centered framework.* In S. Koch (Ed.), *Psychology: A study of a science. Vol. 3: Formulations of the person and the social context* (pp. 184-256). New York: McGraw Hill.

Rosch, E. (2007). More than mindfulness: When you have a tiger by the tail, let it eat you. *Psychological Inquiry, 18*, 258-264.

Rosenberg, K. P., Carnes, P. J., & O'Connor, S. (2014). Evaluation and treatment of sex addiction. *Journal of Sex and Marital Therapy*, *40*, 77-91.

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.

Rungreangkulkij, S., Wongtakee, W., & Thongyot, S. (2011). Buddhist Group Therapy for diabetes patients with depressive symptoms. *Archives of Psychiatric Nursing, 25*, 195-205.

Russel, S. S., Spitzmuller, C., Lin, L. F., Stanton, J. M., Smith, P. C., & Ironson, G. H. (2004). Shorter can also be better: The abridged Job in General Scale. *Educational and Psychological Measurement, 64,* 878-893.

Sahdra, B. K., Ciarrochi, J., Parker, P. D., Marshall, S., & Heaven, P. (2015). Empathy and nonattachment independently predict peer nominations of prosocial behavior of adolescents. *Frontiers in Psychology*, *6, 263.* DOI: 10.3389/fpsyg.2015.00263.

Sahdra, B. K., Shaver, P. R., & Brown, K. W. (2010). A scale to measure non-attachment: A Buddhist complement to Western research on attachment and adaptive functioning.

Journal of Personality Assessment, 92, 116-127.

Sampson, E. E. (1999). *Dealing with Differences: An Introduction to the Social Psychology of Prejudice*. New York, NY: Harcourt Brace College.

Sandelowski, M., & Barroso, J. (2002). Reading qualitative studies. *International Journal of Qualitative Methods, 1*, 74-108.

Santideva. (1997). *A guide to the Bodhisattva way of life.* (V. A. Wallace, & A. B. Wallace, Trans.) New York: Snow Lion Publications.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2017). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & Quantity*, *Advance Online Publication*, DOI: 10.1007/s11135-017-0574-8.

Schaefer, C., Chandran, A., Hufstader, M., Baik, R., McNett, M., Goldenberg, D., … Zlateva, G. (2011). The comparative burden of mild, moderate and severe fibromyalgia: results from a cross-sectional survey in the United States. *Health Quality of Life Outcomes, 9*, 71. DOI: 10.1186/1477-7525-9-71.

Schulz, K. F., Altman, D. G., & Moher, D. (2010). CONSORT 2010 statement: Updated guidelines for reporting parallel group randomized trials. *Annals of Internal Medicine, 152,* 1-8.

Schwarz, J. H. (1999). From superstrings to M Theory. *Physics Reports, 315*, 107-121.

Scott, M., & Jones, K. (2014). Mindfulness in a fibromyalgia population. *The Journal of Alternative and Complementary Medicine, 20,* A94-A95.

Seegers, J. (2003). The prevalence of sexual addiction symptoms on the college campus. *Sexual Addiction and Compulsivity, 10,* 247-258.

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.), *Encountering Buddhism: Western psychology and Buddhist teachings* (pp. 165-178). New York: State University of New York Press.

Shamay-Tsoory, S. G. (2011). The neural bases for empathy. *Neuroscientist, 17*, 18-24.

Shimazu, A., Schaufeli, W. B., Kamiyama, K., & Kawakami, N. (2015). Workaholism vs. work engagement: The two different predictors of future well-being and performance. *International Journal of Behavioral Medicine, 22*, 18-23.

Shonin, E. (2015). *Integrating Buddhist Practices and Principles into Mental Health Settings: A Mixed Methods Investigation* [PhD Thesis]. Nottingham: Nottingham Trent University.

Shonin, E., & Van Gordon, W. (2013). Searching for the present moment. *Mindfulness, 5*, 104-107.

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

Shonin, E., & Van Gordon, W. (2014b). Should mindfulness be taught to the military? Accessed February 1, 2016. Available at: http://edoshonin.com/2014/08/08/should-mindfulness-be-taught-to-the-military/

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

Shonin, E., & Van Gordon, W. (2014d). Can a person be ignorant and intelligent at the same time? Accessed June 11, 2016. Available at: http://edoshonin.com/2014/06/11/can-a-person-be-ignorant-and-intelligent-at-the-same-time/

Shonin, E., & Van Gordon, W. (2014e). The consuming mind. *Mindfulness*, *5,* 345-347.

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

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

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

Shonin, E., Van Gordon, W., Griffiths, M. D. (2013b). 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. (2014a). 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. (2014b). Cognitive Behavioral 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. (2014c). 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., Dunn, T., Singh, N., & Griffiths, M. D. (2014d). Meditation Awareness Training for work-related wellbeing and job performance: A randomized controlled trial. *International Journal of Mental Health and Addiction, 12,* 806-823.

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

Shonin, E., Van Gordon W., & Griffiths, M. D. (2014f). Are there risks associated with using mindfulness for the treatment of psychopathology? *Clinical Practice, 11,* 389-392.

Shonin, E., Van Gordon W., & Griffiths, M. D. (2014g). 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. (2014h). Mindfulness in psychology: A breath of fresh air? *The Psychologist*, *28,* 28-31.

Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014i). 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. (2015a). The treatment efficacy of mindfulness: Where are we now? *British Medical Journal, 351, h6919.* DOI: 10.1136/bmj.h6919.

Shonin, E., Van Gordon, W., Singh, N. N., & Griffiths, M. D. (2015b). *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.

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

Shonin, E., & Van Gordon, W., & Griffiths, M. D. (2016). *Mindfulness and Wellbeing: Towards a Unified Operational Approach*. In: I. Ivtzan, & T. Lomas. (Eds). *Mindfulness in Positive Psychology: The Science of Meditation and Wellbeing (pp. 280-292)*. Oxford: Routledge.

Sicras-Mainar, A., Rejas, J., Navarro, R., Blanca, M., Morcillo, A., Larios, R., … Villarroya,

C. (2009). Treating patients with fibromyalgia in primary care settings under routine medical practice: a claim database cost and burden of illness study. *Arthritis Research & Therapy, 11*, R54. DOI:10.1186/ar2673.

Sills, M., & Lown, J. (2008). The field of subliminal mind and the nature of being. *European Journal of Psychotherapy and Counselling, 10*, 71-80.

Sim, J., & Madden, S. (2008). Illness experience in fibromyalgia syndrome: A metasynthesis of qualitative studies. *Social Science & Medicine, 67*, 57-67.

Singh, N. N., Lancioni, G. E., Karazsia, B. T., & Myers, R. E. (2016). Caregiver training in mindfulness-based positive behavior supports (MBPBS): Effects on caregivers and adults with intellectual and developmental disabilities. *Frontiers in Psychology, 7*, 98. DOI: 10.3389/fpsyg.2016.00098.

Singh, N. N., Lancioni, G. E., Karazsia, B. T., Myers, R. E., Winton, A. S. W., Latham, L. L., & Nugent, K. (2015). Effects of training staff in MBPBS on the use of physical restraints, staff stress and turnover, staff and peer injuries, and cost effectiveness in developmental disabilities. *Mindfulness* 6, 926-937.

Singh, N. N., Lancioni, G. E., Wahler, R. G., Winton, A. S., & Singh, J. (2008). Mindfulness approaches in cognitive behavior therapy. *Behavioral and Cognitive Psychotherapy, 36,* 659-666.

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. (2014). 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., Winton, A. S. W., Singh, A. N., Adkins, A. D., & Singh, J. (2009). Mindful staff can reduce the use of physical restraints when providing care to individuals with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities,* 22, 194-202.

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.

Smith, E. R., & Mackie, D. M. (2007). *Social psychology (3rd edition).* Philadelphia: Psychology Press.

Smith, J. A. (1995). *Semi-structured interviewing and qualitative analysis.* In J. A. Smith, R. Harre, & L. Van Langenhove (Eds.), *Rethinking methods in psychology* (pp. 9-26). London: Sage.

Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology and Health, 11*, 261-271.

Smith, J. A. (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. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis. theory, method and research.* London: Sage Publications Ltd.

Snijders, T. A. B., & Bosker, R. J., (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modelling*. London: Sage.

Soeng, M. (1995). *Heart Sutra*: *Ancient Buddhist wisdom in the light of quantum reality.*

Cumberland: Primary Point Press.

Sogyal Rinpoche. (1998). *The Tibetan book of living and dying*. London: Rider.

Stange, J. P., Eisner, L. R., Hölzel, B. K., Peckham, A. D., Dougherty, D. D., Rauch, S. ... Deckersbach, T. (2011). Mindfulness-based cognitive therapy for bipolar disorder: effects on cognitive functioning. *Journal of Psychiatric Practice, 17*, 410-419.

Sussman, S., (2012). Workaholism: A review. *Journal of Addiction Research and Therapy*, *S6:001*. DOI:10.4172/2155-6105.S6-001.

Sussman, S., Lisha, N. & Griffiths, M. D. (2011). Prevalence of the addictions: A problem of the majority or the minority? *Evaluation and the Health Professions*, *34*, 3-56.

Symington, N. (2003). *Narcissism: A new theory.* London: Karnac Books.

Tattersall, C., Watts, A., & Vernon, S. (2007). Mind mapping as a tool in qualitative research. *Nursing Times, 103*, 32-33.

Traeen, B., Spitznogle, K., & Beverfjord, A. (2004). Attitudes and use of pornography in the Norwegian population 2002. *Journal of Sex Research*, *41*, 193-200.

Trungpa, C. (2004). *The collected works of Chogyam Trungpa*: Volume 8. Boston: Shambhala Publications.

Trungpa, C. (2002). *Cutting through spiritual materialism*. Boston: Shambala.

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.

Turk, D. J., Heatherton, T.F., Kelley, W.M., Funnell, M.G., Gazzaniga, M.S., & Macrae, C. N. (2002). Mike or me? Self-recognition in a split-brain patient. *Nature Neuroscience, 5*, 841-842.

Urgyen, T. (2000). *As it is.* (M. B. Schmidt, K. Moran, Eds., & E. Pema Kunsang, Trans.) Hong

Kong: Rangjung Yeshe Publications.

Van Gordon, W., & Griffiths, M. D. (2015). For the mindful teaching of mindfulness. *The Psychologist, 28,* 514-515.

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., Skelton, K., & Griffiths, M. D. (2014c). Working mindfully: Can mindfulness improve work-related wellbeing and work effectiveness? *Counselling at Work*, *Winter Issue, 14-19.*

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

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

Van Gordon, W., Shonin, E., Griffiths, M. D., & Singh, N. N. (2015d). *Mindfulness of the four noble truths.* In: E. Y. Shonin, W. Van Gordon and N. N. Singh (eds.), *Buddhist foundations of mindfulness (pp. 9-27).* New York: Springer.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016a). Buddhist emptiness theory:

Implications for psychology. *Psychology of Religion and Spirituality. Advance Online Publication,* DOI: 10.1037/rel0000079.

Van Gordon, W., Shonin, E., & Griffiths, M. (2016b). Meditation Awareness Training for individuals with fibromyalgia syndrome: An interpretative phenomenological analysis of participant's experiences. *Mindfulness*, *7*, 490-419.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016c). Are contemporary mindfulness-based interventions unethical? *British Journal of General Practice*, *66,* 94.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016d). Meditation Awareness Training for the treatment of sex addiction: A case study. *Journal of Behavioral Addiction*, *5*, 363-372.

Van Gordon, W., Shonin, E., & Griffiths, M. D. (2016e). Ontological addiction: Classification, etiology, and treatment. *Mindfulness, 7*, 660-671.

Van Gordon, W., Shonin, E., Lomas, T., & Griffiths, M. D. (2016f). Corporate use of mindfulness and authentic spiritual transmission: Competing or compatible ideals? *Mindfulness and Compassion*, *1, 75-83.*

Van Gordon, W., Shonin, E., Dunn, T., Garcia-Campayo, J., & Griffiths, M. D. (2017). Meditation Awareness Training for the treatment of fibromyalgia: A randomised controlled trial. *British Journal of Health Psychology, 22*, 186-206.

Vogel, H. (2009). *Nervous System: Cambridge Illustrated Surgical Pathology.* New York: Cambridge University Press.

Vøllestad, J. (2015). *Mindfulness- and acceptance-based interventions in the treatment of anxiety disorders.* In E. Shonin, W. Van Gordon, & M. D. Griffiths (Eds). *Mindfulness and Buddhist-derived approaches in mental health and addiction* (pp. 97-138). Gewerbestrasse: Springer.

Vøllestad, J., Nielson, M. B., Nielson, G. H. (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.

Weissbecker, I., Salmon, P., Studts, J. L., Floyd, A. R., Dedert, E. A., & Sephton, A. E. (2004). Mindfulness-based stress reduction and sense of coherence among women with fibromyalgia. *Journal of Clinical Psychology in Medical Settings, 9,* 297-308.

Welbourne, T. M., Johnson, D. E., & 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.

White, K. P., Nielson, W. R., Harth, M., Ostbye, T., & Speechley, M. (2002). Does the label "fibromyalgia" alter health status, function, and health service utilization? A prospective, within-group comparison in a community cohort of adults with chronic widespread pain. *Arthritis Care and Research, 47*, 260-265.

Whitfield-Gabrieli, S., & Ford, J. M. (2012). Default mode network activity and connectivity in psychopathology. *Annual Review of Clinical Psychology*, *8*, 49-76.

Williams, M. J., McManus, F., Muse, K., & Williams, J. M. (2011). Mindfulness-based cognitive therapy for severe health anxiety (hypochondriasis): An interpretative phenomenological analysis of patients' experiences. *British Journal of Clinical Psychology, 50*, 379-97

Williams, P. (2008). *Mahayana Buddhism: The doctrinal foundations*. London: Routledge.

Wilson, B. M., Mickes, L., Stolarz-Fantino, S., Evrard, M., & Fantino, E. (2015). Increased false-memory susceptibility after mindfulness meditation. *Psychological Science, 26*, 1567-1573.

Winnicott, D. W. (1965). *Ego distortion in terms of true and false self.* In J. S. Sutherland & M. M. R. Kahn (Eds), *The maturational process and the facilitating environment: studies in the theory of emotional development* (pp. 140-152). New York: International UP Inc.

Witkiewitz, K, Marlatt, G. A., & Walker, D. (2005). Mindfulness-based relapse prevention for alcohol and substance use disorders. *Journal of Cognitive Psychotherapy, 19*, 211-228.

Wolfe, F. (2009). Fibromyalgia wars. *Journal of Rheumatology, 36*, 671-678.

Wolfe, F., Anderson, J., Harkness, D., Bennett, R. M., Caro, X. J., Goldenberg, D. L., … Yunus, M. B. (1997). Work and disability status of persons with fibromyalgia. *Journal of Rheumatology, 24*, 1171-1178.

Wolfe, F., Anderson, J., Harkness, D., Bennett, R. M., Caro, X. J., Goldenberg, D. L., … Yunus, M. B. (1997a). A prospective, longitudinal, multicenter study of service utilization and costs in fibromyalgia. *Arthritis and Rheumatology, 40*, 1560-1570.

Wolfe, F., Brähler, E., Hinz, A., & Häuser, W. (2013). Fibromyalgia prevalence, somatic symptom reporting, and the dimensionality of polysymptomatic distress: Results from a survey of the general population. *Arthritis Care and Research, 65*, 777-785.

World Health Organization. (2007). *International classification of diseases* (10th ed.). Geneva, Switzerland: Author.

World Health Organization (WHO) International Consortium in Psychiatric Epidemiology (2000). Cross-national comparisons of the prevalences and correlates of mental disorders. *Bulletin of the World Health Organization, 78*, 413-426.

Yang, C., & Lukoff, D. (2006). Working with spiritual issues. *Psychiatric Annals*, *36*, 168-174.

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health, 15*, 215-228.

Yorston G. (2001). Mania precipitated by meditation: A case report and literature review. *Mental Health Religion and Culture, 4*, 209-213.