

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

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*Background:* 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 the guidelines for treating other behavioral (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 that second-generation mindfulness-based interventions (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. *Case presentation:* An in-depth clinical case study was conducted involving an adult male suffering from sex addiction that underwent treatment utilizing an SG-MBI known as Meditation Awareness Training (MAT). Following completion of MAT, the participant demonstrated clinically significant improvements in addictive sexual behavior, 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 6-month follow-up. *Discussion and conclusion:* The current study extends the literature exploring the applications of mindfulness for treating behavioral addiction, and findings indicate that further clinical investigation into the role of mindfulness for treating sex addiction is warranted.

**Keywords:** sex addiction, hypersexual behavior, meditation awareness training, behavioral addiction, mindfulness, addiction treatment

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### INTRODUCTION

Although sex addiction was not accepted for inclusion in the latest (fifth) edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2013), excessive non-paraphilic sexual behavior was included in the DSM-III as a “Sexual Disorder Not Otherwise Specified” (American Psychiatric Association, 1987). Furthermore, both the American Society of Addiction Medicine (2011) and the International Classification of Diseases (10th ed.; World Health Organization, 2007) accept that excessive sexual behavior 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% and 8% in the general population (e.g., Carnes, 1999; Kinsey, Pomeroy, & Martin, 1948; Seegers, 2003; Sussman, Lisha, & Griffiths, 2011; Traeen, Spitznogle, & Beverfjord, 2004). Sex addiction (sometimes referred to – among many other names – as hypersexuality disorder) has been defined as “a sexual desire disorder characterized by an increased frequency and intensity of sexually motivated fantasies, arousal, urges, and enacted behavior in association with an impulsivity component – a maladaptive behavioral response with adverse consequences” (Kafka, 2010, p. 385).

Sex addiction is associated with (among other things) increased risk-taking behaviors (e.g., substance use and multiple sex partners), depression and anxiety, impulsivity, loneliness, low self-worth, and insecure attachment styles (see the 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 behavior becomes the most important activity in the person’s life and dominates their thinking, feelings, and behavior), (ii) *mood modification* (the subjective experiences that individuals report as a consequence of engaging in sex-related behavior), (iii) *tolerance* (the need for increased levels or intensity of the sexual behavior to achieve the desired effect), (iv) *withdrawal* (i.e., psychophysiological withdrawal symptoms – such as irritability and moodiness – upon discontinuation of the pattern of sexual behavior), (v) *conflict* (both interpersonal and intra-psychic conflict due to spending excessive amounts of time engaged in sex-related behavior), and (vi) *relapse* (the tendency for repeated reversions to earlier patterns of sexual behavior to recur after prolonged periods of abstinence or control).

Examples of interventions typically employed for treating sex addiction are cognitive behavioral therapy,

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dialectical behavioral techniques, psychoanalysis, family therapy, motivation training, 12-step and peer-support programs, 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 behavioral (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 behavioral addictions 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, 2016; Shonin, Van Gordon, & Griffiths, 2014a), workaholism (Shonin, Van Gordon, & Griffiths, 2014b), and internet addiction (Iskender & Akin, 2011). However, to date, no study has explored the applications of mindfulness for treating sex addiction. Nevertheless, Shonin, Van Gordon, and Griffiths (2013) 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 second-generation mindfulness-based interventions (SG-MBIs) specifically utilize meditations intended to undermine attachment to sex and/or the human body.

The second generation of mindfulness-based interventions advocated by Shonin et al. employ a different treatment model than that of first-generation mindfulness-based interventions (FG-MBIs). FG-MBIs refer to interventions such as Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy and 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). SG-MBIs, such as the Meditation Awareness Training (MAT) intervention, integrate a greater range of meditation techniques and subscribe to a definition of mindfulness that is arguably more congruent with the traditional Buddhist construction. A proposed SG-MBI definition of mindfulness is that it 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, Shonin, & Griffiths, 2015a). Consequently, the term "direct awareness" in the SG-MBI delineation directly contradicts the use of the term "non-judgmental" in the FG-MBI definition. According to Van Gordon et al. (2015a), rather than teaching participants to be non-judgmental, a reason why SG-MBIs may be more suited to the treatment of behavioral addictions is because they encourage mindfulness practitioners to be (i) ethically aware of both the short- 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 paper 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 behavior who underwent treatment utilizing an 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 6 months) that occurred 3 years ago (*Major Depressive Disorder, Recurrent Episode, Mild; DSM-IV-TR Code 296.31*) and 5 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, while still married, he "started to become addicted to sex." Apart from attending a self-help group for a 6-week period approximately 1 year ago, he has not previously sought treatment for his hypersexual behavior.

### *Case history*

*Occupational history.* Adam works in a sales position that involves regular domestic travel and overnight hotel stays. His role affords him the 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 1 day each week. Adam has been employed in his current role for the past 4 years. He previously performed various sales roles and completed a 2-year salaried graduate training program 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 2 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 the 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 honors. 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 2 years after leaving university and was married for 4 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 has 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 behavior.

*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 while at university, "I became interested in my spiritual side" and he began to explore Christianity more earnestly. However, Adam became disillusioned with certain organized 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 center in the UK for a period of 6 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 3 years.

#### *Behavioral observations*

At his initial assessment with the psychotherapist (and at each subsequent meeting), Adam was cognizant 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 bloodshot, and although he denied feeling tired, he appeared fatigued. The psychotherapist's best estimate is that Adam is 6 feet (183 cm) tall and weighs 85–87.5 kg. 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-min session). Although Adam did not exhibit problems in expressing himself, the account of his problematic sexual behavior 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 behavior. At these times, Adam assumed a more tense body posture and became overconfident and borderline defensive. This behavior 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, and irritable), and on several occasions, he was cold and abrupt. When confronted by the psychotherapist with this latter observation, Adam apologized and explained that "I've got a lot on my plate right now."

*Presenting complaints.* Adam explained that approximately 4 years ago (i.e., 1 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 2 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., 6 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 5 months before he divorced, "pornography stopped being enough" and "I needed to explore myself sexually." He stated that "my wife did not 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 5 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 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 behavior, he typically (i) uses the services of an escort six times per week (each paid sexual encounter normally lasts for 30–60 min, and those lasting for 60 min 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 10 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 min each day in three to four separate viewing sessions (i.e., each of 15–20-min duration), and (vi) masturbates five times a week while 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 while watching a pornographic film) to help him sleep, and that he typically sleeps for 5–6 hr per night. He reported that recently, he has “*started to become care-less*” 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 behavior is likely to minimize 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 socializing during the evening or when meeting sex partners during the day or evening.

#### Diagnostic impressions

Adam’s problematic sexual behavior 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 6 months after the onset of his problematic sexual behavior). 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 behavior. 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 behavior?*” 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 behavior: (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 7-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., 2013). According to the DASS manual (Lovibond & Lovibond, 1995), the percentile cutoffs (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 et al., 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, Ciarrochi, Parker, Marshall, & Heaven, 2015; Sahdra, Shaver, & Brown, 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, Shonin, Griffiths, & Singh, 2015b). 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, Van Gordon, & Griffiths (2014c) for a detailed explanation of how attachment is conceptualized 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, Reynolds, Monk, Berman, & Kupfer, 1989) assesses 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* and 3 = *extreme difficulty*) and features items such as “*during the past month, how would you rate your sleep quality overall?*” A global score of  $\geq 5$  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 the treatment goal attainment and involves the client and therapist agreeing upon a series of goals. The level of goal attainment is determined by behavioral descriptions of functioning. Scores range from  $-2$  (regression) through 0 (expected outcome attained) to  $+2$  (expected outcome exceeded) for each of the agreed goals. Scores for individual goals are combined and then the GAS conversion key is utilized to calculate a global score. In the current 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 diary-keeping by Adam (baseline values shown in brackets): (i) time spent watching online and offline pornographic films (13.5 hr), (ii) time spent engaged in cyber-sex (10 hr), (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) 6-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 behavioral 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 behavior and allowed it to intensify. Inevitably, his sexual behavior 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 behavior 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 behavior until interpersonal and intra-psychic conflict reached a point that he could no longer deny that his behavior 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 behaviors (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 minimize the impact on [me and my sister].*” The first signs of notable intra-psychic 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, Shonin, and Griffiths (2016), spiritual undernourishment can be a key determinant of psychopathology and probably played a role in the onset of Adam's depression and hypersexual behavior.

#### *Protective and problematic factors*

Adam's interest in spiritual development (and in particular Buddhism) could potentially be utilized 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 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 meditative 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., 2015b). 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 program (Van Gordon, Shonin, Sumich, Sundin, & Griffiths, 2014).

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 10 weekly sessions attended by Adam lasted for 90 min and comprised three phases: (i) discussion with the therapist (approximately 40 min), (ii) a taught component (approximately 20 min), and (iii) a guided meditation (approximately 20 min). A 10-min 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 authors' academic institution. The participant provided written consent for their data to be published in an academic journal in anonymized form.

#### *Early intervention phase (weeks 1–2)*

The early intervention phase focused on establishing therapeutic alliance, as well as core therapeutic conditions such as active listening, unconditional positive regard, accurate empathy, respect, and genuineness (Wells, 1997). Psychoeducation was likewise employed during this treatment phase to reinforce Adam's understanding of (i) addiction and the addiction feedback loop, (ii) psychotherapy according to a meditative framework, and (iii) the etiology, prevalence, and symptom course of hypersexual behavior.

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 behavior (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 focusing 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, feces, urine, pus, vomit, blood, sinew, skin, bone, teeth, flesh, sweat, etc.). Another guided meditation involved visualizing the process of decay that the body undergoes following death (i.e., as a 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 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 without them dictating his mental state and behavior.

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 for further explanation).
5. *Sex in context:* This aspect of Adam’s treatment was mostly discussion based and focused on helping Adam contextualize 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 is not necessarily wrong, so long as nobody is 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 is likely to be safer and more meaningful.

#### *Therapy termination (weeks 9–10)*

The final phase of treatment concentrated on preparing Adam for therapy termination. While he felt that his psychological well-being 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 behavior, 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-min booster sessions were arranged at 4-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 6-month follow-up (i.e., *t4*). As shown in Figure 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 behavior. 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 toward 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  $\geq 5$ ) for non-problematic sleep. Further improvements in sleep quality were demonstrated between *t3* and *t4*, and Adam’s PSQI score of five at 6-month follow-up was just outside the cutoff 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 2 months’ time, (ii) was attending a Buddhist meditation group on a weekly basis, and (iii) no longer feels guilty about his sexual behavior that “works for me and is much more meaningful.”

## DISCUSSION

This paper reports findings from the first clinical study to investigate the utility of mindfulness for treating sex addiction. The intervention utilized in the present study (i.e., MAT) belongs to the second generation of mindfulness-based interventions and follows a comprehensive approach to mindfulness teaching and practice. The male adult participant (Adam) demonstrated clinically significant improvements in addictive sexual behavior as well as depression and psychological distress.

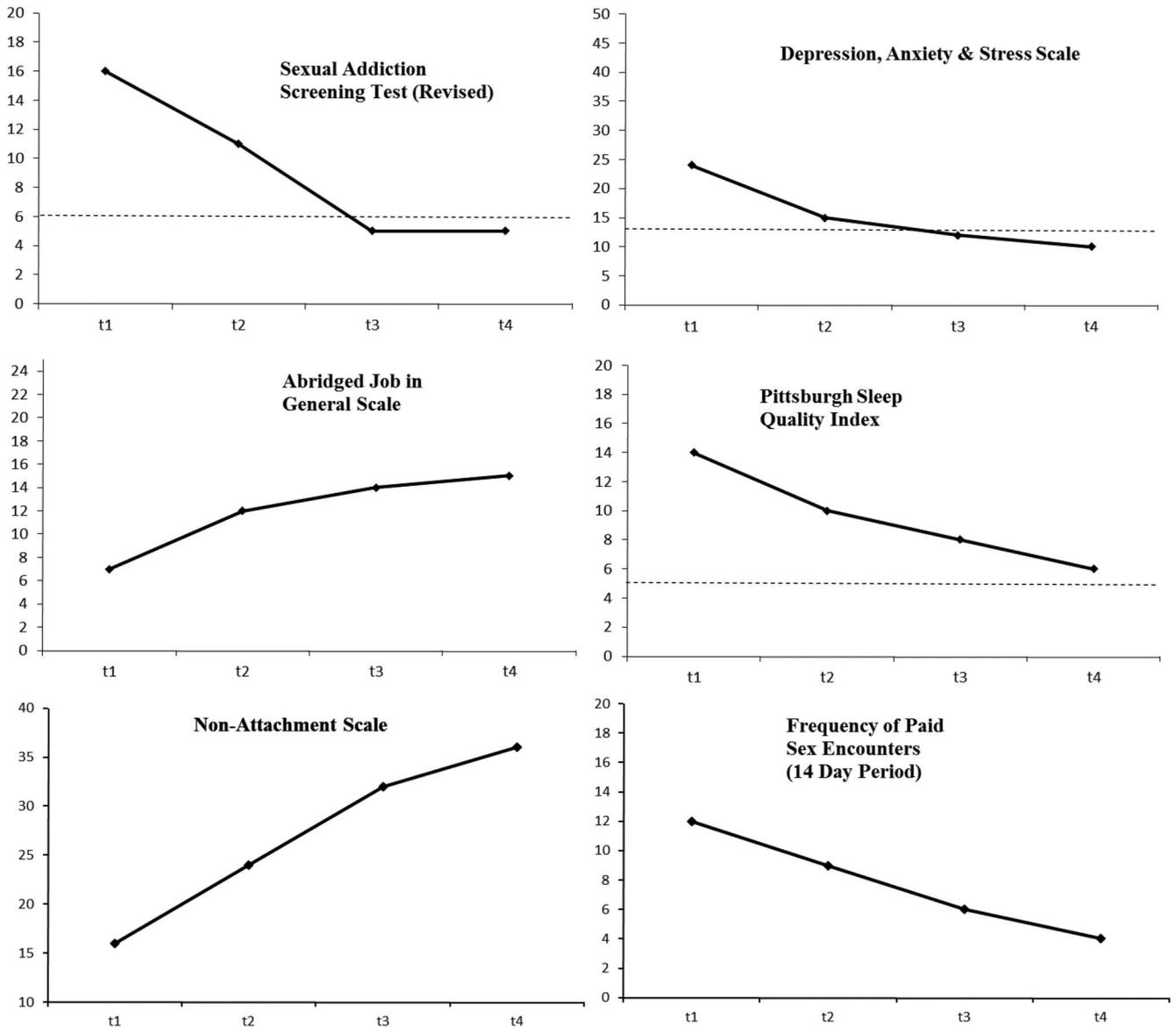


Figure 1. Change in outcome variable scores over time, where  $t1$  = baseline,  $t2$  = week 5,  $t3$  = week 10 (therapy termination),  $t4$  = 6-month follow-up. Dotted lines indicate the cutoff for “normal” symptom severity (where available) in an adult population

Improvements post-therapy were also observed in sleep quality, job satisfaction, and non-attachment to self and experiences. Salutary outcomes were maintained at 6-month follow-up.

This 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 behavior 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 behavioral 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., 2014c). This suggests that individuals with problematic behavioral 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 8–10 mindfulness training sessions.

According to Shonin et al. (2013, 2014a), when using meditation to treat behavioral addiction, it is essential not only to help individuals learn how to meditatively objectify craving (i.e., by practicing 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 behavioral 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., 2014). 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 behavioral processes (Shonin et al., 2013).

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., 2013, 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., 2014c).

As observed in other clinical case studies of MAT involving individuals with behavioral addictions [e.g., problem gambling (Shonin et al., 2014a); workaholism (Shonin et al., 2014b)], 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 behavior have explicitly focused on improving sexual dysfunction and/or enjoyment (e.g., Brotto, Basson, & Luria, 2008; Brotto et al., 2012). This 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 generalize 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 behavior, as this time period may not reflect long-term behavior patterns. Nevertheless, Adam’s promising treatment outcomes indicate that further clinical evaluation of the utility of MAT for treating sex addiction is warranted.

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*Ethics:* The study received ethical approval from the ethics committee of Nottingham Trent University College of Business Law and Social Sciences. We confirm that the participant provided full written consent for their data to be published in an academic journal in anonymized form. We confirm that all of the participant’s identifying data/information has been removed from the manuscript accordingly.

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